

## **Preface**

The accreditation report is a valuable document that has been prepared with utmost sincerity and honesty to the best of our knowledge and belief. This report contains information about K.J.Somaiya College of Science and Commerce under two major parts, namely Institutional Data and Evaluative Report. The first part includes: Profile of the Institution and Executive Summary. The second part consists of Criterion-wise Evaluative Report, Evaluative Report of the Departments, a Declaration by the Head of the Institution and Annexure.

Somaiya Vidyavihar has been producing successful graduates since the first student entered in 1960. In the past five decades, the Somaiya Vidyavihar campus has grown into 35 prestigious institutions catering to the needs of students from pre-school to Post graduate level with the student strength of 35000 and 1700 faculty members. The educational conglomerate is located in lush green campus spread over 60 acres at Vidyavihar and 34 acres at Sion Chunabhatti in the Eastern Suburb of Mumbai.

Somaiya Vidyavihar has changed drastically in the last 55 years but the commitment towards quality of education and rewarding campus experiences remains unchanged. In consonance with the dream of our beloved Founder Padmabhushan Pujya Late Shri K.J.Somaiya, the K.J.Somaiya College of Science and Commerce prepares youth to face challenges of the modern world and simultaneously make them aware of our rich Indian values and culture. To fulfill these dreams the College after consultation with all its stakeholders decided to apply for Autonomy and subsequently the UGC and University of Mumbai have conferred Autonomous Status to the College. Now the College has adapted to the changing needs of the students and society and has provided a wide array of need based professional courses to the students. The College is an established centre of multidisciplinary activities building a strong academia and industry interaction. This has improved access to higher education. At the same time it has also lead to widespread concern on the quality and relevance of the higher education. The NAAC has developed a yardstick and we continuously refer to it to measure the quality of Higher Education in our institution accurately and precisely.

### Writing self study report

It would not have been possible to complete this RAR without the wholehearted co-operation and fruitful interaction with all the teaching and non-teaching staff members of the college.

Dr. Vijay Joshi, our dynamic and optimistic principal has constantly inspired us and provided guidance to the steering committee for preparing the self-study report. The steering committee co-ordinator has constantly given encouragement and all logistic support for the completion of the SSR. All the Heads of the departments and co-ordinators for various courses have contributed extensively to collate the required information in the given stipulated time. The information cell and the IQAC have been a great support in the preparation of RAR.

Dr. J. K. Verma (Ex-Vice-Principal) , Shri A.G. Bhoge (Ex-Vice-Principal) and Dr. Pradnya Prabhu (Vice-Principal) have made valuable contributions in developing the content of SSR.

Valuable support extended by all other staff members have helped us to complete the report to the best of our abilities.

I look forward to welcome the Peer team of the National Accreditation and Assessment Council for their visit to our institution. All the faculty members, support staff, students and all stake holders will be benefitted and vastly enriched with the peer team interactions.

The inputs from the Peer team committee members will help us to achieve excellence in the core values identified by NAAC.

Steering Committee

Sr.No.	Name of the Committee	Name of the Member
	Steering Committee	Dr.Pradnya Prabhu, Dr.Sugandha Shetye Smt.Neeliam Deshpande, Shri Manish Mohadikar
1	Curricular Aspects	Shri S.k.Saxena, Smt.Nutan Navelkar Smt.Supriya Janabandhu, Smt.Manisha Damle Smt.madhavi Jardosh, Dr.Smita Paranjape Dr.Nishamol Kanat
2	Teaching-Learning and Evaluation	Dr.S.M.Pawaskar, Shri Subhash Krishnan Dr.Chanana Basu, Smt.Divya Pillai Shri Pritam Bhavar
3	Research, Consultancy and Extension	Dr.Rajendra nayak, Dr.Veena Rao Dr.Bhanu Raman, Dr.Meena Sharma Dr.Chigtra Kamath, Dr.Lolly Jain Dr.Veena Salvi
4	Infrastructure and Learning Resources	Shri S.K.Saxena, Shri D.G.Phondekar Shri Prashant Shah, Dr.Bright O.Philip Smt.Soniya Shetty, Shri Prakash Patil Shri Manish Mohadikar, Smt.Sameera Samant
5	Student Support and Progression	Shri Makarand Niphadkar, Smt.Reema Khanna Dr.Ajit Katdare, Dr.Geeta Nair Smt.Smita Survase, Shri Ravindra Walmiki
6	Governance and Leadership	Dr.Pradnya Prabhu, Mrs.Manisha Damle Mrs.Nilima Deshpande, Mr.Y.P.Athavale
7	Innovative practices	Shri D.G.Phondekar, Dr.Sugandha Shetye Dr.Bright O.Philip, Dr.Vanita S.Kulkarni Dr.Yogesh Ghalsasi, Shri Jitendra Pendharkar

## **Principal’s Message**

It is indeed a great pleasure to submit the reaccreditation and assessment report (RAR) for the third cycle of NAAC. Recognized both nationally and internationally, Somaiya Vidyavihar is one of the most reputed institutes in the city of Mumbai and is known for its impeccable track record in academia and research.

It is a matter of great pride for all the stake holders of our college that it has been granted the status of autonomy by the UGC and University of Mumbai. With all the top embellishments we aim to provide better infrastructure and quality education to the student fraternity.

Education is a great engine of personal development. ‘To learn’ is to change education in the process that changes the learner. In the context of changing global scenario, the institute has gone all out to design innovative courses to meet the demands of the time. The courses offered range from ones enhancing their personality such as in soft skills, music, sports training to ones which cater to their intellectual thirst such as in bio-physics, nanotechnology, etc. This also calls for extra inputs from the committed faculty and they all stand as strong pillars to achieve the goals set.

The college has also had an open door inclusive approach for the honest feedback of all its stakeholders and in view of this it has consistently year after year organized parent-teachers and alumni meets. It has greatly benefitted from the active participation of the parents and alumni.

The institute has also been ceaselessly striving for upgrading the subject knowledge and allowing the exposure to the recent developments in the respective subjects amongst the faculty by encouraging them for participation in national and international seminars, conferences, workshops, faculty development programmes, etc. This not only allows the enrichment of teachers but finally translates into a learning for the young learners.

One of our major thrusts has also been on uplifting the research and consultancy services by promoting undertaking of minor and major research projects by

faculty and inviting industry academia collaborations. Undergraduate research has also started gaining grounds after the conferment of autonomy by UGC and the DBT support as Star College by DBT has helped in consolidating undergraduate research.

The management and trustees take a keen interest and have been proactive supportive in upgrading the infrastructure and the facilities in the institute.

The few eventful years of autonomy have given strength to our wings so that we can soar greater heights of excellence in the future.

## **Executive Summary**

In September 1959, a philanthropist and visionary Shri Karamshibhai Jethabhai Somaiya envisaged the blending of spiritual/value education along with advanced science education which eventually gave birth to ‘Somaiya Vidyavihar’.

In the following five decades, the Somaiya Vidyavihar campus grew to thirty five institutions catering to the needs of students from primary to postgraduate and doctoral level. The educational conglomerate located in a lush green campus admeasuring sixty six acres of land at Vidyavihar and thirty five acres at Sion Chunabhatti in the eastern suburb is an institution to be reckoned with. Somaiya Vidyavihar is recognized both nationally and internationally. Dr.S.K.Somaiya, the son of the founder and the Vice-President of Somaiya Vidyavihar had provided a dynamic leadership.

Value education is the foundation of modern education and is a unique feature of Somaiya Vidyavihar institutions. K. J. Somaiya College of Science and Commerce is one of the institutions of Somaiya Vidyavihar.

The College was formerly known as K. J. Somaiya College of Arts and Science. In 1972 it was bifurcated, one of them being, K. J. Somaiya college of Science. The Commerce Faculty was introduced in 1986 and the College was then rechristened as K. J. Somaiya College of Science and Commerce.

The College with equipoise and confidence decided to ascertain its standard and class and underwent the accreditation process by National Assessment and Accreditation Council. The College was conferred “A” Grade in February, 2004. The college underwent the reaccreditation process in March 2010 and once again was bestowed “A” grade.

Amidst 350 science colleges of Mumbai ,The college has been ranked fourth in 2006-2007, Third in 2007-2008, Fifth in 2008-2009, Second in 2010-2011, Forth in 2012-13 and 3<sup>rd</sup> in 2013-2014 respectively and 36<sup>th</sup> ,34<sup>th</sup> ,32<sup>nd</sup> ,23<sup>rd</sup> , 24<sup>th</sup> and 26<sup>th</sup> in India according to an independent survey conducted by “India Today”- a national publication of repute.

The College was shortlisted twice (2006 and 2007) amongst three hundred fifty urban colleges for the ‘Best College Award’ of University of Mumbai. The College was awarded “The Best College Award” in 2010.

After the first cycle of accreditation, the Management, the Principal and the faculty through rigorous consultations, introduced career-oriented courses – a

unique one being a course in Remote Sensing Technology and Geography Information System in 2005. Other need-based courses included graduate and post graduate courses in Biotechnology, Information Technology, Accounting and Finance and Financial markets, Business Management and Nutraceutical.

The College results improved remarkably which is a reflection of the commitment of faculty, a sustained research culture and participatory, democratic leadership. The College Advisory Committee, Academic Advisor and Research Co-ordinators hugely contributed to the upgradation of academic and research integration. The annual Academic Audit posited an introspective approach.

The College acquired a vibrant atmosphere due to co-curricular and extension activities. The Girls' NCC Unit has brought laurels in the form of the Vice-Chancellor's banner for three years. The NSS Unit has built a strong bond through community service in the areas of health, crises preparedness, gender sensitization, and building of life-skills, environmental enrichment and conservation.

Sharing of resources and innovative practices with the sister institutions has created a synergistic relationship and imparted impetus for further growth.

The college has been identified for financial support in Level-O category by the Department Of Science and Technology, Government Of India ,New Delhi, based on the recommendations of the FIST Advisory Board and an award of Rs.90,00,000/- was sanctioned for implementation of the said project under Research and Support 1009. Additionally, The Department Of Bio Technology Government of India ,New Delhi sanctioned a financial support of Rs.67,00,000/- under the Star College Scheme Category."Human Resource Development Biotechnology-046"to six science departments viz Chemistry, Biochemistry, Botany, Zoology, Microbiology and Physics identified by the college.

The college responding to the needs of the students community started a host of new undergraduate and post graduate courses during the academic year 2010-2011.These include B.Com. Accounting & finance (Additional Division)

B.Com Finance & Management (Additional Division) B.Sc (Computer Science),B.M.S,B.Sc (IT) (Additional Division),M.Com in Accountancy M.Com in Business Management ,M.Sc In Environmental Science & M.Sc in Nutraceuticals .In the same year(2010-2011).A satellite campus admeasuring 30,000sq.ft on the Somaiya Vidyavihar campus in order to accommodate all these unaided courses was obtained. This facility is now well-developed &

houses a Centralized Instrumentation Laboratory for all the post- graduate & research student. The Satellite campus also houses the much sought after centre for Remote Sensing and Geographical Information System.

#### POST-AUTONOMOUS STATUS

During the year ,2010-2011,efforts were directed to earn Autonomous status for the college & subsequently .the University of Mumbai vide notification No. Aff/Recog.1/914 of 2012 dated 22<sup>nd</sup> October 2012 Conferred Autonomous Status to the college in 2012.The journey from the academic year,2013-2014 up to the present has posed newer challenges and perspectives & utmost responsibilities .The concept of Autonomy has become the growth engine with regard to academic flexibility for designing new courses & revising the existing courses, use of newer methods of students evaluation, use of ICT & ITES.

A student is given an opportunity to select a language, Indian/Foreign for e.g. Pali, Sanskrit, Chinese, German, French etc. (in addition to the core subject) in lieu of Foundation Course. Also it is made easy for the student to have his co-curricular and extra-curricular interests by offering on campus Credit Courses in Cultural : Music, Dance, Drama, Sports : Badminton, Athletics, Basketball, Football, Holly Ball, Lawn Tennis and Squash Spiritual : Gita / Ethics, Yoga, Business Ethics, Buddhist Studies Science : Cyber Security, Certificate course in Laboratory Technology, Certificate course in Biophysics, Certificate course in Nanotechnology, Certificate course in communication skills and personality development courses in Music, Personality developments, sports, training, biophysics, Nano-technology, Basic Laboratory techniques, social work etc. To improve their communication skills a basic course in English was also instituted as an internal component of Foundation Course.

All of these options have met with great popularity amongst students and has increased the number of applicants seeking admission to our institution. The great flexibility has definitely provided an impetus to the students learning ability.Innovative options in internal evaluation are also implemented.

Under autonomy, changes were made in the existing syllabi which are in tune with the changing business, industrial and social needs. Furthermore, the designed curricula are relevant to the local needs and demands. The learning methodologies such as project based learning, experiential learning, Peer learning are used.

With a view to imbibe the reading habits and research aptitude, they are also allowed to take up book review or Project amongst undergraduate students as their internal option for core subjects. It has definitely boosted the student's interest in academia. This has been the great outcome of autonomy.



## Profile of the Autonomous College

### 1.Name and Address of the college:

Name :	K.J. SOMAIYA COLLEGE OF SCIENCE AND COMMERCE,		
Addr	VIDYAVIHAR , MUMBAI		
City MUMBAI	Pin 400 077	State: MAHARASHTRA	
Website	www.somaiya.edu/vidyavihar/kjssc		

### 2. For communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr.Vijay Joshi`	O :022-21020718 R:	9930279920		Principal.kjssc@somaiya .edu Vijayjoshi2002@yahoo.com
Vice Principal	Dr.(Mrs) Pradnya Prabhu	O : 022-21025919 R:022-21737315	9820009267		Pradnya.prabhu@somaiya.edu
Steering Committee Co-ordinator	Dr.(Mrs) Lolly Jain	O :022 :21025919 R : 022-25252043	9819914206		lolly@somaiya.edu

### 3. Status of the Autonomous College by management.

- I. Government
- II. Private
- III. Constituent College of the University



### 4. Name of University to which the College is Affiliated

University of Mumbai

### 5. a. Date of establishment, prior to the grant of 'Autonomy'(20-06-1960)

b. Date of grant of 'Autonomy' to the College by UGC: (09-10-2012)

### 6. Type of Institution:

- a. By Gender
- i. For Men
  - ii. For Women
  - iii. Co-education
- b. By Shifts
- i. Regular
  - ii. Day
  - iii. Evening
- c. Source of funding
- i. Government
  - ii. ii. Grant-in-aid
  - iii. Self-financing
  - iv. Any other (Please specify )

7. It is a recognized minority institution?

Yes

No

If yes specify the minority status ( Religious / Linguistic / any other) and provide documentary evidence.

Gujarati Linguistic Minority

8. A. Details of UGC recognition:

Under Section	Date, Month & Year (dd/mm/yy)	Remarks (if any)
i. 2(f)	20-01-2012	Nil
ii. 12(B)	20-01-2012	Nil

b. Details of the recognition/ approval by statutory/ regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/clause	Day, Month, Year (dd/mm/yy)	Validity	Programme/ institution	Remarks
i.	Nil	Nil	Nil	Nil
ii.	Nil	Nil	Nil	Nil
iii.	Nil	Nil	Nil	Nil
iv.	Nil	Nil	Nil	Nil

(Enclose the Certificate of recognition/ approval)

9.Has the college recognized

a. By UGC as a college with Potential for Excellence (CPE) ?

Yes --- No

If yes, date of recognition :..... ( dd/ mm/ yyyy )

b. For its contribution / performance by any other governmental agency ?

Yes ---- No

If yes, Name of the agency .....Nil..... and

Date of recognition .....Nil..... ( dd/ mm/ yyyy )

10. Location of the campus and area:

Location	Urban
Campus area in sq.mts. or acres	60 acres
Built up area in sq.mts.	24552 sq.mts approximately

(\*Urban, Semi-urban,Rural,Tribal,Hilly Area, Any other specify)

11. Dose the college have the following facilities on the campus ( Tick the available facility )? In case the college has an agreement with other agencies in using such facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex Yes
- Sports facilities
  - \*play ground
  - \*swimming pool
  - \*gymkhana
- Hostel
  - \*Boys hostels
  - \*Girls hostels
- Residential facilities NIL
  - \*for teaching staff Nil
  - \*for non-teaching staff Nil
- Cafeteria
- Health centre- Yes
  - \*First aid facility Yes
  - \*inpatient facility Nil
  - \* outpatient facility Nil
  - \* Ambulance facility Nil
  - \*Emergency care facility Nil
- Health care facility
  - \*Qualified doctor Full time Nil Part time
  - \* Qualified Nurse Full time Nil Part time
- \*other facilities
  - Bank Nil
  - ATM Nil
  - Post Office Nil
  - Book Shops Nil
- Transport Facilities Nil
  - \*for students Nil
  - \* for staff Nil
- Power house Yes
- Waste management facility Yes

12. Details of programmes offered by the institution: ( Give data for current academic year)

Sl no.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved student intake	No. of students admitted
1	UG	B.Sc	3 years	HSC (Science )	English	1566	1150
		B.Com	3 years	HSC (Commerce)	English	1080	961
		B.Sc.(B.T.)	3 years	HSC (Science )	English	105	69
		B.Sc.(I.T.)	3 years	HSC (Science )	English	360	336
		B.Sc.(C.S.)	3 years	HSC (Science )	English	130	89
		BCAF	3 years	HSC (commerce)	English	180	194
		BFM	3 years	HSC (Commerce)	English	180	120
		BMS	3 years	HSC (Sci/Com/)	English	180	145
2	PG	M.Sc.(By Paper )	2 years	TYBSc	English	297	274
		M.Sc.(I.T.)	2 years	TYBSc (I.T.)	English	60	54
		M.Sc.(B.T.)	2 years	TYBSc (B.T.)	English	30	30
		M.Sc.(EVS)	2 years	TYBSc	English	40	42
		M.Sc.(Nutra )	2 years	TYBSc	English	40	27
		M.Com.(Bus.Mg	2 years	TYBCom.	English	120	97
		M.Com.(Acc)	2 years	TYBCom.	English	120	112
3	Integrated Masters						
4	M. Phil						
5	Ph.D.	Ph.D		M.Sc.	English		05
6	Integrated Ph.D						
7	Certificate	University Certificate in RST & GIS		XII Arts /Science/Commerce /Diploma	English		21
8	Diploma						
9	PG Diploma	RST & GIS		Third Year (Geography/Geology/IT/Eng./ Civil Diploma )	English		02
10	Any other						

13. Does the Institution offer Self-financed Programmes?

Yes  No

If yes, how many?

14. Whether new programmes have been introduced during the last five years?

If yes

15. List of departments : ( Do not list facilities like library, Physical Education as departments unless these are teaching departments and offer programmes to students)

Particulars	Number	Number of Students
Science		
Under Graduate	11	1680
Post Graduate	11	461
Research centre (S)		
Arts		
Under Graduate	Nil	--
Post Graduate		
Research centre (S)		
commerce		
Under Graduate	05	1456
Post Graduate	02	202
Research centre (S)		
Any Other (Please Specify)		
Under Graduate	Nil	Nil
Post Graduate		
Research centre (S)		

16. Are there any UG and / or PG programmes offered by the College, which are not covered under Autonomous status of UGC? Give details.

GIS/RST (Geographical Information System and Remote Sensing Technology)

17. Number of Programmes offered under ( programme means a degree course like BA, MA, BSc, MSc, B.Com. etc)

- a. Annual System
- b. Semester System
- c. Trimester system

18. Number of Programmes with

- a. Choice Based Credit System
- b. Inter/ Multidisciplinary Approach
- c. Any other ( Specify)

19 Unit cost Education

(unit cost = total annual recurring expenditure (Actual) divided by total number of students enrolled)

- a) Including the salary component :
- b) Excluding the salary component :

20. Does the College have a department of teacher Education offering NCTE recognized degree programmes in Education?

Yes  No

If yes,

a. How many years of standing does the department have ?

..... Years

b. NCTE recognition details ( if applicable ) Notification

No:.....

Date: .....(dd/mm/yyyy)

c. Is the department opting for assessment and accreditation separately?

Yes  No

21. Dose the College have a teaching department of physical Education offering NCTE recognized degree programmers in physical Education?

Yes  No

If yes,

a. How many years of standing dose the department have?

..... Years

b. NCTE recognition details (if application ) Notification

No:.....

Date:.....(dd/mm/yyyy)

c. Is the department option for assessment and accreditation separately?

Yes  No

22. Whether the college is offering professional programme ?

Yes  No

If yes, please enclose approval/recognition details issued by the statutory body governing the programme.

23. Has the college been reviewed by any regulatory authority ? If so,

Furnish a copy of the report and action taken upon.



24. Number of teaching and non-teaching positions in the College

Positions	Teaching faculty						Non-teaching Staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F				
Sanctioned by the UGC /University / State Government Recruited Yet to recruit			8	27	18	20	88	6	0	0
Sanctioned by the Management /society or other authorized Recruited Yet to recruit			0	0	18	18	11	8	0	0

\* M- Male \*F-Female

25. Qualifications of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent teachers</b>							
D.Sc./D.Litt	0	0	0	0	0	0	0
Ph.D	0	0	4	13	7	20	44
M.Phil.	0	0	4	7	0	0	11
PG	0	0	0	4	19	2	36
<b>Temporary teachers</b>							
Ph.D	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	4	7	0
<b>Part-time teachers</b>							
Ph.D	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0

26. Number of Visiting Faculty / Guest Faculty engaged by the College

17

27. Students enrolled in the College during the current academic year, with the following details :

	UG		PG		Integrat ed Ma ster s	M P h i l	Ph.D		In te gr at ed P h. D	D Li tt /D .S c	Cert ifica tion	Dipl oma	PG Dipl oma
	M	F	M	F			M	F					
	Male/Female												
Form the state where the College is located	1450	1652	258	448			0	1			8	5	
Form other states of India	22	29	2	6			0	0			0	0	
NRI Students													
Foreign students													
Total													

\* M- Male \*F-Female

28. Dropout rate in UG and PG ( average for the last two batches )

UG  PG

29. Number of working days during the last academic year.

235

30. Number of teaching days during the last academic year.

31. Is the college registered as a study centre for offering distance education programmes for any University ? Yes  No

If yes, provide the

a. Name of the University

b. Is it recognized by the Distance Education Council ?

Yes  No

c. Indicate the number of programmes offered.

32. Provide Teacher-students ration for each of the programme / course offered 1:40

33. Is the College applying for ?

Accreditation : Cycle 1  Cycle 2  Cycle 3  Cycle 4

Are-Assessment :

34. Date of accreditation\* ( applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only) Cycle 1: 16-02-2004 Accreditation outcome /results

Cycle 2: 04-09-2010 Accreditation outcome /results

Kindly enclose copy of accreditation certificate (s) and peer team report (s)

Cycle 1 refers of first accreditation : Cycle 2 and beyond refers to reaccreditation

33. a. Date of establishment of Internal Quality Assurance Cell (IQAC) 10-09-2013

b. Dates of submission of Annual Quality Assurance Repots ( AQA Rs.)

(i) AQAR for year 2010-2011. on 07-07-2014

(ii) AQAR for year 2011-2012. on 07-07-2014

(iii) AQAR for year 2012-2013. on 07-07-2014

(iv) AQAR for year 2013-2014. on 07-07-2014

(v) AQAR for year 2014-2015 on 08-10-2015

36.)



# **Criterion-wise Inputs**

## **Criterion I**

### **Curricular Aspects**



## **Criterion – I – Curricular Aspects**

### **1.1 Curriculum design and development**

#### **1.1.1 How is the institutional vision/mission reflected in the academic programmes of the college?**

##### **VISION STATEMENT**

Equip the student with knowledge and skills of their chosen vocation, inculcate values, provide them opportunities for all-round growth and prepare them for life.

##### **VISION OF THE FOUNDER**

Service to mankind.

Understand and respond to the needs of modern Science and Technology.

Provide a sound spiritual foundation to march into the future.

Provide opportunities for all-round development of individuals.

##### **MISSION**

To equip the students with advanced knowledge and skills in their chosen vocation.

To provide value-based education and opportunities to students to help them face challenges in life.

To nurture a scientific attitude, temperament and culture among the students.

To continually review, develop and renew the approach to build India of the Founder's dream.

##### **GOALS AND OBJECTIVES**

To build a strong Academia-Industry bridge.

To provide flexibility in the courses offered and proactively adapt to the changing needs of students and the society.

To establish a centre for multidisciplinary activities.

To mould individuals who would nurture the cultural heritage of our country and contribute to the betterment of the society.

**1.1.2 Describe the mechanism used in the design and development of the curriculum, Give details of the process.**

The College is affiliated to University of Mumbai. Many of our staff members were contributing in design and development in University curriculum as Board of Study Members, Academic Council Member, Management Council Member and Members of Faculty. They have actively contributed in designing the curriculum by giving concrete suggestions to the Chairman, Board of Studies. There are few instances where the suggestions given by our teachers were accepted and incorporated in the syllabus of University of Mumbai.

After the College applied for an autonomous status to University of Mumbai on September, 2010, the College was conferred the autonomous status in October, 2012. In these two years i.e. from 2010-2012 of preparatory phase entire faculty members were involved in the preparation of revised outline of all courses offered to students. Numerous Seminars, Workshops and brainstorming sessions were conducted. Visits to the various autonomous institutions were organized to expose the faculty to the nitty gritty of the process and mechanism underlying the framing of syllabi. The College formulated Advisory Boards with expert members from various quarters such as industry, academic, alumni and current students in case of each and every subject. A well-defined mechanism was developed to draft new syllabi of various courses. The outline for the entire three years of graduation was drafted and circulated amongst the members. Before drafting the outline of the autonomous syllabus, University Syllabi, a model UGC syllabi and syllabi of various National and International premier institutes were collected, compiled and compared. When Autonomy was conferred on October, 2012 by the UGC / University various Statutory Committees were constituted. The Board of Studies bodies of various subjects deliberated on the revised drafts of first year syllabi of the different subjects. Due care was taken that the Philosophy of the curriculum was in tune with institutional mission statement. It was also ensured that the syllabi had contemporary contents and were in tune with the current developments in a given domain area. One of guiding principles was that the delivery of the curriculum should be in consonance with the emerging pedagogy in education. The quintessential mechanism adopted in design and development of the curriculum may be represented by the five-point agenda (as approved by the Academic Council and to be complied by all the Board of Studies):



1. Defining the learning outcome : The Board of Studies were asked to articulate the clear purpose and curricular goal embodied in the curriculum, which will provide solid foundation of intended learning outcome of the graduates.
2. Identify the key areas of subject content : After comparing various syllabi of the premier National and International institutions, existing University of Mumbai syllabi and model UGC curriculums, Board of Studies identified key concepts, models and principles of the subject content. The concepts were aligned to provide understanding of the topics being taught which will meet the learning outcome. Care was taken while selecting the key concepts such that the acquired knowledge should become a resource for purpose of meaningful application.
3. Rational sequence : The selected key concepts were arranged in the units to form a cogent curriculum based on stated intended outcome. The key instructional method and learning task in the form of units were identified. The syllabi were arranged in the form of logical units. The units in the syllabi designed were compliant to Choice-based Credit System.
4. The design of continuous assessment and evaluation of actual outcome : The preplanned valid and reliable assessment indicators were designed to evaluate effectiveness of curriculum in fostering students development. Suggested Assessment indicators were as follows : Projects, Case studies, presentations, stimulation, was asked to prepare.
5. Reading and reference material : At the end of each syllabus, list of reading material was asked to be provide. The list of prescreened websites and MOOCS was also provided to help learners assimilate a desired key concept of the subject. A pack of lecture notes was asked to prepare.

**1.1.3 How does the college involve industry, research bodies and civil society in the curriculum design and development process? How did the college benefit through the involvement of the stakeholders?**

Board of Studies in all the subjects include the Experts from Industry, subject experts from various academic institute and research institutions. A Board of Studies also has the members from alumni, existing students and faculty members. The industry experts bring their perspective of current needs of the industry while framing the syllabi. The researchers insist on including topics from relevant cutting-edge knowledge areas. The alumni and the current students

contribute on the basis of their experience of the curriculum learnt by them. The College has immensely benefited by the involvement and contribution of various stakeholders.

**1.1.4. How are the following points ensured through curriculum design and development?**

**Employability**

**Innovation**

**Research**

Under autonomy, changes were made in the existing syllabi which are in tune with the changing business, industrial and social needs. Furthermore, the designed curricula are relevant to the local needs and demands. The learning methodologies such as project based learning, experiential learning, Peer learning are used.

**Employability** : Employability is given the major consideration in designing and developing a curriculum. The curriculum is designed and revised regularly in order to improve employability of students. The curriculum is implemented through internships in industries, experiential learning has given importance use of laboratories and libraries for better exposure and experience, regular presentations, seminars, discussions, assignments and computer education that helps to develop the skills of students and thereby improve their employment potential.

**Innovation** : The innovation happens in the realm of borders of two subjects / disciplines. In order to support innovation, flexibility is the salient feature of the revised syllabi. In order to take advantage and synergies in various academic institutions of Somaiya Vidyavihar, we have established a Research, Innovation, Incubation and Design Lab (RIIDL). RIIDL is a “Mind to Market” Lab and a facilitating centre at Somaiya Vidyavihar. Laboratory supports technological innovations and incubate prospective business ideas.

**Research** : Honors programme has been introduced at FY and SY levels where the students can earn extra credits by participating in industrial training programmes, summer schools or any co-curricular activities other than prescribed in the syllabus.

All other students “who do not opt for Honors programme” are encouraged to take mini research projects to inculcate the research culture among them at undergraduate level.

**1.1.5. How does the college ensure that the curricula developed address the needs of the society and have relevance to the regional/national developmental needs?**

The curricula have been designed and developed by the College to address the needs of society, and to have relevance to regional and national development needs by adopting the following activities :

- ❖ Creating access to students from underprivileged communities.  
The college has started the courses like M.Sc in Environmental Science, Nutraceuticals, B,Com in Accountancy and Finance (BCAF), Bachelor in Management Studies (BMS) and Bachelor in Financial Management (BFM) which are relevant to the current societal needs. The overall curricula are planned and tailor- made with a view to sensitize and involve the minds of the learner with regard to local, regional, national and global needs and issues. The college has started a few courses like course in Laboratory Techniques (C. L. T.), Course in Biophysics, Course in Basic electronic and Course in Research Methodology. GIS/RST
- ❖ Our curriculum on Foundation Course lays emphasis on human Rights, environment, social norms and personality development.
- ❖ The college provides students an opportunity for all round growth by, conducting various courses and programmes in addition to its regular academic schedule.
- ❖ Courses like cyber security and drug abuse are organized to make them aware of the misuse and erroneous aspects of the technology and research.
- ❖ Community orientation & awareness of the environment through various N.C.C. and N.S.S. Programmes like tree plantation, blood donation, participation as volunteers in Ganapati immersion programme, water conservation schemes are organized by the College.

**1.1.6. To what extent the college use the guidelines of the regulatory bodies for developing or restructuring the curricula? Has the college been instrumental in leading any curricular reform which has created a national impact?**

Development and restructuring of curricula always is carried out in accordance with the guidelines as set out both by the University Grants Commission (UGC) and the University of Mumbai. The College follows Semester system with Choice Based Credit System (CBCS). University guidelines regarding the duration a programme, number of working days, teaching hours, total credits, etc. are taken into consideration while designing the curricula. Similarly, Mumbai University guidelines in respect of question paper pattern, division of units, etc. are given weightage while designing the curriculum for each programme.

## 1.2 Academic flexibility:

### 1.2.1 Give details on the following provisions with reference to academic flexibility

In order to offer flexibility in the subject the desired 120 credits required for the graduation are divided as follows :

❖	Part I : Foundation course	8 credits
❖	Part II: (a) Foundation course	8 credits
	Or (b) any one language	8 credits
❖	French , Spanish, Chinese, Japanese, German, Sanskrit, Pali	
❖	Part III : (A) Major core courses	80 credits
	(B) Allied core courses (offered by the same department)	8 credits
	(C) Major elective courses (offered by other department)	8 credits
❖	Part IV : General elective courses ( compulsory) (Select any one course of a choice per semester)	Compulsory letter Grade
	NSS , NCC , Yoga , Sports (Badminton, Athletics, Basket Ball Squash) Cultural (Dance, Drama, Music ) Business Ethics, Buddhist studies, Gita Ethics, Cyber Security.	

#### a. Core/elective options:

Science Faculty -

At F.Y.B.Sc.level - Students can select subject combination (3 Core courses available) of their choice out of 9 different combinations available. College has 9 UG departments in Science

At S.Y.B.Sc level - At SYBSc level they opt for 2 subjects out of 3 they have selected at FY level

At T.Y.B.Sc.level - At TYBSc level they take only one subject.

In Commerce Faculty :

At F.Y.B.Com.level - Students have to opt for 6 core courses

At S.Y.B.Com.level - Student have to opt for 5 core courses

At T.Y.B.Com level - Student have to opt for 2 core courses along with 3 special groups which are compulsory.

They have been given an option to select any one allied major courses out of 3 which come under applied component.

Along with these core courses students can choose any of the following languages as an option to Foundation Course - French, German, Spanish, Chinese, Sanskrit and Pali.

Compulsory credit course (for letter grade) :

This flexibility in selecting the electives has been extended to the students under the autonomous status.

Students also have an option of choosing Sports ,Dance, Drama or Music, NSS , NCC , Yoga ,Sports (Badminton, Athletics, Basket Ball, Squash) Cultural (Dance, Drama, Music ) Business Ethics, Buddhist Studies, Gita Ethics, Cyber security.

Other than the above courses, Bachelor of Commerce in Accounting and Finance , Financial Markets , Bachelor of Management Studies, Bachelor of Science in Information Technology, Biotechnology and Computer Science have been offered to the students.

**b. Courses offered in modular form:**

**Credit transfer and accumulation facility:**

Credit transfers –Outside courses, Industry Training. Credit transfer is possible from institutions for Buddhism, Jainism, London School of Economics.

**c. Lateral and vertical mobility within and across programmes and courses:**

Lateral mobility is possible for the students for the courses- B.Com. and all other Bachelor courses in Commerce. Science students have an option of selecting different language for two semesters. A student who has completed XII Science can get admission for Commerce courses leading to Bachelor's degree.

**1.2.2 Have any courses been developed specially targeting international students? If so, how successful have they been? If no, explain the impediments.**

Courses have not been developed specially targeting international students as there are not many international students in the campus. However, there are plans to start exchange program for students from foreign universities. An Exchange program is already in place for teachers. A few teachers have been to American Universities.

**1.2.3 Does the college offer dual degree and twinning programmes? If yes, give details.**

The college does offer dual degree program and recently few students from engineering college have been admitted for Bachelors Degree in Science.

**1.2.4 Does the college offer self financing programmes? If yes list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?**

College offers Nine self-financing programmes which include :

Bachelor of Commerce in Accounting and Finance,

Bachelor of Commerce in Financial Market,

Bachelor of Management Studies,

Bachelor of Science in Information Technology,

Bachelor of Science in Biotechnology,

Bachelor of Science in Computer Science,

Master of Science in Neutraceuticals,

Master of Science in Environmental Science

Admission process for these courses is same as for the aided courses.

Fees for these courses as prescribed by University

Teacher's salary and qualifications are at par with the aided programmes.

Teachers are paid salary as per the Sixth Pay Commission.

**1.2.5 Has the college adopted the Choice Based Credit System? If yes how many programmes are covered under the system?**

College has adopted Choice Based Credit System for all undergraduate and postgraduate programmes.

**1.2.6 What percentage of programmes offered by the college follows :**

**Annual system**

**Semester system**

**Trisemester system**

All UG programme follow semester system from June 2010 while all PG programmes follow semester system from June 2012 as per University norms.

**1.2.7 What is the policy of the college to promote interdisciplinary programmes?  
Name the programmes and what is the outcome?**

College has started interdisciplinary programmes like Credit course in Biophysics, Laboratory Technology, Research Methodology, GIS/RST for the undergraduate and post-graduate students. Students from any faculty can take these courses.

A Credit course on Research Methodology has been started for the Ph.D. students as a part of their course work.  
Students are awarded two extra credits on completion of these courses.



### **1.3 Curriculum Enrichment**

#### **1.3.1. How often is the curriculum of the college reviewed for making it socially relevant and / or job oriented/ knowledge intensive and meeting the emerging needs of students and other stake holders?**

The syllabi are reviewed at the end of every semester, after the academic delivery of the semester. Any revision required on the basis of students experience is encouraged to be revised. For keeping the curriculum up-to-date and introduce appropriate changes in the given curriculum, several inputs are provided .

Each department is expected to draw up a syllabus that is socially relevant and even job oriented since it is now possible to modify the syllabus every year, there is greater flexibility and willingness on the part of the departments to try out additions and deletions in their syllabi which are necessitated as per the needs of the industry.

#### **1.3.2 How many new programmes have been introduced at UG and PG level during the last four year? Mention details**

- **Interdisciplinary**
- **Programmes in emerging areas**

The college has started Bachelor in Management Studies (BMS) and M.Sc. in Environmental Science and M.Sc. Nutraceuticals in the year 2010-2011  
The college has also started interdisciplinary 33 credit courses from the year 2012-2013.

#### **1.3.3 What are the strategies adopted for revision of the existing programmes? What percentage of courses underwent a major syllabus revision**

Members from the industry and renowned educational institutes from India and abroad are invited as members in the Board of Studies of each and every subject. Their inputs have been incorporated while revising the existing programmes. All programmes underwent major syllabus revision after autonomous status. Some programs are revised even after six months of autonomy. The average deviation from the University syllabus has been around 20 to 25% for all the subjects and the same has been ratified by the Academic board and Board of Management.

**1.3.4 What are the value added courses and how does the college ensure that all students have access to them**

Interdisciplinary 33 credit Courses e.g. Sports, Cultural and Spiritual, of GIS and mote Sensing, C.L.T. Courses run by Physics Department.

Students are informed through prospectus, notice board and announcements made in the class. Students from any discipline can enroll in the courses.

**1.3.5 Has the college introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?**

NIL

## **1.4 Feedback System**

### **1.4.1 Does the college have formal mechanism to obtain feedback from students regarding the curriculum and is it made use of ?**

Feedback is taken from Students, Alumni, Parents and Syllabus committee.

The Board of studies involves two students representatives from current year and also alumni who give their opinion about the curriculum. Their suggestions are discussed in the meeting of the Board of studies and are accepted while revising the curriculum.

Member of student's council during their interaction with the Principal and faculty members provide feedback on components and depths of the syllabus. The IQAC has student representative. They also voice out their opinion about curriculum.

### **1.4.2 Does the College elicit feedback on the curriculum from National and international faculty ? If yes, specify a few methods adopted to do the same – (conducting webinar, workshop, online forum discussion etc.) Give details of the impact on such feedback.**

The college elicits feedback on the curriculum from National and international faculty. Our board of studies in various subjects have nationally and internationally faculty and also the renowned experts from National institutes and industries. Management Council and Academic Council of Somaiya Vidyavihar have nationally and internationally renowned acclaimed academicians.

### **1.4.3 Specify the mechanism through which alumni, employees, industry experts and community give feedback on curriculum enrichment and the extent to which it is made use of ?**

Being the first year of autonomy the advisory committee was formed consisting the members from industry, research field, alumni, teaching profession and current students . The syllabi were discussed and framed with their consent.

The composition of Board of Studies in any subject ensures a dynamic combination of members who represent various fields in India and abroad.

We are fortunate to have alumni who are interested in the quality of education. In fact they are from industry as well as research and academic field.

**1.4.4. What are the quality sustenance and quality enhancement measures undertaken by the institution in ensuring effective development of the curricula?**

As per the Statutes of Autonomy every New Syllabi of Credit Courses or any Revision in the Syllabi is presented to the Members of the Board of Studies, Chairman, Board of Studies present the Syllabus in the Academic Council after due deliberation syllabus is passed in Academic Council and thereafter presented in the Management Council. The suggestions of the members of Academic Council and Management Council are incorporated in the syllabus. Then all the Statutory Bodies approve the syllabus. Then it is hosted on website.

**Criterion II**

**Teaching, Learning and  
Evaluation**



## **CRITERION II:**

### **TEACHING-LEARNING AND EVALUATION**

#### **2.1 Student Enrolment and Profile:**

##### **2.1.1: How does the college ensures publicity and transparency in the admission process?**

The College has well organized transparent admission procedure to all courses. The online admission process was implemented from the year, 2011-2012 to ensure transparency in the admissions. The information about admission procedure, guidelines, syllabi for each course, evaluation pattern, profile of faculty have been uploaded on the website [www.somaiya.edu/admissions](http://www.somaiya.edu/admissions). The College prospectus is also available for a download on the website.

The admission guidelines are also displayed on various notice boards, Digital Information Display System and on Flex Boards at various locations. Printed prospectus is also available. The new courses are advertised occasionally in National news papers. The students can apply online filling the pre-admission form from any part of the country.

The College strictly follows the guidelines set by the Govt.of Maharashtra and University of Mumbai. The entire list of applicants along with the percentages is hosted on a website to ensure transparency in the admission process. The customized software for admissions generates categorywise merit lists.

As per the schedule of the University, the merit lists are displayed on the website, notice boards and Digital Information Display System. SMS Alerts are sent to the selected applicant for his/her admission after every merit list.

For the admission for M.Sc. (by Research) and Ph.D., the applications are invited from the eligible candidates online and their selection is done by the duly constituted Selection Panel. The list of selected candidate is hosted on the website and successful students are given offer letters to complete the admission process within a week.

##### **2.1.2: Explain in detail the process of admission put in place for UG, PG and Ph. D. programmes by the college. Explain the criterion for admission (ex. i) merit, ii) merit with entrance test, iii) merit, entrance test and interview, iv)**

**common test conducted by state agencies and national agencies, v) others followed by college?**

The process of admission for UG and PG Courses :

Admissions to all courses offered by the College are online. The Pre-admission forms are available on our website. Pre admission form, ID and Password is generated. Subsequently, the students fill-up the pre-admission form and submit it online. She/he can access the pre-admission form and modify the information, if desired, with the help of ID and Password. The receipt of the confirmation of submission of pre-admission form is generated. Student keeps this receipt with unique number for the reference. The students have an option to pay the application fee through the payment gateway integrated on the website by credit card, debit card, electronic transfer, NET banking, etc. or has an option to pay off-line at the college Cash Counter. This facility is available for all courses offered by the College (UG and PG Programmes).

The admissions for the aided and unaided entry level courses of B.Sc. and B.Com, M.Sc. and M.Com. are on merit. The merit list is generated on the basis of percentage of last qualified examination. However, the admission to B.Sc. (Information Technology) is given on the basis of marks secured in the subject of Mathematics.

Merit lists are displayed as per the schedule given by the University on our website as well as on the notice boards, digital information display systems and flex boards at various places on the campus.

The admission to M.Sc. Environmental Science and M.Sc. Nutraceuticals is on the basis of percentage of last qualifying examination, written test, group discussion and personal interview.

Eligibility for the admissions to Ph.D. Courses is the qualifying common Post - graduate Eligibility Test (Ph.D. Entrance Test) conducted by the University of Mumbai. The selection of the eligible students is done on the basis of a panel interview.

The students selected for the admission are given admission form with the information about the steps and schedule involved in the admission process (fee structure, schedule of payment of fees, documents required, general elective and options of evaluation schemes). The students fill the admission form. The documents of students are then verified by the admission committee and after



which she/he secures the admission by paying fees as per the schedule provided to her/him.

**2.1.3: Does the college have a mechanism to review its admission process and student profiles annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?**

The admission committee is constituted in the beginning of the year. The Committee consists of Vice-Principals, Senior Faculty Member, Faculty from the Reserved Category and Registrar and office staff of the College. The committee plans the admission strategy and looks after entire admission process. The review and analysis of the admission process is done at the end. The student profile is generated.

The outcome of the analysis : The online admission process was further improved by implementing the following suggestions as put forward by the admission committee :

- 1) Though the detailed information was already available in the physical and online prospectus the admission Committee suggested that along with admission form Xerox copy of the admission schedule, fee structure, elective courses, documents required, options of evaluation schemes should be given to the students to avoid delay.
- 2) The payment gateway was integrated for ease in paying fees for the students. For off-line payment of fees bank cashiers are deputed on our cash counter.
- 3) SMS alerts are sent to the applicants regarding admission status after 2<sup>nd</sup> and 3<sup>rd</sup> merit list.
- 4) For all reserved category a separate dedicated counter for the verification of documents and guidance regarding admission was organized.
- 5) After completion of admission process, the comprehensive statistical profile of the students on the basis of the category, mother tongue, elective credits concentration, evaluation options is carried out to decide academic strategies for the year.

**2.1.4 : What are the strategies adopted to increase/improve access to students belonging to the following categories?**

❖ **SC/ST/OBC:**

The College scrupulously follows the reservation policy of Govt.of Maharashtra to ensure access to the SC/ST and OBC students. The students from the reserved category having higher percentage are considered in open category so as to ensure more seats from reserved category. They are encouraged to enroll for all the courses available. They are entitled for various Government freeships and scholarships. For all reserved category a separate dedicated counter for the guidance regarding admission is being organized.

❖ **Women:**

The Somaiya Vidyavihar campus has deputed security personnel round the clock. It has a reputation of one of the renowned campuses providing conducive environment with the state of art facilities. The statistics suggests the girl students prefer Somaiya Vidyavihar Campus. In fact, the girl students out number the boys.

**Different categories of persons with disabilities:**

For wheel chair accessibility college has constructed a ramp for disabled students. There are disability special wash rooms for such students.

❖ **Economically weaker sections:**

College office works very hard to help students in securing different Government scholarships and freeships. Somaiya Trust has initiated a scheme called “Help a Child” . We also ensure financial help from various trusts to the economically weak students. Our faculty members and non-teaching staff also give support to these needy students. There is a scheme in place called “Earn while you learn”.

❖ **Outstanding achievers in sports and extra-curricular activities:**

The preference is given in admission to (a special 3% reserved quota) students who have excelled in sports and extra-curricular activities at the District, State, National and International levels.

Students representing College in various sports and extra-curricular activities are given financial support for attending the competitions.

**Concession in attendance.**

Extra coaching to cover the portion delivered during the competition.

Additional Examination, if competition scheduled is during the examination.

**2.1.5: Furnish the number of students admitted in the College in the last four academic years.**

Categories	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015	
	Year 1		Year 2		Year 3		Year 4		Year 5	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
General	1308	725	924	1113	1232	1362	1070	1422	1019	1354
Gujarati Minority	90	86	182	178	122	105	212	188	341	339
ST	9	8	7	7	2	6	6	5	6	4
OBC	139	98	121	125	98	85	110	114	146	184
NT1	17	9	8	13	6	12	5	9	11	16
NT2	26	10	23	16	19	7	15	9	18	13
NT3	15	4	17	12	9	6	11	9	15	14
D.T.	--	--	2	1	1	1		1	2	--
Phyly handicp	1	--	--	--	--	--	--	--	--	--
Others (Sports, Ex-seremen, Widow	11	8	6	14	3	7	6	8	11	12
Total No.	1616	948	1290	1479	1492	1591	1435	1765	1569	1936
	<b>2564</b>		<b>2769</b>		<b>3083</b>		<b>3200</b>		<b>3505</b>	

**2.1.6: Has the College conducted any analysis of demand ratio for the various programmes offered by the College? If so, indicate significant trends explaining the reasons for increase/decrease.**

The students seeking admission at the entry level has to apply on a University website for their enrolment form giving options of the preferred Colleges. Last three years data suggest that our College in the MMRDA region has a highest demand in all courses..

The following table shows the demand ratio for the year, 2014-2015, on the basis of the online applications received by us for various courses. **For 2014-2015**

Programmes	Total Seats	Number of application	Number of Students admitted	Demand Ratio
<b>UG</b>				
1. F. Y. B. Sc.	600	1933	579	1:3.2
2. F.Y.B.Com.	360	1791	375	1:4.9
3. F.Y.BMS	60	1176	62	<b>1:18</b>
4. FYBCAF	60	1644	68	<b>1:24</b>
5. F.Y.B.Com.(FM)	60	167	61	1:2
6. FYBSC (BT)	35	679	34	<b>1:19</b>
7. FYBSC (IT)	120	1849	118	<b>1:15</b>
8. FYBSC (CS)	35	613	43	<b>1:14</b>
<b>PG</b>				
9. M.Sc.(Physics)	23	53	23	1:2
10. M.Sc.(Chemistry)	92	162	91	1:1
11. M.Sc.(Biochemistry)	23	40	14	1:2
12. M.Sc.(Botany)	23	21	10	1:2
13. M.Sc.(Zoology)	23	35	22	1:1
14. M.Sc.(Geology)	23	22	12	1:1
15. M.Sc.(Microbiology)	23	80	23	1:3
16. M.Com.(Accountancy)	60	111	64	1:1
17. M.Com.(Bus.Mgnt)	60	64	55	1:1
18. M.Sc.(Biotechnology)	23	139	23	<b>1:6</b>
19. M.Sc.(IT)	33	115	29	1:3
20. M.Sc. (Env.Science)	23	58	22	1:2
21. M.Sc. (Nutraceuticals)	23	37	17	1:2
22. M.Sc.(By Research and Ph. D.	40	12	10	1:1

**2.1.7: Was there an instance of the College discontinuing a programme during last four years? If yes, indicate the reasons. None**

## **2.2 Catering to diverse needs of students**

### **2.2.1: Does the college organize orientation/ induction programme for fresher's?**

The college organizes orientation / induction programme regularly for entry level students of UG and PG in the beginning of the semester. The students from various streams are asked to assemble in the auditorium with prescribed schedule. The students of different streams are addressed in a separate sessions for concise and relevant flow of information. The induction programme is like a melting pot. The students from the different backgrounds and cultures from different Junior Colleges are introduced about the temple of learning where they are going to shape their careers. They are introduced to ethos and culture of Somaiya Vidyavihar by motivational speeches and presentations. They are also appraised regarding history and past performance of the institution to give them a sense of their challenge and lineage to which they belong to.

During this interaction, benefits of academic autonomy, various elective courses offered, and different schemes of evaluations are introduced in detail. The induction programme also highlights academic time table, rules and regulations, importance of attendance, mentorship programme, office support, infrastructural facilities, laboratory and library facilities, sports facilities and hostel facility available to them. They are also introduced to varied avenues available to foster their all-round development. After the session, a new batch of students are on board, equipped with requisite information to bloom in fascinating new learning environment and ethos of organization. In the new batch, sense of belongingness and pride is cultivated about the organization and their academic journey begins.

### **2.2.2: Does the college have a mechanism through which the differential requirements of students population are analyzed after admission and before the commencement of classes?**

Yes the College has a mechanism to identify different requirements of the student population after the admissions.

There are certain courses like F.Y.BMS, First Year B.Sc. Information Technology M.Sc.Part-I Environmental Science and M.Sc. Part-I Nutraceuticals, in which students from different streams are admitted. F.Y.B.Sc. Biotechnology (students without Mathematics as a subject). In order to bring them at par with the level of others, a crash bridge course has been designed and is administered either before or during the conduct of the course.

It is found that a small but significant section of the students from vernacular medium from vernacular medium are not proficient in English and lack communication skills. Though no formal programme is followed, the problem is identified / addressed during theory and practical sessions. Students are given general tips on improvement of English skills.

**2.2.3: Does the college provide bridge/ remedial/add-on courses?**

On the basis of their performance in internal evaluation / Semester end examination the students who are academically weak in the course are identified by the department and the remedial coaching imparted to them. The impact of the remedial coaching is assessed in the subsequent examination. If the number of students are more than 20, then the schedule of remedial coaching and revision session is displayed on the tutorial sessions regularly by incorporating them in their time table. The Department of Physics has developed bridge course for a student desirous to opt for Physics major in graduation.

**2.2.4: Has the College conducted a study on the incremental academic growth of different categories of students - student from disadvantaged sections of society, economically disadvantaged, physically handicapped and slow learners etc.? If yes, give details on how the study has helped the College to improve the performance of these students.**

The formal study has not been initiated to monitor academic growth of various disadvantaged sections of society, However, each department maintains and monitors the record of academic growth of disadvantaged groups. The peer group support is provided to physically handicapped students. Extra care is taken for their academic growth by giving them required support. Economically disadvantaged students are supported morally and financially to integrate their growth in the main stream. Regular parent teacher meetings at departmental level have helped to identify the hurdles in the academic growth of students. These meetings also helped to integrate involvement of the parents in academic journey.

The slow learners are given special treatment through mentoring and remedial coaching. Departmental libraries give preference while issuing books to the students. The college has a counseling cell which guides the students whenever the need arises.

**2.2.5: How does the institution identify and respond to the needs of advanced learners?**

For advance learners, the college has introduced the Honours Programme. The students are enrolled for the Honours Programme on the basis of personal interview and consistent academic record. Students with quests for inquiry and assimilation of additional knowledge are encouraged to enroll in Honors Programme. At graduate level, a student is required to earn 120 credits. However, for the Honors Degree students have to earn additional 40 credits over three years. The students who have enrolled for Honors Programme were put under the mentorship of senior faculty members. After interacting with the Honours students, the mentor suggest the strategies to earn additional credits on the basis of their interest.

In order to earn additional credits students work on mini research projects, participate in industrial training programmes, enroll for summer camps conducted by reputed organizations and attend workshops and seminars. In order to qualify for Honors Degree, the students have to earn few credits mandatorily by doing social work.

**2.2.6 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard**

Though the physically and visually challenged students enrolled are very few the following provisions have been made for their convenience :

Ramps to make the movement of those on wheel chairs less tiresome.  
Differently abled friendly Washrooms separately for men and women.  
Arrangements are made to accommodate them on the ground floor of the college to attend regular classes and examinations for easy access.  
Extra time is provided to differentlabeled students in examination. College provides writers to physically and visually challenged students for their examinations as per the University guidelines.  
The college provides one attendant to assist physically disabled student. All possible financial assistance is extended through government scholarships, freeships, students welfare fund, book bank facility in the library.

## **2.3 Teaching-Learning Process**

### **2.3.1. How does the college plan and organize the teaching, learning and evaluation schedules?**

The college plans teaching, learning and evaluation schedule as follows

#### **Teaching and Learning:**

At the beginning of every academic year an academic calendar of all the activities for the year is planned.

Academic plan for the entire academic year is prepared by all the departments and is displayed on the college website, before the academic year commences.

Class time table for the year is finalized by individual departments which is submitted to the Time Table Committee . Time table committee then assigns the class rooms and distributes the time table to the departments after which it is displayed on the notice boards for the students.

Monthly reports of the academic activities of the departments are submitted in the prescribed format to the Principal during the monthly HODs meeting. Discrepancies, if any, are discussed in detail in order to suggest remedial measures.

#### **Evaluation:**

Tentative dates of commencement of Internal and Semester end Examinations are announced in the beginning of the year. A detailed time table is displayed on the Website, Information Display System, and Notice Boards well in advance informing the students.

Internal examinations are conducted as a part of continuous evaluation system which comprise of MCQs, assignments, book reviews or projects.

After the first evaluation, the answer papers are blind masked and the second evaluation of all the papers is done by external examiners at T.Y.level. On completion of the same the marks are compared. Since the process is student-centric, higher of the two scores are assigned to the students. If there is more than 10% difference between the two evaluations, the answer paper is evaluated third time and the marks obtained in the third evaluation are considered as final.

Centralized Assessment of Papers (CAP) is carried out for all the examinations.



**2.3.2. Does the college provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?**

The details of course outline, units in the course and evaluation pattern are disseminated through the college prospectus.

The students are furnished a printed copy of the syllabus at the time of their admission.

The course syllabi are uploaded on the college website before the beginning of the academic year.

The reading material in the form of printed notes is provided to all the students.

**2.3.3. What are the courses, which predominantly follow the lecture method? Apart from classroom interactions, what are the other methods of learning experiences provided to students?**

Most of the courses follow the lecture method. Apart from classroom interactions, a number of learning experiences are provided to the students based on :

1. Project Base learning :
  - a) Group Project
  - b) Mini Project peer learning
2. Opportunities of Experiential learning
3. Hands on Experience of Laboratory Instruments
4. Internship
5. Workshops Seminars
6. Poster Presentations in Seminars
7. Presentation competition
8. Industrial Visit
9. Excursion and regular field trips
10. Popular Lecture series
  - a) EYES (Enlighten Yourself Every Saturday)
  - b) Enriching Experiences
  - c) Abhyas Mahotsavs and,
  - d) Lectures by stalwarts
11. Book Reviews
12. Street Plays

**2.3.4. How is learning made more student-centric? Give a list of participatory learning activities adopted by faculty that contribute to holistic development and improved student learning besides facilitating life-long learning and knowledge management.**

The College adopts constructivists philosophy of education. As per the Blooms Taxonomy, knowledge is not just imparted but synthesis in the interaction. Right from the beginning of the framing syllabus the importance is given to the opinion of the students in the Board of Studies (alumni and existing students have mandatory representation in the Board of studies). Their opinion is given due importance while framing the syllabus. The bouquet of the evaluative methods is offered to the students so that they can exercise their choice while selecting the courses.

Options in the internal evaluation pattern are also offered to the students e.g. students can choose for normal tests or projects or book reviews, or others/ as a part of their internal evaluation.

We at the college firmly believe that the role of a teacher is not merely information dissemination but designing and constructing experiences from which students learn.

Experiential learning while doing field projects / excursions / field visits

Internships /

Managing Festivals :

Projects-based learning : Project as a part of evaluation

Seminars

Presentations

MOOCS

**2.3.5. What is the college policy on inviting experts/ people of eminence to provide lecture / seminars for students?**

We strongly believe that listening to discourses of eminent stalwarts and people of eminence in their fields enrich infinitely the personality of the students. Somaiya Vidyavihar is a conglomerate of 35 institutions. The Students from all the institutions are indeed blessed by the opportunities created by the institutions so that they can listen to the stalwarts e.g. H.H.Dalai Lama, Inter-faith dialogues organized by Sanskriti Peetham, lectures of various Management Gurus, Mumbai Local The College has developed a policy to invite a host of scholars from their respective fields under various programmes

1. Learn from the stalwarts : The basic concept underlying this activity is that if the first year level students are exposed to the stalwarts in their respective fields, the foundations of the basic concepts become quite strong. In this lecture series (apart from the regular lectures) we invite eminent academicians to deliver concept at First Year level e.g. on Chromatography (by Dr.R.T.Sane),
2. Enriching Expressions : In this series, our own alumni holding key positions in the industry are invited to deliver a session that serves a dual purpose. It is extremely motivating to the students.
3. Abhyas Mohotsav : A Two day festival organized by the departments to deliver cutting-edge future technologies and research (emerging in the field) to the final year graduate and post-graduate students. The students get birds eye view about what they are going to encounter in future in their professional life.
4. Enlighten Yourself Every Saturday : A lecture series organized in association with University of Mumbai focused on environment. It was video casted through air-view to different affiliated Colleges of University Mumbai. Eminent experts addressed the students.

**2.3.6. What are the latest technologies and facilities used by faculty for effective teaching?**

The lectures by the faculty members are video-recorded in the virtual class room and the same are accessible on the College website. Several workshops are held by Data Centre to train the faculty e.g. latest technology viz. Single window access on data-base EBSCO, Google Apps, Google Class Room Cyber Security.

The faculty uses the latest methods of teaching learning wherever possible. All the departments are provided with computers with LAN facilities. Internet access is available to all the departments. The Central College Library has a computer and internet facilities which can be used by students as well as faculty.

**2.3.7 Is there a provision for the services of counselors / mentors/ advisors for each class of students for academic; personal and psycho-socio guidance? If yes, give details of the process and the number of students who have benefitted.**

The physical and mental well-being is at the core of the human development. College believes in providing counseling at various stages of the career of students. The College has trained a few senior teachers as a Counselors. The college has Tutor mentor scheme in place under which the students are divided into various groups and each faculty as mentor is allotted to one group of students. The students can interact with the mentors for their academic, emotional, personal, social needs and career guidance. Vice-Principals are available at a fixed time for consultation. The Principal has an open door policy and is available for solving problems of students and teachers.

Our faculty members are student-friendly and have good rapport with the students. Many a times student share not only their academic problems but very personal problems with the teachers.

The lectures and workshops on Career guidance, Soft skills, Emotional Quotient etc. are organized for the students on a regular basis.

The students have a good rapport with all the faculty members, the Heads of the Departments ,Vice-Principals and Principal. They approach any one of them for any personal, academic and psycho-socio problems.

**2.3.8. Are there any innovative teaching approaches/ methods/ practices adopted / put to use by the faculty during the last four years? If yes, did they improve learning? What methods were used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due to recognition for innovation in teaching?**

Experiential learning Credit course in Environmental Science experiential learning.

Option of internal evaluation schemes.

MOOCS, Poster Presentations, Literature reviews

Extra-curricular activities as a part of curricular activity.

Departmental festivals like Zorilla (Zoology), Microscope (Microbiology), Biozone (Biotechnology), Health Fest (Biochemistry) and Rasayan (Chemistry).

The college has started many courses like 33 credit courses for which they are given extra credits.

Problem based approach while creating practical training.

### **2.3.9 How does the college create a culture of instilling and nurturing creativity and scientific temper among the learners?**

Research Innovation Incubation Design Lab.(RIIDL )

In order to create innovation ecosystem and synergy between various institutions of Somaiya Vidyavihar has established a unique incubation centre called as RIIDL. It is a facilitating centre for brilliant ideas of the students into startups. It gives complete support for technology incubation and startup incubation. The entire Vidyavihar community either current or alumni can apply as a team for the development of new products and startups. The centre supports students in all aspects viz. Patent filing, seed money marking, publicity and hiring ideas for the incubate. Till date has filed 14 patents and 24 startups.

#### **Mini Projects as a part of Evaluation :**

The college offers an option to carry out a mini research project as an internal evaluation at the undergraduate level. The mini research projects are guided by mentors assigned to the students. After completion of the project, students have to defend her/his project in front of a panel of examiners. The project is evaluated on the basis of Power-Point presentation followed by viva voce.

#### **Vigyan Yagna**

In order to regenerate interest in pure science in young minds, we organize a mega science and technology fair VigyanYagna showcasing exhibition-cum-competitions of working models in Science and Technology. The event is an annual feature. The motto of the Science and Technology fair is : Inspire Invent and Innovate.

#### **Participation in International and National level conferences :**

We promote students to participate in International and National Conferences. The research dissertations and mini research projects are presented in these Conferences. The students participated in poster and paper presentations at

national and college level conferences in last five years and won –prizes and awards.

**2.3.10 Does the college consider student project a mandatory part of the learning programme? If so, for how many programmes is it made mandatory?**

- ❖ **Number of projects executed within the college?**
- ❖ **Names of the external institutions associated with the college for student project work**
- ❖ **Role of the faculty in facilitating such projects.**

List of compulsory projects as a part of assessment.

It is mandatory for the post-graduate students of biotechnology, botany, information technology, physics, microbiology and zoology to do a two to six months research projects as a part of their course. M.Sc. students of various departments carry out research projects at department, at state level research institutes and at national research institutes and also at hospitals where research is carried out. The syllabus of M.Sc. Course in Nutraceuticals stipulates students to pursue product development/ formulation. The students pursuing project work at different department are guided by the faculty. Associated institutes NIO, BARC, TIFR, Hospitals etc.

The students are also encouraged to do an internship or field work, summer course, hands-on training during the Diwali, Christmas break or summer vacation either at subject related industries or in firms, in local research institutes or in hospitals.

**2.3.11 What efforts are made to facilitate the faculty in learning / handling computer aided teaching/ learning materials? What are the facilities available in the college for such efforts?**

We have a centralized facility called Data Centre which assists to integrate Information and Communication Technology in Teaching and Learning and Administration.

The College has Robust IT infrastructure with computers in LAN with high speed internet connectivity

The College organizes various workshops for teaching and non-teaching staff to facilitate learning computers e.g. Google class, Ebsco data base.

**2.3.12 Does the college have a mechanism for evaluation of teachers by the students / alumni? If yes, how is the evaluation used in achieving qualitative improvement in the teaching-learning process?**

All faculty members are evaluated by the students for every course in each class they teach on a 5 point scale. The blind response from all students is recorded. The average of each question is then calculated for each teacher for each course. The extreme responses are removed to negate positive halo effect and extreme negative impression of the student. The average responses are then shared with the teachers in-camera.

The assessment of the freshly appointed teachers is done on the basis of feedback form. The feedback form is given to students attending their lectures by the senior teachers. The data thus gathered is collated by the Feedback committee which then is analyzed by the Principal and subsequently shared with the teachers for improvement.

The confidential report of the faculty by HODs is collected and evaluated by the Principal every year. If required the teachers are called personally by the Principal to discuss about the feedback.

**2.3.13 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If yes elaborate on the challenges encountered and the institutional approaches to overcome these.**

The admissions to the entry level classes i.e. First Year and M.Sc. / M.Com Part-I are some time delayed due to delay in declaration of University results. During this time, the workload of entry level classes is adjusted for taking additional lectures at S.Y. and T.Y. and M.Sc. / M.Com. Part II classes. It is customary to prepare tentative time table for this period due to late admissions of entry level viz. First Year and M.Sc. / M.Com. Part I

**2.3.14 How are library resources used to augment the teaching-learning process?**

The College is endowed well with a equipped central library. Apart from the text books, reference books and study materials (prepared by the faculty) the library has an excellent collection of CDs and DVDs. The college library is linked to all other libraries of the campus via internet, so the availability and status of a book in the entire campus libraries can be located and if can be made available to the

required. In order to cater to the research related requirements of research journals are available both in the form of hard copy and online.

**2.3.15 How does the institution continuously monitor, evaluate and report on the quality of teaching, teaching methods used, classroom environments and the effect on student performance.**

Regular, routing and frequent rounds of the College by the Principal and Vice-principals assists in monitoring the lecture deliveries and punctuality of teachers. The teachers Feedback committee is set up and is assigned execution, collation and analysis of the feedback of teachers.

Student's Satisfaction index (SSI) is evaluated collected to get the feedback on the class environment, library and laboratory facilities . The feedback is obtained by the Students council and the students who are members of IQAC.

At the end of every year, the departmental results are analyzed and discussed by the Principal and H.O.Ds

**2.4.1 What is the faculty strength of the college? How many positions are filled against the sanctioned strength? How many of them are from outside the state?**

Our college has a faculty strength of 138 out of which 73 are in aided and 47 are in unaided courses in addition to some visiting faculty. 21 faculty members are from outside the State.

**2.4.2 How are the members of the faculty selected?**

The filling up of the sanctioned posts is rigorously done on the basis of rules and regulations as stipulated by the UGC, Maharashtra Government and University of Mumbai. Qualification recruitment procedure etc.

The process of filling faculty includes the following steps:

- 1) Workload calculated to estimate as per the rule teaching and non-teaching positions.
- 2) Obtaining NOC for filling up the post from the Joint Director, Government.
- 3) Getting the draft advertisement approved from the University of Mumbai
- 4) Advertising in an National newspaper (Indian Express) and a local newspaper (Maharashtra Times) and also on our college website



- 5) Screening application received.
- 6) Then call letters are sent to qualified and eligible candidates for the interview by post and also intimated the details through emails as well as via. telephonically,
- 7) The selection process is carried out in three stages i)Written Test, ii)Personal Interview iii)Demonstration lecture
- 8) The college administers screening test based on the Post graduate syllabus. (On the basis of the required post normally the successful candidates are invited for interview in the ratio of 1:5). The relative weightage of written examination is considered in Selection Process.
- 9) The test papers are evaluated and merit list is generated.
- 10) Personal interviews are conducted.
- 11).Selection committee is constituted as per the University norms.
- 12)The selected candidates are asked to deliver a Demo lecture in the class rooms. Weightage in selection is given on the students feedback
- 13) The selected candidate is served with offer letter.

#### 2.4.3 Furnish details of the faculty

Highest qualification	Professor		Associate professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>(I) Permanent Teachers: (Aided)</b>							
D.Sc/ D.L.H	--	--	--	--	--	--	--
Ph.D	--	--	05	18	03	10	36
M.Phil	--	--	03	10	--	01	14
PG	--	--	01	03	--	--	04
D.H.E.	--	--	01	04	02	01	08
C.A.	--	--	--	01	01	--	02
NET	--	--	02	01	08	02	13
SET	--	--	02	03	05	03	13
<b>(Unaided)</b>							
D.Sc/ D.L.H	--	--	--	--	--	--	--
Ph.D	--	--	--	--	01	01	--
M.Phil	--	--	--	--	01	01	--
PG	--	--	--	--	01	05	--
D.H.E.	--	--	--	--	--	--	--
C.A.	--	--	--	--	--	01	--
NET	--	--	--	--	05	04	--
SET	--	--	--	--	03	01	--

**2.4.4 What percentage of the teachers have completed UGC – CSIR – NET, UGC-NET and SLET exams? In that what percentage of teachers are with PG has higher qualification**

Department	Name of teacher	Competitive exam cleared			
		NET	SET	GATE	Any other specify
Botany	Dr.Anjali Ratnakar		SET		
Chemistry	Dr.Bright O.Philip	NET			
	Dr.Chitra Kamath		SET		
	Dr.Veena Khilnani	NET			
	Ms.Preksha Jain	NET		GATE	
	Dr.Trupti Tawade	NET			
Geology	Mr.Deepak Kumar Sahu	NET			
	Dr.Jyoti Sharma	NET			
Microbiology	Dr.Lolly Jain		SET		
	Mr.Shabib Khan	NET	SET		
Physics	Dr.Deepak More		SET		
	Dr.Geeta Nair		SET		
	Mr.Jitendra Pendharkar		SET		
	Mrs.Smita Survase		SET		
	Mr.Ansul Gupta	NET			
	Mr.Deepak Jalla	NET			
	Mr.Amit More	NET			
	Mr.Ketan Kumar Gayakwad	NET		GATE	
Biochemistry	Dr.S.M.Pawaskar	NET			
Commerce	Mrs.Shilpa Sawant	NET			
EVS	Mr.D.G.Phondekar		SET		
Mathematics	Mrs.Sudha Agrawal		SET		
	Mrs.Reema Khanna		SET		
	Mr.M.Niphadkar	NET			
	Mr.Prabhat Upadhaya	NET			
Statistics	Mrs.Aarti Kore		SET		
	Ms.Namrata Nagvekar		SET		
Zoology	Ms.Shreya Patil	NET			
Accountancy	Mr.Nikhil Phansekar	NET			

**2.4.5 Does the college encourage diversity in its faculty recruitment? Provide the following department wise details**

Department	No. of faculty who are product of the same college	No. of faculty from other college within the state	No. of faculty from other state	No. of faculty from abroad
Chemistry	02	17	05	nil
Botany	01	06	Nil	nil
Zoology	02	08	08	nil
Microbiology	03	06	nil	nil
Physics	03	08	03	nil
Geology	02	nil	02	nil
Biochemistry	nil	02	Nil	nil
Biotechnology	01	05	01	nil
Mathematics	01	05	Nil	nil
Statistics	01	04	Nil	nil
Commerce	nil	08	02	nil
English	Nil	01	Nil	Nil
EVS	Nil	01	Nil	Nil

**2.4.6 Does College have the required number of qualified and competent teachers to handle all the courses for all departments? If not how do you cope with the requirements? How many faculty members were appointed during the last four years?**

The college has sufficient approved faculty for each department. Some departments where the government does not sanction the posts, appointments are made by the management and such faculty are paid from the college trust funds. This includes self-financing degree courses and some Post Graduate courses. There are also some visiting faculty members who are invited to conduct the lectures at post- graduate levels. The salaries and service conditions are as per Sixth Pay Commission.

**2.4.7 How many are visiting professors on the rolls of the college?**

There are around 17 visiting professors under self-financing courses and P.G. courses.

**2.4.8 What policies/ systems are in place to recharge teachers?**

The degree college conducts many seminars and workshops for the staff over the course of the year and also encourages them to participate in various conferences, workshops and seminars. These conferences, workshops and seminars provide an opportunity to recharge the faculty, increase staff interaction, promote skill development and enhance awareness of key issues and provide a platform for sharing research interest etc. The faculty are encouraged to share their ideas and experiments with new teaching techniques and technology and also encouraged to implement them.

Faculty members are encouraged to attend the orientation and refresher courses in various disciplines. The teachers are granted leave for 1 to 2 years under FDP programme of UGC to pursue their Ph.D. work. The teachers also participate in National and International conferences/seminars to present the research papers. They are sanctioned duty leave and the registration fees are paid by the College. The faculty members also attend summer schools and other training programmes.

**2.4.9 Give the number of faculties who received awards/recognition for excellence in teaching at the State/National and International level during the last four years.**

NIL

**2.4.10 Provide the number of faculty who have undergone staff development programmes during the last four years (Add any other programme if necessary)**

Academic staff development of Programmes	No. of faculty
Refresher courses	12
HRD Programmes	nil
Orientation Programmes	03
Staff training conducted by University	112
Summer/ winter school, workshops etc.	182
Staff training conducted by the college	03
Any other (please specify)	nil

\*seminar conducted by ICAI

03

**2.4.11 What percentage of the faculty have**

- **been invited as resource person in Workshops/ Seminars/ Conferences organized by external professional agencies**
- **participated in external Workshops / Seminars / Conferences recognized by national / international professional bodies**
- **presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies**
- **teaching experience in other universities / national institutions and others**
- **industrial engagement**
- **international experience in teaching**

Sr. No	Item	No.of faculty
1	Faculty invited as resource persons in workshops/ conferences organized by external professional agencies.	10
2	Faculty who participated in external workshops/ seminars/ conferences recognized by national/ international/professional bodies	47
3	Faculty who presented papers in workshops/ seminars/ conferences conducted or recognized by professional agencies	24
4	Faculty who have teaching experience in other universities/ national institutions and other	12
5	Faculty who have some kind of industrial engagement/ collaboration	05
6	Faculty who have international experience in teaching	

**2.4.12 How often the College organize academic development programmes for its faculty leading to enrichment of teaching-learning process ?**

- ❖ **Curricular Development**
- ❖ **Teaching-learning methods**
- ❖ **Examination reforms**
- ❖ **Content /knowledge management**
- ❖ **Any other (please specify)**

The College through several workshops and seminars build the capacity of the staff members. These seminars and workshops provide a platform to promote

research interest within the group. Increased interaction of the staff enhance understanding of new trends in Higher Education and help in the personal and professional development of the staff.

The College has conducted workshops and seminars on issues like intellectual property rights, new trends in evaluation, ICT integration in Higher Education, Syllabus framing etc.

The mandatory two meetings of Board of Studies in each subject in every academic year gives a focus forum to discuss new avenues in the subject, current business practices, cutting-edge research in the subject.

The workshops and seminars gives avenues for the sharing of the ideas in teaching and learning, evaluation, new techniques and technology and philosophy of teaching.

**2.4.13 What the teaching innovations are in made during the last five years? How are innovations rewarded?**

In several departments of the college, innovations are continually being tried out by the faculty. Right from the first year B.Sc. / B.Com level, students are introduced to projects, report writing, book-reviews, assignment writing. At the PG level, students are introduced to give power -point presentations on review of different scientific paper (minimum five), poster presentations, MOOCS. Use of ICT is encouraged. The rewards for innovation are mainly an acknowledgement of sharing the ideas and contributions.

**2.4.14 Does the college have mechanism to encourage**

**(a) mobility of faculty between institutions for teaching?**

**(b) Faculty exchange programmer with national and international bodies?**

**If yes, how have these schemes helped in enriching the quality of the faculty?**

A large number of our staff members are involved as resource person to several organization and institutions as well as other college. But there is no formal system in place that records and promotes mobility of staff between institutions. There is no formal national and international level faculty exchange programme.

## **2.5 Evaluation Process and Reforms**

### **2.5.1 How does the College ensure that all the stake holders are aware of the evaluation processes that are operative?**

The evaluative process is transparent and the rules are clearly stated in the prospectus and on the website. The Orientation and induction programmes are organized for the first year students at the start of the academic year where all the rules pertaining to examination system are explained to the students. The teaching faculty also explains the examination reforms to students during their lectures. Notices are displayed prominently explaining the details of the examinations near the Examination cell. The details about the exam time table is displayed on the electronic display system.

The Examination cell is always open to the students for their queries. We have appointed a separate Office Superintendent and staff in the Examination Cell. Students can approach the Vice principals for their doubts on examination system.

Parents are informed during the parent teacher meeting about examinations.

### **2.5.2 What are the major evaluation reforms initiated by the college and to what extent have they been implemented in the college? Cite a few examples which have positively impacted the evaluation management system?**

In the credit-based semester system under continuous evaluation there is an internal evaluation and a semester end evaluation. In the internal evaluation a candidate is tested on the conceptual understanding of the topics dealt with. Students are given the option for internal evaluation components as follows:

A student can choose any one of the following options.

**Option A** comprises 30 marks mid semester test under component 1 and 10 marks assignment under component 2.

**Option B** a student may choose to do a project in that course and

**Option C** Book Review can be selected by the student to review a book. For options B and C the first component will carry 20 marks for the written Report (minimum 20 pages) and under component 2 the students are expected to make a Power Point Presentation which is evaluated by two examiners (for 20 marks).

**2.5.3 What measures have been taken by the institution for continuous evaluation of students and ensuring their progress and improved performances?**

The continuous internal evaluation of students have been a major introduction to the teaching –learning process. Innovative methods of evaluation such as book reviews, projects, MOOCS etc. have been introduced in addition to MCQs and assignments.

As discussed students are given the flexibility to select the like Credit Courses offered in Cultural, Sports, Spiritual languages etc. Due to this the participation of students in sports and other extra-curricular activities has increased.

**2.5.4 What percentage of marks is earmarked for continuous internal assessment? Indicate the mechanisms strategized to ensure rigor of the internal assessment process?**

The college adopted the policy of continuous evaluation in each sem for all program throughout the semester. 40 % marks are earmarked for the internal evaluation and 60% marks for the semester end examination.

A rich and an innovative variety of schemes emerged when the faculty was given the freedom to design the test papers. The mid semester examination was of one hour duration and students are given home assignment. The students were also encouraged to read under book review or study any of the eminent personalities from the respective subject, make written report and also make a presentation.

The college introduced a scaling down of their internal score to remove any skewed scores. A student is eligible to receive only a maximum of 10% higher marks in that internal evaluation course at their semester end result. If the awarded marks are more than 10% than external evaluation in internal evaluation marks are scale down. The performance of the students improves in both internal and external evaluation.

**2.5.5 Does the college adhere to the declared examination schedules? If not what measures have been taken to address the delay?**

In the beginning of the year the printed academic calendar is circulated with tentative examination dates. The schedules for the examinations are declared by the Examination cell well in advance and detailed schedules are made available



to the students vide notices on the notice boards, Electronic Display System and through websites. These norms are strictly adhered to by the college.

**2.5.6 What is the average time taken by the college for declaration of examination results? Indicate the mode / media adopted by the college for publication of the examination results e.g. website, SMS, email, etc.**

The results are declared within 45 days from the date of the last examination. The examination results are displayed on the notice boards as well as posted on the website. An individual mark sheet is issued to the students for each semester.

**2.5.7 Does the college have an integrated examination platform for the following process?**

The college has a separate Examination cell. In the Examination cell, Office Superintendent and other staff and a peon and teacher members of other departments are provided to carry out various activities of the examination. The cell has been provided with internet net connection, two printers and three computers. One of the printers is a copier-cum-scanner. The printing of question papers is out-sourced.

***Pre-examination process, time table generation, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.***

- The examination schedules for the year are already announced at the beginning of the year through the college calendar.
- The examination time tables are displayed well in advance .Students are issued the hall tickets.
- Detailed seating arrangements are displayed on the college notice boards.
- The invigilation schedule for the faculty is announced before the commencement of the examinations and is distributed to all the departments.

***Examination process – Examination material management, logistics.***

The Examination committee collects Manuscript in set of three in sealed envelopes , selects one out of it and keeps the photocopies of the question papers ready for examination. The Committee takes care of preparation of time table, allotment of Exam blocks and supervision duties, collecting the papers

Coding and sending them to CAP.

The Principal and Vice-Principals take regular rounds of the examination halls during each session of the examination.

***Post examination process- attendance capture, auto processing, generic result processing and certification.***

After the process of evaluation the Principal, Vice principals, convener of the Examination Committee and the chairperson of each subject meet for the Resolution and Results is Finalized for Declaration.

After the declaration of results if a student is dissatisfied with the marks scored for the course, then the student can apply for obtaining the photocopy of the answer books and if needed can later apply for reevaluation of the answer books on the basis of a valid reason. A student can also apply directly for a reevaluation without requesting for the photocopy.

**2.5.8 Has the college introduced any reforms in its Ph. D. evaluation process?**

The pre Ph.D. Seminar of Ph.D. evaluation is through open defence, Periodic review of work through Research Scholars Meet is conducted.

**2.5.9 What efforts are made by the college to streamline the operations at the office of the controller of examinations? Mention any significant efforts which have improved process and functioning of the examination division/section?**

The office of the controller of examination besides its personnel has a committee consisting of senior faculty members who oversees the process of running examinations on a day-to-day basis.

The centralized assessment of papers (CAP) is monitored by CAP committee consisting of senior faculty members.

The separate office of Convener of Examination with staff and facilities has improved functioning of examination. It has become more transparent efficient.

**2.5.10 what is the mechanism for redressal of grievances with reference to evaluation?**

If the students are not satisfied with the assessment of their answer papers, they have the following options to redress their grievances :

A student can directly apply for the revaluation without requesting for a photocopy of their answer books.

They can apply for the photocopy of their assessed answer book/s and within 3 days of issuing of the photocopy they can apply for the revaluation.

For any other grievance with respect to evaluation the students are free to meet the Principal / Vice-Principal and redress their grievance.

The answer books of the students requested for the revaluation are first verified by the head of the department / senior teacher to first verify whether the grievance is legitimate and whether the students has a valid reason for the request for revaluation. If the revaluation is recommended the answer papers are reassessed by a senior evaluator from outside. The Unfair Means Inquiry Committee looks after the malpractices in examinations.

## **2.6 Student Performance and learning outcomes**

### **2.6.1 Does the college have clearly stated learning outcomes for its programmes? If yes, give details on how the students and staff are made aware of these?**

The syllabi of all courses clearly state the learning objectives.

Each subject has a Board of studies (BOS) which comprises the senior faculty members, HOD and experts from industries, renowned academic institutions, alumni and present students. Evaluation strategies are proposed for the course and approved by this board. The printed syllabus is distributed to the students at the time of admission. The learning outcomes as preamble is clearly mentioned in the syllabus proposed evaluation strategies are also mentioned.

### **2.6.2 How does the institution monitor and ensure the achievement of learning outcomes?**

The achievements of learning outcomes are monitored by carrying out the result analysis for each class during the meetings conducted by the Heads of the departments with the faculty members.

The decisions are taken to do the minor changes in the syllabi or the question paper pattern (if required).

The students feedback also gives the indication about learning outcomes.

### **2.6.3 How does the institution collect and analyses data on student learning outcomes and use it for overcoming barriers of learning?**

After declaration of results of each semester end examination result analysis is done for all classes. During the meeting with the Principal, the teacher's opinion on the poor performance is sought and remedial measures that needs to be taken are discussed.

The remedial coaching is given to the academically weak students in most of the departments. Class tests and tutorials are conducted on a regular basis. The College introduced English as a compulsory subject at FY level in the year, 2014-2015 to improve spoken English of the students.

**2.6.4 Give programme wise details of the pass percentage and completion rate of students.**

Year	Class	No. students appeared	No. of students passed	Pass percentage and completion
2010-11	<b>TYBSC</b>			
	Chemistry	51	35	67.25
	Botany	8	8	100
	Zoology	20	17	85
	Mathematics	16	9	56.25
	Statistics	25	21	84
	Microbiology	14	10	82.6
	Biochemistry	9	9	100
	Physics	62	51	82.25
	Geology	16	16	100
	<b>TYBCOM</b>			
	Economics	315	310	91
	Accountancy	340	294	86.4
	MHRM	286	274	95.8
Export Management	176	164	93.18	
TYBFM	45	45	100%	
TYBCAF	62	59	95%	
TYBMS	--	--	--	
TYBSc IT	65	49	75.34	
TYBSc – CS	--	--	--	
TYBSc-Biotech	25	25	100	
2011-12	<b>TYBSC</b>			
	Chemistry	82	51	65.38
	Botany	15	15	100
	Zoology	19	19	100
	Mathematics	29	10	34.48
	Statistics	23	16	70
	Microbiology	17	15	92.59
	Biochemistry	24	24	100
	Physics	44	26	56.8
	Geology	18	8	44.44
	<b>TYBCM</b>			
	Economics	310	309	95
	Accountancy	296	278	94
	MHRM	286	274	95.8
Export magt	176	167	94.8	
TYBFM	49	49	100	

	TYBCAF	59	56	94.91
	TYBMS	--	--	--
	TYBSC IT	56	46	82.14
	TYBSC – CS	11	04	36.37
	TYBSC– BIOTECH	30	30	100

Year	Class	No. Students appeared	No. of students passed	Pass percentage and completion
2012-13	<b>TYBSC</b>			
	Chemistry	53	21	60.37
	Botany	5	5	100
	Zoology	24	23	95.83
	Mathematics	33	12	46.87
	Statistics	20	18	90
	Microbiology	31	28	90
	Biochemistry	26	26	100
	Physics	59	22	37.2
	Geology	28	15	53.57
	<b>TYBCM</b>			
	Economics	315	113	99
	Accountancy	306	282	81.13
	MHRM	315	302	8.37
	Export Marketing	169	165	97.6
	TYBFM	21	21	100
	TYBCAF	60	60	100
	TYBMS	35	24	68.57
	TYBSC IT	80	55	68.75
	TYBSC – CS	11	04	36.37
TYBSC – BIOTECH	22	20	90.9	
2013-14	<b>TYBSC</b>			
	Chemistry	47	34	72.3
	Botany	8	8	100
	Zoology	22	22	100
	Mathematics	17	13	76.47
	Statistics	15	11	73.33
	Microbiology	13	8	61.53
	Biochemistry	19	17	94.44
	Physics	35	20	57.14
Geology	10	7	70	

<b>TYBCM</b>				
	<b>Economics</b>	294	203	80%
	<b>Accountancy</b>	289	272	94.11%
	MHRM	293	212	95.90%
	Export Marketing	206	167	93.68%
	TYBFM	30	29	96.66
	TYBCAF	60	57	100
	TYBMS	60	55	91.66
	TYBSC IT	113	97	85.84
	TYBSC – CS	7	5	71.42
	TYBSC- BIOTECH	29	27	93.1

**Result of 2014-2015**

<b>Year</b>	<b>Class</b>	<b>No.of students appeared</b>	<b>No.of students passed</b>	<b>Pass Percentage and Completion</b>
2014-2015	<b>T.Y.B.Sc.</b>			
	<b>Chemistry</b>			
	Paper I	88	80	90.91%
	Paper II	88	79	89.77%
	Paper III	72	54	75%
	Paper IV	72	67	93.06%
	Practical	87	87	100%
	<b>Botany</b>			
	Paper I	12	12	100%
	Paper II	12	12	100%
	Paper III	12	12	100%
	Paper IV	12	12	100%
	Practical	12	12	100%
	<b>Zoology</b>			
	Paper I	33	32	96%
	Paper II	33	33	100%
	Paper III	33	33	100%
	Paper IV	33	33	100%
	Practical	33	33	100%
	<b>Mathematics</b>			
	Paper I	19	19	100%
	Paper II	19	19	100%
	Paper III	20	19	95%
	Paper IV	19	19	100%
	Practical	19	19	100%
	<b>Statistics</b>			
	Paper I	22	16	72.73%
	Paper II	22	17	77.27%
	Paper III	22	17	77.27%
	Paper IV	22	21	95.45%
	Practical	22	21	95.45%
	<b>Microbiology</b>			

Paper I	18	15	83.33%
Paper II	18	14	77.78%
Paper III	12	12	100%
Paper IV	12	12	100%
Practical	18	18	100%
<b>Biochemistry</b>			
Paper I	22	21	95.4%
Paper II	21	21	100%
Paper III	21	21	100%
Paper IV	21	21	100%
Practical	21	21	100%

<b>Physics</b>			
Paper I	31	20	64.52%
Paper II	29	24	82.76%
Paper III	30	27	90%
Paper IV	29	20	68.97%
Practical	29	29	100%
<b>Geology</b>			
Paper I	15	13	86.67%
Paper II	15	14	93.33%
Paper III	15	14	93.33%
Paper IV	15	15	100%
Practical	15	14	93.33%
<b>Biotech</b>			
Paper I	18	18	100%
Paper II	18	18	100%
Paper III	18	17	94.4%
Paper IV	18	18	100%
Practical	18	18	100%
<b>Information Technology</b>	116	91	78.44%
<b>TYBCOM</b>			
	287	280	97.56%
<b>TYBCAF</b>			
	62	60	96.77%
<b>TYBCOM (FM)</b>			
	30	27	90%
<b>TYBMS</b>			
	55	46	83%



**Criterion III**

**Research Consultancy  
and Extension**



### **CRITERION III: Research, Consultancy & Extension**

#### **3.1. Promotion of Research**

##### **3.1.1. Does the college have a research committee to monitor and address the issues of research? If yes what is the composition? Mention a few recommendations which have been implemented and their impact.**

Apart from Principal & Vice-Principal's keen interest in research, the college has appointed Dean for the Extension and Research for overall promotion of research and extension activities in the college. Moreover, the college also has a committee for monitoring the overall research activities. The Composition of which is as follows :

The composition of the Committee is as follows :

1. Dr.Vijay Joshi : Principal
2. Dr.Pradnya Prabhu : Vice Principal
3. Dr.S.M.Pawaskar : Dean, Research & Extension
4. Mrs. Soniya Shetty : Member
5. Dr.Nishamol Kanat : Member
6. Dr.Geeta Nair : Member
7. Dr.Veena Salvi : Member
8. Dr.Amol Patwardhan : Member

##### **A few recommendations of the Committee :**

1)Monitoring Research progress of Major / Minor research projects and Research of Ph.D. / M.Phil students by conducting Research Scholars Meet.

2)Developing research culture among students with activities like Course on Research Methodology, Vigyan Yagna, Mini Research Projects, Review of Research Papers at Post graduate level.

3)Increase participation in Research competition like – Inter University Competition viz.“Avishkar”,

**The impact of the recommendations :**

1)The Research Scholars' Meet is held wherein the research scholars present the progress of their research work. Experts are invited to attend the Research Scholar Meet. Due to this the progress of Research projects has improved. The suggestions by the experts also have helped in removing the bottle-necks in the research projects.

2)The annual festival of Science and technology - Vigyan Yagna was conceived as a grand festival by Somaiya Vidyavihar in order to generate interest in pure Science in young minds, and to showcase the glory of science. This annual festival has created interest in pure Science.

3)The students and teachers are encouraged to participate in Avishkar an inter-University festival of University of Mumbai. The participation in terms of quality and quantitative has improved.

**3.1.2. What is the policy of the college to promote research culture in the college?**

The college promotes faculty participation in research by motivating the faculty members to apply for the research grants. As a result during the past five years the college has been, sanctioned 07 UGC and 31 University minor research projects. The number of sanctioned projects is less in this phase of the College as we are in a transformation phase from aided to Autonomous College. All faculty members are involved in this transformation.

The college promotes the faculty to avail of Faculty Development Programme (FDP) and supports them during that period by relieving them from their routine institutional responsibilities.

The Central instrumentation laboratory has been set up with well-equipped modern instruments like FTIR, UV Spectrophotometer, HPTLC, HPLC, Gas chromatography, CO<sub>2</sub> incubator etc.

Number of faculty registered as a guides for M.Sc (by research) : 28

Number of faculty registered as a guides for Ph.D.: 17

Total number of students who completed M.Sc (by res) till date: 34

Total number of students completed Ph.D. till date: 13

Number of students pursuing M.Sc (by Research) : 15

Number of students pursuing Ph.D:24

**3.1.3. List details of prioritized research areas and the areas of expertise available with the college.**

**Details of M.Sc. / Ph.D. Research guides and priority areas for research:**

<b>Name of the Faculty</b>	<b>Priority areas for research</b>
Dr. J. K. Verma	Solvent extraction, Chelating resins, Method development for quantization of compounds in natural products.
Dr. Bhanu Raman	Solvent extraction, Drug Validation
Mrs. Nutan Navelkar	Ion Exchange Chromatography
Dr. Kalpana Naik	Heterogeneous Catalysis
Dr. Pradnya Prabhu	Synthetic Organic Chemistry, Drug Validation
Dr. B. S. Shanbhag	Solvent extraction (Metal ion complexes)
Dr. Sugandha Shetye	Electrochemistry Environmental Chemistry
Dr. Chitra Kamath	Synthetic Organic Chemistry
Dr. Bright O. Philip	Synthetic Organic Chemistry
Dr. Veena Khilnani	Synthetic Organic Chemistry
Dr. Chandana Basu	Polymer Chemistry
Dr. Vanita Kulkarni	Electrochemistry
Dr. Nishamol Kanat	Catalysis
Dr. Yogesh Ghalsasi	Solvent extraction
<b>Name of the Faculty</b>	<b>Priority areas for research</b>
Dr. Unnati Padalia	Medical Microbiology, Immunology, etc.
(Mrs) P. N. Damle	Environmental Microbiology, Ecology studies etc.
Dr. Hemlatta Chakraborty	Medical Microbiology, Industrial Microbiology.
Dr. Lolly Jain	Environmental Microbiology, Industrial Microbiology.
Dr. M. Sathe	Marine Zoology, fresh water biology
Dr. S.G. Yeragi	Marine Zoology
Dr. Rajendra Nayak	Physiology
Dr. K. C. Sasangan	Mushroom identification
Dr. (Mrs.) S.S. Yeragi	Palynology and Cyto-genetics
Dr. Ajit Katdare	Arbuscular Mycorrhizal Fungi

Dr. S. M. Pawaskar	Herbal Medicine and Nutrition & Food Science
Mr.S.K.Saxena	Liquid crystals
Dr.Geeta Nair	Solid State Electronics
Mr.Jitendra Pendharkar	Material Science
Dr.S.M.Ganti	Sedimentology and Micropaleontology
Dr. Veena Rao	Environmental Geomorphology
Dr.Hemangi Bhagwat	Indian Theatre

**3.1.4. What are the proactive mechanisms adopted by the college to facilitate smooth implementation of research schemes/projects?**

The college management with the help of Research monitoring Committee proactively helps researchers to implement research schemes and research projects by -

Providing required Research facilities to researchers

Facilitating interaction between Scientists, Laboratories, Companies having core expertise with researchers

Arranging for skill training like instrumentation, biostatistics, experimentation etc.

Somaiya Management provides seed money to the teachers as and when required for the research projects.

**3.1.5. How is interdisciplinary research promoted between/among different departments of the college? College supports interdisciplinary research projects**

All departments actively support and contribute the subject expertise and resources available in the department for successfully completing interdisciplinary research projects. The college has developed culture of collaboration and participation.

College has several formal and informal understanding with the various National and International Industries and Institutions.

**3.1.6.Enumerate the efforts of the college in attracting researcher of eminence to visit the campus and interact with the teachers and students all foreign visitors who have delivered lectures. Their list and topics. :**

The following eminent experienced academicians from overseas are on our Academic Council of Somaiya Vidyavihar. They contribute in overall academic direction of all the institutions of Somaiya Vidyavihar

**Dr. John Thomas**....Member Educational Consultant California

**Dr. Kenneth Mills** – Imperial College, Visiting Prof. Dept.of Material Royal School and Mines, South Kensington Campus, London

**Dr. Larry R.Faulkner** – President, Univ. of Texas at Austin, Houston Endowment Inc.

**Mr. Porus Olpadwala** – Professor Emeritus, City and Regional Planning Cornell University.

**The following eminent academicians are members of our Board of Studies which interact with BOS and Management Board of the College**

**Dr. Sendurai Mani.** Associate Professor, Department of Translational Molecular Pathology Medicine, The University of Texas MD Anderson Cancer Center, Houston,

**Dr. Chandrashekhar Khare**Prof.of Mathematics, University of California (Los Angeles)

The college invites the renowned personalities from foreign Universities and institutions of repute to deliver lectures on their research work.

**Prof.A.M.Chakraborty** Distinguished University Professor, University of Illinois Medical Centre, Chicago, USA delivered a lecture on “ Eradicating Cancer in our Life Time: Taking the First Steps”

**Dr.John Byrne,** Distinguished Professor Delaware, USA, Director, Centre for Environmental Policy **Noble Peace prize winner** on 22-1-2013. delivered a lecture on Energy and Climate Policy

**Mr. Timothy Reber**, Distinguished Professor Cornell University, New York delivered a lecture on Immersion programme

**Prof. Sendurai Mani**, Associate Professor, Department of Translational Molecular Pathology, Division of Pathology/Lab Medicine, The University of Texas MD Anderson Cancer Center, Houston, from Texas University, USA delivered a lecture on Cancer Biology.

**Prof. Stefan Neumann** a renowned Microbiologist from Cornell University delivered a lecture on “Application and synthesis of Cyclodextrins

**Prof. Larry Walker**, Director, Bifuels research laboratory, Cornell University delivered a lecture on “Late night thoughts on system biology while listening to the lonious monk

A talk by research students from Cornell University

a) **Jason Boock**: “A little help from our friends: using bacterial quality control to engineer cellulases”

b) **Donald Lee**: “Investigating ways to aggregate algae in order to reduce the cost of algal biofuel production”

c) **Kathy Rogers**: "Modeling signal transduction processes in cancer"

An interactive session of research students from Cornell University with the research students and guides from Somaiya Vidyavihar was organised on 29<sup>th</sup> January, 2015. **Mr. Bob Bell, Ms. Angela Stelson, Mr. Eric Hubber and Corrine Kingsley** had a discussion with the students.

### **3.1.7. What percentage of faculty have utilized sabbatical leave for research activities? How has the provision contributed to the research quality and culture of the college?**

Four teachers have availed FIP (Faculty Improvement Programme)

This has resulted into timely completion of their Ph.D. work and also Research publications and paper presentations. Dr. Meena Sharma has also filed a patent.



**3.1.8. Provide details of national and international conferences organized by the college highlighting the names of eminent scientists/scholars who participated in these events.**

A International conference on “Urban Lakes Ecology Rejuvenation, Technology and Economics” was organized on 7<sup>th</sup> and 8<sup>th</sup> September, 2012, in collaboration with National Ali Sarovar Samvardhini (NASS) (An Association for Lake Conversations) Indian Association of Aquatic Biologists, Hyderabad, Maharashtra State Angling Association (MSAA), Powai. Shri Rajendra Singh, Magsaysay Award winner and well known as “Water Man of India” was one of the invited speaker.

The International conference on ‘Interdisciplinary Applications of Remote Sensing and Geographical Information System’ icarsgis-2013 was organized by Department of Geology/GIS on 26 to 27 April 2013. Mr. Scot Wrighton, City Manager, Lavasa Corporation Limited was invited as the Chief Guest. Other speakers included Dr.Aishwarya Narain, Director, Nascent Technologies, Dr.Shiv Mohan, Senior Scientist from PLANEX, PRL, ISRO, Ahmedabad etc.

The National conference on “Role of Governance, Leadership and Management in Institutional Quality Improvement” was organized by Department of Chemistry on 22-23 December, 2014. Dr. B. S.Madhurkar, Director, UMQAC, was invited as the Chief Guest. The invited speakers include Dr. M.R. Kurup, Secretary, Kelkar Education Trust, Dr. Ganesh Hegde, Assistant Adviser, NAAC, Dr. Usha Mukundan, Principal R.J.College, Dr. V.N. Magare, Principal Kirti College and Prin. Dinesh Punjwani, Prin. R.D.National College.

A national workshop on COMPHY was organized in 2012-2013, 2013-2014 and 2014-2015 by the Department of Physics in association with Indian Association of Physics Teachers.

**3.1.9. Details on the college initiative in transferring/advocating the relative findings of research of the college and elsewhere to the students and the community (lab to land)**

The Department of Environmental Science has taken various initiatives in transferring the relative findings of research of the college to the community by organizing various research activities such as :

MIDC, Ulhasnagar, pollutes the Ulhas River and there was a judicial dispute about the release of effluent to Ulhas River. The Environmental Science Dept.

analyzed the water samples at various locations of the River and the data were submitted to “Vanshakti” the Hon’ble Court of Pune, who ordered the polluting units to stop the release of the effluent into the Ulhas River.

The potential cement additive was the outcome of a Ph.D. Research project of Ms.Rina Vaity from Chemistry Dept to improve the efficiency of the cement and is being considered for usage by ACC Cement.

The project presented by one of our student from Microbiology department which is now working at Riidle as Innovation Catalyst on Silk Treatment is being considered by venture capitalist.

Research Scholar namely Mr.S.A.Abbas of Dr.J.K.Verma is working as Certified Chemist and runs an CRO (Contract Research Organization).

**3.1.10 Give details on the faculty actively involved in research (Guiding student research, leading research projects, engaged in individual or collaborative research activity etc.)**

There are 24 research guides recognized for M.Sc (by research) and 17 recognized guides for Ph.D.

The College has completed 31 Minor Research Projects funded by the University of Mumbai and 07 Major Research projects funded by UGC.

As a part of evaluation many teachers are involved in guiding Mini Research Projects and Dissertation at Undergraduate level.

### **3.2 Resource Mobilization for Research**

#### **3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization for last four years. (CO)**

There is no separate head for allocating budget for research. However, the allocation in the regular budget for research. However, the 3% of the total budget is spent on recurring cost, capital cost and training cost.

#### **3.2.2 What are the financial provisions made in the College budget for supporting student research projects? (CO)**

The research work done by the M.Sc. (by research) and Ph.D students is funded by the fees collected by them and by the research grants received by the faculty members.

Research projects undertaken by the undergraduate students as a part of internal evaluation are partially funded by the respective departments from their departmental budget .

#### **3.2.3 Is there a provision in the institution to provide seed money to faculty for research? If so, what percentage of the faculty has received seed money in the last four years?**

The seed money is provided by the Somaiya Management whenever required.

For e.g. Dr. Lolly Jain from Department of Microbiology was sanctioned a seed money of Rs. 66,000/- for the project on Biosorption of lead.

#### **3.2.4 Are there any special efforts made by the College to encourage faculty to file for patents? If so, provide details of patents filed and enumerate the sanctioned patents.**

College encourages to attend the workshops on patenting issues and patent laws. So also RIIDLE (Research, Innovation, Incubation and Design Lab) actively helps in monitoring these activities.

Dr. Meena Sharma has published a patent on 'Modified Disintegration Apparatus for Large Size Capsules' on 14-12-2011 (3514/MUM/2011).

**3.2.5 Provide the following details of ongoing research projects.**

**2014-2015**

**Minor Research Projects :Funded by UGC**

Name of the investigator	Title of the project	Total amount sanctioned
Mr.Anshul Gupta	Optical Properties of dye doped polymers and their application as sensor	1,80,000/-

**2014-2015**

**Funded by University of Mumbai:**

Name of the P.I. & Co.I.	Title of the project	Amount sanctioned
Mr. Jitendra Pendharkar	Synthesis and characterization of metal oxide nano fluids.	Rs.30,000/-
Dr. Hemangi Bhagwat	Contemporary relevance of Mahabharata	Rs.40,000/-
Mrs Soniya Shetty	Comparative study of fungi with high transfructosylating activity for FOS production and its effect on probiotic culture.	Rs.20,000/-

**3.2.6 How many departments of the College have been recognized for their research activities by national / international agencies (UGC-SAP, CAS, DST-FIST, DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthrough due to such recognition (CO)**

The college was sanctioned a grant of Rs.90,00,000/- under the FIST programme by the Department of Science and Technology in 2011-2012. An amount of Rs. 79,50,000/- was disbursed in 2012-2013.

The Department of Biotechnology (DBT), New Delhi granted Star College Scheme to the departments of Chemistry, Botany, Zoology, Biochemistry, Physics and Microbiology under category “Human Resource Development Biotechnology-0146” under which the college received an amount of Rs. 67,00,000/-

**Outcome**

Purchase of equipment and instruments for all the departments through FIST grant received.

Set up of an E-learning room through FIST grants

Purchase of new books through FIST

New experiments are developed for UG students

Organization of workshops hands-on training for students and industrial visits through STAR scheme.

**3.2.7 List details of completed research projects undertaken by the College faculty in the last four years and mention the details of grants received for such projects (funded by Industry/National/International agencies).**

**2010-2011**

**Research grants received: Funded by UGC**

Name of the investigator	Title of the project	Total amount sanctioned
Dr. Veena Khilnani Mrs. Asha Rao & (Chemistry)	Ionic Diel's Alder reaction	Rs. 50,000
Dr. Chandana Basu (Chemistry)	To study chemistry of fabric to polymer adhesion	Rs 1,50,000
Dr. Nishamol Kannot (Chemistry)	Synthesis, surface properties and catalytic activities of vanadium supported solid acid catalysts	Rs. 1,00,000
Dr. Yogesh Ghalsasi (Chemistry)	Extractive separation & quantitative estimation of metals with organophosphorous compounds as extractants & application to real samples.	Rs. 1,00,000
Bhanu Raman Snehal Vaidya (Chemistry)	Performance comparison of Cynex 301 and 302 for extractive photometric studies of palladium	Rs 1,85,000/-
Dr. S.M. Pawaskar (Bio-Chemistry)	Biochemical evaluation of Mimosa pudica Linn.	Rs. 80,000
Dr.(Mrs) K. Z. Marolia (Biotechnology)	Heavy metal uptake by micro-organisms and their use in effluent treatment	Rs. 1,60,000
Mrs. S. Saharabudhe (Business Law)	Cheque – Retrospective & Prospective aspects.	Rs. 1,00,000

**2010-2011**  
**Research grants received: Funded by University of Mumbai**

Name of the investigator	Title of the project	Total amount sanctioned
Dr.Chitra Kamath (Chemistry)	Carry out organic reactions by green methods and create awareness among students about environmental issue	Rs.22,000/-
Dr. Veena Khilnani (Chemistry)	Synthetic approaches towards Neolignan Skeleton	Rs.33,750/-
Dr.Sugandha Shetye (Chemistry)	Study of antioxidant activity of polyherbal formulations containing Neolamarckia cadamba	Rs. 20,000/-
Dr. K. C. Sasangan (Botany)	Quantitative estimation of phytochemicals in some medicinal plants	Rs 20,000/-
Kavita Soman (Botany)	Quantitative estimation of phytochemicals in some medicinal plants	Rs. 10,000/-
Dr.(Mrs) Veena Rao (Geology)	GIS based Morphometric Analysis of river basins in Buldana District	Rs 15,000
Dr. S. M. Pawaskar (Biochemistry)	Comparative study of variation in the nutritional status of some vegetables under different storage and packaging conditions	Rs. 30,000/-

**2011-2012**  
**Minor Projects :Funded by UGC**

Name of the investigator	Title of the project	Total amount sanctioned
Mrs. Asha Rao & Dr. Chandana Basu (Chemistry)	To study chemistry of fabric to polymer adhesion	Rs 1,50,000
Dr. Nishamol Kanat (Chemistry)	Synthesis, surface properties and catalytic activities of vanadium supported solid acid catalysts	Rs. 1,00,000
Dr. Yogesh Ghalsasi (Chemistry)	Extractive separation & quantitative estimation of metals with organophosphorous compounds as extractants & application to real samples.	Rs. 1,00,000
Dr.Bhanu Raman Mrs.Snehal Vaidya (Chemistry)	Performance comparison of Cynex 301 and 302 for extractive photometric studies of palladium	Rs 1,85,000/-
Dr.K.Z.Marolia (Biotechnology)	Heavy Metal uptake by Microorganisms and their use in Effluent Treatment.	1.61 lakhs
Dr.S.G.Yeragi (Zoology)	Survey of edible resource organisms in mangroves of Mithbav Creek	Rs.1,05,000/-



**2011-2012**

**Research grants received: Funded by University of Mumbai**

Name of the investigator	Title of the project	Total amount sanctioned
Jitendra Pendharkar	Measurement of development of cognitive beliefs over three years of undergraduate studies of science students	9000/-
Jitendra Pendharkar Yogesh Ghalsasi	Study of variations in electrical conductivity of alkali halide solutions during phase change	20000/-
Geeta Nair and Smita Survase	Synthesis and characterization of NiO nanomaterials	40,000
Ms. Madhavi Jardosh Ms. Arati Kore	Awareness about Railway Smart Card (ongoing)	Rs. 50000/-
.Dr Nishamol Kanat	Synthesis, Surface properties and Catalytic Activity of rare earth modified Solid Acid Catalysts	Rs. 25,000/-
.Dr. Yogesh Ghalsasi	Study of variation in conductance during phase change of alkali halides	Rs.20,000/-

**Funded by Somaiya management -2011-2012**

Name of the investigator	Title of the project	Total amount sanctioned
Mrs.P.N.Damle (Microbiology)	Isolation and Screening of Algae for lipid production	35,000/-
Dr.(Mrs) Lolly Jain (Microbiology)	Biosorption of Lead	66,000/-

**2012-2013**  
**Research Projects funded by UGC**

Name of the investigator	Title of the project	Total amount sanctioned
Dr.Geeta Nair (PI) Ms.Smita Survase (Co.I)	Synthesis and characterization of metal oxide nanoparticles	1.78 lacs

**2012-2013**  
**Minor Research projects funded by University of Mumbai**

Name of the investigator	Title of the project	Total amount sanctioned
Dr. Chandana Basu	Effect of Carbon Black and Curing System on Dynamic Mechanical Property of Nitrile Rubber Compound	16,400/-
Dr.Bhanu Raman and Dr.Vanita Kulkarni	Method development and validation of a secondary metabolite from selected medicinal plant	Rs.21,400/-
Dr. Yogesh Ghalsasi	Variation in thermal and ionic conductance of alkali halide solution	Rs. 20,000/-
Dr. Mrs. S. S. Yeragi, Dr. S. G. Yeragi	“Floristic Studies on Sacred Groves of Devgad, Dist-Sindhudurg, Maharashtra State, India”	Rs. 95,000/-
Dr.Lolly Jain	Bioindigo Production by Hydrocarbon degrading microorganisms	Rs.27,400/-
Hemlatta Chakraborty	Study on phosphate solubilizing bacteria	Rs.27,400/-
Dr.Meena Sharma	Calibration of adulteration in fuels by Acoustic method	Rs.27,400/-
Prof. S.K.Saxena J pendharkar (Co. I) Yogesh Ghalsasi	Study of ultrasonics	Rs.27,400/-
Prof. Ranjana Shukl Dr.Geeta Nair Ms.Smita Survase	Cognitive framework for analyzing and understanding the difficulty faced by student’s in solving numericals inPhy.	Rs.31,400/-

**2013-2014**

**Minor Research Projects :Funded by UGC**

Name of the investigator	Title of the project	Total amount sanctioned
Dr.Vanita Kulkarni Dr. Bhanu Raman (Chemistry)	Standardization and Evaluation of Antimicrobial and anti oxidant potential of selected medicinal plants	Rs. 80,000/-

**2013-2014**

**Research Projecs Funded by University of Mumbai:**

Name of the P.I. & Co.I.	Title of the project	Amount sanctioned
Ms. Smita Survase Dr.Geeta Nair (Physics)	Synthesis and characterization of CdTe	30,000/-
Mr.Anshul Gupta Mr S K Saxena J Pendharkar (Phy)	Development of low cost open source e-content for support in Physics laboratory	12, 000/-
Dr. Vikrant Deshmukh (Zoology)	Ecological studies of Taloje creek (Navi Mumbai)	20,000/-
Dr.P.J.Prabhu (Chemistry)	Specialization & identification of phytochemicals in Gardenia Jasminade, by HPTLC method	Rs.25,000/-
Dr.Veena Khilnani (Chemistry)	Investigation of Bioactivities of Nymphaea nouchali	Rs.25,000/-
Dr.Vanita Kulkarni Dr.Bhanu Raman (Chemistry)	Thermodynamic study of Distribution of benzoic acid derivatives in different solvent systems	Rs.20,000/-
Dr.Samidha Pawaskar (Biochemistry)	Development of Nutritive and antioxidant rich chocolates	Rs.25,000/-
Dr.Unnathi Padalia (Microbiology)	Plasmid profile analysis of multidrug resistant strains producing ESBL from UTI of diabetic patients.	Rs 25,000/-

### **3.3 Research Facilities**

#### **3.3.1 What efforts are made by the College to keep pace with the infrastructure requirements to facilitate Research? How and what strategies are evolved to meet the needs of researchers? (CO)**

A central instrumentation laboratory has been set up. The laboratory is well-equipped with the instruments like High pressure Liquid Chromatograph, High pressure thin layer chromatograph, Fourier transform Infrared Spectrophotometer, Gas Chromatograph, Flame photometer and Ultraviolet-Visible spectrophotometer.

The departments are provided with the required instruments and equipment to carry out the research work of the students and the teachers. The FIST grant has been utilized to equip the other laboratories with a number of instruments.

Laboratory space is provided to carry out the research work to the teachers and the students.

Additional Laboratory space is created.

#### **3.3.2 Does the College have an information resource centre to cater to the needs of researchers? If yes, provide details on the facility. Tools in the library to provide access to the collection :**

The different libraries of various sister institutions (35 in all) on the campus are linked and a student/teaching and non-teaching staff can access the books and journals in any of these libraries and also obtain a book or journal from any of these libraries.

Digital Circulation of books for all undergraduate students started from Academic year, 2014-15. Tools in the library to provide access to the collection:

**OPAC** is available in the library for students and staff members. Web base OPAC is also available on URL: <http://115.114.107.46/opac>

**Electronic resource:**

Online Journals (e-Resources) of N-List were subscribed which include 4,000 + e-Journals and 90000 + e-books. The N-list project provides access to e-resources to students, researchers and faculty from colleges and other beneficiary institutions through server(s) installed at the INFLIBNET Centre Ahmadabad.

Integrated E resources and Databases named as EBSCOHOST Discovery Services are also available on Somaiya website which include 4000+databases and 60000+ e books.

Library of the College has 66,319 Books, 46 E.Books,33 Journals, 84 CDs and 73 DVDs/VCDs with Internet facility to students and teachers.

In-house/ remote access to e-publications is available for N-List (Inflibnet)

### **3.3.3 Does the College provide residential facilities (with computer and internet facilities) for research scholars and faculty?**

The College has a Residential facilities. One floor of the International Hostel is earmarked for Visiting Scientists, Professors, Students as and when required. Research scholars and faculty are provided with computer and internet facilities. Faculty members have an open access to Internet facilities at Computer Laboratory/ Library.

Internet connections have been provided to Library and General Office and Heads of the Departments. Internet access is available to students in the Central Library and Computer / IT labs.

### **3.3.4 Does the College have a specialized research centre/workstation to address challenges of research programmes? If yes, give details.**

Genesis, a laboratory of Godavari Sugar Mills promoted by the Somaiya Management is accessible to the research students.

Somaiya medical college has a Cancer Research Centre and the Microbiology laboratory which provides the facilities to carry out the testing for the activities of the compounds synthesized by the students of our college.

The Department of Microbiology also assists students and teachers to carry out Microbiological experiments in their laboratory.

**3.3.5 Does the College have research facilities (centre, etc.) of regional, national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

No. The College does not have any research centre of national and international repute. However, the researchers of various institutions use a central instrumentation laboratory of the college.

**3.4 Research Publications and Awards**

**3.4.1 Highlight the major research achievements of the College through the following:**

**\*major papers presented in regional, national and international conferences**

*Please refer annexure –*

**\*publication per faculty**

*Please refer annexure –*

**\*faculty serving on the editorial boards of national and international Journals**  
Nil

**\*faculty members on the organisation committees of international conferences, recognized by reputed organizations / societies.**

The following faculty members were involved in the organization of international conference on “Urban Lakes : Ecology, Rejuvenation, Technology and Economics” in collaboration with Naushad Ali Sarovar Samvardhani, Mumbai (NASS) on 9<sup>th</sup> August, 2012 :

- 1) Dr.S.G.Yeragi, President, NASS
- 2) Dr.Rajendra Nayak , Advisory Committee
- 3) Dr.Veena Srivastav, Reception Committee

**3.4.2 Does the College publish research journal(s)? If yes, indicate the composition of the editorial board, publication policies and whether it is listed in international database?**

No.

**3.4.3 Give details of publications by the faculty:**

**\*number of papers published in peer reviewed journals (national / international)**

*Please refer Annexure*

**\* Chapters in Books**

*Please refer to Annexure*

**3.4.4 Indicate the average number of successful M.Phil. and Ph.D. scholars guided per faculty.**

Average number of successful M.Phil Scholars guided per faculty N.A.

Average number of successful M.Sc.(By Research)Scholars guided per faculty - 04

Average number of successful Ph.D. Scholars guided per faculty - 03.

**3.4.5 What is the stated policy of the College to check malpractices and misconduct in research?**

Research Committee monitors plagiarism in Research if any. The action is taken as per the service conditions rules of Maharashtra Govt against malpractice /misconduct.

**3.4.6 Does the College promote interdisciplinary research? If yes, how many inter departmental/inter disciplinary research projects have been undertaken and mention the number of departments involved in such an endeavor.**

The College promotes interdisciplinary research work. However, the major interdisciplinary research project is not undertaken yet.

A teacher from the Physics department is carrying out research project in the field of education. The research project of a sports and medicine is guided by Professor from the Department of Zoology.

**3.4.7 Mention the research awards instituted by the College.**

The Somaiya Vidyavihar Management has instituted various research awards in recognition of their performance in their research fields for the year 2013-2014 during Somaiya Foundation Day Ceremony “Ekatva-2014”.

The following faculty members received the award :

Dr. Bhanu Raman ,Department of Chemistry - Chairman's award for research project

Dr. Samidha Pawaskar, Department of Biochemistry Outstanding Performance for the academic year 2013-2014.

Dr.Lolly Jain , Department of Microbiology - Outstanding Performance for the academic year 2013-2014.

### **3.4.8 Provide details of research awards received by the faculty**

Dr. Bhanu Raman is a recipient of Chairman's award for Research Project instituted by Somaiya Management on 9<sup>th</sup> November, 2014.

Ms. Soniya Shetty won the gold medal at 8<sup>th</sup> State level Inter University Avishkar Research convention 2013-14 organized on 15<sup>th</sup>-18<sup>th</sup> Jan 2014 at Jalgaon for the poster and paper presented on Accelerated anaerobic retting of mechanically extracted coconut fibers.

Ms. Soniya Shetty won the gold medal at Mumbai University level championships at Avishkar organized on 4<sup>th</sup> & 8<sup>th</sup> Jan 2014 for the poster and paper presented on Accelerated anaerobic retting of mechanically extracted coconut fibres. She also represented University of Mumbai at 8<sup>th</sup> Maharashtra State Inter University research convention.

Ms Soniya Shetty , Ms. Bhavna Pandya and Ms Shatabdi Palodhi won the silver medal at Mumbai University level championships for the poster and paper presented on Biodegumming of silk from 4<sup>th</sup> & 8<sup>th</sup> Jan 2014 .

Dr.Lolly Jain was awarded the Second Prize in Poster Presentation at National Technical Fest IIT Mumbai

Ms.Medha Muralidhar a student of Dr.Pradnya Prabhu was conferred the Best Paper presentation award at CONCHEM 2014, UGC sponsored a national conference on Social impact of Chemistry-Vision 2020 on 12<sup>th</sup> and 13<sup>th</sup> September, 2014.



**\*recognition received by the faculty from reputed professional bodies and agencies**

Dr.Bhooshan Shanbhag Cleared level III of CMT (Chartered Market Technician) Examination conducted by Market Technician's Association, USA in May 2012. The exam is considered a Gold Standard in Technical Analysis and all over the world there are only about 1200 analysts that hold this designation.

Dr. Veena Rao from Geology Department was selected as a Member of Gujarat State level Project on Chemical Disaster Management (March 2012 to October 2012)

Shri A. M. Shaker from Department of Physics accompanied the Indian team of the students as Mentor at the 41st International Olympiad held at Zagreb, capital of Croatia.

Dr. Meena Sharma from Department of Physics was invited to Banaras Hindu University for reviewing teaching through low cost experiments at 6<sup>th</sup> National Teacher's Science Congress.

**3.4.9 State the incentives given to faculty for receiving state, national and international recognitions for research contributions.**

The faculty receiving state, national and international recognitions for research contributions are acknowledged by the Principal and the other faculty members during the monthly meetings. Their names are publicized on the website ,the display boards and in the college magazine.

They are given the facilities in the laboratories to do their research work and also are given leave to attend the conferences and workshops.

### **3.5 Consultancy**

#### **3.5.1 What is the stated policy of the College for structured consultancy? List a few important consultancy services undertaken by the College.**

The income generated through consultancy is shared in the ratio of 70:30 (70% to researchers and 30% to the College). The major areas of consultancy are

1. Autonomy
2. GIS RST (Geographic Information System and Remote Sensing Technology).
3. Water Analysis, Air Quality Monitoring, Heavy metal analysis.
4. Food Technology
5. Conducting competitive examination, recruitment examination, selection examinations of Govt/ Semi Govt Departments / Nationalized and Commercial Banks / Universities and private sector.
6. Biodiversity

#### **3.5.2 Does the College have College-industry cell? If yes, what is its scope and range of activities?**

The students of M.Sc. part I and Part II of Chemistry are sent to National Testing Laboratory for carrying out projects in various fields like Cement, Dyes, Alloys and ores etc. for 10 days.

The renowned experts from various industries are always invited to the college to interact with the students.

#### **3.5.3 What is the mode of publicizing the expertise of the College for consultancy services? Mention the departments from whom consultancy was sought.**

The College website has detailed profile of each faculty member. The profile on the website disseminates the expertise available.

Consultancy is done by the Department of Environmental Science, Department of Chemistry, Department of Biochemistry, Department of Geology and Centre for GIS / RST (Geographic Information System / Remote Sensing Technology).

#### **3.5.4 How does the College encourage the faculty to utilize the expertise for consultancy services?**

The college publishes the expertise available with the faculty on the College website. Through the network of Somaiya Vidyavihar the consultancy opportunities are forwarded to the teacher.

The college provides the library and laboratory facilities available to encourage the faculty to utilize their expertise for the consultancy services.

**3.5.5 List the broad areas of consultancy services provided by the College and the revenue generated during the last four years.**

After conferring the Autonomous Status, the innovative ideas implemented by the College were appreciated by other colleges. Many Colleges have approached us for helping them in transition to affiliated status to autonomous status. We have shared our successes and road-blocks with these Colleges. Our experience has given clarity to many Colleges about autonomy.

University Quality Assurance Cell invited 52 “A” Grade Colleges of University of Mumbai and it was our privilege to present and discuss K.J.Somaiya College of Science and Commerce as Case Study.

Principal Dr.Vijay Joshi is invited on the Management Board of PSGR Krishnammal College for Women,Peelamedu,Coimbatore

Help rendered for applying for Autonomy Status in following Colleges :

- 1.Rajashri Shahu College, Latur (Conferred Autonomous Status)
- 2.Ramnaraian Ruia College, Mumbai (Waiting for UGC Team)
- 3.Khandwala College of Commerce, Arts and Science, Mumbai (Waiting for UGC Team)
- 4.Vaze Kelkar College of Arts, Science and Commerce, Mumbai, (Applied for Autonomy)
- 5.Gogate Joglekar College of Arts, Science and Commerce, Ratnagiri (Applied for autonomy)
- 6.Khalsa College of Arts, Science and Commerce, Mumbai
- 7.Birla College of Arts, Commerce and Science, Kalyan,
- 8.College of Home Science of Nirmal Niketan, SNTD University
- 9.Rayat Shikshan Society’s Yashwantrao Chavan Institute of Science, Satara Shivaji University, Kolhapur
- 10.G.B.College of Commerce and Economics, Rashgtrasant Tukodji Maharaj Nagpur University.

Though there is no tangible revenue generation in helping other Colleges to other colleges in transition to affiliated status to autonomous status.

<b>Sr. No.</b>	<b>Statutory Body Conducting Examination</b>	<b>Details of Examination</b>	<b>No. of Students appeared per exam</b>	<b>Total rent collected / exam</b>	<b>Grand Total</b>
<b>1</b>	Subsidiary Intelligence bureau – (1-4-12)	Security Assistant Exam	1000	20000	<b>51100</b>
<b>2</b>	Institute of Banking Personnel Selection (22-1-12)	Recruitment Examination Post of Management Trainee	830	16600	<b>46900</b>
<b>3</b>	Oil and Natural Gas Corporation Limited (1-11-12)	Chemical Engineering	1007	20140	<b>50240</b>
<b>4</b>	Government of India (21-4-13)	Recruitment Examination for the post of Postal Asst & Storing Asst.	1000	20000	<b>50600</b>
<b>5</b>	Government of Maharashtra (21-4-13)	Maharashtra Talent Search Examination	254	5080	<b>11500</b>
<b>6</b>	Andhra Bank , An undertaking of Government of India (16-4-14)	Clerical Cadre Recruitment Examination	25	500	<b>4050</b>
<b>7</b>	Assistant Central Beruau (15-9-13)	Limited Departmental Recruitment Examination	1000	20000	<b>51600</b>
<b>8</b>	Xavier School of Management (5-1-14)	XAT Exam	500	10000	<b>28200</b>
<b>9</b>	Amrita Medical Entrance Exam (18-5-15)	Medical Entrance Exam	196	3920	<b>16470</b>

<b>10</b>	Institute of Chartered Accountants of India (8-11-14)	CA/CPT/Final	1146	8022	<b>17322</b>
<b>11</b>	Subsidiary Integllance Bureau (14-12-14)	Security Assistant Exam	1000	20000	<b>51100</b>
<b>12</b>	Subsidiary Integllance Bureau (22-02-15)	Grade II	1000	20000	<b>51100</b>
<b>13</b>	U.P.S.C.Competitive Exam (9-4-15)	National Defence Academy /NA Exam.	329	2303	<b>6619</b>
<b>14</b>	Amrita Medical Entrance Exam (17-05-14)	Medical Entrance Exam	200	4000	<b>16700</b>
<b>15</b>	Institute of Chartered Accountants of India (16-05-15)	CA/CPT/FINAL	1420	9940	<b>20215</b>
<b>16</b>	Institute of Chartered Accountants of India (14-06-15)	CA/CPT/FINAL	200	1400	<b>17560</b>
<b>17</b>	Civil Services Examination (23-08-15)	PRILIMARY EXA.	360	2520	<b>16860</b>
<b>18</b>	Institute of Chartered Accountants of India (15-10-15)	IPC Competitive exam	1200	8400	<b>18675</b>
<b>19</b>	Andhra Bank (29-11-15)	Clerical Class - Internal Promotion	26	520	<b>4070</b>
	Total				<b>530881</b>

The college encourages the faculty members to give the consultancy services.

Year	Department	Name of NGO	Amount received
2009-2012	RST/GIS	Neerman	4,20,000/-
2010-2011	RST/GIS	Cane information system-GBRL industry	No finance
	RST/GIS	GIS based Eco Atlas Kolhapur district case study -MPCB	No finance
	RST/GIS	Neerman	3,05,000/-
2012-Feb to May	RST/GIS	Chemical Disaster Management for Gujarat State-Prestels	70000/-
2014-15	Biochemistry	Raji Co-operative society, Ghatkopar	1000/-
2015-16	Biochemistry	Godavari biorefineries Ltd.	No finance
2013-2014	Environmental Science	Vanashakti	42.150/-
2012-2013	Environmental Science	Vanashakti	14,310/-
Dec.11	Env.Sci	Well Water Assessment from Vasari Village collected	
	Env.Sci	Bio diversity assessment near Mining site at Badalapur	

### **3.6 Extension Activities and Institutional Social Responsibility (ISR)**

**Water quality assessment, Biodiversity, GIS/RST Remote Sensing technology, Food Biochemistry.**

**3.6.1 How does the College sensitize the faculty and students on Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience.**

<p>Community Services by NSS :</p> <ul style="list-style-type: none"> <li>i) Literacy Programme</li> <li>ii) Pulse Polio immunization campaign</li> <li>iii) Campaign against drug addiction</li> <li>iv) Cleaning of village ponds</li> <li>v) Campaign against environmental pollution</li> <li>vi) Save electricity campaign</li> <li>vii) Urban water conservation</li> <li>viii) Tribal Development</li> <li>ix) Aids awareness programme</li> <li>x) Disaster management</li> <li>xi) Voter awareness</li> <li>xii) Red ribbon club</li> </ul>	<p>Community services by NCC :</p> <ul style="list-style-type: none"> <li>i) HIV Awareness Programme</li> <li>ii) Save Environment</li> <li>iii) Disha Deepshika</li> <li>iv) Malaria awareness campaign</li> <li>v) Save water campaign</li> <li>vi) Hospital attachment camp</li> <li>vii) Cleaning the oil spills caused by the ship :K.K.Chitra:</li> <li>viii) Cleanup Activity at Juhu Beach</li> <li>ix) Save Tree Rally</li> </ul>
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**3.6.2 How does the College promote College-neighborhood network and student engagement, contributing to holistic development of students and sustained community development?**

The College has established well developed neighborhood network through NSS and NCC programs apart from the other regular programmes mentioned in 3.6.1.

#### **Campus to Community Programme**

The NSS unit has coordinated with the academic sections of the institution and tried to develop a project as Campus to community project. In this internal assessment was linked with the community work. The understanding of different

concepts in the within the walls of the academia was transliterated to community in the form of awareness.

The students of first year in first semester performed 113 street plays on the topics included in their syllabus as a part of their assignment. Apart from those 1797 poster were prepared on various topics.

In the second semester students of first year students performed 79 street plays on the topics included in their syllabus as a part of their assignment. Apart from those 772 poster and 14 exhibitions were created.

These street plays and posters were in the areas of social issues like HIV/AIDS awareness, Youth against tobacco, smoking, child labour, child violence, consumer rights awareness.

Students were working in the Pratikshanagar community in Chunabhatti for health awareness in association with KJ Somaiya Hospital and Ramkrishna Mission Sharada school. NSS volunteers have coordinated these programmes.

### **Disaster management**

NSS unit of the college is vibrant in providing different issue based solutions to the different segments of the community.

One such area is disaster management. over long period of time the unit conducts disaster preparedness and management training to college students and community members. Such attempt was started by development of Crises Management group at the college level in 2002. Since 2011 the NSS unit has conducted more than 20 training courses which include fire drills, rope drills, rescue and mobilization drills, partial and full evacuation, first aid training etc. the group of volunteers worked as first responders at different crises situations and mock drill events.

The Thane Municipal Corporation has requested the to the college and in response the college unit has also conducted massive crises response awareness street plays for two days conveying the information about different Do's and Don't's while facing the crises situations like flood, fire, riot, bomb blasts etc.



In case of college environment apart from training college and sister institutions, the campus security was always asked to participate in disaster preparedness and management training programmes

The college has conducted training for the following organization as a community service

SNDT campus Juhu  
Municipal school at Worali  
Chembur Sarvankash Shikshan Sansatha for B.ed  
*SIMSR, Somaiya campus*  
Kirti college  
Ganeshotsav mandal volunteers in collaboration with BMC  
in Vaze college  
Dandekar college Palghar and Vittahlwadi College students  
Ganapati festival Crowd control training for Ghatkopar based colleges in  
collaboration with Mumbai Police  
Guru Nanak College Chunabhatti  
ZP school Dhundulwadi Dahanu  
Chinchali Ashrashala Dahanu  
Somaiya school Sameerwadi  
Keshavrushti, Uttan Bhayandar

At each place of training the partial or full evacuation drill is always practiced

#### **Association to tribal students**

Over long period of time NSS unit of the college is working for Rural and tribal students in Thane District. The distant adopted area of the college is Dhundulwadi village in Dahanu taluka of present Palghat district and the then Thane district. The somaiya school at Nareshwadi comprise about 500 to 700 students. Along with these children who happen to be tribal and orphan. Our unit also work for co- academic skill building in ZP school and Ashramshala(Government residential school).

Over years following activities are conducted in the school

**Repair of lab computers** - It was found that there were 60 PCs which were non-functional. Our volunteers took the task and repaired a few. This was then continued on weekends in the month of January and 20 computers are now

functional. The Principal of the school, Shri. Pawar Sir has appreciated the efforts of our volunteers in a letter to our principal.

**Awareness about social issues** - Volunteers prepared five street plays covering various social issues like dowry, alcoholism, tobacco consumption health and hygiene and presented in the nearby hamlets like Haladipada, Dhundulwadi and Narashwadi hostel students.

**Development of skills** – students have organised exhibition and snake show in which snake handling was organised. For the development of courage, decision making, team building rappelling exercise was conducted for the Nareshwadi students.

Street plays for 8<sup>th</sup> to 10 standard students on

1. Tobacco and alcohol abuse
2. Domestic violence
3. Education drop-outs
4. Personal hygiene and community health

On 30<sup>th</sup> November 2013, five hundred books and three hundred and nine pencils collected from college waste were donated to orphan students in zilha parishad school at Naresh-wadi.

The NSS of the College has declared the Ghatkopar Railway Police Colony as an adopted area by the College. The colony has about 5000 residence and 150 tenements. NSS Unit conducted cleanliness drive in the Ghatkopar Railway Police Colony on the call of Railway Police Commissioner. NSS Volunteers participated in the drive which was featured by cleaning garbage undue growth of grass and weed, cleaning sewage gutters and removal of rubbles. etc.

### **3.6.3 How does the College promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?**

The students are encouraged to join NCC and NSS .

Under autonomy , the college has incorporated NCC and NSS as the elective courses at F.Y & S.Y. levels for which students are given additional credits.

**3.6.4 Give details on social surveys, research or extension work (if any) undertaken by the College to ensure social justice and empower the under-privileged and most vulnerable sections of society?**

- **Nareshwadi Learning Centre**

The students of our College are working on a project at Nareshwadi located in the Dahanu near Thane District at our Learning Centre Managed by Somaiya Trust under the guidance of Dr. Rajendrasinghi, an internationally acclaimed authority in the field of water conservation and river rejuvenation.

The students are working on water conservation problems at local river flowing along the Tribal Villages of Gadchinchali and Divashi, located about 50 kms from Nareshwadi along Gujarat border.

The participants initiated the following projects:

- 1) Women's health and hygiene/sanitation project
- 2) Mother and child project
- 3) Women's empowerment project
- 4) Water conservation/Water harvesting project

**Service to Outstation Cancer Patient**

The students of who have opted for NSS as the credit course visit Tata Memorial Cancer Research institute at Parel on regular basis to assist the patients admitted in the hospital.

**3.6.5 Give details of awards / recognition received by the College for extension activities / community development work.**

**NCC Awards:**

**Republic Day Camp :**From 2009 every year our Girl students from NCC Unit have participated in Republic Day Parade. In the competition of Republic Day Camp they have won several awards.

Year	Name	Award
2009	CJUO Cristina Urankar	All India Best Singer
2009	CJUO Latika Amin	All India Best Master of Ceremony
2010	CJUO Ruchi Pandya	Best Cadet Mumbai “B” Army wing
2010	Prianka Mistry –	All India Best tent Pitching – Gold Medal
2010	CJUO Jahnvi Shetty	Best Cadet – Maharashtra Directorate
2010	CJUO Gauri More	2 <sup>nd</sup> Prize in Best Medical
2012	CSUO Heena Jha	All Inida Best Cadet
2015	CSUO Reva Khare	All Inida 2 <sup>nd</sup> Best Cadet

**International Youth Exchange Programme :**

CSUO Ruchi Pandya – Vietnam - 2010

CSUO Heena Jha – Russia -2011

CSUO Reva Khare – Srilanka - 2015

**Mountaineering : (Basic Course)**

CSUO – Reshnuma Shaikh : “A” Grade ABPIM – Manali -213

CSUO – Sonam Singh “A” Grade – HMI -2014

CSUO – Reva Khare – NIM -214

Cdt. Heena Inamdar – JIM Pahelgam (J&K) -2015

**SCUBA Diving Training :**

The following Girl cadets of our NCC Unit are selected for Scuba Diving Training:

2010 – L/CPL Aditi Singh

2011 Cdt.Gauri Khandalkar

2014 – Cdt Bharati

**NSS Awards:**

District level selection for RD parade was held in K. J. Somaiya college of Arts and Commerce in which 3 volunteers participated. Two of these were selected. Ex volunteer Jagdish Rajane was involved as trainer and judge. Sis. Dhanashri Kolumbkar as well as Bro. Hardik Nayak attended further selection camps for state level and zonal level

**3.6.6 Reflecting on objectives and expected outcomes of the extension activities organized by the College, comment on how they complement students' academic learning experience and specify the values and skills inculcated?**

The extension activities like NCC NSS, experiential learning etc have a holistic approach. Students become socially responsible by participating in such activities. The activities like blood donation camp, AIDS awareness campaign, campus to community programmes not only complement their learning experience but also inculcate moral valued among them which is a need of the time.

**3.6.7 How does the College ensure the involvement of the community in its outreach activities and contribute to the community development? Detail the initiatives of the College which have encouraged community participation in its activities.**

The college has always promoted the involvement of the community in its outreach activities and has contributed to the community development, especially rural area.

**Two noteworthy activities :**

College had organised a workshop in which, Mr.Timothy Reber from Cornell University, New York gave an insight of Rural Sustainability Immersion Programme. In this, the students interacted with farmers and introduced sustainable practices of farming such as organic farming, lights, solar, biogas plant, drip irrigation etc. to them.

NSS unit of the college is working for Rural and tribal students in Thane District. The distant adopted area of the college is Dhundulwadi village in Dahanu taluka of present Palghat district and the then Thane district.

The students are working on water conservation problems at local river flowing along the Tribal Villages of Gadchinchali and Divashi, located about 50 kms from Nareshwadi along Gujarat border under the guidance of Dr. Rajendrasinghi, an internationally acclaimed authority in the field of water conservation and river rejuvenation.

On 30<sup>th</sup> November 2013, five hundred books and three hundred and nine pencils collected from college waste were donated to orphan students in zilha parishad school at Naresh-wadi.

**3.6.8 Does the College have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?**

The student's involvement in various social movement / activities are monitored in terms of hours recorded in the diary. The diary is maintained to track their involvement for social work as an elective credit option. Students are required to complete 60 hrs of the active involvement in community and adapted areas.

**3.6.9 Give details on the constructive relationships (if any) with other institutions in the nearby locality in working on various outreach and extension activities.**

The College has developed constructive relationships with the various organization in the nearby locality in the area of health, environment, gender sensitization, anti dowry moment, blood donation, cancer awareness etc.

Sr.No	Name of the Institution
1	Mumbai Municipal Corporation
2	Mumbai Police
3	Maharashtra Pollution Control Board
4	MMRDA
5	UNISEF
6	Paryavarn Dakshata Manch
7	Naushad Ali Sarovar Samvardhini
8	Akshara
9	Oisas India
10	Consumer protection society
11	Somaiya Blood Bank
12	Think Foundation
13	Andha Shraddha Nirmmulan Samiti

14	Institution for Psychological Help
15	ESCON
16	SOCLEEN
17	MNP & Ecoflops
18	Reef Watch
19	BNHS
20	Vanashakti
21	Rotary Club
22	Enviro vigil
23	CRAPO (Cave Research &Protection Org.)
24	Sanctuary Asia
25	CEED
26	My vote my right
27	Tantra Vidya
28	TIFR Outreach activity
29	BARC
30	CIFE
31	IMD (Indian Metrological Department)
32	DRDO
33	Indian Planetary Society
34	University of Mumbai

**3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.**

**The College has not received a very specific award for extension activities and contribution to social and community development. However, the awards received by individual are listed in 3.5.1**

### **3.7 Collaboration**

#### **3.7.1 How has the College’s collaboration with other agencies impacted the visibility, identity and diversity of activities on the campus? To what extent has the College benefitted academically and financially because of collaborations?**

The socially relevant activities of the College has increased the empathy quotient in the students. The experiential learning of such meaningful activities has brought visible change in the attitude of the students. The collaborations with various Government, social Organizations, NGOs, Business Organization has given a chance to expand the horizon of the student. It has also brought reputation to the organization. Traditionally the core of our founder’s dream is realized “Na Manusho Parama Dharma”. This has inculcated the value system and help in building a brand of the institution.

#### **3.7.2 Mention specific examples of, how these linkages promote**

- \* Curriculum development**
- \* Internship, On-the-job training**
  - \* Faculty exchange and development**
  - \* Research, Publication**
  - \* Consultancy, Extension**

The college has linkages with renowned academic institutions and industries in India and abroad. These contacts help the institution and the students for their overall development.

**Curriculum development:** Board of studies of the college constituted under autonomy has many academicians and experts from industries and reputed institutions. They contribute significantly towards curriculum development. Distinguished professors and students from Cornell University visited the college and interacted with our faculty members and students.

**Internship, on-job training:** Our Alumni who are associated with various industries assist the students in getting internship and on-job-training. Our association with Homi Bhabha Centre for Science Education has been for a long time. Our students are selected for summer training at HBCSE. One of our Commerce students has been selected at London School of Economics for internship



**Faculty exchange and development** :Our faculty members are working at BARC, IIT, CIRCOT, ACC for their Ph.D.work. etc

**Research publications** :The faculty members who are working in renowned National Research institutions have good quality research publications and patents on their names.

**Consultancy**

The consultancy activities undertaken by the college are helping in bringing desire social change in the area of environment, agriculture, and nutrition.

**Extension**

The extension activity has given a meaningful experience to understand myriad facets of social problems in the society.

**Student Placement :**

Placement cell of the college has developed the links with various pharmaceutical and IT industries . The students are placed in Taj group of Hotels, General Mills, WIPRO, L&T, TCS, MC lead's – Johnson & Johnson CIPLA, L&T infotech, US vitamins, Macleods, Godavari Sugar Mills, etc.

**\*Any other, please specify**

**3.7.3 Does the College have MoUs nationally/internationally and with institutions of national importance /other universities / industries /corporate houses etc.? If yes, explain how the MoUs have contributed in enhancing the quality and output of teaching-learning, research and development activities of the College?**

Centre for Remote Sensing and GIS which was initiated and established in 2004 has signed MoUs as follows :

Cane Information System- GBRL Industry – Pilot project – no finance  
GIS based Eco Atlas (Kolhapur district, case study)- MPCB (MoU Govt. Of Maharashtra) – Pilot project – no finance  
Environment related GIS- Neerman NGO-2009 to 2012 – Rs.4,20,000/-  
Chemical Disaster Management for Gujarat State –Prestels- Feb 2012 to May 2012-Rs 70,000/-

The Department of Biochemistry has signed an MOU with Nirmala Niketan college of Home Science, Papers (PSHSIB101 & PSHSIB201) in M.Sc. Home science Credit Course in '**Food Processing and Preservation**' (1<sup>st</sup> Course) and Papers (PSHSIC101 & PSHSIC201) in M.Sc. Home science Credit Course in '**Sports Nutrition**' (2<sup>nd</sup> Course) namely - 'Research methods and statistics' for CHSNN M.Sc students will be taught by the Department of Biochemistry to the PG students of Nirmala Niketan college of Home Science for the above mentioned courses.

**3.7.4 Have the College industry interactions resulted in the establishment / creation of highly specialized laboratories / facilities?**

There are many students pursuing Ph.D. who are working in various laboratories. The interaction with these laboratories has helped the organization. Few students have established specialized contract research organizations (CROs) and other specialized laboratories. The College has access to Genesis Laboratory which is established on the campus by Godavari Biorefineries

**Criterion IV**

**Infrastructure and  
Learning Resources**



## **CRITERION IV:**

### **INFRASTRUCTURE AND LEARNING RESOURCES**

#### **Introduction**

- College is located in a verdant green campus of 66 Acres of land with a built-up area of nearly 1,41,000
- Having synergy of 35 institutions
- Nine inter-connected libraries
- Botanical Garden / Landscapes / Nakshatra udyan
- BIO Gas Plant /Phytorid plant
- Rain Water Harvesting
- Solar Energy Lighting
- Five common canteens
- Two Tea coffee and snacks stalls
- Well-equipped computerized office
- Board Room for meetings
- Gymkhana with some indoor games facilities

#### **4.1 Physical Facilities**

##### **4.1.1 How does the College plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?**

The College is having 40 classrooms - 6 class rooms of 300 sq.ft, 4 class rooms of 400 sq.ft, 18 class rooms of 600 sq.ft area, 4 class rooms of 800 sq.ft area, 8 class rooms of 900 sq.ft area. The total area is 24,600 sq.ft. All the classroom are optimally utilized from 7.00 a.m. to 6.00 p.m. in accommodating the lectures of various departments and courses.

The college has well-equipped, spacious and furnished (UG and PG) laboratories for each science department are the distinct advantage to the students.

Depts	No.of Labs	Depts	No of Labs
Chemistry	8	Biotechnology	2
Physics	5	Computer Science	3
Information Technology	3	Biochemistry	2
Microbiology	3	RST/GIS	2
Botany	3	EVS	1
Zoology	3	Genesis	1
Geology	2	Nutraceuticals	1

Most departments have departmental libraries which are readily accessible to the students.

**4.1.2 Does the College have policy for creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention few recent initiatives.**

Before starting any new course the college has to present feasibility report to the Management. In the report the college has to mention about manpower requirement, space requirement, capital requirement, quality sustaining strategies and finances.

In the past five years, the college has built required classrooms and additional library facilities complete renovation of the Chemistry and the biochemistry departments. Furthermore many new computers are added to the college's inventory enhancing computing facility and connectivity.

**4.1.3 Does the College provide all departments with facilities like office room, common room, and separate rest rooms for women students and staff?**

The seating arrangements have been made available to all the staff of each of the departments. All the HODs have their office rooms with a computer each and Internet facility. The staff common room has a computer with net facility. For the boys and girls, separate common rooms are available.

**4.1.4 How does the College ensure that the infrastructure facilities meet the requirements of students/staff with disabilities?**

There is a ramp and lift facility for the disabled students and staff along with separate toilet blocks.

**4.1.5 How does the College cater to the residential requirements of students?**

Mention Capacity of the hostels and occupancy (to be given separately for men and women)

Somaiya Vidyavihar campus has two hostels for men and women.

- 1) SIMSR Hostel is a 13 storey building having 104 rooms for accommodation of 312 ladies and on triple sharing basis and 100 rooms for accommodation of 300 men and triple sharing basis. There are 26 rooms for guests.
- 2) Polytechnic Hostel. There are 80 rooms . It has a capacity of 96 girls and 224 boys.
- 3) On the campus there are 25 flats which may be allotted to teaching or nonteaching staff on request.
- 4) All the rooms are well equipped, self-content with TV, Internet facility
- 5) There is a Gymkhana and other recreational facilities available on campus
- 6) Most of the students enrolled in the college are day scholar . The College avails the allotted hostels rooms for the outstation student as and when required.

**4.1.6 How does the College cope with the health related support services for the students, faculty and non-teaching staff on the campus and beyond?**

The Somaiya Trust is having a Hospital in which the students and the staff can receive medical treatment at very reasonable rates. There is a Somaiya Diagnostic Centre located just outside the College. The staff and students can avail of centre's services at concessional rates.

**4.1.7 What special facilities are made available on the campus to promote interest in sports and cultural events?**

The facilities of the following auditoria / open-air theatres located in the campus are readily made available for organizing cultural events :

1. Air-conditioned Sakarben auditorium (Capacity : 400)
2. Air-conditioned Red Hall auditorium (Capacity : 250)
3. Air-conditioned Blue Hall auditorium (Capacity : 250)
4. Air-conditioned International School Hall (Capacity : 400)\_
5. Gargi Plaza (an open-air theatre).
6. Tagore Amphi-theatre with stage.

**Sports :**

1. Squash court
2. Football court
3. Athletic track
4. Badminton / Basketball court
5. Open ground Chess Board
6. Gymkhana

## **4.2 Library as a Learning Resource**

### **4.2.1 Does the library have an Advisory Committee: Yes**

The following is the composition of the Library Advisory Committee for the year:

1. Dr. Anjali Ratnakar Convenor
2. Dr. Samidha Pawaskar
3. Prof. J. P.Tendulkar
4. Prof. AtulThatte
5. Mr. Manish V. Mohadikar
6. Mrs. Sameera S. Samant

There is a library committee which comprises of Librarian, Assistant Librarian and Four teachers. The advisory committee discuss the recommendations made for purchase of books, journals and other learning resources by the Heads of various departments, students and other staff members. The library resources are constantly upgraded to make it more and more learner friendly and encourage self learning amongst students. The Committee also looks after selection of best reader award for staff and students, organization of book exhibitions on various subjects like Chemistry, Biological Sciences, Physics etc. organization of workshop for library staff, etc

The function of the committee are to assist and advise the Librarian in formulation of library policies, improvement of library and information services and operational matters.

### **4.2.2. Provide details of the following**

Access to the Premises of the Library : The Library has four important areas :

- a. In undergraduate section – a circulation counter for UG students
- b. Stacking Areas
- c. Separate Reading area for male and female students and teaching staff
- d. Reference area – the current research journals and magazines are displayed on the display racks and two computers with internet facility



are provided for reference work required for completion of project works, books reviews or writing research projects for students as well as staff, preparing study material etc.

- e. PG Section – A separate reading area is provided for postgraduate student where access to library resources is open.
- f. Department Library – In addition to the central library each department has a Departmental library with open access and which is maintained with due help of senior students and staff members.

#### 4.2.3 Give details on the library holdings:

Library holdings : Software used is Bookworm  
The following are the details of library holdings :

Sr.No.	Particulars	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
1	Print	3244	3916	4263	4650	1434
2	Non-Print	96	21	7	1	0
3	E.Books	0	0	0	0	0
4	E.Journals	0	N-list	N-List	N-list	0
5	No.of magazines	24	20	20	20	20
6	No.of News papers	14	15	15	15	15
7	No.of Journals subscribe	45	42	41	27	0

The new addition of library are also displayed at the entrance for the information of the staff and students.

#### 4.2.4 Tools in the library to provide access to the collection

- OPAC is available in the library for students and staff members. And web based OPAC is also available on URL: <http://115.114.107.46/opac>

Electronic resource:

- Online Journals (e-Resources) of N-List were subscribed which include 4000+ e-Journals and 90000+e-books. The N-list project provides access to e-resources to students, researchers and faculty from colleges and other beneficiary institutions through server(s) installed at the INFLIBNET Centre, Ahmadabad.

- Integrated E-resources and Databases named as EBSCOHOST Discovery Services are also available on Somaiya website which include 4000+databases and 60,0000+ e- books .

In-house/ remote access to e-publications is available for N-List (Inflibnet)

#### 4.2.5 ICT deployed in the library

- Library Automation - The library functions are fully automated. All books bar coded for speedy circulation and categories is available on line.
- Total number of computers for public access : 15 Nos.
- Institutional repository: Chemical Abstract 1683Nos. from 1936 to 2000
- Participation in Resource sharing network/ consortia: N-List and Ebscohost Discovery Services are available for students and staff.
- Library page is created on the college website which provide information about the library resources and services rendered by the college library

#### 4.2.6 Provide details :-

- Average number of walk-ins : Approx. 150
- Average number of books issued/ returned: Approx. 270
- Ratio of library books to students enrolled : 5:3
- Average number of books added during last three years

Year	e-Books added to the Library
2011-12	3,343
2012-13	3,936
2013-14	4,263
2014-2015	4651
2015-2016	1434

- Number of information literacy trainings organized : 3

#### **4.2.7 Details of specialized services provided by the library**

Services Provided : (daily)

1. Circulation of Books to students 270 approximately and for staff 10 to 20
2. Circulation of periodicals to students 4 to 5 and staff 7 to 8
3. Circulation of e.resources 3 to 4 to students per day
4. current reading  
Daily user to the library -  
Text Books 120  
Reference 120
5. Average No. of logins to OPAC 10 - 12
6. Average No. of logins to e.resources (Downloaded / Printed) 5 to 6
7. Weeding out of Books and other materials / year – 2011-2012 -1460 Books  
2012-2013 – 3878 books
8. Book Exhibition : Every year book exhibition for reference and for subjectwise reference books is conducted.
  - Inter-library loan facility within the Somaiya Campus
  - Reference Service for research projects.
  - Free Internet access to students and staff
  - Reprographic Services.
  - Additional home issue cards facilities for all undergraduate and post-graduate students
  - Overnight book issue facility
  - Book Bank facility for economically backward students
  - Integrated searching of all resources available in the campus on OPAC and also on web base OPAC
  - Link provided to Online subscribed Journals : N-List and EBSCOHOST Discovery Services
  - User Orientation is given
  - Assistance in searching Databases is provided
  - INFLIBNET/IUC facilities are available
  - Link provided for self-renewal through the integrated ID SVV Net sent on the students mobile and also on their email. Senior students can renew the book one time and PG student can renew the book twice.
  - Book reservation facility is also provided through WebOPAC

**4.2.8 Provide details on annual library budget and the amount spent for purchasing new books and journals**

<b>SENIOR COLLEGE (UNDER GRADUATE)</b>						
Sr. No.	Year	Budgeted amount (Rs.)	Books Amt.(Rs)	Journals Amt.(Rs.)	Magazine Amt.(Rs.)	Total Amount Spent (Rs.)
1	2010-11	3,74,000	3,54,834	33,150	13,637	4,01,621
2	2011-12	3,77,800	3,06,192	34,690	15,085	3,55,967
3	2012-13	3,87,600	3,03,985	28,267	15,592	3,47,844
4	2013-14	4,15,200	3,22,539	9,998	17,278	3,49,815
5	2014-15	3,76,400	3,60,629	--	18,657	3,79,286

<b>SENIOR COLLEGE POST GRADUATE</b>				
Year	Budget amount	Journal amount	Amount Spent	Total amount spent
2010-2011	65,000	0	60,429	60,429
2011-2012	1,16,000	0	1,14,465	1,14,465
2012-2013	2,17,000	0	1,68,759	1,68,759
2013-2014	1,25,000	0	1,24,257	1,24,257
2014-2015	2,20,000	59,350	1,64,428	2,23,778

SENIOR COLLEGE UNAIDED SECTION				
Year	Budget amount	Journal amount	Amount Spent	Total amount spent
2010-2011	5,78,000	2,02,951	3,28,927	5,31,888
2011-2012	6,51,500	2,64,274	3,52,467	6,26,741
2012-2013	8,74,800	3,36,941	4,38,132	7,75,073
2013-2014	8,69,900	18,970	6,84,159	7,03,129
2014-2015	8,94,700	--	4,33,047	4,33,047

UGC				
Year		Amount Rs.		
UGCUG (Journals)		Journals	UGC PG (Books)	UGC MERGED SCHEME
1	2010-11	57,065	2,27,771	1,41,909
2	2011-12	57,385	56,806	1,31,314
3	2012-13	58,369	2,52,523	-
4	2013-14	61,913	-	-
FIST				
1	2012-13	1,06,695		
2	2013-14	1,94,122		

**4.2.10 Infrastructural development over last four years.**

1. Renovation of entire library was carried out in April 2011.
2. Digital Circulation started from Academic Year, 2013-14.
3. Separate Library for Unaided Section was commissioned from October 2011
4. Post Graduate Section

### **4.3 IT Infrastructure**

#### **4.3.1 Does the college have comprehensive IT policy addressing standards on IT Service Management, Information Security, Network Security, Risk management and Software Asset Management?**

##### **Information Security:**

##### **Desktop and Laptop**

- Sharing of Folders should be discouraged,
- Every desktop should has administrator user with password security and is available only with Administrator/Lab In charge.
- Use the campus computer systems only for approved purposes.
- Do not provide access codes to any unauthorized user.
- Do not use IT resources to damage other campus resources or systems.
- AMC of every hardware device is placed.
- Make regular backups of information and files as appropriate and store it in different Storage.
- Detail IT asset register to be maintain in every institute.

##### **Software**

- Do not load Pirated Software or free unknown software.
- Do not make copies of legal software's.
- Discourage use of IT resources for personal gain, illegal activities, or obscene activities except Scholarly activities, including the writing of textbooks or preparation of other teaching materials by faculty members.
- Campus IT resources should not be used for commercial purposes, except the written approval of the Head of Institute.

##### **Internet**

- Comment or act on behalf of the campus over the Internet responsibly.
- Do not use any device or application that consumes a disproportionate amount of network bandwidth (videos, songs etc) to avoid misuse of bandwidth.
- Encourage users to report all observed illegal activities to the appropriate administrative office. Examples illegal electronic file sharing, sound or video recording piracy, hacking etc.

- Do not click on unwanted/unknown popup as it can load malicious software without your knowledge and slow down the network and PC.

#### **Email**

- All the official communication should happen via email .
- Do not send email chain letters or mass mailings for purposes other than official campus business.

#### **Network Security:**

##### **Antivirus**

- Install, use, and regularly update virus protection software.
- OS Patches will be updated on every computer via WSUS.
- Block USB Storage Device and discourage drive and folder sharing to protect IT Infrastructure from virus attack.
- Do not introduce, create, or propagate computer viruses, worms, Trojan Horses, or other malicious code using campus IT resources.
- Inform immediately administrator/ lab in charge for any virus found.

##### **Authentication**

- ADS (Active Directory Services) are installed for authentication, more security and effective manageability.

##### **Network**

- Do not connect devices (such as, switches, routers, hubs, computer systems, and wireless access points) to the network that are not approved by the central campus or institutional IT organization.
- Network Diagram of respective college should be maintained with IT Head.
- Do not intercept others files and folders.

##### **Switch and Firewall**

- Cisco 4500 L3 Switch with access control list and VLAN's
- Fortigate 3040 B Firewall with all the critical services enabled such as IPS, Antivirus, Web Filtering, DLP and Application Control.



**4.3.2 Give details of the college’s computing facilities (hardware and software).**

All Departments are provided with desktop and internet facility. Each computer in IT lab is provided with internet facility.

The College has provided the following items :

Sr. No.	Department	Computer	Printers and Scanner	Laptops	Net
1	Adm.Office	23	10+2	0	23
2	Physics	14	0	2	2
3	Chemistry	5	1	2	3
4	Biochemistry	2	0	2	0
5	Botany	2	0	2	2
6	Zoology	2	0	1	1
7	Geology	7	1	1	1
8	Microbiology	1	1	2	1
9	Mathematics	1	1	1	1
10	Statistics	2	1	1	1
11	Accountancy	1	0	0	0
12	Library	30	1+2 barcode	0	4
13	Biotechnology	2	0	2	1
14	Gymkhana	1	1	0	0
15	Exam Cell	4	2		3
16	M.Sc. (Env . Science)	4		1	0
17	M.Sc. (Nutra)	0	0	1	0
18	Unaided Section office	1	1	0	0
19	Computer Sci lab	33	1	0	25
20	I.T	96			75
21	GIS	13	0	0	0
22	Unaided Section (Library )	15	0	0	
23	Statistics lab	23	0	0	0

- **LAN Facility** : KJSSC is connected to Data centre on Fibre. Core Switch at Data centre is Cisco 4500, Distribution switch at KJSSC is Cisco SG 500
- **Wifi Facility** : No
- **Proprietary Software /Open source Software** : We have Subscribed to Oracle Academy, Microsoft School Campus Agreement, EBSCO for Online Journals, Kaspersky for Antivirus and Adobe ETLA for DTP Software.
- **Number of nodes/computers with internet facility** : All the computers.

#### **4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

- We have implemented Active Directory Services for Authentication and Security at desktop level.
- Antivirus (Kaspersky) was selected as it had inbuilt Window Server Update Service for security only, which is must if the antivirus has to run to its full potential, it has network attack blocker and firewall enabled too .
- Windows Server Update Server for all the desktop and server.
- Connectivity Backbone with Datacentre has been increased from 1 GBPS to 10 GBPS.
- Managed Switch is in place for Distribution switch with Cisco L3 Switch at Datacentre.
- We have a Firewall with all the critical services enabled such as IPS, Antivirus, Web Filtering, DLP and Application Control.
- We have a 100 Mbps 1:1 Link for the whole campus.
- Email ID id provided to each Faculty, Staff and Students.
- Adobe ETLA Subscription for all the Adobe softwares.
- Microsoft School Campus Agreement Subscription for Microsoft softwares.
- Oracle Academy Subscription for Oracle softwares.

- Library book issue is through RFID ID Card of the students.

**4.3.4 Give details on access to online teaching and learning resources and other knowledge, and information provided to the staff and students for quality teaching, learning and research.**

- Google APPS
- Youtube Channel – Somaiya management has subscription to all Google Apps
- EBSCO EDS
- Faculty Module on somaiya.edu – About 80 lectures have been recorded and uploaded on the college website
- OPAC e.book Subscription
- Openathens

**4.3.5 Give details on the ICT enabled classrooms/learning spaces available within the College and how they are utilized for enhancing the quality of teaching and learning.**

We have few ICT enabled class rooms. LCD Projectors and laptops are given to the department. The departments make use of the moving facility in the desired class room.

IT Labs / Comp. Science Labs

A Few Class rooms / Seminar Rooms / Library

Seminar Hall are equip with LCD Projector / Screen / Laptop and internet facility

Each department is provided with Laptop & LCD Projector / LED Displays are mounted in the College for the year / Display gallery for notices / circulation of other information to students.

Each Faculty member is provided a personal email and access to all Google apps like Calendar blog, Google drive, Class room.

Training for using these apps is provided and teachers and students are encouraged to use college email.

Some of the faculty members have created their blogs / facebook pages / whatsapp for better communication.

Mobile phone is used innovatively for SMS alerts, urgent notices, changes related to time table etc. among students

We have a central department on campus which provide IT support to all the institution on campus. Every year training / workshop on Google apps, cyber security, innovative teaching learning methods is imparted to faculty. Faculty members are encouraged to prepare presentations to be uploaded on Youtube. Students as well as teachers are encouraged to registered for MOOCS.

**4.3.6 How are the faculty facilitated to prepare computer aided teaching-learning materials? What are the facilities available in the College or affiliating University for such initiatives?**

The faculty members are imparted training for using of the computers and all the departments are given the laptops and computers with LAN facility for their departmental use.

**4.3.7 How are the computers and their accessories maintained? (AMC etc.)**

We have comprehensive Annual maintenance Contract with M/s.ACMA Computers

**4.3.8 Does the College avail of the National Knowledge Network connectivity directly or through the affiliating University? If so, what are the services availed of?**

College avails NKNC through University of Mumbai.  
We have no National Knowledge Network Connectivity. (We had applied for 1 GBPS link through MTNL for the whole Campus)

**4.3.9 Provide details on the provision made I the annual budget for update, deployment and maintenance of the computers in the College?**

A provision of about 7.5 lakh in budget has been made for annual update, deployment and maintenance of the computers.

#### **4.4 Maintenance of Campus Facilities**

**4.4.1 Does the College have an Estate Office/designated officer for overseeing maintenance of building, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.**

Yes, Somaiya Vidyavihar has created common separate establishment called Project Office in the campus which takes cares of all maintenance like civil, electrical supply, water supply, general maintenance, and infrastructure and having a designated Engineers, Surveyors, Architectures, Plumbers, Electricians, Carpenters along with the necessary support staff to do the day-to-day maintenance work.

**4.4.2 Does the College appoint staff for maintenance and repair? If not, how are the infrastructure facilities, services and equipment maintained? Give details.**

College is having full-fledged Project Office which takes care of all the maintenance work and repairs. Internal maintenance / cleaning is done by Cleantech agency. The college also has AMCs of equipment in various laboratories.



**Criterion V**

**Student Support and  
Progression**





## **CRITERION V: STUDENT SUPPORT AND PROGRESSION**

### **5.1 Student Mentoring and Support**

#### **5.1.1 Does the College have an independent system for student support and mentoring? If yes, what are its structural and functional characteristics?**

The College is sensitive regarding academic emotional mentoring needs of the students. The College has a well-established students' Welfare Committee and Career and Counseling Cell that work tirelessly for students support and mentoring.

The committee comprises seasoned academicians and counselors to support the students.

Furthermore, the college has a tutor-mentor scheme in which the teachers are allotted a certain number of students who can approach them for their academic and socio-emotional problems. Many Science Departments are involved in mentoring individual students by maintaining their portfolios. The Counseling and Career Guidance Cell organizes a variety of activities on effective communication, future avenues available for the students in academics and careers.

#### **5.1.2 What provisions exist for academic mentoring apart from class room work?**

Students have a good rapport with the faculty members. They approach the teachers in the staff room / departments for their queries.

Remedial coaching is provided to the weak students of F.Y and S.Y.

A bridge course is conducted for the students of S.Y.B.Sc. to make them familiar with the various concepts at T.Y. B.Sc. level.

#### **5.1.3 Does the College provide personal enhancement and development schemes for students? If yes, describe techniques employed e.g., career counseling, soft skill development, etc.**

In order to enhance soft skills amongst the students, the College has started a course in "Communication Skills and Personality Development". The weak students in this area are suggested to complete this course.

The College has introduced Basic English course for all students of first year.

The non-credit elective courses in the field of Sports, Culture and Spirituality are offered to the students to enhance their personality. Every student who enrolls in first year has to do, at least, two non-credit courses of her/his choice.

The students have the option to study foreign/ Indian languages like Spanish, French, Japanese, German, Chinese, Sanskrit and Pali of their choice in lieu of the Foundation Course

Cultural activities of Cultural Forum and special Cultural activities like Kalankur, Asmita, Saptak are intended to cater towards development of the students through art.

A number of co-curricular activities are organized by Science Association, Commerce association, Nature club, covering a variety of aspects of skills development.

The College has a Career Guidance Cell which organises a talks on soft skills, resume writing as well as the campus placements.

**5.1.4 Does the College publish its updated prospectus and handbook annually? If yes, what are the activities / information included / provided to students through these documents? Is there a provision for online access?**

The College publishes its prospectus which is distributed to the students at the time of admission. The prospectus is also available on the college website.

The prospectus has the information about the guidelines pertaining to admissions, courses offered, intake capacity, syllabi and eligibility, UG and PG programmes, non-credit Courses, Fee structure, Discipline and Code of Conduct, Examination System, Scholarships and Freeships, Extra and Co-curricular activities, Facilities available, Library Information, Information about various Committees etc.

The active College website has additional information such as also has faculty profile, research and consultancy, events, about the Organization, Alumni Association, upcoming events and various activities, Principal's word, time table yearly academic plan, achievements, merit lists, AQAR, Magazine, Directory, photo gallery, news and recruitment.

A college magazine “Sanskriti” is published every year which has the articles written by the students and faculty and also reports of all co-curricular and extracurricular activities organised by college.

**5.1.5 Specify the type and number of scholarships / freeships given to students (.UG/PG/M.Phil/Ph.D./Diploma/others in tabular form) by the College Management during the last four years. Indicate whether the financial aid was available on time**

The SomaiyaVidyavihar Trust has a programme called “Help a child”. In this programme, the Scholarships are provided to the deserving students.

The Management actively seeks support from the community for freeships and scholarships for needy students.

The College actively scouts many Trusts and Charitable Institutions giving financial help.

Government provides scholarships and free ships to students of reserved categories and to economically weak students.

The College also supports students from Students’ Welfare Fund.

Apart from this, the college assists the students by granting special permission of paying fees in installments.

The College helps in getting educational loan from the Banks.

Many Government and Semi-Govt. establishments and few M.N.Cs reimburse the fee to the students.

**List of Government scholarship /Free ship Given to students  
from 2010-11 to 2014-15**

	<b>BC Scholarship</b>				<b>BC Freeship</b>			
	SC	OBC	SBC	VJNT	SC	OBC	SBC	VJNT
<b>2010-2011</b>								
No.of students	84	98	14	39	131	53	19	55
Amount	894766	931208	142593	426618	1179375	238180	92486	587596
<b>2011-2012</b>								
No.of students	76	76	4	29	59	23	08	34
Amount	1029911	801726	74210	306216	654056	122325	74430	379930
<b>2012-2013</b>								
No.of students	69	62	4	19	58	18	4	24
Amount	974448	804536	48900	199050	627202	118096	86035	283170
<b>2013-2014</b>								
No.of students	65	59	8	12	51	23	02	15
Amount	893390	721125	76225	147595	557732	167855	32653	147365
<b>2014-2015</b>								
No.of students	71	71	11	27	61	34	5	15
Amount	918576	701618	132253	344815	647588	366905	41010	128595

**5.1.6 What percentage of students receives financial assistance from state government, central government and other national agencies? (e.g., Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)**

The facility of free-ship, scholarship is available in the college for the students of reserved category and economically backward class from social welfare office after proper verification of documents.

**5.1.7 Does the College have an International Student Cell to cater to the needs of foreign students? If so, what measures have been taken to attract foreign students?**

Number of NRI students enrolled are very few in our college. Somaiya Vidyavihar has centralized office for international affairs under the Director, International Affairs

**5.1.8 What types of support services are available for?  
Physically Challenged and differently abled students:**

The college is sensitive towards the needs of physically challenged and differently-abled students. The College does not have considerable number of physically challenged students; however, all teachers put enormous efforts to extend all sorts of help required by the few students. Ramps for wheel chair, lift, separate toilets are provided to the students. Additional time is given to the students during the examination as per the norms to the differently-abled students.

**SC/ST, OBC and economically weaker sections**

The students from reserved categories are availed the facilities of freeships from Government. The economically weak students get the scholarships by the Government. College allows these students to do part payment of fees.

College also has a book bank scheme through which the economically weak students are provided with the books from the library.

**Students to participate in various competitions/conferences in India and abroad**

The expenses of travel, boarding & lodging of students who represent college at various levels of competitions of sports and cultural activities are borne by the college. The professional coaches / sports directors / musicians / choreographer are appointed for the benefit of students in sports and cultural activities. The financial support is provided for the air fare by the Trust to the students participating in International competitions.

**Health centre, health insurance etc.**

In each department, there is a medical aid facility .The health camp, blood donation camps, AIDS awareness camps are conducted in association with Sion Hospital, KEM hospital and Somaiya Hospital.

The College organises lectures by professional doctors for the benefit of the students.

The college has a Doctor on the campus and is available throughout the day.

**Skill development (spoken English, computer literacy, etc.)**

An effective communication is a skill and it has now become a basic need of the modern world. The college is taking special efforts for building communication skills of the students. To streamline this, basic course in English is being offered for F.Y and S.Y. undergraduate students.

**Performance enhancement for slow learners / students who are at risk of failure and dropouts**

The remedial coaching is carried out by some departments for the students of ATKT / failures / dropouts.

**Exposure of students to other institutions of higher learning/ corporate/ business houses, etc.**

The College organizes excursions, industrial visits, industrial training, projects in different research organizations, visit to NSE (National Stock Exchange) / Bombay Stock Exchange, experiential learning events. This experience exposes students to the culture of research organization, corporate and business houses.

**Publication of student magazines**

The College Magazine committee looks after the publishing of the annual magazine (Sanskriti). The students as well as the teaching faculty make contributions to the magazine. The magazine is also made available on the college website.

**5.1.9 Does the College provide guidance / coaching classes for Civil Services, Defence Services, NET/SLET and any other competitive examinations? If yes, what is the outcome?**

The departments of Chemistry and Microbiology coach students for NET/SET examinations. The department of Geology conducts the coaching with respect to IIT Earth Science Examination. Faculty members encourage the students to appear for competitive examinations and also guide them .

**5.1.10 Mention the policies of the College for enhancing student’s participation in sports and extracurricular activities through strategies such as Additional academic support, flexibility in examinations :**

Special consideration in attendance and examination is given to the students representing the college at University / State / national level in Sports /Cultural activities. The additional academic support is provided to students to fulfill academic loss due to absence of the student participating in the sports and cultural activity.

The cultural activities help students to develop their overall personality. The ‘sports’ as an optional subject has made a revolution in students’ approach towards studies. The college has appointed national level sports director to look after sports activities and tournaments at university / state / national level. The College has separate accredited coaches for individual sports .

A separate and sufficient budget / funds are always made available for cultural and sports activities. A well-known choreographer, musicians are appointed to teach music, dance and drama which are the optional subjects, students can opt for.

**Special dietary requirements, sports uniform and materials any other**

The allowance for the special dietary supplement and sports uniform is provided to all participants representing college in various sports events.

**5.1.11 Does the College have an institutionalized mechanism for placement of its students? What services are provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?**

The College has a Placement Cell catering to the placements of the students. There is a system of regular Campus Interviews and placement through renowned companies.

Some alumni who are entrepreneurs give the training to students and then select some of them for the jobs in their own firms after the interview.

**Placement website**

We have hired services of one of our start up company from Riidle called as “THE FIRST -GO” is a portal. The portal brings companies, students and a placement officer of the college on the one platform. The portal helps in scheduling of event co-ordination between students and companies, monitoring the various stages of recruitment and follow-up. The companies registered under portal gets wide range of selection of the candidate and cover the set hiring target in time. The student get a feedback on the areas of improvement and wide range of options.

**5.1.12 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus annually for the last four years).**

**Following various companies visit annually for campus placement**

Wipro, Patni, L & T Infotech, Apex Industries, Asian Paints, J.P.Morgan, Spice Board, WNS, ICICI Bank, TCS (off campus), Analytical Solutions, Macleod Pharmaceuticals, Godavari Biorefineries,, Syntel, TCS, HERE solutions Ltd. (Nokia Maps), Accenture, CapeGemini, Masket, IGATE, Zensar,

Average 200 students are placed every year in these companies.



**5.1.13 Does the College have a registered Alumni association? If yes, what are its activities and contributions to the development of the College?**

The College has registered Alumni Association. There is a fair representation of the alumni in various statutory bodies. They actively contribute in academic and administrative endeavours of the College. They also support by sponsoring students and activities. Enriching experience is a platform where eminent alumni interact with students. The College regularly organises Alumni Meet. All such alumni meets are well attended.

**5.1.14 Does the College have a student grievance redressal cell? Give details of the nature of grievances reported and how they were redressed.**

The college has student grievance redressal cell. Incidences like minor quarrels, eve teasing, etc. are reported to Grievance Redressal Cell, which are disposed with due diligence.

**5.1.15 Does the College have a cell and mechanism to resolve issues of sexual harassment?**

The Women Development Cell promotes awareness and sensitivity and redressal mechanism about the sexual harassment on the campus. The Statutory Anti Sexual Harassment Cell addresses any gender-based complaints. The cell has a sub group of three members that deals with any complaints of sexual harassment from students and staff. The Principal is then advised regarding action, if any, to be taken.

**5.1.16 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?**

College has established Anti Ragging Committee. The wide publicity of functioning of this committee is given through website, prospectus and notice board. Ragging is strictly prohibited in the campus. There are no instances of ragging in the college premises.

**5.1.17 How does the College elicit the cooperation from all stakeholders to ensure overall development of the students considering the curricular and co-curricular activities, research, community orientation, etc.?**

A feedback on various academic programmes is gathered from various stakeholders:

Members of the students' council during their interaction with the Principal/faculty members provide a feed-back on components and the depth of the syllabus.

The alumni during their interaction with the Principal/faculty members give an overview of the needs of the industry. Alumni help the institution in placements of students. Many of them visit the college every year and share their expertise with the students. The lectures on various topics of student's interest are organized by the alumni.

The parents during the faculty wise parent-teacher meetings give a feed-back about the students' grasp and learning difficulties for various curricula.

Some visiting faculties are from the industry who during their visit to the college advice on changes/new incorporations in the existing curricula. Employers during their campus interview share their views about the syllabi.

During refresher courses and orientation programmes, peer groups share their views about the syllabi.

Eminent Alumni are members of the Advisory Council of the college and Board of studies in various subjects.

**5.1.18 What special schemes/mechanisms are in place to motivate students for participation in extracurricular activities such as sports, cultural events, etc?**

The list of the names of prize winner students for the last five years reveals that students are encouraged to participate in curricular, co-curricular and extra-curricular activities organized by our college as well as other colleges. The students are well informed about competitions held in the college and other colleges by each department and at the same time all notices regarding competitions are displayed on digital screen in display gallery. The students have been always guided by teachers as per requirement.

### **.Cultural Forum**

Cultural Forum is an umbrella committee which takes care of all cultural activities in the College. The major activity of the cultural forum is inter collegiate college festival called Wibes

#### **“Asmita”**

A mega event from the inception of 1996 specially for promoting Marathi Culture and to spread it to the masses till today. Students are taking efforts to make this event a big and most popular among students.

This amateur activity has now taken a robust phase and the students who have participated have become professional artists in TV Serials, Drama, Films etc.

#### **“Saptak” –**

“Saptak” : the music club motivate the students to appreciate Indian classical music by arranging regular informative programmes.

Students are introduced to the Indian Music and richness and variety of its raags by organizing periodic programme based on raagas viz. Yaman, Bhairav, Malhar, Malcaounce etc as our theme.

### **5.1.19. 1 How does the College ensure participation of women in “intra” and “inter” institutional sports competitions and cultural activities? Provides details of sports and cultural activities in which such efforts were made?**

The following data of participation of students in various Intra and Inter collegiate sports competitions for last five years reveals the enthusiastic participation in sports activities.

	2011		2012	
	INTRA	INTER	INTRA	INTER
BASKET BALL	15	12	15	0
VOLLEYBALL	12	12	17	12
FOOT BALL	16	0	16	0
THROW BALL	15	15	15	15
ATHLETICS	107	17	96	11
BADMITON	59	5	66	5
TUG OF WAR	20	17	0	0
TABLE TENNIS	19	5	27	5
SWIMMING	0	2	0	0
CHESS	19	5	17	5
CROSS COUNTRY	19	0	39	0
CYCLING	3	0	0	0
GYMNASTICS	0	0	0	3
KABADDI	12	12	17	12
KHO-KHO	17	12	19	12
SQUASH	0	0	2	0
TENNIS	5	0	0	0
YOGA	37	0	42	0
CARROM	49	5	48	5
<b>TOTAL</b>	<b>424</b>	<b>119</b>	<b>436</b>	<b>85</b>

	2013		2014	
	INTRA	INTER	INTRA	INTER
BASKET BALL	15	12	12	12
VOLLEYBALL	19	12	48	12
FOOT BALL	18	0	13	0
THROW BALL	15	15	15	15
ATHLETICS	111	7	169	0
BADMINTON	88	5	119	5
TUG OF WAR	0	0	20	16
TABLE TENNIS	23	5	26	5
SWIMMING	0	3	0	0
CHESS	27	5	19	5
CROSS COUNTRY	41	0	0	0
CYCLING	0	0	0	0
GYMNASTICS	0	0	0	0
KABADDI	0	0	0	0
KHO-KHO	0	0	0	0
SQUASH	7	0	9	0
TENNIS	3	0	11	0
YOGA	19	0	37	0
CARROM	39	5	56	5
<b>TOTAL</b>	<b>425</b>	<b>69</b>	<b>554</b>	<b>75</b>

	2011		2012	
	State	National	State	National
Table Tennis	1	1	1	1

	2013		2014	
	State	National	State	National
Table Tennis	1	1	1	1

#### The Cultural Forum

In 2010-11 the students participated in Youth festival in various competition. One act play competition conducted by Sakal at state level and were selected in the final round.

In 2011-12 at Indian National Theatre the students got 7<sup>th</sup> rank in one act play at national level. Ms. Ruchira Jadhav got consolation prize for acting.

In Sakal Karandak competition the one act play performed by students was awarded 1<sup>st</sup> prize for acting and 2<sup>nd</sup> for script writing.

In 2013-14 and 2014-15, the students have participated in Intercollegiate Youth festival and bagged awards in more than 10 different competitions.

The students have also bagged awards in INT, Lokankika (Lokasatta), Rangavardhan, Maharashtra Utsav and many more intercollegiate State level one act play competitions.

## **5.2 Student Progression**

### **5.2.1 Provide details of programme-wise success rate of the College for the last four years. How does the College compare itself with the performance of other autonomous Colleges / universities (if available)**

The College has been conferred Autonomous Status in October,2012. Instead of implementing the autonomy in step by step, we thought of implementing “Complete autonomy”.

Our results are exceptionally good. in last five years.  
University Toppers in last 5 years:

The Average success rate for the Science & Commerce Programmes from 2010-2015are as follows: Science : 87% Commerce : 95%

### **5.2.2 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the observed trends.**

<b>UG to PG</b>	<b>55-60%</b>
<b>PG to M.Phil.</b>	<b>1%</b>
<b>PG to Ph.D.</b>	<b>8-10 %</b>
<b>Employed</b>	
<b>Campus selection</b>	<b>About 10%</b>
<b>Other than campus recruitment</b>	<b>80-85 %</b>

### **5.2.3 What is the Programme-wise completion rate/dropout rate within the time span as stipulated by the College/University?**

The dropout rate is negligible. And the programmewise completion rate for Science is about 98% and for Commerce 95%.

**5.2.4 What is the number and percentage of students who appeared/qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.**

Year	Name of the student	Subject	Exam
2010-2011	Dhanashree Amane	Biochemistry	GATE
	Shrikant Ghodke	Physics	NET & SET
	Somali Vishal	Microbiology	NET
2011-2012	Saeema Khan	Biochemistry	GATE
	Abdul M	Physics	NET
	Tejal Chirmule	Microbiology	GATE, NET
	Pratibha Dabhade	Zoology	NET
	Uma Kamble	Zoology	NET
2012-2013	Mr. Arvind Chaurasiya	Microbiology	NET
2013-2014	Kalpesh Dalvi	Biotechnology	IIT JAM 4 <sup>th</sup> Rank
	Neelam Nirmal	Biotechnology	JNU Agriculture Biotechnology 19 <sup>th</sup> rank

**5.2.5 Provide details regarding the number of Ph.D/D.Sc./D.Litt. thesis submitted, accepted, resubmitted and rejected in the last four years.**

List of Faculty and students who have been awarded Ph.D. Degree . Submitted Thesis during last four years No thesis were rejected.

Sr. No.	Subject	Name of the Faculty	Awarded
1	Economics	Dr.Usha Iyer	2010
2	Botany	Dr.Devendra Jadhav	2011
3	Botany	Dr.Vinod Triguyanat	2011
4	Physics	Dr.Meena Sharma	2012
5	Biochemistry	Dr.S.M.Pawaskar	2012
6	Chemistry	Dr.Vaishnavi Sridhar (RJ College)	2012
7	Biology	Dr.Shailaja Menon	2013



8	Commerce	Dr.Smita Parnajpe	2013
9	Botany	Dr.Anjali Ratnakar	2013
10	Zoology	Dr.Deepaxmi Satam	2013
11	Physics	Dr.Deepak More	2014

Sr. No.	Subject	Name of the Student	Guide	Awarded
1	Chemistry	Ramesh Mahangade	Dr.J.K.Verma	2010
2	Chemistry	Prashant Lokhande	Dr.J.K.Verma	2012
3	Chemistry	Rina R.Vaity	Dr.J.K.Verma	2014
4	Chemistry	Hemal Bhavsar	Dr.Bhanu Raman	2012
5	Chemistry	Milind Gore	Dr.Bhanu Raman	2014
6	Chemistry	Mangesh Kadam	Dr.Bhanu Raman	2012
7	Micro	Chaurasmita Mody	Dr.Unnati Padalia	2011
8	Botany	Ushvanti Shetty	Dr.S.S.Yeragi	2011
9	Botany	Himanshi Parikh	Dr.S.S.Yeragi	2011
10	Zoology	Meena Praswad	Dr.S.V.Deshmukh	2013
11	Zoology	Manisha Karpe	Dr.M.C.Sathe	2011
12	Zoology	Meenakshi Sethumadhavn	Dr.Rajendra Nayak	2014

Sr. No.	Subject	Name of the Student	Guide	Submitted
1	Chemistry	Preeti R.Dwivedi	Dr.J.K.Verma	2015
2	Chemistry	Parag Patankar	Dr.Bhanu Raman	2014

### **5.3 Student Participation and Activities**

#### **5.3.1 List the range of sports and games, cultural and extracurricular activities available to students. Provide details of participation and program calendar.**

##### **Range of sports available to students:**

Major games	Indoor games
Football	Chess
Volley Ball	Table tennis
BasketBall	Judo
Squash	Karate
Badminton	Taekwondo
Kabbadi	Kung-fu
Kho-Kho	Carom
Athletics	
Power Lifting	
Ascending Descending	
Weight Lifting	
Power Lifting	
Best Physic	

##### **Cultural and extracurricular activities available to the students:**

Teacher's day celebration

Exotica

Youth festival

Kalankur-Theatre events

Annual Day

Vibes-An intercollegiate event

Nebula-Farewell and welcome party to M.Sc. students of Microbiology

Saptak-A classical Music group

Inter-college departmental festivals like

Zorilla-Zoology

Biozone-Biotechnology

Microscope-Microbiology

Health Fest – Biochemistry

##### **Average No. of Students Participating / Engaged in Cultural and Related Activities**

Annual Day : 70

Asmita : 75

Intra college events : 125

Inter-collegiate youth festival : 55

### **Programme Calendar**

In the beginning of the year complete programme calendar planned.

### **5.3.2 Provide details of the previous four years regarding the achievements of students in co-curricular, extracurricular activities and cultural activities at different levels: University / State / Zonal / National / International, etc.**

#### **CO- CURRICULAR**

**Bro. Nishchal Dwiwedi** was selected as the **Best All-rounder Student** for the year 2010-11.

Sis. Sudarshini Shivshankar was selected as the Best Girl Student for the year 2010-11.

The students won the first prize in the poster competition and the second prize in the street play competition at UDAAN festival, an intercollegiate event organized by the DLLE ( Department of Lifelong Learning and Extension), University of Mumbai on 23<sup>rd</sup> February' 2011.

Ms. Madhavi Londhe won the first prize for her poster on 'Xylitol Production ' in the intercollegiate Science Exhibition and Poster Competition organized by D.G Ruparel College on 14th and 15th Dec'2011.

First Prize ( Gold Medal ) - Salad Preparation ( For Cardio-vascular Disorder Patients ) Ms.Khushbu Modi & Ms.Ayesha Ansari

Second Prize ( Silver Medal ) - Debate Ms.Gauri Kadam & Ms.GauriParab

Third Prize ( Bronze Medal ) - Treasure Hunt Ms.AnkitaVichare & Ms.Prajakta Desai

#### **Intercollegiate events participation by BFM students**

**Yadav Padmaja** were selected for the '**National Initiative on Undergraduate Science**' program of **HomiBhabha Centre for Science Education in Collaboration with TIFR and BARC**. The camp was from 27<sup>th</sup> October to 31<sup>st</sup> October, 2014.

**STATE LEVEL MICROBIOLOGICAL OLYMPIAD**:K.J.Somaiya College of Science and Commerce for the first time participated in the 14<sup>TH</sup>**STATE LEVEL MICROBIOLOGICAL OLYMPIAD** and the initiative was taken by the **Department of Microbiology**. Totally 70 students participated (48 F.Y.B.Sc,

09 S.Y.B.Sc and 13 T.Y.B.Sc students). Of the total no. 10 students were from the Department of Biotechnology and Botany and the rest (60 in Number ) were from the Department of Microbiology. A screening test was conducted on the 8<sup>th</sup> of January 2014 in the College.

K.J.Somaiya college of Science and Commerce was at the 12<sup>th</sup> position in the T.Y.B.Sc category with the average of top 3 students being 68.66%. The college ranked 24<sup>th</sup> in the S.Y.B.Sc category with the average of the top 3 students being 60.67%. In the F.Y.B.Sc category the college stood 13<sup>th</sup> with the average of the top 3 students being 61.33%.

**Use of Aqueous extract of cranberry in the treatment of urinary tract infection during pregnancy”** by **SnehalPatil**, Jain Lolly at The National Seminar on ‘Biotechnology for better tomorrow’ organised by R.P. Gogate college, Ratnagiri in collaboration with Microbiologist’s society of India on 26<sup>th</sup> Feb. 2015. She was awarded the **First prize in the PG section.**

**Best Girl Student of the year** award for the academic year 2013 -14 was awarded to Ms Jogita Josey from M.Sc. Part I from the Department of Environmental Science.

Ms GargiVijaraghavan, MSc EVS Part 2 student was nominated to interact with Australian Prime Minister Mr. Tony Abbott. and Delegation on 4th September 2014 at University of Mumbai, Fort Campus under New Columbo Plan which is aiming at strengthening the tie up between the two countries for educational purposes. Student exchange programme is also another agenda under this cooperation programme.

#### **International Natural Science Tournament :**

International Natural Sciences Tournament (INST) is a team competition for current undergraduate, Master’s students, and students planning to graduate in 2014. It is organized at Institute of Chemistry, Saint-Petersburg State University, Saint-Petersburg, Russia. In 2014 TEAM – YUKTI ( University of Mumbai, India) and all K J Somaiya college of science and commerce pupils -

Pooja AnamSudhir (captain)

Kothari JimishaHarshad

Khatri Akshay Dinesh

The qualified extramural round and were invited to represent during 12-18 November 2014. They participated and performed excellent solutions.

### **UNIVERSITY TOPPERS/OTHER ACADEMIC achievements**

Ms.Jyoti Mishra secured 74.4% marks and stood 1<sup>st</sup> in M.Sc. Biochemistry University Examination held during 2013

Mr.Gaurav Parkar secured 88% marks and stood 2<sup>nd</sup> in T.Y.B.Sc. Biochemistry University Examination held during 2013.

Ms. Rini Ravindran was conferred with a gold medal for topping the M.Sc part II examination of the University of Mumbai in the subject of Biochemistry. Kalpesh Dalvi, a Biotechnology student has cleared IIT JAM with 4<sup>th</sup> rank in India and pursuing his master's degree at IIT, Mumbai.

Neelam Nirmal, a Biotechnology student has cleared JNU Agricultural examination with 19<sup>th</sup> rank in India .

The South Asian undergraduate University invited students to visit Japan under Youth Exchange Cooperation Project entitled “Kizuna” (which means ‘bond’). In this context, Bro.Shochis Natrajan of S.Y.B.Com. (Financial Markets) participated in the Youth Exchange Programme to Japan in Oct./ Nov.2012. He was nominated by the University of Mumbai to participate in the said programme.

Two students of MSc EVS (2012-2014 Batch) Miss Bhagyashree Grampurohit and Siddika Mohan qualified PET entrance test under environmental science subject during December 2014

### **SUMMER TRAINING:GEOLOGY**

Four students of M.Sc.-I (2011-12) underwent Summer Training at ONGC Ltd., Cambay from 15<sup>th</sup> May to 18<sup>th</sup> June, 2012.

Sis.Manasi Mukund of T.Y.B.Sc. (2011-12) underwent 45days Internship in Log Interpretation at Weatherford Oil Tool Me Ltd, Mumbai-400093 during the summer break.

Five students, Ms. Nida Kazi, Ms. PratibhaJadhav, Ms. Yashasri Jadhav, Mr. Sudeep Mawade and Mr. A.V. Ashwin, of the M.SC-I have been selected to undergo 15 day summer training at Hutti Gold Mines, Karnataka, from 1<sup>st</sup> May 2015 to 15<sup>th</sup> May 2015,

**Microbiology**-Two students from **F.Y.B.Sc. (Microbiology) Khan Simab Faiyaz Ahmed and Yadav Padmaja** were selected for the 'National Initiative on Undergraduate Science' program of Homi Bhabha Centre for Science Education in Collaboration with TIFR and BARC. The camp was from 27<sup>th</sup> October to 31<sup>st</sup> October, 2014.

## **EXTRACURRICULAR**

DLLE under UNIVERSITY OF MUMBAI conducts every year an annual festival known as “UDAAN”. This year the festival was held at S.K Shetty College of Arts, Science &Commerce on 14<sup>th</sup> Jan 2013.

14 Colleges participated in this competition. The competition includes Street Play, Posture making competition, and Power Point Presentation on different topics like IOP, SWS, ITP, and CP. Our College participated in Street Play and Posture making competition.

Our college won the **2nd prize** in street play on topic *Status of Women in the Society*. 15 students participated on this play accompanied by student managers and Extension teacher. Sangram Kamble was the director of the show. The trophy was awarded by the Professor and Director of DLLE, Dr.Dilip Patil. Talents of the students were well appreciated by the Judges and the audience.

## **CULTURAL**

### **Natyamandal –The theatre group:**

The theatre group ‘Natya Mandal’ was established in 2010-11.The students who join the group participate in theatre activities like monoact, play, skit etc.

In 2010-11 the students participated in Youth competition of one act play at state level and were selected in the final round.

In Sakal competition they got 4<sup>th</sup> rank.

In 2011-12 at Indian National Theatre the students got 7<sup>th</sup>rank in one act play at national level.Ms. RuchiraJadhav got consolation prize for acting.

In Sakal Karandak competition the one act play performed by students was awarded 1<sup>st</sup> prize for acting and 2<sup>nd</sup> for writing.

Prizes won by the students in intercollegiate festival

46 INTERCOLLEGIATE YOUTH FESTIVAL

## **SPORTS**

Sis.Jagruti Murbadkar represented Maharashtra State (School sports) at the National level and won gold Medal at National level at the tournament held at Nasik in January, 2011. She also participated in the 72<sup>nd</sup> Jr. & Youth's Nationals table tennis championship held in February, 2011 and won Silver Medal.

Bro.Smeet Thakkar won Gold Medal and Sis. N.M.Jagruti won the Bronze Medal at the State Level Table tennis championships held by the D.S.O. during the year 2011-12.

The Badminton Team of our college secured First prize at the Inter- college competitions.

### **District level tournament.**

Sis Pooja Wani(S.Y.B.FM) was the winner of Bronze medal in Taekwondo.

Years	Name of student	Class	Games	State level	National level
2011	Bro.Sachin Mane	F.Y.B.com	Taekwondo	Bronze	-
2012	Bro. Pranil Phadfare	S.Y.B.Com	Fencing		Participated
	Bro. Nitesh Patole	S.Y.B.COM	Swimming	Bronze	-
	Bro. Alok Kumar Sahu	F.Y.BSC IT	Athletics	Participated	-
	Bro. Swapnil Konda	F.Y.BSC IT	Atheletics	Participated	-
	Bro.Amit Prasad	F.Y.BCOM	Table tennis	Participated	
2013	Swapnilkonda-	S.Y.B.Sc. I.T	Athletics		Participated
	Jagruti Murbadkar	F.Y.B.Com	Table Tennis	-	Participated
	Sandeep Patil	T.Y.B.Com	Taekwando	-	Participated
	Sagar Kharat	M.Com	Best Physics		Participated
	Alok Kumar Sahu	S.Y. B.Sc. IT	Athletics	Participated	
2014	Jagruti Mudbarkar	S.Y.B.COM	Table- Tennis	-	Participated
	Pratik Chaudhari	F.Y.B.Com	Badminton	Participated	-
	Sourabh Thorat	F.Y.BCOM	Athletics	SILVER	-
	Jai Singh Rawat	S.Y.BCOM	Table- Tennis	-	Participated
	Akash walmiki	S.Y.BCOM	Athletics	Participated	-
	Mitesh Patole	S.Y.B.COM	Water polo	Participated	-
	Swapnil Konda	T.Y.B.Sc IT	Athletics	SILVER	Participated

Swapnil Konda stood 4th in 400 meters final of inter collegiate Athletic Meet University of Mumbai

Performance: 50.00 sec in 400 meters (T.Y.B.S.C. I.T.)

Swapnil Konda participated at YMCA STATE ATHLETIC MEET KANDIVALI, Mumbai and stood 2<sup>nd</sup> in 400mtrs, 200mtrs 3<sup>rd</sup>. 08080307706

**The following students won the prizes for their active participation at the state level.**

Bro. Nitesh Patole (F.Y. B.Com) Bronze medal in Swimming.

Bro. Alok Kumar Sahu (F.Y.B.Sc. IT) 4<sup>th</sup> in Y.M.C.A.-Athletics

Bro. Swapnil Konda (F.Y. B.Sc. IT) 1<sup>st</sup> in 4x 400 meters relay in Y.M.C.A. competition-Athletics

Mr.Ravindra Kumar Walkmiki, P.T. teacher passed the National Football Referee Fitness test held at Jamshedpur in December, 2012.

**National and State levels :**

Sis.Jagruti Mudharkar of S.Y.B.Com. has been selected Table tennis tournament all India University (National )

Bro.Swapnil Konda of B.Sc. IT stood IInd in 400 mts Athletic Open State YMCA Meet held during the year 2014-2015. He has also stood 4<sup>th</sup> in University Intercollegiate

Bro.Sourabh Thorat Stood 2<sup>nd</sup> in 800 mtrs at YMCA Open State Meet

Bro.Jai Singh Rawat has participated at Zonal level in Agra (University TT Tournament)

Bro.Sandeep Patil of T.Y.B.Com.has participated in Taekwondo at National level.

Bro.SagarKharat of M.Com. Part I has selected for All India University in Best Physics.

Bro.Alok Kumar Sahu of S.Y.B.Sc. Information Technology has participated at State level Athletic meet – 800 mts.

The following students have participated at National level :



Bro.Swapnil Konda – Athletics  
Sis.JagrutiMudbarkar – Table Tennis  
Bro.KiranKhandare – Acrobatic Gymnastics  
Sis.SONaliBorade – Acrobatic Gymnastics  
Bro.Diven Mane – Choi Kwang Do  
SagarKharat – Best Physique

## **AWARDS/RECOGNITIONS**

### **Academic excellence**

Mrs.Soniya Shetty, Assistant Professor in Microbiology has received :  
A gold medal at state level for 8<sup>th</sup> State level Inter University Avishkar Research convention 2013-14 for Accelerated anaerobic retting of mechanically extracted coconut fibres 15<sup>th</sup>-18<sup>th</sup> Jan 2014 at North Maharashtra university, Jalgaon.

b)A gold medal at Mumbai University level championships 4<sup>th</sup>& 8<sup>th</sup> Jan 2014 for Accelerated anaerobic retting of mechanically extracted coconut fibres.

c)A silver at University level Biodegumming of silk; 4<sup>th</sup>& 8<sup>th</sup> Jan 2014 at University of Mumbai, Kalina.

The following teaching, non-teaching staff and students have been awarded in recognition of their performance in various fields for the year 2013-2014 during Somaiya Foundation Day Ceremony “Ekatva-2014” held on different dates :

**Dr.(Mrs.) Lolly Jain.** Received a National Level Award- ‘**Sitadevi Saravgi Pratibha Puruskar**’ and a cash prize of Rs. 51000/- for contribution towards Society on 11<sup>th</sup> Sep 2014 by **Akhil Bhartiya Terapanth Mahila Mandal, at Delhi.**

The College has been awarded “**Best Institution**” award amongst the 35 institutions of Somaiya Vidyavihar during the Foundation Day Ceremony held during 2013-2014.

List of Awardees (Teaching and Non-teaching staff) The awards are known as Jewels of Somaiya Vidyavihar. 20% of staff were awarded out of total awards nominated in K.J.Somaiya College of Science and Commerce.

1. Dr.S.M.Pawaskar – Biochemistry
2. Dr.Bhanu Raman – Chemistry
3. Dr.Lolly Jain – Microbiology
4. Dr.Amol Patwardhan - Zoology
5. Smt.Nina Phatak – Chemistry
6. Smt.Renu Bakshi – English
7. Shri Ravindra Walmiki – Sports

List of Awardees (Students) :

1. Bro.Nishchal Dwivedi – Outstanding performance in Academics
2. Bro.Swapnil Konda – Outstanding Performance in Sports
3. Sis.Vidya Nair – B.Sc
4. Sis.Priyanka Lele – M.Sc. in Microbiology
5. Ms.Nikita Jain – M.Sc. in Neutaceuticals
6. Sis.Shweta ruparel – M.Sc. in Zoology
7. Sis.Gauri Parab – M.Sc. in Biochemistry
8. Sis.Aaliya Akbarali – M.Sc. in Biotechnology
9. Sis.Sonam Maharana – M.Sc. in Botany
10. Bro.Prakash Gaikwad – M.Sc. in Chemistry
11. Ms.Sameera Isaf – M.Sc. in Physics

### **INDIAN SCIENCE CONGRESS-2015**

The University of Mumbai hosted the Indian Science Congress-2015 fest from 3<sup>rd</sup> to 7<sup>th</sup> January, 2015. Prin.Dr.Vijay Joshi was the Convener for the 22<sup>nd</sup> National Children's Science Congress part of 102<sup>nd</sup> Indian Science Congress. Around 250 participants from different States of India had participated in the Science Exhibition. The National Children's Science Congress was inaugurated by Hon'ble Dr.A.P.J.Abdul Kalam, Former President of India. Shri Kailash Satyarthi, Nobel Peace laureate was one of the eminent speaker called during the exhibition.

#### **5.3.3 How often does the College collect feedback from students for improving the support services? How is the feedback used?**

College collects the feedback about the support system by collecting the SSI (Student's Satisfaction Index) forms from the students once in a year. The

statistical analysis of the data is done and the same is shared with the concerned departments/support systems.

**5.3.4 Does the College have a mechanism to seek and use data and feedback from its graduates and employers, to improve the growth and development of the College?**

College has a feedback mechanism where the feedback on teaching faculty and the support systems like laboratories, Library, Office facilities etc. is taken and the statistical analysis is done.

The feedback of the teachers by the students is discussed individually with the concerned teachers and the departments.

**5.3.5 How does the College involve and encourage students to publish materials like catalogues, wall magazines, College magazine, and other material? List the major publications/ materials brought out by the students during the previous academic session.**

The list of major publications :

Students are encouraged to write in a college annual magazine, (**Sanskriti**).

The Department of Physics has started **Bhautiki**–a newsletter, which is published every 4 months.

The Department of Environment Science has started a e.news letter, **Essentially Green**, which is available on a website.

**5.3.6 Does the College have a Student Council or any similar body? Give details on its constitution, major activities and funding.**

Student council is the student forum formed under the provision of the Maharashtra Universities Act, 1994 and the Maharashtra Universities (Amendment & Continuance) Act, 2000 under section 40(2)(a) and (b) of the Act in every college.

The Students' Council in the college consist of the following

- 1 Principal –Chairman
- 2 One Lecturer nominated by the Principal;
- 3 Teacher-In-Charge of National Cadet Corps;
- 4 National Service Scheme Programme Officer;

5 One student from each class, who has shown academic merit at the examination held in the preceding year and who is engaged in full time studies in the college nominated by the Principal;

6 Director of Sports and Physical Education, if any

7 One student from each of the following activities, who has shown outstanding performance, nominated by the Principal namely:

(1) Sports;

(2) National Service Scheme and Adult Education;

(3) National Cadet Corps

(4) Cultural Activities

8 Two girls students nominated by the Principal Provided that, two of the students from the categories 7 and 8 shall be those belonging to the Scheduled caste or scheduled Tribes or De-notified Tribes(Vimukta Jatis)or nomadic Tribes or other Backward Classes.

### **5.3.7 Give details of various academic and administrative bodies that have student representatives on them. Provide details of their activities**

**Students Council:** The Student's council is formed by the selected class representative from each class.

**Board of Studies:** Under autonomy each subject has a Board of studies which includes 2-3 existing bonafide students and alumni who represent the student fraternity. The opinion of these students is considered while framing the syllabus.

**IQAC:** Internal Quality Assurance Cell of the college has four student class representatives who attend the IQAC meetings and discuss the issues about the students. They suggest various quality initiatives.

**Editorial Board of the Magazine Committee:** The Editorial Board comprises of Zero students who contribute to the magazine of the year.

**Cultural Forum:** Cultural forum Committee of students organization of various cultural programmes throughout the year.

**Sports Committee:** There are three member committee in Gymkhana committee of which Ravindra Walmiki is the sports instructor who is in charge of all the coaches who train our students in various sports activities. The college has coaches for the following sports: Athletics, Badminton, Squash, table tennis.

**Criterion VI**

**Governance, Leadership  
and Management**



## **CRITERION VI – GOVERNANCE, LEADERSHIP & MANAGEMENT**

### **6.1 Institutional Vision and Leadership**

#### **6.1.1 Vision and Mission Statement of the Institution :**

##### **VISION STATEMENT**

Equip the student with knowledge and skills of their chosen vocation, inculcate values, provide them opportunities for all-round growth and prepare them for life.

##### **MISSION**

1. To equip the students with advanced knowledge and skills in their chosen vocation.
1. To provide value-based education and opportunities to students to help them face challenges in life.
2. To nurture a scientific attitude, temperament and culture among the students.
3. To continually review, develop and renew the approach to build India of the Founder's dream.

#### **6.1.2 Does the mission statement define the College's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, College's traditions and value orientations, vision for the future etc.**

The establishment of K.J.Somaiya College of Science and Commerce was the fulfillment of the dream of Late Pujya Padmabhushan Shri Karamshibhai Jethabhai Somaiya and industrialist of distinction and great visionary. Our founder dreamt to build a new India by creating a positive ethos for the students embedded in our long tradition of selfless service. He used to believe the "Na Manusho Paramadharm". The students moulded in this institution should work together zealously and dedicate themselves to build India. Our thousands of alumni are contributing in various fields selflessly.

The distinctive characteristics of a Somaiya student are fearless in their views and have critical thinking abilities. The Somaiya Vidyavihar has earned a distinct reputation of blending traditional values with modern thinking. In the world of

globalization our Vision and Mission keep the students grounded in our traditional values and knowledge base.

### **6.1.3 How leadership involved in –**

- ❖ **Ensuring organization management system development, implementation and continuous improvement**
- ❖ **Interaction with stake holders**
- ❖ **Reinforcing culture of excellence**
- ❖ **Identifying needs and championship organizational development (OD)**

Somaiya Vidyavihar has Management council and Academic. Internationally reputed academicians and administrators along with all Heads of the institutions are member of these councils. The council meets at least twice a year and broad policy guidelines are debated and evolved.

Somaiyavidyavihar has central management team which very proactive. Our president Shri Samir somaiya, Hon. Secretary Shri V. Ranganathan, Provost Dr.RajanWelukar meets all heads of the institutions every month. In the HOI meeting details of academic development administrative issues infrastructural needs of the organization , HR policies , MOUs with international academic and research institutes facilities of the students social responsibility extension programs etc are democratically discussed. The top management has open door policy. Any member of Somaiya Vidyavihar has freedom to approach Management. Chief finance officer , General Manager Human Resource Development, Manager Student Welfare , Senior Manager Information Technology Chief Engineer of Project Office Manager Security and Grounds facilitate the institutions to implement the policies and monitor the progress of the institution.

Principal Vice principal and three deans form executive leadership team at college level. The various statutory bodies as per the statutes of the University of Mumbai guide the executive management team.

Principal of the college was nominated by Hon. Chancellor as chancellor's nominee on academic council of University of Mumbai. He was also member of Management Council. He is a Chairman, Board of Studies in Environmental Science. He has opportunity to work as a member of Management Board of autonomous colleges, Member of Local management committee several Selection committee, fact finding committee, enquiry committee of member of various colleges. During current term of the Principal is appointed as Member of Academic Council and Board of Examination of University of Mumbai. Our



Vice Principal senior faculty is also involve in consultation across the spectrum of higher education nationally and internationally. The faculty of colleges represent in Board of studies of University of Mumbai, SNDT University and faculty of the College have also various other committees. They are member of many board of studies and evaluator, moderator in various Autonomous Colleges. Many faculty members have travelled as Visiting Faculty for seminars and conferences. They have international exposure This exposure has helped us to understand the best practices in the national and international context. The exposure has given an opportunity to contribute and understand trends in higher education.

This has ensured the planning for evolving needs and developing culture of excellence by positive intervention of the management.

**6.1.4 Were any of the senior leadership position of the college vacant for more than 3 year? If so indicate the reason.**

No. The Senior leadership position of the College will not remain vacant for more than a year. The College Management has an advance succession planning for a senior leadership position. The present Principal is working for last seven years in the position. The Vice-Principals are appointed immediately after the retirement of the earlier incumbent. If the HODs of any Department retires, the senior-most teacher is appointed as Head of the Department. There is a smooth transition in handing over the responsibilities of senior leadership positions whenever these fall vacant.

The Management Board from the year 2015 has devised a new leadership organizational structure where the senior leadership is expected to work as a Dean. Dean is incharge of various educational verticals such as Academics, Administration, Students Welfare and Research and Consultancy. These positions will induct young leaders who can be groomed to lead the institution in future.

**6.1.5 Does the college ensure that the position in its various statutory bodies are filled and conduct of meetings at the stipulated intervals**

The College has been filling all the positions in its statutory bodies regularly. The regular stipulated meetings of various statutory bodies are conducted to discuss the diverse issues related to overall quality enhancement. A well- defined communication channel is established to convey instructions and responsibilities

to all the concerned. The meetings of Principals of all the institutions are conducted.

**6.1.6 Does the college promote a culture of participative management? If yes indicate the levels of participative management.**

The Somaiya Vidyavihar, a conglomerate of 35 institutions, has its own Management Board and Academic Council. The Management Board and Academic Council of Somaiya Vidyavihar comprises reputed international academicians and administrators. They meet twice a year and broad directions to this educational conglomerate are evolved during these consultations.

The President, Trustees, Hon.Secretary and Provost conduct regular meeting of Heads of the Institutions. During the Heads of the Departments meetings issues related to academic development, infrastructure development, administration and maintenance are discussed. The action taken report is also reviewed for timely completion of the points discussed. This mechanism brings uniformity of administration in various institutions of Somaiya Vidyavihar.

The principal is the academic and administrative head of the college. He is assisted by the Vice-Principals in various academic and administrative functions. The principal conducts meetings of all Heads of the Departments on every Monday of the first week of the month.

IQAC is involved in preparation of action plan for the current year for the overall quality improvement of the college. Various Committees are formed at the beginning of the year and a variety of activities are conducted throughout the year for the students by these Committees.

Each department is managed by the Head of the department /co-ordinator for the day-to-day administration which include teaching, learning and co-curricular and extracurricular activities. HODs conduct the meetings of the staff members/faculties of their departments after the Principal's meeting.

The administration is supervised by the Registrar. The account section is headed by the Accountant. Various administrative duties are assigned to the support staff of the office. Before the Autonomous status was conferred on the college the Local Managing Committee (LMC) was a body which used to meet to discuss HR issues and the Budget. The LMC as envisaged in the Maharashtra Universities' Act 1994 comprised President or Chairman of the Management (or

his nominee), secretary of the Management or his nominee, three local members representing different fields (and nominated by the Management), three teachers elected by the teachers of the college, one non-teaching employee elected by the non-teaching employees of the college and the Principal of the college acting as the Member Secretary. The Governing body and the LMC played a pivotal role in translating the college's vision into its multifarious activities.

After confirming Autonomous Status, the college has set up the Board of Management, Academic Board, Examination Committee, Finance Board, Purchase committee and Boards of Studies for various Departments / subjects under the chairmanship of the Principal, as per the statutes for autonomous colleges of the University of Mumbai.

**6.1.7 Give details of the academic and administrative leadership provided by the University to the college?**

Before the conferment of autonomy the college used to follow the syllabi designed by the University of Mumbai. The University of Mumbai has organized a number of workshops in collaboration with our college to discuss the new syllabi implemented at various levels.

The Vice-chancellor and the Pro-vice-chancellor have been on the various core-committees of the college. The college has always been guided by the Vice-chancellor and Pro-vice-chancellor during the process of acquiring autonomy. The college Management Board, Academic Board, Board of studies of different Subjects and Finance Board which were formed under the autonomous status, have the University representatives on them.

**6.1.8 How does college groom leadership at various levels ?**

The College Management has systematic succession plan for the leadership at various level.

In various Committees like Admission Committee, Time table Committee. Examination committee, Research Monitoring Committee, Grievance Redressal Cell, Women Development Cell, there a perfect blend of Senior and Junior staff members. The Chairmanship of a committee is bestowed by rotation so as to groom new leaders.

The College has developed new organogram. The new three positions of Dean have been created for heading various educational verticals. The Dean's position will be bestowed by rotation. This will give 360 degree insight of educational administration to them. This is how the future leadership will be groomed.

Leadership opportunities are provided to conduct various activities. These opportunities groom leadership.

Incentives and encouragements are provided in the form of Awards, recognitions, appreciations for outstanding performance in research, administration and excellence in teaching and innovation in teaching and learning

Faculty members are encouraged to attend leadership development workshops.

**6.1.9 Have the college evolved any strategy for knowledge management ? If yes give details.**

The College has not evolved formal strategy for knowledge Management. However, certain healthy practices adopted by the College disseminate acquired knowledge to various stakeholders of the College. This contributes collective thinking of the organization for e.g.

- (i) The faculty members after attending seminars, workshops, conferences, training programmes deliver sessions for interested stakeholders formally and informally. These help in disseminating knowledge across the stakeholders.
- (ii) Documentation Committee keeps an upto date record of documents pertaining to the participation of the faculty members the expertise acquired viz. Research Papers published , workshops attended, seminar attended etc. This information is readily accessible to all other faculty members for sharing whenever required.

**6.1.10 How are the following values reflected in various functions of the college ?**

**Contributing to national development**  
**Fostering global competency among students**  
**Inculcating a value system among students**  
**Promoting use of technology**  
**Quest for excellence**

The contribution of K.J.Somaiya College of Science and Commerce is to create citizens with global competencies deeply rooted in Indian value system. The innovation in teaching and learning and evaluation fosters the critical and creative abilities of the students. We are trying our level best to create transformation based learning system than consumer driven learning system. A problem-based multi-disciplinary creative thinking ability is at the core of academic delivery. The bouquet of courses offered to the students gives them the opportunity to choose curiosity driven courses. The hallmark should be entrepreneurialism and adaptability. This motivated the young citizens groomed in our education institutes of the country are contributing for the development of our motherland.

The College envisages to inculcate global competencies by consciously giving international exposure to our faculty members and students.

The Gita / Ethics is an integral part of ethos of Somaiya Vidyavihar. We try and inculcate a strong traditional value system in students. The young minds in digital age are differently motivated. The quest for excellence is the driving force of our College. Our staff members adopt evolved pedagogies.

#### **6.1.11 Give details of the UGC autonomous review committees recommendations and its compliance.**

The College has completed three years of autonomy. The UGC autonomous review committee has not yet visited the College. As per the Statute of University of Mumbai the review committee will visit the college soon for the assessment and review.

## **6.2 Strategy Development and deployment**

**6.2.1 Does the college have a perspective plan for development ? If so give the aspects considered in development of policy and strategy .**

- ❖ **Teaching and learning**
- ❖ **Research and Development**
- ❖ **Community engagement**
- ❖ **Human resource planning and development**
- ❖ **Internationalization**

The College has drafted perspective plan immediately after second cycle of assessment. As recommended by the Peer Team, College decided to opt for autonomy. The College started planning for applying for Autonomous Status. The massive consultations with various stake holders were carried out to discuss the merits and demerits of the autonomy. Seminars, visits to the various autonomous colleges and lectures of experts in the field of autonomy were arranged for the first-hand experience. Co-ordination Committee was formed. The Advisory Board of various subjects were formed to designing of courses, adopting semester pattern, adopting choice-based credit system, Continuous Internal Assessment, innovative evaluation techniques. The role of Internal Quality Assurance Cell was strengthened to institutionalize quality maintenance and enhancement mechanisms. The desired educational learning spaces like class rooms, ICT integration in academic delivery were established. The College also devised bouquet of elective courses and Honours Programme to accommodate genius students. The College decided to implement autonomous status for all three years right from First Year of conferring autonomous status.

**6.2.2 Enunciate the internal organization structure of the college for decision making processes and their effectiveness**

The Management Board meets minimum two time in an academic year. After due deliberations and discussions on broad policy guidelines are finalized. The policy guidelines are regarding finance, new academic programmes, reviews of the programmes, academic calendar and their implementation is suggested by the Management Board of the College in the core meetings every academic year. The Principal is Administrative and Academic Head of the College. The decision making of the day- to-day affairs is done by Principal with consultation of senior colleagues. Boards of Studies formulate need-based relevant syllabi in different

subjects. The syllabi are presented and discussed in Academic Board and then implemented. Academic Board meets twice in a year. The Finance Board meets twice every year to finalize the budget and finance related matters. IQAC, Students' Council Meeting, Principal Meeting etc.

**6.2.3 Specify how many planned proposals were initiated / implemented during the last four years. Give details.**

At the start of the each academic year IQAC makes an action plan for the year which includes the proposals to be initiated and implemented .AQARs for the last four years shows the details of these proposals.

The following are few proposals initiated and implemented in the last four years :

1) **Applying for Autonomy** – the College was offered autonomy in 2013-14

2) **Applying for FIST, STAR, COPE to DST, DBT and UGC respectively.**  
College has received FIST STAR and grants by DST and DBT in 2012 and 2013 respectively.

3) **Integrating College central library with the libraries of other institutions in the campus.**

Thirteen Libraries of other institutions on the campus are now integrated.

4) **To carry out environmental audit of the campus (2014).**

The college has provision for rain water harvesting, sewage treatment plan and Bio-gas plant.

5) **Increased participation of students in intercollegiate research competition:**  
The participation in “Avishkar” Inter University Research Competition and Intercollegiate cultural competition “Youth Festival” has increased tremendously.

6) **Compulsory non-credit course options:** The students are given the bouquet of courses in the field of sports / spiritual and cultural activities as a part of a curriculum.

**6.2.4 Does the college have a formally stated quality policy ? How is it designed, driven, deployed and reviewed ?**

The college has formally stated quality Policy in the college prospectus and college website. It has been designed on the basis of our vision and mission. The feedback taken by the students, teachers, parents etc. help us to deploy and review the Quality Policy.

**6.2.5 How does the college ensure that the grievances/complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stake holders relationship.**

The college has efficient mechanisms for the redressal of grievance. The Grievance Redressal Cell, Women Development Cell, Anti-sexual Harassment Cell and Anti-ragging Committee work towards the redressal of grievances. Wide publicity is given about the members and functioning of these Committees. The grievances of the students and staff members are directed to these cells through the Principal and are solved. The grievances are analyzed and classified at the end of the year.

**6.2.6 Does the college have mechanism for analyzing student feedback on institutional performance ? If yes what was the institutional response.**

1) **Students’ feedback of faculty** acts as a much needed catalyst for bringing about a transformation in improving faculty’s performance

The student feed-back of teachers and their rating can be used as indicators for performance improvement of the faculty

Under the Students Feedback System the faculty members are rated on a scale 1-5 by the students with respect to their knowledge, class-control, teaching ability, problem solving capacity etc. The average score of the feedback report is shared in camera with the concerned faculty member and, if necessary, he/she is advised to improve his/her performance.

2)**Student’s Satisfaction Index (SSI)** is a tool to evaluate feedback on the library and laboratory infrastructure, co-operation of non-teaching and, office staff etc.

The student feedback and student satisfaction index is analyzed statistically and the outcome is discuss in Heads of the Depts. Meeting and appropriate measures are taken to improve the system. Thus, students Feedback and SSI help us to improve the institutional performance.



**6.2.7 In what way the affiliating University helped the College to identify the developmental needs of the College?**

The college has formed the Academic Council, Management Council, Finance Board and BOS in all subjects under autonomy. There are University representatives on these boards. The Vice-chancellor and Pro- vice chancellor also visit the college and interact with the faculty.

Principal Dr. Vijay Joshi is on the Management Council, Academic Council and Board of Examinations of the University of Mumbai. He contributes in various decision-making of University through these bodies. He is also representing University on various Management Boards of different Colleges. He is a LMC member, Vice-Chancellor's Nominee on the Selection Committee, Enquiry Committee and Fact Finding Committee etc.

The college conducted a lecture EYE (Enlighten Yourself Every Saturday) a Lecture series in collaboration with University of Mumbai.

Intercollegiate Youth Festival, Intercollegiate Football matches, Intercollegiate Chess Competitions and Intercollegiate Athletic Meet are conducted in collaboration with University of Mumbai

**6.2.8 Does the affiliating university have a functional College Development Council (CDC) or Board of College and University Development (BCUD)? If yes, In what way College is benefitted.**

The University of Mumbai has a functional BCUD which informs the college about various UGC schemes, government schemes and grants available to the teachers for carrying out research projects.

Every year the college applies for the grants and on an average about 6-7 faculty members receive the grants every year.

The mega event Avishkar, which is a science exhibition has been organized by the BCUD in which the students and teachers of the college participate.

**6.2.9 How does the College get feedback from non-teaching, teaching, parents and alumni on its functioning and how it is utilized.**

The informal feedback is gathered from the non-teaching staff. The meetings of the non-teaching staff members with the heads of the departments are organized for the smooth functioning of the departments.

The quarterly meetings of the teaching and non-teaching staff members are conducted with Principal to discuss about the planning and implementation of various programmes .The heads of the departments conduct the meetings with their faculty every month.

Parents meeting is organized in which they interact with the faculty members, share their views about the facilities provided to the students which help us to improve ourselves. Many times they visit the faculty members and the Principal personally. The feedback from parents is also collected during Parents teachers Committee meetings.

There is a strong Alumni representation in various statutory bodies. The alumni meet is a platform to voice out their opinion regarding activity of the College.

There is a provision for the alumni to give their feedback online.

#### **6.2.10 Does the College encourage autonomy to its academic departments and how does it ensure accountability?**

The college has implemented autonomy to all undergraduate and postgraduate courses. The Academic Departments enjoy autonomy through there independent Board of studies.

The new syllabi in each subject has been designed by the Board of Studies which has representatives from renowned institutes.

The syllabi are then presented to the Academic Board and the Board of Management and is approved. The academic Board and Management Board ensures that new changes are within the prescribed policy frame work. These bodies also ensures the changes meet the basic standards

#### **6.2.11 Does the College conduct performance auditing of its various departments?**

The academic audit is conducted every year by the reputed academicians. A two member team visits all the departments and interacts with the HODs, faculty and non-teaching staff . The suggestions are given to the departments as and when required for improvements.

### **6.3 Faculty Empowerment Strategies**

#### **6.3.1 What efforts are made by the College to enhance the professional development of teaching and non-teaching staff?**

The teachers are encouraged to attend the seminars and conferences in other colleges or reputed institutes.

They are also encouraged to present the Papers and Posters at the National and International conferences. The registration fees are paid by the college. The duty leave is granted for attending workshops / conferences.

The faculty members attend the orientation and refresher courses to achieve career advancement as per the requirement of UGC.

The faculty also attends the summer schools.

The teachers are encouraged to apply for FIP to pursue their Ph.D degree. Five teachers have been sanctioned FIP who completed their doctorate in the last five years.(+2)

A workshop on Google applications was organized for the teachers. Some faculty members were sent to BASF for a training programme on instrumentation.

Hands-on training on HPLC and HPTLC was organized for the teachers by Anchrom laboratory.

Some teaching faculty are the members of the Boards of Studies in different various subjects at University of Mumbai.

The training programmes for non-teaching staff members are organized. The workshop on instrumentation was conducted by WRIC, Kalina, Mumbai at our college for the non-teaching staff.

A talk on Arogya Mantra was organized for the non-teaching staff members. The workshop on safety measures was conducted for teaching staff and the students.

**6.3.2 What is the outcome of the review of the Performance Appraisal Reports?  
List the major decisions?**

The Performance Appraisal Reports, provide good feedback to faculty. Report also helps the administration to take remedial measures. The need for training is identified. The faculty members on the basis appraisal are ask to improve on certain desired skill sets.

The Workshops have been conducted, , in order to improve competencies.

**6.3.3 What are the welfare schemes available for teaching and non-teaching staff?  
What percentage of staff have availed the benefit of such schemes in the last four years?**

The teaching staff members have been sponsored for attending the national and international conferences.

Retiring Teaching and Non-teaching staff are felicitated and given a Gold Coin worth Rs:10,000/- towards appreciation for rendering long services in the institution by the Somaiya Vidyavihar Management.

Provident Fund of unaided staff is compulsory deducted.

Maternity leave to unaided staff is granted.

The faculty is given the advance salary whenever their salaries from the government are delayed.

Every year on the occasion of Teachers' Day the teaching and non-teaching faculty are felicitated for their exemplary long service.

Various intercollegiate sports competitions are organized for non-teaching staff members. Health checkup camps for the teaching staff members are organized.

The non –teaching staff are provided an assistance of Rs.1000/- each for the purchase of books for their wards annually by the Management.

The Credit Co-operative Society, managed by the non-teaching staff, provides a financial support to the tune of Rs.8,00,000/- to its members.

The General Provident Fund is duly deducted every month for teaching and non-teaching members of all the Un-aided courses.

Shree Satyanarayan Pooja” is organized every year by the Non-teaching staff.

**6.3.4 What are the measures taken by the College for attracting and retaining eminent faculty?**

The college office actively pursues the matters pertaining to promotions, placements, approvals and retirement benefits of the faculty. The faculty members are motivated to acquire higher qualifications and encouraged to avail of the UGC scheme of Faculty Development Programme (FDP).

The faculty are also encouraged to undergo industrial training in reputed Industrial houses.

Incentives and encouragements are provided in the form of Awards, Recognitions, Appreciation, various opportunities for improving qualifications, Personal book scheme etc. for retaining the faculty.

Six faculty members got an extension of two years after their superannuation while two faculty members have been continued as the Adjunct Professor and the in-charge of Unaided courses after their retirement.

**6.3.5 Has the College conducted a gender audit during the last four years? If yes, mention a few salient findings.**

The college has a large number of girl students at UG and PG levels. Also majority of the faculty members are women. Nine department have women departments have women HODs.College has ‘Women Development Cell’ established according to the guidelines given by University of Mumbai. The College organizes several gender sensitization programme

### 6.3.6 Does the College conduct any gender sensitization programs for its staff?

1) A mega event, **Yuvak-yuvati Mela** was organized by our college in collaboration with NSS unit of University of Mumbai and NGO Akshara ( a Women Research Centre) on 9<sup>th</sup> and 10<sup>th</sup> Feb 2011. Before the event, 32 NSS volunteers were given orientation on 1<sup>st</sup> Feb., 2011.

The aim of the mela is to create awareness about gender equity and women empowerment through games.

Volunteers carried out campaigns for the same mela in campus as well as 38 colleges ranging from Dadar/Matung to Uhlasnagar and Vashi.

Nearly 2300 youngsters from various colleges, 80 teachers and about 60 students of B. Ed and D.Ed Colleges have visited the mela.

2) An essay competition was organized on the following topics:

1. Issues and challenges of Educated women in India.
2. Gender Bias: Can it be overcome?
3. Education of women and inclusive development
4. Health infrastructure for women
5. Status of women in Indian Politics.'
6. Women in Mass Media'
7. Empowerment of women – A truth or a myth?'

The main aim of this competition was to expand their perception of women in society and to generate innovative ideas about their overall progress.

3) The College organizes several gender sensitizing programmes to name a few : Seminar-cum workshop on the title, **Cancer awareness Program** on 19<sup>th</sup> September 2013, in collaboration with Vasantha Memorial Trust, a Non-Governmental Organization (NGO). The Vasantha Memorial Trust in its mission to create awareness regarding cancer.

4) The Women Development Cell organized a seminar-cum-workshop on the title, 'Generating awareness against violation of Human rights' in collaboration with Oasis India, an organization of international repute.

**6.3.7 What is the impact of the University’s UGC-Academic Staff College Programmes in enhancing competencies of the College faculty?**

Academic Staff College organizes the orientation and refresher courses for the teaching faculty members. In last 5 years 25 faculty members completed the refresher and orientation courses with A grade.

The faculty members have a very good interaction with resource persons in such programmes. The teachers get the exposure to upcoming research fields and new teaching methods which are implemented in the college.

Some teachers are invited as the resource persons at the refresher and orientation courses by the Academic Staff College.

## **6.4 Financial Management and Resource Mobilization**

### **6.4.1 What is the institutional mechanism to monitor effective and efficient use of financial resources?**

The Finance Board of the College monitors the use of resources and gives sanction for projects. It also reviews the budget and the accounts. The Accountant and Administration is responsible for prudent financial management of the resources. They look after investment of resources to maximize the interest earned. The Statutory bodies of the College, the Finance Committee and the Management Board, review the use of resources including the budgets and accounts.

Finance committee under autonomy – recommendation for better handling of financial resources.

Internal auditors appointed by management check and verify the documents and records of the college twice in a year.

Budgetary resources to fulfill the college mission (offer quality programme are – Timely & effective utilization of salary grant, UGC grant, tuition fees, scholarships freeships.

Purchase requirements are processed by the Purchase Committee as per the well-established procedures. Stock register is maintained in every department and the College office indicating the data regarding equipment, fixtures, furniture etc.

### **6.4.2 Does the College have a mechanism for internal and external audit? Give details.**

The college accounts are audited at different levels viz., Internal Audit, Statutory Audit, Audit by the office of the Joint Director, and Audit by the office of the Auditor General.

The internal and statutory audits are conducted on the basis of audit guidelines issued by the ICAI with respect to assessment of internal control procedures, systems and reporting. Periodic reports (half-yearly) are submitted to the management and the college.



**6.4.3 Provide Audited Income & Expenditure statement of academic & administrative activities of previous 4 years**

*Please refer Annexure - IV*

**6.4.4 Have the accounts been audited regularly? What are the major audit objections and how are they complied with ?**

Yes, The accounts have been audited regularly and there are no major objections recorded.

**6.4.5 Narrate the efforts taken by the College for resource mobilization.**

College applied for a FIST (sanctioned 90 lakhs, June 2013) and STAR to DST and DBT (sanctioned 69 lakhs, June 2014) and has received the grants of Rs79.5 lakhs (FIST) and 43 lakhs (STAR) respectively.

The faculty members apply for the minor and major research projects to UGC and University of Mumbai. The College has received Rs. 11,95,000/- through the minor research grants received by UGC and Rs. 8,86,200/- through the minor research grants received by University of Mumbai & Rs.66,000/- from Management.

The college has received a grant of Rs 3, 00,000/- for the IQAC.

The college has applied for COEP to UGC and is awaiting for the outcome.

**6.4.6 Is there any provision for the College to maintain the ‘corpus fund’? If yes, give details.**

The corpus fund is created for entire somaiya Vidyavihar centrally

## **6.5 Internal Quality Assurance System**

### **6.5.1 Does the College conduct an academic audit of its departments? If yes, give details.**

The college conducts the academic audit of each department. The audit is carried out by the Experts from other colleges. The heads of the departments do the presentations on the activities done by their faculties and the students. There is an interaction between the teachers and the external Experts. The suggestions are given by the Peer team which are well accepted by the department for its overall improvement.

The team also visits the library, NSS and NCC departments and submits the report to the Principal.

### **6.5.2 Based on the recommendations of academic audit what specific measures have been taken by the College to improve teaching, learning and evaluation?**

In the last academic audit, the Audit Committee has suggested about administration of Honours Programme. The Honours programme was administered and co-ordinated centrally by the co-ordinator. The Audit team suggested the participation in the honours programme will improve if it is decentralized and conducted at the departmental level.

The Audit Committee also insisted that there should be cross departmental courses to internalize ethos of interdisciplinary approach to the higher education.

The Audit Committee also mentioned after evaluating the Science Departments that if possible we can include course on Scientific Writing since the skill of scientific writing is different than normal written communication.

### **6.5.3 Is there a central body within the College to continuously review the teaching learning**

The continuous review and monitoring of teaching and learning is done by Academic Monitoring committee

Every teacher has a Teachers' diary in which they write the daily report of their lectures and practicals. These diaries are signed by the heads of the departments and the Principal at the end of every month.

The letters are sent to the parents of the irregular students and the meeting of the parents with teachers is organized.

The results analysis is done immediately after the declaration of the results and is reviewed. Students feedback is also used to review the teaching –learning process.

**6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?**

IQAC is an active planning body of the college. It comprises the senior teachers of the college. IQAC conducts regular meetings in an academic year. The action plan is prepared at the beginning of the year and is evaluated at the end of the year.

IQAC suggests the strategies for overall quality improvement of the college and also monitors the activities throughout the year.

The examination reforms have been changed under autonomy as suggested by the IQAC. The reforms implemented are : the dual checking of the papers ,masking of papers, submission of GRID and synoptic answers along with question papers and centralized assessment system.

**6.5.5 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.**

IQAC has one management nominee, two alumni and five students as the members.

The external IQAC member suggested as follows :

1. Increase association with “Help a child scheme” and “Girivanvasi Pragati mandal”
2. Connect with Website [innocentive.com](http://innocentive.com) which connects students across the globe through various online activities.

3. Mahendra United World College which has 13 institutions facilitate interaction with different people from different nations.

4. Common ambulance / mobile van in the campus for emergency.

Interaction with management nominee helps the college to share the activities, plans with the management.

Alumni assist in organizing industrial visits, lectures, placement, career guidance for the students. Alumni feedback helps the college to improve the overall quality.

**6.5.6 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?**

IQAC reviews the incremental academic growth of the students and suggests to conduct the remedial and bridge courses for the students.

**6.5.7 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centres, etc.?**

**There is regular mechanism to review policies of various academic and administrative functions under Autonomy.**

College has received FIST STAR .Avishkar Participation award in Avishkar

Students awards in research papers

Teachers awards in Research papers

President's award to the student -

Best College award – Ranking in India today / week / Hindustan Time

Research scholar meet - December, 2014

Academic audit

Award function by management

Interaction with stake holders – parents meeting alumni meeting, alumni association – orientation & Induction Programmes. Alumni on various boards.

Reinforcing culture of excellence – participation in National / Important bodies –other committees

Identifying needs and championing organizational development -

**Criterion VII**

**Innovations and Best  
Practices**



## **CRITERIA –VII – Innovations and Best Practices**

### **7.1 Environment Consciousness**

#### **7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?**

The College conducted a Green Audit of the campus. The report was positive, reflecting the green initiatives that the College has taken on campus. The major suggestion of the green audit team was to have a laboratory effluent treatment plant based on the Phytoid Technology for the Chemistry department Laboratory effluents

#### **7.1.2 What are the initiatives taken by college to make campus eco-friendly? Efforts for Carbon neutrality**

K. J. Somaiya College of Science and Commerce has taken many initiatives to make itself carbon free. The college fulfills three of the main goals of a standard green building by taking up various initiatives such as. Namely,

1. Energy efficiency
2. Water efficiency
3. Waste management

These include:

The phenomenal day lighting received by the college can be credited to the brilliant structure planning of the college premises.

Proper ventilation in majority of the classrooms, laboratories and offices which is an indication of good Indoor Air Quality (IAQ).

The rich biodiversity of birds and butterflies are an indication of the good amount of plant species present in the campus which acts as the campus's lungs and helps in cleaning the air and making it pure. This helps in well-being of the individuals who are present in this environment.

#### **Phytoid Plant and Biogas Plant:**

Recently two new programs of Biogas Plant and Phytoremediation plant have been set up in addition to already functioning vermin composting and rainwater harvesting setup to take care of laboratory effluents and Canteen waste. These

plants also serve as model for teaching learning scientific Waste Management practices.

### **Energy Conservation**

#### **Lights and Fan use -**

Frugal use of lights and fans is facilitated by the highly eco-friendly structure of our building. All rooms are provided with large windows to let light in and air to circulate. Use of artificial lighting during day/working time is minimal and cross ventilation of air ensures a cooler indoor environment largely reducing dependence on fans and air conditioners. The compact fluorescent lamps(CFLs) are used as these use one-fifth the energy of conventional tungsten bulbs while giving the same output, reducing CO<sub>2</sub> emissions, and lasting 9,000 + hours longer than incandescent bulbs. There is reduced energy consumption and lower emission of heat, reducing cooling requirements.

#### **Air-conditioner – with energy star machines :**

New A/C purchases are energy star machines. Existing A.C's are attached with power saving regulators and thermostats are set at energy conservation mode to control consumption and running costs. Wherever possible, air conditioners are placed in shady locations to give added advantage of 10% less energy consumption.

#### **LED Display( As notice board)**

New purchases are energy efficient models such as L.E.D.

Computers and Lab/Office equipments - All lab equipments are judiciously switched off when not in use. Laser printers are placed on low power consumption functions.

Reckless purchasing and discarding of equipment is strictly discouraged to avoid needless hazardous waste and resource burden. Annual maintenance of equipment is strictly adhered to, for enhancing energy efficiency and longer life.

**Use of Pipe Natural Gas** in the entire building has eliminated the use of LPG hence the expenditure on the cost of LPG cylinders has considerably reduced.

#### **Use of Renewable energy**

Solar lights in the campus pathways, bio gas for cooking have reduced the use of LPG .



Use of solar system for college is under planning stage will be commissioned in near future.

### **Water Conservation:**

**Rain Water Harvesting :** This innovative and well planned scheme was implemented in June, 2010 by the consulting group D&D Ecotek Services.

Somaiya Campus at Vidyavihar is spread across 60 acres of land having 37 educational institutes and student population of around 37000. To fulfill the water demand for, a huge amount of water demand is met by Municipal corporation. However, campus also has rainwater harvesting system as a means of water conservation to meet its drinking and non-palatable needs.

D&D Ecotech helped it harvest more than 70 lakh liters of rainwater in 2010, helping them reduce their dependence on bore wells and other sources of water. By taking up this project the Somaiya administration has served the dual purpose of education and environmental improvement. First, it is an opportunity for students to see the practical implications of rain water harvesting. Second, the water table of the entire area rises thereby positively impacting the environment and benefiting the society.

### **Waste Management**

**a.Hazardous waste Management** As such the College functioning and activities do not involve any specifically hazardous waste.

The waste water released from chemistry department will be treated by phytoremediation

**b.E-Waste Management:** E-waste - efforts are taken on safety and environment friendly appropriate methods of disposing devices and materials from computer lab and other areas. Electronic goods are put to optimum use; the minor repairs are set right by the staff and the Laboratory assistants; and the major repairs, by the professional technicians, and are reused. UPS Batteries are recharged / repaired / exchanged by the suppliers.

**c.Vermicomposting and Composting of Garden and canteen vegetable waste** :For treating the food and other organic waste generated from the campus there

is a large vermicomposting unit setup in the campus near the Engineering canteen. The Somaiya administration is working to preserve the environment by recycling the garbage produced within the campus. The Vermiculture project was implemented in June, 2010.

This project uses the species **Eisena foetida** for vermicomposting. It has all the suitable attributes such as high biomass consumption, disease free and tolerant or resistant, high growth rate, and high efficiency of conversion of ingested biomass.

Everyday around 200 kilos of wet garbage is produced in the campus, the main sources being the canteens and the gardens. In an area behind the Engineering college, next to the canteen, there are 8 pits of around 200 sq meter in totality where Vermiculture is practiced. Thanks to an innovative new method the worms go back in to the earth after composting leaving absolutely no foul smell or any indication of garbage disposal around the area.

The Vermiculture project has had a profound impact on the environment as it has ensured proper disposal of garbage and recycling of waste. It is interesting to note that no garbage has been burnt in the campus since the project was implemented. The compost formed acts as a natural manure for plants. The compost that is obtained is used for fertilizing the plants in the campus that are present rather than selling it to any outside party.

#### **d. Biodiversity Conservation**

**Landscaping:** The campus characterizes a comforting green environment with old and recently planted trees visible on all sides with lots of effort and hard work over the last five – six years.

The College lawns have been brought under planned landscaping. The College now sports an enviable green lawn and gardens that enhance the beauty of the campus and social experience of students.

#### **e. Gardens:**

The Campus has a Botanical garden, a Nakshatra udyan, a medicinal plant garden and a recent attraction the Butterfly Park

**Botanical Garden :** About half acre of land near the K.J.Somaiya Engineering College is developed into a botanical garden by the department of Botany. About 80 plants belonging to herbs, shrubs, climbers, trees etc. have been planted in the

garden. Some of these plants are used for regular Undergraduate and Postgraduate practical.

**Traditional methods of Conservation:**

On our campus, a Nakshtra garden has also been developed. Various plants which turn very effective to individuals according their rashi (Zodiac Sign) as well as nakshtra (star) are grown into this garden.

Noise pollution reduction due to the presence of various species of trees in the campus.

**Environmental Education and awareness activities:**

The Department of Environmental Science holds intercollegiate Environment fest '**CONVERGENCE**' annually,

The Environmental Science Department also releases online Environmental News bulletin called Essentially Green

The College also hosted public lecture series '**Enlighten yourself every Saturday**' on the theme Environment for future in collaboration with University of Mumbai where eminent environmentalist were called for delivering lectures

**Sreet plays in campus and out campus**

NSS stages many street plays on the theme of Environment awareness green technology in the campus and other locations in Mumbai raising the awareness about the environment amidst students and citizens on a regular basis.

## 7.2 Innovations

### 7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

#### 1) Need-based relevant changes in syllabi of all subjects

The syllabus is developed by forming a team of teaching faculty, eminent industrialists and students. An effort is made to bring about the contemporary changes and include the modern technology. The syllabus is reviewed and revised by conducting the periodic meetings.

A new bouquet of credit courses of around 30 non-credit courses in sports, spiritual, foreign languages and sciences is offered to students.

The credit courses are offered with the extensive choice according to the students interests. The best possible coaching is made available to the students, which may bring out the talents among the students and could prove to be a turning point in their career.

Sports and other art courses have improved the participation in various events at Regional and National levels, whereas technology based courses are improving the understanding of the basic concepts.

#### 2)Internal Examination reform

Students are given freedom to select the pattern, based on their personal interest for the internal examination contributing to 40% of their performance, where they have tension free examination system which inculcates originality and creativity, irrespective of the subject. Students can express themselves in a better way with confidence.

Mini Project, Book review, MOOCs, submission tutorials, internship etc.  
Internship to students in NT House, BARC, TIFR, Homi Bhabha centre .

#### 3)ICT integration

Computer Based Learning(CBL) and teaching makes learning more efficient and more interesting to learners thus improving the quality of education. The knowledge deepening approach has a greater impact on learning. Its policy goal is to increase the ability of learners, to add value to education.

ICT offers increased possibilities for codification of knowledge about teaching and for innovation in teaching activities through being able to deliver learning and cognitive activities anytime and any where

Open up the new Horizens of knowledge and better use of social networking sites for channelizing the energy of the youth in a positive manner.

More than 80 online lectures

Digitization of railway concession

Refund of fees through RTGS

SMS alerts to parents about results for the last three years

Automated bell

LED Notice Boards

### **7.3 Best Practices**

#### **7.3.1 Title of the Practice**

Innovation in internal evaluation process

- 1) Enriching expressions : leveraging alumni expertise for enriching academic experience
- 2) Integration of on campus and off-campus libraries
- 3) Online application for admission
- 4) ICT integration in students services: On line application for admission, Google forms, RFID Cards, Railway concession, Lifelong E.mail. id., Google services.

#### **7.3.2 Give details of any two best practices which have contributed to better academic and administrative functioning of the College.**

The two best practices amongst mentioned above which contributed to the betterment of the students' performance and overall development of the students are as follows.

- 1) Flexibility in internal Evaluation
- 2) Enriching expressions: leveraging alumni expertise for enriching academic experience to students

**7.3.2. a: What are the objectives / intended outcomes of this “best practice” and what are the underlying principles or concepts of this practice (in about 100 words)?**

**b: What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)? Describe the practice and its uniqueness in the context of higher education in India.**

**c: What were the constraints / limitations, if any, faced (in about 400 words)?**

**d: Provide evidence of success such as performance against targets and benchmarks, review results. What do these results indicate? Describe in about 200 words.**

**e: Notes (Optional). Please add any other information that may be relevant for adopting/ implementing the Best Practice in other institutions (in about 150 words):**

## **Best Practice: 1**

### **Flexibility in internal Evaluation**

#### **1)Objective and underlying principle:**

After conferment of autonomy while framing the syllabus the Board of studies were given a format which included the definition of learning objectives and learning outcomes along with reading list. As per the Blooms' pedagogy there are various levels of knowledge acquisition. They include: Knowledge (Remembering), Comprehension (Understanding), Application, Analysis, Evaluation (Judging), Synthesis (Creation). For mastering these levels, the pedagogy of teaching had to be altered immensely, while we were entering in the phase of autonomy. In order to implement this, not only the teaching style needed modification but also the methods of evaluation were to be altered. Evaluation is a process of comparing outcome, with expectations. In order to compare outcome we need to have clear expectations. Therefore, a clear learning expectations and learning outcome were defined. The evaluation method should have appropriate tools to assess whether knowledge is acquired as per the Blooms' pedagogy. Evaluation should not be seen just as a tool from the teacher's perspective but we need to consider students perspective while evaluating them. To evaluate learning in areas such as critical and creative thinking and independent learning, innovative non-traditional strategies are required. We decided to experiment with internal assessment process by giving them flexibility in the internal assessment to suit students learning style.

#### **2) About the practice :**

When this flexibility is offered to the students, the following options are available to them.

For Undergraduate courses (Students can select any one option for internal evaluations):

Option A) Mid Semester test 30 marks + assignment 10 marks,

Option B) Mini Project in the respective course

Option C) Book Review

For Post-graduation Courses (Departments can decide the evaluation pattern with consultation with students)

Project (small, survey etc.)

Report of an Industrial visit

Review of a recent Research paper

At least, one relevant Massive Open Online Course (MOOC)

Poster presentation of a major concept or the contents of a research paper

Compulsory Industrial training (minimum 15 days)

Training on Instrumentation (such as HPLC / HPTC /

Electrophoresis, PCR etc.)

Workshop/ Hands on training of at least, three days and report writing

Test

Assignment/

The student can select the way they wish to get evaluated while taking admission and internal evaluation of the students was done on the basis of their choice. The basic idea of changing the old evaluation pattern was to substitute rote - learning to more experiential learning.

### **3) Constrains and Limitations:**

The Major constraint in implementing the flexibility in evaluation system was logistics involved in the evaluation. It was a challenge to convince teachers, students and other stakeholders about importance of flexible evaluation pattern.

### **4) Evidence of Success:**

We were very skeptical about the success of flexible internal evaluation scheme. However we were pleasantly surprised that the students not only appreciated this scheme but internalized the ethos of this scheme whole-heartedly. Many students opted for projects based evaluation. Poster presentation and MOOCs are also very popular options among students. Very few students opted for book review. But their performance in evaluation has been excellent.

### **5)Optional notes :**

The emphasis in higher education system is only on innovative teaching-learning practices. Though evaluation is the most important part in the education, it is overlooked in Indian Higher Education System. There are different kinds of innovative evaluation techniques which have been experimented and well-documented across the world. However, in our higher education system and especially Science and Commerce Colleges, Semester end and Year end examinations are the prime modes of evaluation. As a result of the compulsions of numbers, we are force to adopt mass education mode. The flexible internal evaluation experiment is the beginning of mindset changing event to adopt more innovative evaluation techniques in the future course of action.



## **Best Practice-2**

***Enriching experiences: leveraging alumni expertise for enriching academic experience to students:***

**1)Objective and underlying principle:** We realized that fifty years of our existence, the college has produced innumerable illustrious alumni. Leveraging this vast pool of alumni for the benefit of our existing students, bound to contribute towards development of the College.

### **2)About the practice :**

In the beginning the Department of Microbiology, initiated a series of lectures by its eminent alumni for its present students titled ‘Enriching Expressions’. Learning from the Alumni. This initiative provides an opportunity for the alumni to come back to their alma mater, revive the ties with the institution and contribute towards institutional development with their expertise and experience. Simultaneously the present students are motivated by the achievement of alumni and interaction with them. They are also enriched by the recent developments in the field vis-à-vis available career option. With the rich experience and networking success of microbiology department, it was decided that the practice of enriching expressions should be adopted by all the other departments. The department of chemistry has also been calling their alumni from various industries and academia to train the students in various topics in chemical sciences. These exercises not only give the student the updated knowledge from the actual people using it but gives very important industrial edge over other students, which hons their skills a and prepare them for future jobs in chemical industries.

### **3)Constraints:**

The first major constraint in implementing alumni expertise was to find them out from vast pool of the past students. However, once the network of the visiting alumni was started, it helped us in finding out relevant alumni working in diverse fields. The next hurdle was to convince them regarding the importance of the programme and how our students would be greatly benefitted from the same. There were also technical and logistics issues needed to be sorted out before implementing the programme.

**4) Success :**

Due to vast and diverse fields of expertise of Alumni, it was difficult initially to coordinate all with appropriate topic and required subject depth for the students. It also took special effort from the student's point of view to understand and grasp the latest teaching methodologies adopted by the industrial experts. However, once initial coordination is done, the students were very happy and benefitted greatly from the enriching experience. The entire effort was coordinated by the students. The attendance of a students in every enriching experience speaks about success of enriching experience.

**5) Notes :**

So far our education system traditionally relied on the appointed teachers to impart knowledge to the students as per their expertise. However, there are serious limitations to this practice. With the rapidly changing world, today's expert becomes obsolete tomorrow. It's a great challenge for today's graduate or post graduate to get a job in good multinational company. In this context, it is very essential that our students should get not only the required theoretical knowledge but necessary practical skills also. This is possible only with help from industrial experts who are actually involved in it. This was the main emphasis for initiating alumni expertise for the students. The future holds great promises where pool of alumni expertise will not only involved in teaching but designing the syllabi as well as collaborating for actual on-site training for our students, which will make them best candidate for required job throughout the globe.

**ANNEXURE**  
**3.4.1: Papers presented in Conference**  
**2010-2011**

<b>Title of the paper</b>	<b>Conference Details</b>	<b>Date</b>
<b><u>Dr.S.S.Yeragi – Associate Prof in Botany</u></b>		
Effect of climatic changes on prawns Comparative study on the effect of Acacia sinuate	UGC sponsored national conference on Global warming and conservation strategies	21-22 Dec 2010
Nutritional zooplanktonic organisms	UGC sponsored national conference on Global warming and conservation strategies	21-22 Dec 2010
Effect of butterflies associated with flora of Mithjbav	UGC sponsored national conference on Global warming and conservation strategies	21-22 Dec 2010
Biodiversity of Biotic components of K.J.Somaiya Library	International conference on Biodiversity and its conservation	28-30 Jan 2011
survey of allergic Rhinitis cause, care, control at Mulund	International conference on Biodiversity and its conservation	28-30 Jan 2011
Conservation of Mangrooves by Biofoulers at Mochemand estuary at Vengurla	International conference on Biodiversity and its conservation	28-30 Jan 2011
Conservation of mangrooves in relation to aquaculture practices	International conference on Biodiversity and its conservation	
<b><u>Anjali A. Ratnakar- Assist. Prof in Botany</u></b>		
Effect of NaCl on some physiological parameters of Amaranthus polygamous	Applied Aspects of Plant Sciences	25 and 26 <sup>th</sup> Sep 2010
Salinity induced changes in some inorganic and organic constituents of Spinacia Deracia	Current Trends in Biological Sciences (N)	29 <sup>th</sup> and 30 <sup>th</sup> Jan 2011
Effect of NaCl salinity on some morphological and biochemical properties of Atriplex hortensis	Conference and International Symposium on The New Horizons of Botany	10 <sup>th</sup> to 12 <sup>th</sup> Nov 2010
Influence of salinity on germination, chlorophyll and proline	National Conference on Synergy of Biosciences: The	26 <sup>th</sup> and 27 <sup>th</sup> Feb 2011

content of Amaranthus Polygamous , Atriplex hortensis, Spinacea derecia	New Era	
<b><u>Dr. Mrinalini Sathe- Associate Prof in Zoology</u></b>		
Avifauna of GIP tank and Chikhioli Reservoir area of Thane district Maharashtra	National Conference on Biodiversity Assessmnt	2010
<b><u>Dr.Lolly Jain Associate Prof in Microbiology</u></b>		
“Analysis and Characterisation of Bioemulsifier produced by Acinetobacter spps.” ‘Current Trends in Biological Sciences’ (ISBN: 978-93-80697-57-4)	UGC sponsored National Conference	29 <sup>th</sup> and 30 <sup>th</sup> Jan. 2011.
“Biosorption of Heavy Metal like Lead by Aspergillus niger.” 'Current Trends in Biological Sciences'	UGC sponsored National Conference	29th and 30th Jan. 2011.
“Microbial Production of Indigo dye from hydrocarbon degrading strains: it’s identification and optimization.”'Current Trends in Biological Sciences'	UGC sponsored National Conference	29th and 30th Jan. 2011.
<b><u>Mrs. P.N.Damle, Mrs Shailaja Girishankar, Dr. Unnatti Padalia, Mrs. Hemalata Chakravorty</u></b>		
Current trends in biological sciences	national	29-30 Jan 2011
<b><u>Dr. Sugandha Shetye- Associate Prof in Chemistry</u></b>		
Teaching the Principles of Green Chemistry	International Conference on Education in Chemistry	12-14 Nov 2010
<b><u>Dr. Unnati Padalia- Associate Prof in Microbiology</u></b>		
Synergy of biosciences: the new era	national	26.2.2011 to 27.2.2011
<b><u>Ms Malathi Ramachandran - Associate Prof in Business Economics</u></b>		
Role of FDI and FII	National	14-15 September 2010
Economics of Higher Education	International seminar	21/09/2010
<b>2011-2012</b>		
<b><u>Anjali A. Ratnakar- Assist. Prof in Botany</u></b>		
Sustainable Crop Productivity through Physiological Intervention	National Seminar	24 <sup>th</sup> to 26 <sup>th</sup> Nov 2011
<b><u>Dr.Lolly Jain Associate Prof in Microbiology</u></b>		
“Biosorption of lead using immobilized cells.” Annual Research meet in Biotechnology, Environmental Science	Local	10th Dec. 2011

and Phytochemicals'		
“Bio-indigo production by hydrocarbon degrading Acinetobacter spps. ” Annual Research meet in Biotechnology, Environmental Science and Phytochemicals'	Local	10th Dec. 2011
“Biosorption of lead using immobilized cells.” Intercollegiate Science Exhibition and Poster Competition'	Local	14th-15th Dec. 2011
“Bio-indigo production by hydrocarbon degrading Acinetobacter spps. ” Intercollegiate Science Exhibition and Poster Competition'	Local	14th-15th Dec. 2011
Biosorption of Lead by using Immobilised cells of Aspergillus spp	UGC sponsored national symposium on Emerging trends in life and material sciences	25/01/2012
Bioindigo production by hydrocarbon degrading Acinetobacter spps	UGC sponsored national symposium on Emerging trends in life and material sciences	25/01/2012
<b><u>Dr. Pradnya Prabhu- Associate Prof in Chemistry</u></b>		
Poster on standardization of stem-bark of dendrophthoe falcate linn	National	24-26 Nov 2011
Development of rp-hplRP-HPLC method for qualitative analysis of active ingredient (gallic acid) from stem bark of dendrophthoe falcate linn.	National	24-26 Nov 2011
<b><u>Dr S.S. Shetye, Dr Chitra Kamath</u></b>		
Teaching Green Chemistry principles using case studies	International	Nov 12-14 2010
<b><u>Dr.Bhanu Raman Associate Prof in Chemistry</u></b>		
Study on evaluation of available soil micronutrients of soils from different districts of Maharashtra	International	27-29 May 2011
A Novel UPLC method for simultaneous determination of Terbutaline sulphate, Guaiphenesin, Chlorpheneramine Maleate & Ambroxol in Pharmaceutical dosage Hydrochloride in pharmaceutical dosage form	International	12-14 June 2011
<b><u>Dr.Veena Khilnani Assist. Prof in Chemistry</u></b>		

Ethical Issues”	National	30 <sup>th</sup> January, 2011
	International	11 <sup>th</sup> -15 <sup>th</sup> June 2011
	International	7 <sup>th</sup> -10 <sup>th</sup> November 2011
<b>Dr.Bhanu Raman Associate Prof in Chemistry</b>		
Performance comparison of Extractive photometric Determination of Pd(II) using Cyanex 302 and Cyanex 301 as extractants	International	21-22 Jan 2012
Extractive Photometric determination of Rh(III) with Cyanex 301” is accepted for oral presentation	National	3-4 March 2012
<b>Dr. Pradnya Prabhu- Associate Prof in Chemistry</b>		
Synthesis and Characterisation of novel heterocyclic compounds from 2-carboxy-6-methoxybenzofuran-3-acetic acid anhydride	National	21-22 Jan.2012
<b>Dr.Bhanu Raman Dr.M.G.Gore</b>		
Extractive photometric determination of Pt(II) with Cyanex 302”	National	October 22-23 ,2011.
Extractive Photometric determination of Cr(VI)with Cyanex 302	National	28-30 Dec.2011
<b>Dr.Bhanu Raman Associate Prof in Chemistry</b>		
Extraction and photometric determination of Pd(II) From HCl media using Cyanex 302 as extractant”	National	27Feb.- March 1,2012
<b>Dr.Bhanu Raman Juned Munir Shaikh</b>		
’Synthesis of Nitro esters and their characterization	Local	February 17 <sup>th</sup> and 18 <sup>th</sup> 2012.
<b>Dr.Bhanu Raman Mr. M.G.Gore</b>		
ractive Photometric determination of Rh(III) with Cyanex 301	International	3-4 March 2012.
Extraction and photometric determination of Ru(III) with Cyanex 301	International	June 2012 .
<b>Dr.Bhanu Raman Dr.Brajesh Sharma</b>		
Structural elucidation of process related impurities in Escitalopram by LC/ESI-MS and NMR	National	17-20 Jan ,2011
Extraction and Spectrophotometric	6 th International Congress	6-10 <sup>th</sup>

determination of Cr(VI) using Cynax 301 as Extractant.	of Chemistry and Environment and 2 <sup>nd</sup> International Society Bio Technology Conference.	July'2013
<b><u>Dr. Chitra Kamath -Associate Prof in Chemistry</u></b>		
Synthesis, characterization and uses of hydrotalcites	National Conference on Recent trends in Nano-Sciences,	1 <sup>st</sup> -2 <sup>nd</sup> March 2012
<b><u>Dr. Yogesh Ghalsasi Assist. Prof in Chemistry</u></b>		
Extractive separation of Fe (III) and Co (II) with Tri butyl phosphine oxide	National seminar on recent advances in Synthetic Chemistry and Nanomaterials	21-22 Jan 2012
<b><u>Dr. Meena Sharma Associate Prof in Physics</u></b>		
A simple nonconventional method of scouring cotton fabric	International conference on World Cotton Reserach	7-11 Nov 2011
<b><u>Dr. G V.Rao Associate Prof in Geology</u></b>		
GIS based incentivized Crop Yield Monitoring System”	ESRI Inteat San Diego California rnational Users Conference (Fully Sponsored by UGC)	11 <sup>th</sup> -15 <sup>th</sup> July
<b><u>Dr.Usha Iyer Associate Prof in Economics</u></b>		
"ANC and PNC and delivery care services among slum and non-slum women with linkages to Maternal Health on the theme, 'Millennium Development Goals Related to Reproductive Health : Status, Challenges and Future Directions'.	International conference organized by National Institute for Research in R e p r o d u c t i v e H e a l t h ( N I R R H ) a n d UNDP/UNFPA/WHO/World Bank	18-21 March 2012
Ninth International Conference by I Indian Association of Social Sciences and Health (IASSH) organized by Tata Institute of Social Sciences (TISS) on the theme ‘Health, Gender and Inclusive Development’	Dimensions in the Utilization of Health Infrastructure facilities in Mumbai: An Economic Perspective”,	24-26 Nov, 2011
<b><u>Dr. Chitra Trehan Associate Prof in Economics</u></b>		
Innovation for organisational excellence	International	24-10-2011
<b><u>Department of</u></b>		
<b><u>Mr.Santosh Vadhrya Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Capital Markets & Financial Planning	Capital Markets	24.09.2011
Challenges in Micro Finance in Rural	Challenges in Micro finance	26-27.11.2011

Market	in rural market	
Faculties of Financial Market	Faculties of Financial Market	25.11.2011
Human Rights Education	Seminar on Human rights education	24.12.2011
Tax Planning with reference to Deduction.	Seminar on Changing taxation structure	04.02.2012
Role of auditor in Corporate governance	Emerging issues in Corporate governance	07-08.02.2012
Challenges of E-commerce in India	Growth prospectus of E-commerce in India	28.02.2012
Sectorial reforms in Capital market	Reforms in capital market of India	29.03.2012
Impact of double dip recession on Indian economy	Seminar on Economic & Cultural relations of India	31.03.2012
<b>Sachin Achrekar Assist. Prof in Accountancy and Finance/BMS/FM</b>		
Inclusive Development : Education Inclusion	Inclusive Development:Strategies & Challenges	Jan. 28, 2012
Rural banking and Financial Inclusion: a road for Inclusive growth	“Micro Finance and Its Impact on Rural Area”	10 <sup>th</sup> & 11 <sup>th</sup> Feb, 2012
<b>2012-2013</b>		
<b>Title of the paper</b>	<b>Conference details</b>	<b>Date</b>
<b><u>Dr.Bhanu Raman Associate Prof in Chemistry</u></b>		
Extraction and Spectrophotometric determination of Osmium with Cyanex 301	National Seminar on Recent Advances in Analytical Techniques	24-25 Aug2012
Performance comparison of Cyanex272 andCyanex923 as extractants for extractive photometric studies of Rhodium(III)	National Conference on “New Horizons in Chemistry.....For the benefit of human race	22-23 October 2012
Poster presentation on Extraction and spectrophotometric determination of Ru(III) with Cyanex 301	International Conference on Global Trends in Chemical Sciences-(presented by Mr.Milind Gore,Ph,D.Student	10-12 June,2012
<b><u>Dr. Chitra Kamath -Associate Prof in Chemistry</u></b>		
Use of solid based catalyst for synthesis of aminothiophenes	Indo german symposium	29-31 October 2012



<b><u>Dr. Veena Khilnani Assist. Prof in Chemistry</u></b>		
Redefining Education: Expanding” Declining Enrollment In Chemistry – An Alarm Not To Be Missed”	International Conference Horizons	12 <sup>th</sup> Jan, 2013.
“ Thermo-acoustic parameters of green solutions and its comparison with non-green solvents”	International Indo Japan conference on Catalysis: A Green Chemistry Approach	13 <sup>th</sup> Feb, 2013
<b><u>Dr. Yogesh Ghalsasi Assist. Prof in Chemistry</u></b>		
Mutual separation and estimation of Zn. Cd, Hg with tributyl phosphine oxide as an extractant	Natioanl conference on Current Research in Chemical Sciences	22-23 Jan 2013
<b><u>Mrs. Vanita Kulkarni Assist. Prof in Chemistry</u></b>		
Extraction and spectrophotometric determination of Osmium with cyanex301	National	24-25/08/12
<b><u>Dr. Sugandha Shetye ,Pratik Gupte</u></b>		
“Green Health “ 2012	International Conference	6-8 th September 2012
<b><u>Dr. Chitra Kamath -Associate Prof in Chemistry</u></b>		
Waste management	Local	12-01-2013
<b>Department of Botany:</b>		
<b><u>Dr. Ajit S. Katdare Assist. Prof in Botany</u></b>		
Seasonal occurrence of Arbuscular Mycorrhizal fungi colonization in <i>Euphorbia hirta</i> from Nahur, Mumbai station and adjoining area.	UGC sponsored national seminar	8 <sup>th</sup> and 9th February 2013
<b><u>Anjali A. Ratnakar- Assist. Prof in Botany</u></b>		
Biochemical profile of <i>Trigonella foenum-graecum</i> L. var. PEB under NaCl salinity.	National conference on Phytochemistry: Recent Trends and Challenges	14-15 Dec 2012
<b><u>Mrs. Supriya Naik- Associate. Prof in Botany</u></b>		
Study of arbuscular mycorrhiza with some important medicinal plants in suburban areas of Mumbai	ugc sponsored II world congress for man and nature on global chenge	3-5 Nov 2012
1. Study of air borne fungi in vegetable and fruit market of APMC market, Vashi, Navi Mumbai 2, A preliminary survey of fungal bioaerosol of APMC market, Vashi, Navi Mumbai	UGC sponsored national seminar on fungi and human nature	8-9 Feb 2013

Study of fungal bioaerosol in vegetable and fruit market	17 th National conference on impact of airborne microbes Pune	13-15 Dec 2012
<b><u>Dr.S.S.Yeragi – Associate Prof in Botany</u></b>		
Threats to marine biodiversity in costal zone of Mithbao, Sidhudurg District, Maharashtra, India,	National Seminar on “Biodiversity and Conservation of Costal and Marine Ecosystems of India”	13 <sup>th</sup> – 15 <sup>th</sup> September, 2012
Mass Culture of <i>cladocerans</i> fulfilled the need of aquaculture practices	National Conference on “Aquaculture Prospects and Problems	12 <sup>th</sup> -13 <sup>th</sup> October, 2012
<b>Department of Zoology:</b>		
<b>Dr.Sathe M.C. Karpe M.S.</b>		
Aquaculture practice in GIP tank Ambernath, Fish catch analysis, Economoc status and management	National conference on Aquaculture: Prospects and Problems	12-13/10/2012
<b><u>Dr. Amol Patwardhan-Assist Prof in Zoology</u></b>		
1.Click Beetles (Coleoptera: Elateridae) of Maharashtra; A Case Study for Indian Elateridae  2. ButterflyIndia: Cyber community initiative to document Indian butterflies	International Congress of Entomology	18-26 Aug 2012
<b>Department of Physics</b>		
<b><u>Dr. Meena Sharma Associate Prof in Physics</u></b>		
Effect of Integrating Non-Conventional Scouring and Dyeing on Physical and Mechanical Properties of Cotton Fabrics	100 <sup>th</sup> The Indian Science Congress International	3-7 Jan 2013.
Effect of the wetting agent on certain physical properties of cotton fabric 2.Modified DT apparatus for Veterinary Dosage forms	Regional Science Congress	15-16 Sept 2012.
<b>Mr.Jitendra Pendharkar</b>		
Thermoacoustic parameters of Green solutions and its comparison with non green solvents	Indo-Japan International Conference on Catalysis	13/02/2013

Thermoacoustic parameters of polar and non polar chemicals using ultrasonic interferometer	International conference on Emerging trends in Technology and its applications	6-7 March, 2013
<b>Department of Biochemistry</b>		
Dr.Samidha Pawaskar		
Phytochemical and <i>In-vitro</i> Antimicrobial Study of <i>Cynodon dactylon</i> ( <i>Durva</i> / <i>Bermuda Grass</i> )	International Conference On Ayurved & Complementary Systems of Medicines	23-24 Feb 2013.
<b>Dr.Samidha Pawaskar Mrs. Nusrat Ansari</b>		
“Production of Nutritive and Antioxidant rich Yoghurt”	National Symposium on Recent Research trends & applications in Life-Sciences	9 <sup>th</sup> February 2013
<b>Department of Microbiology</b>		
<b>Dr. Unnati Padalia- Associate Prof in Microbiology</b>		
“Public Health Scenario with respect to Infectious Diseases”	Round Table International Conference on Economy of Emerging Countries.	4 to 7 July, 2012
Mycorrhizal Biodiversity in the coastal area of Mumbai Region and its use as a bio-fertilizer.	National Seminar on “Biodiversity and Conservation of Coastal and Marine Ecosystems of India”	13-15 September 2012
<b>Dr. (Mrs.) Unnati Padalia and Shailaja Menon</b>		
National Seminar on “Biodiversity and Conservation of Coastal and Marine Ecosystems of India”	Biosorption by Immobilised <i>Aspergillus niger</i> : A promising bioremediation strategy for marine ecosystems.	13-15 September 2012
<b>Dr.Lolly Jain and Ms. Anjali Krishnan</b>		
Biosorption using Immobilised cells of <i>Aspergillus niger</i> : A promising bioremediation strategy for urban Lakes.	International Conference on Urban Lakes : Ecology, Rejuvenation, Technology and Economics	7-8 September 2012
Biosorption using Immobilised cells of <i>Aspergillus niger</i> : A promising bioremediation strategy	National Technical Fest: IIT Bombay Regenerations 2013	16-17 Feb 2013
Biosorption of Lead using Immobilised cells of <i>Aspergillus niger</i> : A promising bioremediation strategy	Aavishkar	10,17 Dec 2012.
Biosorption of Lead using Immobilised	One Day Research Meet in	11 Dec 2012

cells of <i>Aspergillus niger</i> : A promising bioremediation strategy	Biotechnology, Environmental Microbiology and Phytochemicals	
Biosorption of Lead using Immobilised cells of <i>Aspergillus niger</i> : A promising bioremediation strategy	UGC sponsored Second National Symposium on “Modern Research Trends and Application in Life Sciences”	9/02/2013
<b>Dr.Lolly Jain and Ms. Neha Sawant</b>		
Biosorption of Lead and Chromium from Industrial Effluent using agricultural waste (fruit peels) and Yeast.	UGC sponsored Second National Symposium on “Modern Research Trends and Application in Life Sciences”	9/02/2013
<b>Hemlatta Chakraborty and Shirely Bhoir</b>		
Study on Bio Plastic Production	UGC sponsored Second National Symposium on “Modern Research Trends and Application in Life Sciences”	9/02/2013
<b><u>Shailaja Girishankar-Associate Prof. in Microbiology</u></b>		
Microbiial production of levan and its characterization	Modern research trends and applications in life sciences	9/02/2013
Silver nano-particles:Biosynthesis using Neem and Tulsi extract, characterization and applications	Modern research trends and applications in life sciences	9/02/2013
<b><u>Soniya Shetty-Assist Prof. in Microbiology</u></b>		
Accelerated aneboric retting of mechanically extracted coconut fibres	UGC sponsored National symposium on Modern Research Trends and applications in Life sciences	9/02/2013
<b>Mrs. Padmaja Damle and Dr.(Mrs.) Unnati Padalia.</b>		
A study of heavy metal tolerant bacteria from mangrove soil of Thane creek.	International Conference on Urban Lakes : Ecology, Rejuvenation, Technology and Economics.	7-8 Sept 2012
<b>Dr. Unnati Padalia and Snehal Patil</b>		
Urban Lakes: Its ecological concerns and management strategies.	International Conference on Urban Lakes : Ecology, Rejuvenation, Technology and Economics.	7-8 Sept 2012

<b>Dr Unnati Padalia and Prachi Dalvi</b>		
Chemical and Microbiological analysis of ground and surface water around Thane district.	International Conference on Urban Lakes : Ecology, Rejuvenation, Technology and Economics.	7-8 Sept 2012
<b>Dr. Unnati Padalia, Shruti.S and Mrs. Padmaja Damle.</b>		
Heavy metal tolerant and salt tolerant micro-organisms isolated from soil of Thane creek region.	National Seminar on “Biodiversity and Conservation of Coastal and Marine Ecosystems of India”	13-15 September 2012
<b>Prathamesh Amnekar and Dr. Unnati Padalia.</b>		
Cross signaling of Quorum sensing molecule of <i>Candida albicans</i> and <i>Pseudomonas aeruginosa</i> .	Modern research trends and applications in life sciences	9/02/2013
<b>Tejaswee Vaity and Dr. Unnati Padalia.</b>		
Biochemical, Nutraceutical and biomedical aspects of spirulina spp.	Modern research trends and applications in life sciences	9/02/2013
<b>Department of Environmental Sciences:</b>		
<b>Dr Elizabeth Abba Indrani Gupta, Rakesh Kumar</b>		
Apportionment of PM10 in Mumbai by the Chemical Mass Balance Receptor Model.	American Association aerosol Research Conference	8-12 October 2012
<b>Dr Elizabeth , Dr Indrani Gupta</b>		
Chemical Mass Balance Source Apportionment of PM10 in Commercial, Industrial and Control Sites of an Urban Region of Mumbai, Indrani Gupta, Abba Elizabeth, Rakesh Kumar	International Conference on Green Health	6-8 September 2012
<b>Dr Elizabeth ,Bhakti Goswami</b>		
Indoor Air Quality Assessment of an academic institution in Mumbai, Bhakti Goswami,Rakesh Kumar, Elizabeth Abba, Sugandha Shetye and Sanjay Joshi	International Conference on Green Health	6-8 September 2012
<b>Dr Sugandha Shetye Elizabeth Abba Pratik Gupte</b>		
International Butterflies as Bioindicators	International Conference on Green Health	6-8 September 2012
<b>Dr.Sanjay joshi - EVS</b>		
	3rd International Conference and Exhibition on Solid	July 30 – Aug 01, 2012

	Waste Management (ICONSWM)	
<b>Dr. Rakesh Kumar, Dr. Elizabeth Abba, Dr. Ajay Ojha, Dr. Indrani Gupta, Mr. Mihir Herlekar</b>		
Chemical Characterization and Source Apportionment Studies of Pune City. Air Quality Management and emission Inventory of Pune City.	Workshop on Air Quality Modelling and Management for urban and Industrial Areas in India"	10.05.12 to 12.05.12
<b>Dr Elizabeth Abba, Rakesh Kumar and Indrani Gupta, Mihir Herlekar</b>		
International “Estimation of Mass Concentration and Carcinogenic Potential of Particulate Polycyclic Aromatic Hydrocarbons in Mumbai City”	International Conference “Green Health “ 2012	6-8/09/2012
<b><u>Dr Elizabeth Abba-Assistant Prof. In EVS</u></b>		
Short Course on Air Quality Management (SERC School) at IITB	National Poster presentation An overview of neeri’s contribution for better air quality in last five years	6 <sup>th</sup> & 7 <sup>th</sup> December,2012
<b>Department of Commerce <u>Dr.Smita Paranjape- Assist. Prof in Commerce</u></b>		
“Outsource sing Boon or Bane	State level seminar on Risk management in it-outsourcing	12/08/14
<b>Department of Accountancy and Finance/BMS/FM</b>		
<b><u>Mr.Santosh Vadhrya Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Impact of recession on Indian capital market	Impact of crisis on Indian stock market	7.07.2012
Rain water harvesting in India	Seminar on Water management	8.09.2012
Role of SEBI in regulating Financial market	Seminar on financial markets	14.09.2012
Role of CSR in India	Business research conference	20.10.2012

Challenges of Real Estate in India	Seminar on growth of real estate sector	10.12.2012
Innovative teaching Practices in education	seminar on Innovative Teaching Methodologies	23.01.2013
Cloud computing	Conference on Reinforcing organizational Competitiveness through creativity	23.02.2013
Impact of Real Estate on Development of Indian Economy – Market opportunities	“Growth of real estate in India : pros & Cons” <b>ISBN - 81-89217-07-0</b>	10 <sup>th</sup> Dec, 2012
<b><u>Mrs.Monika Lodha- Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Seminar Growth of Real Estate :Pros & Cons	Seminar on Growth of Real Estate in India:Pros &Cons”	10/12/12
Business Research Conference on Reinforcing Organizational Competitiveness Through Creativity	Conference on National Business Research	23/02/2013
Forensic Accounting	“Recent Trend in Accountancy & Auditing”	12 <sup>th</sup> Feb, 2013
<b><u>Mrs.Bharti Makhijani- Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
	Growth of commercial segment of real estate in India, pros and cons.	10 <sup>th</sup> dec. 2012
	Financial and economic crisis and their repercussions on Indian stock market	7 <sup>th</sup> July, 2012
	Learning with technology	23 <sup>rd</sup> Jan. 2013.
<b><u>Sachin Achrekar Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
	Recent Trend in Accountancy & Auditing	12 Feb 2013
	Growth of Real Estate in India –“Its Pros & Cons”	10/12/2012
<b>Department of Accountancy:</b>		
<b><u>Atul A Thatte- Assist. Prof in Accountancy</u></b>		
Global Recession Challenges And Opportunities	Seminar on Global Recession Challenges And Opportunities	5/01/2013
<b>Department of Business Economics:</b>		
<b><u>Dr. Chitra Trehan Associate Prof in</u></b>		

<b>Economics</b>		
childrens major contribution towards purchase decision (pester power)	National conference on emerging issues in management	15 december 2012
Principles of success for a natural variant introduced by an artificial products marketer.	National seminar on entrepreneurship at GNIMS-emerging challenges an opportunities in the small and medium enterprise sectors	19 Jan 2013
<b>Department of Geology</b>		
<b>Dr.G.V.Rao-Associate Prof in Geology</b>		
Interpolation of weather data	The International Conference on “Interdisciplinary Applications of Remote Sensing and Geographic Information Systems” - iciarsgis-2013	26-27 April 2013
<b>Mrs Sanhita Shasmal</b>		
Hydro Geomorphological studies, Kolkatta	The International Conference on “Interdisciplinary Applications of Remote Sensing and Geographic Information Systems” - iciarsgis-2013	26-27 April 2013
Ethically oriented, Quality driven, Tech-savvy Professional Teachers – The Base for the Pinnacle in Higher Education	UGC and ICSSR sponsored International Symposium on “Higher Education in South Asia - Crisis and Challenges	11 <sup>th</sup> and 12 <sup>th</sup> Dec, 2012
<b>2013-2014</b>		
<b>Title of the paper</b>	<b>Conference details</b>	<b>Date</b>
<b>Department of Zoology</b>		
<b>Dr. Amol Patwardhan-Assist Prof in Zoology</b>		
Butterflies of phansad wls. proceeding of national seminar on biodiversity conservation .	Biodiversity conservation Faveo 2013 National seminar	29-30 Nov 2013
<b>Mrinalini Sathe &amp; Manisha Karpe</b>		
Studies on Phytoplankton diversity and Physico-chemical parameters in GIP	Impact of Global Climate Change on Environment and	18 <sup>th</sup> Jan, 2014



Tank, Ambernath, Thane district, Maharashtra	Ecological Conservation-National	
1. Comparative study of aeromycoflora of two public libraries. 2. Biodiversity of mycoflora in mangroves habitat of Mumbai creek of south konkan Maharashtra.	Aerobiology & Allergy	29 <sup>th</sup> and 30 <sup>th</sup> November 2013
Studies on biofauing mycoflora inhabitant on marine crafts of south konkan, Maharashtra, India. ISBN: 978-81-922163-4-8	Fungi in Agriculture National	28 <sup>th</sup> & 29 <sup>th</sup> Jan 2014
<b><u>Mrs. Supriya Naik- Associate. Prof in Botany</u></b>		
“Study of fungal bioaerosol of fruit and vegetable market, Kalamana, Nagpur, Maharashtra, India”	New trends in aerobiology and allergy National	29 <sup>th</sup> – 30 <sup>th</sup> Nov, 2013
<b><u>Dr Ajit Katdare</u></b>		
Comparison of AMF colonization between some weeds & ornamentals of Brahmala Lake garden, Thane	Future prospects of Biosciences-National	17 <sup>th</sup> & 18 <sup>th</sup> Jan 2014
<b><u>Mrs. Supriya Naik- Associate. Prof in Botany</u></b>		
Post harvest technology of some fruits of APMC Market, Vashi, Navi Mumbai.	Fungi in Agriculture National	28 <sup>th</sup> & 29 <sup>th</sup> Jan 2014
<b><u>Dr.Bhanu Raman Associate Prof in Chemistry</u></b>		
6 th International Congress of Chemistry and Environment and 2 <sup>nd</sup> International Society Bio Technology Conference	Extraction and Spectrophotometric determination of Cr(VI) using Cynax 301 as Extractant.	6-10 <sup>th</sup> July’2013
<b><u>Dr.Samidha Pawaskar</u></b>		
“Biochemical and heavy metal analysis of some Indian medicinal plant“	International Conference on Ayurveda and Yoga,	January 4 <sup>th</sup> & 5 <sup>th</sup> . 2014
<b><u>Department of Microbiology</u></b>		
<b><u>Soniva Shetty-Assist Prof. in Microbiology</u></b>		
Accelerated anaerobic retting of mechanically extracted coconut fibres.	Frontiers in the field of Science, Technology and sustainability	14 <sup>th</sup> & 15 <sup>th</sup> Feb 2014

	National	
Accelerated anaerobic retting of mechanically extracted coconut fibres.	Mumbai University Championships for 8 <sup>th</sup> Avishkar Research convention University level	4 <sup>th</sup> & 8 <sup>th</sup> Jan 2014
Accelerated anaerobic retting of mechanically extracted coconut fibres.	8 <sup>th</sup> State level Avishkar Research convention 2013-14 State level	15 <sup>th</sup> -18 <sup>th</sup> Jan 2014
Biodegumming of silk;	Mumbai University Championships for 8 <sup>th</sup> Avishkar Research convention	4 <sup>th</sup> & 8 <sup>th</sup> Jan 2014
Biodegumming of silk; Ms. Bhavna Pandya, Ms Shatabdi Palodhi, Ms Soniya Shetty	8 <sup>th</sup> State level Avishkar Research convention 2013-14	15 <sup>th</sup> -18 <sup>th</sup> Jan 2014
<b>Mrs. Shailaja Girishankar</b>		
Study of pigment and polysaccharide produced by Xanthomonas species isolated from Brassica lesions.	National Conference on Bio informatics and Biotechnology	30 <sup>th</sup> & 31 <sup>st</sup> Jan,2014
<b><u>Dr. Unnati Padalia- Associate Prof in Microbiology</u></b>		
In vitro evaluation of Cinnamon extract on Multi-drug resistant strain producing extended spectrum $\beta$ -lactemase from UTI of diabetic patients.	National Conference on Bio informatics and Biotechnology	30 <sup>th</sup> & 31 <sup>st</sup> Jan,2014
Effect of extracts obtained from medicinal plants against five human pathogens	National Conference on Bio informatics and Biotechnology	30 <sup>th</sup> & 31 <sup>st</sup> Jan,2014
Cinnamon as a potential pharmaceutical agent for MDR in UTI by Rohini Shetty and Unnati Padalia	National Conference on an Insight into the Pharma world.	8 <sup>th</sup> Feb ,2014
Plasmid profile analysis of MDR-ESBLfrom UTIof diabetic patients	Microbiology horizons in biomedical sciences National	27/9/13 - 28/9/13
Dr. Hemalata Chakravorty		

Effect of silver nanoparticles conjugated with antibiotics on MDR bacteria.	Microbiology horizons in biomedical sciences	27/9/13 - 28/9/13
Production of pullulan polysaccharide from <i>aureobasidium pullulans</i> and to study its properties.	National conference on Bioinformatics and Bio technology	30 <sup>th</sup> Jan and 31 <sup>st</sup> Jan 2014
Antibacterial activity of silver nanoparticles conjugated with antibiotics.	National conference on Bioinformatics and Bio technology	30 <sup>th</sup> Jan and 31 <sup>st</sup> Jan 2014
Study on phosphate solubilising bacteria and their effects on plants	National conference on Bioinformatics and Bio technology	30 <sup>th</sup> Jan and 31 <sup>st</sup> Jan 2014
<b>Dr. Lolly Jain, Manasi Dhuri</b>		
“Biosorption of Chromium VI by <i>Aspergillus</i> spps.”	‘Frontiers in Biotechnology and Bioinformatics’ National	D.Y.Patil University, Navi Mumbai
<b>Dr. Lolly Jain, Ms Hera Khan</b>		
“Biosorption of heavy metal using fruit shell and yeast” By Ms. Hera Khan, Lolly Jain	‘Frontiers in Biotechnology and Bioinformatics’ N	D.Y.Patil University, Navi Mumbai
<b><u>Soniya Shetty-Assist Prof. in Microbiology</u></b>		
Environmental microbiology & phytochemicals	Biosoftening of mechanically extracted coconut fibres using anaerobic microbial consortium.local	23 Dec 2013
Accelerated anaerobic retting of mechanically extracted coconut fibres.	8 <sup>th</sup> State level Avishkar Research convention 2013-14 State	15 <sup>th</sup> -18 <sup>th</sup> Jan 2014
<b>Soniya Shetty, Aditi Bagul</b>		
Screening of fungi with high transfructosylating activity for FOS production;	National conference on ‘Frontiers in Biotechnology and Bioinformatics’ N	30 <sup>th</sup> & 31 <sup>st</sup> Jan 2014
<b>Soniya Shetty, Rekha Sarwankar</b>		
National conference on ‘Frontiers in Biotechnology and Bioinformatics’	Production and characterization of chitosan and its applications as an antimicrobial agent;	30 <sup>th</sup> & 31 <sup>st</sup> Jan 2014
<b>Ms. Shatabdi Palodhi, Ms Soniya</b>		

<b>Shetty</b>		
Biodegumming of silk; Won 1 <sup>st</sup> prize	Seminar on Microbiology and biotechnology for a better tomorrow State level	2 <sup>nd</sup> Feb 2014
<b>Department of Zoology:</b>		
Mrinalini Sathe, Manisha Karpe		
Impact of Global Climate Change on Environment and Ecological Conservation	Studies on Phytoplankton diversity and Physico- chemical parameters in GIP Tank, Ambernath, Thane district, Maharashtra	18 <sup>th</sup> Jan, 2014
<b><u>Dr. Amol Patwardhan-Assist Prof in Zoology</u></b>		
Butterflies of phansad wls. proceeding of national seminar on biodiversity conservation . B.N. Bandodkar college of science, Thane. 29-30 Nov 13.	Biodiversity conservation Faveo 2013 National	29-30 Nov 2013.
<b>Department of Botany</b>		
<b><u>Mrs. Supriya Naik- Associate. Prof in Botany</u></b>		
Post harvest technology of some fruits of APMC Market, Vashi, Navi Mumbai.	Fungi in Agriculture National	28th & 29th Jan 2014
<b><u>Dr.S.S.Yeragi – Associate Prof in Botany</u></b>		
1.Comparative study of aeromycoflora of two public libraries. 2. Biodiversity of mycoflora in mangroves habitat of Mumbai creek of south konkan Maharashtra.	Aerobiology & Allergy National seminar	29 <sup>th</sup> and 30 <sup>th</sup> November 2013
Studies on biofauing mycoflora inhabitant on marine crafts of south konkan, Maharashtra, India. ISBN: 978-81-922163-4-8	Fungi in Agriculture	28 <sup>th</sup> & 29 <sup>th</sup> Jan 2014
<b><u>Mrs. Supriya Naik- Associate. Prof in Botany</u></b>		
“Study of fungal bioaerosol of fruit and vegetable market, Kalamana, Nagpur, Maharashtra, India”	New trends in aerobiology and allergy  National seminar	29 <sup>th</sup> – 30 <sup>th</sup> Nov, 2013
<b>Dr. Ajit Katdare</b>		

Comparison of AMF colonization between some weeds & ornamentals of Brahmala Lake garden, Thane	Future prospects of Biosciences National seminar	17 <sup>th</sup> & 18 <sup>th</sup> Jan 2014
<b>Department of Physics</b>		
<b><u>Dr. Meena Sharma Associate Prof in Physics</u></b>		
A single stage process for socering and dyeing of cotton textile material	India Innovation Initiative Fair -Regional	24/09/2013
<b>Mr. Jitendra Pendharkar</b>		
Variation of poisson ratio with magnetic field in Boron substituted terpinol-D	National Seminar on Explore Physics	23/12/2013
Magnetic and magnetostric properties of Boron substituted terpinol-D	National conference on Research trends in smart materials	3-4 Jan 2014
<b>Department of Geology</b>		
<b><u>Dr.G.V.Rao-Associate Prof in Geology</u></b>		
Integration of IT in Basic Sciences	Integration of GIS in Basic Sciences	10 <sup>th</sup> Feb 2014
Pre and Post Disaster Management studies using GIS	Pre Disaster Management studies of Landslides	Sept. 2014
<b>Department of Accountancy and Finance/BMS/FM</b>		
<b><u>Mr.Santosh Vadhrya Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Seminar on Financial frauds in India N( <i>ISBN-978-93-81394-66-3</i> )	Case study of Shell companies	23.08.2013
Conference on Dynamics of Commerce in the Business scenario in India N	Ethics & Business in India with special reference to Satyam scam	27.09.2013
Role of commerce in the development of India N( <i>ISSN-2249-345X</i> )	Phases of retailing in India	4.01.2014
<b><u>Sachin Achrekar Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
“Mentoring and Counseling at Work Place”	International Conference on Challenges for Sustainable Development Issues related to Commerce, Management, Engineering, Technology and Social Science (IJMR)	13 <sup>th</sup> and 14 <sup>th</sup> Dec, 2013
“An Experimental Study of Corporate Governance In Banking Sector”	Global Economic Outlook on Recession And Recovery ISBN -978-81-928735-0-3	10 <sup>th</sup> and 11 <sup>th</sup> Jan, 2014

“Impact of SME's and their Performance towards the Augmentation of Indian Economy”	PCMA-CU 10 <sup>th</sup> International Conference on Business, Management & Economics with the theme Managing Global Business in Turbulent Times	8 <sup>th</sup> and 9 <sup>th</sup> Feb, 2014
“Remedial Measures to Education System in India” – A Need for Change	IRJCBSS	29 <sup>th</sup> May, 2014
“Home Maker to Corporate Care Taker – Women Entrepreneur An Indian Tale”	Women Entrepreneurs in India – Role and Challenges ahead <b>ISBN – 81-89217-08-9</b>	21 & 22 Aug, 2014
“Empirical Study Of Role Of Finance In Real Estate Development”	Emerging Trends in Banking, Commerce and Insurance: Opportunities, Challenges & Strategies <b>ISBN No. 81-89217-04-6</b>	21 <sup>st</sup> Nov, 2104
“Role of ICT In Teaching and Learning Process”	International Conference on Impact of ICT on Contemporary Society ISBN:978-93-83342-08-2	4 <sup>th</sup> Dec, 2014
<b><u>Mrs.Monika Lodha- Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Financial Frauds in India and Aftermath	Conference-Financial Frauds in India Causes,Consequences and Measures	23 <sup>rd</sup> & 24 <sup>th</sup> August 2013
Cloud Computing – Benefits, risk & Framework for Assessment	Conference on challenges for Sustainable Development	13 <sup>th</sup> &14 <sup>th</sup> December 2013
Foreign Exchange Policy in Corporate Framework	Recent Trends in sectorial Development & Their Impact on the Indian Economy	21 <sup>st</sup> & 22 <sup>nd</sup> February 2014
<b>Pranali Karnik</b>		
Retention of Workforce	Commerce and Management	19/10/2013
<b>2014-2015</b>		
<b>Department of Botany</b>		
<b><u>Dr.S.S.Yeragi – Associate Prof in Botany</u></b>		
Study of ichthyotaunal diversity of	National conference on	

varhala Lake, Thane District, Maharashtra	Advances in Biological sciences	
<b>Department of Business Communication</b>		
<b><u>Dr. Hemangi Bhagwat- Associate Prof in Business Communication</u></b>		
Marathi Theatre : An expression of Social Protest	Fourth World lit	9-10 September 2013
Theatre All the eay : street Theatre and Mulgi Zhali HO	Sustaining Values	December 2013
<b>Department of Physics</b>		
<b><u>Dr.Geeta Nair -Assist. Prof in Physics</u></b>		
Synthesis and characterization of Zno nps.	International conference on Nanomaterials for sustainable green technology	5th & 6th Jan., 2015
<b><u>Ms.Smita Survase- Assist. Prof in Physics</u></b>		
Synthesis and characterization of Zno nps.	International Nanomaterials for sustainable green technology	5th & 6th Jan., 2015
Structural and optical characterization of nanostructured	National Emerging trends in physical sciences	23rd & 24th Jan., 2015
<b>Department of Chemistry</b>		
<b><u>Dr.Veena Khilnani Assist. Prof in Chemistry</u></b>		
Antibacterial Activity of N.Nouchali	International conference on Innovation in Chemical Research and Applied Chemical Sciences	12th - 13th January, 2015
Isolation & Identification of Phytochemicals from Fl wees of N.Nonchali	National conference on Green Chemistry	21st Jan., 2015
<b><u>Dr.Bhanu Raman Associate Prof in Chemistry</u></b>		
Extraction and estimation of cobalt (11) in pharmaceuticals samples	International conference on New Horizons in Chemistry, 2014	8th and 9th December, 2014
Research Scholar's meet - 2015	Extraction Photometric determination of Pd with cyanex 301 (L)	20th Feb., 2015
<b><u>Dr. Pradnya Prabhu, Mangesh Kadam</u></b>		
Societal Impact of Chemistry : Vision 2020 (N)	Synthesis, reactions and biological evaluatin of	12-13 September

	heterogetic systems fused with thiophone moiety	2014
<b><u>Dr. Sugandha Shetye- Associate Prof in Chemistry</u></b>		
Spectrophotometric evaluation of free radical scavenging activity - N Cadamba	International conference on New Horizons in Chemistry, 2014	8th & 9th Dec., 2014
Quantification of caffic acid in Nalpamrodi cheorna by HPTLC method	National conference on Recent development in synthetuc & meterials Chemistry	16th & 17th January, 2015
Sustaining Values Ideas into Actuality	Nature Trails fro creating conscientious citizens	9-10 th Dec., 2014
New Horizons in Chemistry ISNHC-2014 (IN)	Spectrophotometric evaluation of free radical scavenging .....N cadamba	8th Dec., 2014
Spectrophotometric evaluation of free radical scavenging activity of some formulations	International Conference on New horizons in Chemistry	8-9 Dec 2014
Quantification of caffic acid in Nalpamradi tailam by HPTLC	National Conference on Recent development in Synthetic and Material Chemistry	16-17 Jan 2015
<b><u>Dr.Veena Khilnani Assist. Prof in Chemistry</u></b>		
Antibacterial activity of flower extracts of Nymphae nauchali	UGC sponsored international conference on Innovation in Chemical Research and Applied Chemical Sciences	12-13 Jan 2015
Isolation and Identification of phytochemicals from flowers of Nymphae nauchali	National workshop	21/01/2015
Urease inhibiting property of flower extracts of Nymphae nauchali	UGC sponsored international conference on Innovation in Chemical Research and Applied Chemical Sciences	12-13 Jan 2015
<b>Department of Accountancy and Finance/BMS/FM</b>		
<b><u>Mr.Santosh Vadhrya Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Trends in outsourcing –Boon Bane	State level conference on Trends in outsourcing and their impact	2th August, 2014



<b><u>Mrs.Monika Lodha- Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Managing & Measuring Intellectual Capital	Conference on Global Transformation : Its Impact on Economics,Commerce& Management	20/12/ 2014
Financial Inclusion- <i>An Inclusive Growth</i>	Conference on Indian Political & Economic Scenario: Issues, Opportunities, & Challenges	22 <sup>nd</sup> & 23 <sup>rd</sup> January, 2015
Indian Capital Markets & Risk Management	Conference on Innovative Practices & Application in Commerce , Trade & Management	13 <sup>th</sup> & 14 <sup>th</sup> February, 2015
	Conference on Accounting, finance & Management- Current Issues & Developments	
<b><u>Ms.Bhavana Patil- Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Trends in outsourcing –Boon Bane	State level conference Outsourcing in IT concerns	12 <sup>th</sup> August, 2014
<b><u>Mrs.Bharti Makhijani- Assist. Prof in Accountancy and Finance/BMS/FM</u></b>		
Trends in outsourcing –Boon Bane	State level conference Risk strategies in Managemetn	12 <sup>th</sup> August, 2014
Existence & survival of entrepreneurs hip in knowledge based economy	State level conference Epignosis 2014	15 <sup>th</sup> August, 2014
<b><u>Mr.Sachin Acharekar</u></b>		
Remedial Measures to Education system in India	International Conference on Remedial Measures to Education System	29 <sup>th</sup> May, 2014
<b><u>Department of Zoology</u></b>		
<b><u>Dr.Vikrant V.Deshmukh- Assist. Prof in Zoology</u></b>		
“Emerging Trends & Challenges in Science & Technology”	Effect of Salinity on the Intertidal clam Qstrans Polygona	3-5 Nov., 2014
<b><u>Department of Business Communication</u></b>		
<b><u>Dr. Hemangi Bhagwat- Associate Prof in Business Communication</u></b>		
Fourth World lit	Marathi Theatre : An	12-13

	expression of Social Protest(IN)	September 2014
Sustaining Values	Theatre All the eay : street Theatre and Mulgi Zhali HO (N)	9-10 December 2014
Fourth World lit	Marathi Theatre : An expression of Social Protest (IN)	12-13 September 2014
<b>Department of Commerce</b>		
<b><u>Dr. Smita Paranjape- Assist. Prof in Commerce</u></b>		
Outsourcing Boon or Bane	Risk Management in IT outsourcing	08-12-2014
sustainable Development Challenges	Challenges in sustainable rural development in India	GNIMS
<b>Department of IT</b>		
<b><u>Ms Minal Dive - Assist. Prof in IT</u></b>		
Emerging trends in Banking Financial Services & Insurance	"Cybercrime and Financial Sector"	20/01/2015
<b><u>Ms Leena Shewale Assist. Prof in IT</u></b>		
Emerging trends in Banking Financial Services & Insurance (IN)	"Cybercrime and Financial Sector"	20/01/2015
<b><u>Ms Prajakta Kamble Assist. Prof in IT</u></b>		
Emerging trends in Banking Financial Services & Insurance	"ICT and Cyber crime in India"	20/01/2015
<b>Department of Geology</b>		
<b><u>Dr.G.V.Rao-Associate Prof in Geology</u></b>		
Chande Detection Analysis of mangmevege cover in thane Region from 2008-12 Univ GIS and Remote Sensing	National Conference in Rural, Urban, & Climatic studies Geomatix - 14	06-06-2014
<b>Department of Microbiology</b>		
<b><u>Dr. Padalia Unnati and Tejaswee Vaity</u></b>		
Spirulina species as a candidate for Bioremediation and its synthesis of nano particles (N)		08-09-2014
<b><u>Neha Sawant . Lolly Jain</u></b>		
Conference on Bioremediation Recent trends and future prospects (N)	Removal of lead from waste water effluent by using agricultural waste as bloodsorbent	08-09-2014
<b><u>Dr.Unnati Padalia, Kishor Bairi</u></b>		

Expanding Panerama of Microbiology (N)	Isolation of microorganisms from extreme environment	21/11/2014
Expanding Panorama of Microbiology (N)	Heavy metal tolerance and antibiotic resistance of EPS producing isolates from mangrove soil	15/1/2015
<b>Vaity Tejaswee Dr.Unnati Padalia</b>		
Expanding Panerama of Microbiology (N)	Remedial of lead from textile effluents by cyanobacteria and its synthesis of silver mediated nanoparticles	21/11/2014,
<b>Damle Padmaja and Padalia</b>		
Expanding Panorama of Microbiology (N)	Screening of Thane creek mangrove soil for Heavy metal Tolerant Bacteria	21/11/2014
<b>Sheirti Bohir Hemlatta Chakraborty</b>		
Recent trend and inovation in microbial world (N)	studies on Bio-plastic producing bacteria	15-16/1/2015
<b>Snehal Patil Lolly Jain</b>		
Recent trend and inovation in microbial world (N)	Prevention of pre-term birth and low birth weight associated with asymptomatic bacteriuria	15-16/1/2015
<b>Ms.Shatabdi Pawdi and Dr.Unnati Padalia</b>		
Sajjan Gupta Konark Memorial Award meet 2015	Plasmid Transfer Capacity in Biofilms antibacterial and antibiofilm activities of plant extracts	24/1/2015
<b>Sneha Nair and Unnati Padalia</b>		
Sajjan Gupta Konark Memorial Award meet 2015	Study of Bile salt hydrolase (BSH) activity and cholesterol reduction by Lactobocilli isolated from natural and commercial products	24/1/2015
<b><u>Dr. Unnati Padalia- Associate Prof in Microbiology</u></b>		
Proceedings of National conference on New and Emerging Trends in Bioinformatics and Taxonomy	Advances in microbial Taxonomy	24/1/2015
<b>Hena Parmar Hemlatta Chakraborty</b>		
Life Science Biotech and Environmental	Studies on slderophore	24/01/2015

Microbiology and Phytochemicals (N)	producing organisms and its applications	
<b>Mrs.Soniya Shetty and Bhavna Pandya (also awarded)</b>		
Savishkar i-Fast Government of MP and DST sponsored National exhibition and symposium	Biodegumming of Silk	Maulana Azad National Institute of Technology Bhopal (M.P.)
<b><u>Dr. Unnati Padalia- Associate Prof in Microbiology</u></b>		
Biodegradation of feathers by “Keratinase”	National conference on Bioremediation Recent Trends and future Prospects	08-09-2014
<b><u>Soniya Shetty-Assist Prof. in Microbiology</u></b>		
An environment friendly alternative to extraction of coconut fibres	Ekatva 2014 Foundation Day Celebrations	15/9/2014 to 16/9/2014
An environment friendly alternative to extraction of coconut fibres	National conference on Bioremediation Recent Trends and future Prospects	08-09-2014
<b>Hemlatta Chakraborty Maya Sonavante</b>		
Antifungal activity of probiotic bacteria	Konark research meet 2014-2015	24/1/2015
<b>Lolly Jain and Manasi Dhuri</b>		
Studies of chromium VI adsorption 212pproache packed beads and metal desorption of immobilised Alkali treated <i>Aspergillus niger</i>	National conference on Recent Trends & Innovations in microbial world	15/1/2015 to 16/1/2015
<b>Lolly Jain Sulakshna Sable</b>		
Degradation of textile dyes by organisms isolated from effluent	Konark Research meet 2014-2015	24/1/2015
<b>Lolly Jain Priyanka Salvi</b>		
Extraction of natural pigment producing bacteria for dyeing of textiles	Konark research meet	24/1/2015
<b>Lolly Jain Snehal Patil</b>		
Use of aqueous extract of cranberry in the treatment of UTI during pregnancy	Biotechnology for a better tomorrow	26/02/2015
<b>Hemlatta Chakraborty Hena Parmar</b>		
Studies on siderophore producing bacteria and their applications	Biotechnology for a better tomorrow	26/2/2015
Biodegumming of silk	Sarishkar ifast Innovative	26/2/2015 to

	and Futuristic approaches in Science and Technology	28/2/2015
<b><u>Soniya Shetty-Assist Prof. in Microbiology</u></b>		
Anaerobic etting of coconut Fibres	Savishkar ifast Innovative and Futuristic 213pproaches in Science and Technology	26/2/2015 to 28/2/2015
<b><u>Soniya Shetty,Bhavna Pandya and</u></b>		
Biodegumming of silk	Ekatva 2014	15/9, 16/9
Biodegumming of silk	Technofest VJTI	
<b><u>Soniya shetty (T) and Uttkarsha Surve</u></b>		
Comparative study of Fngi with high transfructosylating activity and its effect on probiotic cultures	Sajjan Gupta Konark Memorial awards	24/1/2015
<b><u>Sayali Dagde Soniya Shetty</u></b>		
Biodegumming of silk	Sajjan Gupta Konark Memorial awards	24/1/2015
Antibacterial efficacy of soaps	Sajjan Gupta Konark Memorial awards	24/1/2015
Antibacterial efficacy of soaps	Microbial Frontiers in Health and Hygiene	12-03-2014
Antibacterial efficacy of soaps	Sajjan Gupta Konark Memorial awards	24/1/2015
<b><u>Department of Business Economics</u></b>		
<b><u>Ms Malathi Ramachandran - Associate Prof in Business Economics</u></b>		
Impact of Skill Development in the Banking Sector	International conference	7th March, 2015
<b><u>Dr. Chitra Trehan Associate Prof in Economics</u></b>		
	Strategic Management published by GNIMS with ISBNo.978-83003-050	
<b><u>Dr.Usha Iyer Associate Prof in Economics</u></b>		
	Implementation of Food Security Act 2013 published as sem a chapter in the text book as Food Security Act 2013 with ISBN No.978-93-5202-385	16th Jan to 17th Jan.,2015

**ANNEXURE –II**

**3.4.1 PUBLICATIONS PER FACULTY IN PEER REVIEWED JOURNALS**

**2010**

<b>Faculty</b>	<b>Title of the paper</b>	<b>Journal</b>
Meena Sharma	A novel method for scouring textile cotton.	Indian Journal of Fibres and Textile Research. 35: 72-74. ( National )
Brajesh Sharma, Bhanu Raman,et al.	Structural elucidation of process related impurities in Escitalopram by LC/ESI-MS and NMR.	Journal of Pharmaceutical and Biomedical analysis 53: 895-901. ( National )
Bhavsar H,Rohini N.and Bhanu Raman.	Simultaneous determination of Chloramphenicol,Lignocain Hydrochloride, Beclomethasone Dipropionate and Chlotrimazole in pharmaceutical dosage form by Reverse phase HPLC	Indian Drugs 47(11):50-55. ( National )
Brajesh Sharma, Bhanu Raman,et al.	Structural elucidation of a process related impurity in Ezetimibe by LC-MS-MS and NMR.	Journal of Pharmaceutical and Biomedical analysis. 52:73-78. ( National )
P.J.Lokhande and J.K.Verma	Quantitation of nedundoside in vitex negundo Linn. leaf powder by high performance liquid chromatography,	Acta Chromatographica. , 22 (2010) 4, 591-597(International)
Vaishnavi Sridhar, J.K.Verma, Nyoti S.,	Separation of nickel from Copper in ammoniacal / ammonium carbonate solution using ACORGA M5640 by selective stripping, Minerals	Engineering, 23 (2010)454-456 . (International)

Patwardhan A. P. and R.P. Athalye.	Two new species of Dicrepidiinae from Maharashtra, India with a note on structure of hind wing and genitalia of some previously described species. (Coleoptera: Elateridae).	Genus 21(1): 43-52. (International)
Patwardhan A. P. and R.P. Athalye.	Study of the jump of some species of Click Beetles (Coleoptera: Elateridae).	Bionano Frontier Vol. 3 (1): 71-73. (National)
Amol Patwardhan.	Sightings of rare butterfly species and new record from Sanjay Gandhi National Park, Mumbai and Tungreshwar Sanctuary, Thane, India.	Zoos' Print. Vol XXV, number 5: 19-20. (International)
Patwardhan A. P. and R. P. Athalye	New records and two new species of Cardiophorine Elateridae from Maharashtra, India (Insecta: Coleoptera).	Genus 21(4): 505-511. (International)
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Yeragi, S. S.	Pharmacognistic study on <i>Cassia renigera</i> species of Mumbai.	J Si Vol 4(1) (2013): 17-24.
Yeragi, S. S.	Species composition and distribution of mycoflora in Mangroves habitat of Mumbai creek of South Konkan, Maharashtra,	(2013) J Si Vol (1): 33-36(International)
Yeragi, S. S.	Survey of air born fungal spores of four different sites of Bhandup.	(2013) J Si Vol 4 (1): 54-60(International)
Yeragi, S. S.	Comparative study of aeromycoflora of two public libraries.	(2013) Int J Life Sci A <sub>1</sub> : 60-62
Yeragi, S. S.	Biodiversity of mycoflora in mangroves habitat of Mumbai creek of south konkan Maharashtra.	Int J Life Sci A <sub>1</sub> : 105-107. (International)
Anjali Ratnakar & Aruna Rai	Influence of NaCl salinity on $\alpha$ -carotene, Thimine, Riboflavin and Ascorbic acid contents in the leaves of <i>Atriplex hortensis</i> L. var Pusa Bathua No 1:	Journal of Stress Physiology and Biochemistry Vol 9 No-4 (2013): 187-192. (International)
Anjali Ratnakar & Aruna Rai	Influence of NaCl salinity on beta carotene, Thimine, Riboflavin and Ascorbic acid contents in the leaves of <i>Amaranthus polygamus</i> L. var Pusa Kirti:	Octa Journal of Environmental Research. International peer reviewed Journal. ISSN:2321-3655, Vol 1(3):211-216(International)
Nishamol Kanat & Chandana Basu	Phenol alkylation over lanthana modified zinc manganese ferrosipnels	Reaction Kinetics, Mechanisms and Catalysis ISSN 1878-5190 Reac Kinet Mech Cat DOI

		10.1007/s11144-013-0564-3(International)
Dr. Veena Khilnani	Acoustic Parameters of green –non green Chemicals at Variable frequencies  Acoustic Parameters of Polar –non Polar Chemicals at Variable frequencies	Global research analysis Vol-2 Issue 6 June 2013  Indian Journal of Applied research(International)
Dr. Chandana Basu Dr. Nishamol Kanat	Study of the Effect of Molecular Size and Shape in Molecular Interaction of Binary Liquid Mixture Using Viscosity Method	Global research analysis Vol-2 Issue12 Dec 2013 ISSN2277-8160(International )
Dr. Yogesh Ghalsasi	Acoustic parameters of potassium halide with variable normality.	On line International Interdisciplinary Research Journal, Volume III, Issue V Sept-Oct 2013 ISSN No 2249-9598(International )
Dr. Yogesh Ghalsasi	Acoustic parameters of alkali chlorides with variable normality at variable frequencies	Indian Streams Research Journal, Vol.-3 Issue V June 2013 ISSN no. 2230-7868( National )
Unnati Padalia	In0vitro evaluation of Cinnamon extract on Multi-drug resistant strain producing extended spectrum $\beta$ -lactemase from UTI of diabetic patients. By Rohini Shetty and Unnati Padalia	Bionano Frontiers Vol 7, Pg 22-25( National )
Shetty Rohini	Plasmid profile analysis of multidrug	Vol 6; Issue 3, Pg

and Unnati Padalia	resistant strains producing ESBL from UTI of diabetic and non diabetic patients. Bionano frontiers	100-103. ( National )
Dr.Lolly Jain and Nidhi Dubey.	Brading acinetobacter sp.GRJio-indigo production by hydrocarbon deg	BiosciencesBiotechnology Research Asia, Vol10(1), June 2013. ( National )
Dr.Lolly Jain	“Bio-Indigo Production by Hydrocarbon Degrading Acinetobacter spp.GRJ” By Nidhi Dubey, Lolly Jain.	Biosciences, Biotechnology Research Asia, Vol. 10 , No. 01 , June 2013(International )
Ms. Soniya Shetty	Screening of fungi with high transfructosylating activity for FOS production; Ms Aaditi Bagul, Ms. Soniya Shetty	Bionano Frontier, Vol 7 ISSN 0974-0678( National )
Mr.Jitendra Pendharkar	Acoustioc parameters of Polar and Non Polar chemicals at variable frequencies	Indian Journal of Applied Resaerch, Vol3/ Issue7/July 2013 pp:16-18 ISSN: 2249-555X IF: 0.8215( National )
Mr.Jitendra Pendharkar	Acoustioc parameters of Green Non Green chemicals at variable frequencies.	Global research Analysis. ISSN No: 2277-8160. Vol2/ Issue6/June 2013 pp:45-46 ISSN No: 2277-8168. IF: 0.2174( National )
Mr.Jitendra Pendharkar	Variation of cognitive beliefs and hemisphericity in undergraduate science students	International Journal of scientific research Vol 2/Issue 7/ July 2013.Issn No: 2277-8179 pp: 32-33. Present IF:



		1.0441( National )
Mr.Jitendra Pendharkar	Construction and measurement of effectiveness of educative tool in electromagnetism	International refereed journal, Global Research Analysis Vol 2/Issue 7/July 2013.ISSN No: 2277-8160. pp:34.IF: 0.2174( National )
Dr Amol Patwardhan	Butterflies of Sanjay Gandhi national park, Mumbai,	in Ambient Science Jan – Mar 2013(International )
Meenakshi k, R.Nayak, R. Colah & Chattopadhyay	Attenuation of oxidative haemolysis of human red blood cells, by the natural phenolic compound alkylpyro catechol.	Free radical research 1 – 8. 103109/10715762. 2013. ( National )
Elizabeth Abba, Seema Unnikrishnan and Rakesh Kumar	Organic speciation of fine aerosol in Mumbai	Journal Of Environmental Science And Engineering (Jese), Vol. 55, No.1, 2013, P.No 17-34(International)
Dr.Samidha Pawaskar	Invitro-Antimicrobial activity of Cynodon dactylon (L) Pers.Leaf extracts Antimicrobial activity by zone of Inhibition estimation	Indian Drugs (IDMA)
Hemanshi Parikh,Dr,S.S.Yeragi	Pharmacognostic study on Cassia Renigeraspecies of Mumbai	JSI Vol4 (1)Aug 2013
Dekate H.M.,Dr,S.S.Yeragi,Dr.S.G.Yeragi	Species composition and distribution of Mycoflora in Mangroves habitat of Mumbai creek	JSI Vol 4 (1) Aug 2013
Prabhu V.N., Dr,S.S.Yeragi, Dr.S.G.Yeragi	Studies of intertidal mycoflora of mangroves at Mithbav creek	JSI Vol 4 (1) Aug 2013
Prabhu V.N., Dr,S.S.Yeragi,	Survey of mycoflora spores in bedrooms in suberb of Mulund	JSI Vol 4 (1) Aug 2013

Dr.S.G.Yeragi		
Ushavati Shetty Dr,S.S.Yeragi, Dr.S.G.Yeragi	Survey of airborne fungal spores at four different sites of Bhandup	JSI Vol 4 (1) Aug 2013
Prabhu V.N., Dr,S.S.Yeragi, Dr.S.G.Yeragi	Ethnobotanical survey of Mithbav	J Natcon 25 (1 &2) :11-19,2013
Prabhu V.N., Dr,S.S.Yeragi, Dr.S.G.Yeragi	Preliminary investigation on allergic Rhinitis cause care control of Vikhroli-Mulund areas of suburb Mumbai	J Natcon 25 (1 &2) :67-71 2013
Prabhu V.N., Dr,S.S.Yeragi, Dr.S.G.Yeragi	Preliminary survey of Bio-fouling mycoflora inhabitat on marine crafts of South Konkan	J Natcon 25 (1 &2) :45-49 2013
Prabhu V.N., Dr,S.S.Yeragi, Dr.S.G.Yeragi	Comparative study of aeromycoflora of two public libraries	Int J of Life Sciences,2013,A1 60-62
Dr.Deepak More Chimay Phadnis Sohini Basu	Corelation of structural & magnetic proorties of Nidoped Zno nanocrystals	Journal of Physics D : Applied Physics(International)
Dr.Veena Khilnani	Acoustic Parameters of green - non gree chemicas at variable frequencies	Global research analysis Vol2 Issue 6 June, 2013(International )
Dr.Veena Khilnani	Acoustic Parameters of green - non gree chemicas at variable frequencies	Indian Journal of Applied research(International)
Dr.Chandana Basu , Dr.Nishamol Kanat	Study of the Effect of Molecular Size and Shape in Molecular interction of Binar Liquid Mixture Using Viscosity Method	Glonal Rresearch analysis Vol-2 Issue 12 Dec., 2013 ISSN 2277-8160(International )
Dr.Yogesh Ghalsasi	Acoustic parameters of potassium halide with variable normality	online International interdisciplinary research Journal Vol. III, Issue V-Sept-Oct., 2013 ISSN No. 2249-9598( National )
Dr.Yogesh	Acoustic parameters of alkali chlorides	Indian Streams

Ghalsasi	with variabel normality at variable frequencies	Research Journal , Vol.-3 Issue V June 2013 Issn no. 2230-7868( National )
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## 2014

Dr. Sugandha Shetye	Estimation of Total Phenolics and Antioxidant Activity of an Ayurvedic Formulation Containing Aerial Root of F.Bengalensis“	Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN2249-9598, Volume-IV, Issue-I, Jan-Feb 2014,page no.145-150. (International)
Dr. Sugandha Shetye	A Review On Natural And Synthetic Antioxiants Used In Fighting Neurodegenerative Diseases - A Review	International Journal Of Innovations In Pharmaceutical Sciences (Issn 2319–5223) Accepted(International)
Dr.Pradnya Prabhu Pradnya J. Prabhu*, Rajiv T. Khombare and Mangesh D. Kadam	Synthesis, reactions, and antimicrobial activity of some fused Thieno2,3-d. Pyrimidine derivatives	Int. J. Chem. Vol 2 (4) (2013) : pp 532 - 546(International)
Pradnya J. Prabhu*, Rajiv T. Khombare,	Synthesis, reactions, and biological evaluation of heterocyclic systems fused with Thiophene moiety	Int. J. Chem. VOL 3 (1) (2014) : PP 91 -

Mangesh D. Kadam and Shailesh Athalye		99(International)
P. Prabhu, M. Muralidhar*	Development & Validation of a High Performance Liquid Chromatography Method for Simultaneous Determination of Irbesartan and Its Related Impurities in Pharmaceutical Tablets	International Journal of Pharmaceutical Sciences and Drug Research 2014; 6(2): 145-153(International)
Sugandha Shetye, Kawaljit Kaur, Valsamma Wilson	A Review on Natural & Synthetic Antioxidants used in fighting Neurodegenerative diseased	International J of Innovations in Pharmaceutical Sciences 3(4), 9-14, 2014(International )
Sugandha Shetye, Kawaljit Kaur, Valsamma Wilson	Estimation of Totalphenolies & antioxidant activity of an Ayurvedic Formulation containing Aerial Post of F-benghalensis.	online International interdisciplinary research Journal Vol. IV, ISSue I- Jan., Feb(International)
Abhaysingh Salunkhe Indrani Gupta Sugandha Shetye, K. Rakeshkuar	Measurement & Chemical speciation of PM 10 in Mumbai City, India	Environment Science& Engg, Vol.55, No.4, P-441-455 Oct., 2013(International )
Chitra kamath Bhavini Shah	Phytochemical screening & standardisaton of polyherbal formulation Maharishi Amrit kalash	International Journal of Pharmacy ad Pharmaceutical Sciences Vol 6, Issue 7, 1014(International )
Preeti Dwivedi J.K.Verma Chitra	Synthesis of a novel chelating resin containing hecylthioglycolate group and few of its applications	International Journal of Advanced

R.Kamath		Research (2014) Vol 2, Issue 10, 955-966 Pharmacy and Pharmaceutical Sciences Vol 6, Issue 7, 955- 966(International)
Preeti R.Dwivedi and J.K.Verma,	A novel chelating resin with diphenyl disulphide functional group : Synthesis, sorption, separation and recovery of some heavy metal ions,	e-journal of Chemistry, 7, 57- 63, 2014.
Preeti R. Dwivedi and J.K.Verma,	Synthesis and characterization of a novel hexylthioglycolate ion-exchange resin from poly(ethyl acrylate-acrylonitrile-divinylbenzene) beads and its use in the separation of heavy metals,	International Journal of Chemical and Environmental Engineering, 5, 57- 64, 2014. (International)
Preeti R.Dwivedi and J.K.Verma,	Synthesis of a novel chelating resin containing hexylthioglycolate group and a few of its applications,	International Journal of Advanced Research, 2, 955- 966, 2014.
R.S.Vaity and J.K.Verma	Minerals as Cr(VI) reducing additives and their impact on cement performance,	International Journal of Advanced Research in Chemical Science, X, 1-5, 2014.
J.K.Verma, Preeti R.Dwivedi	Diphenyldisulphide chelating Resin supported on Poly- (styrene-DVB-MMA) : Separation and Recovery of a Few Heavy Metals,	International Journal of Scientific Research and Education, Vol 2, Issue 2, December, 2014 pp 2321- 7545.
Geeta Nair Smita Survase	Synthesis and characterisation of Ni nanoparticles	International Journal of Physical and Chemical Sciences vol 3,56- 60, 2014(International)

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Kelkar Tushars Kardare AS, Bhalerao SA	Seasonal variation of amf colonization in phyllanthus niruri from brahmala lake garden, thane, M.S. India	International Journal of Biotechnology and Biosciences vol.4(2) April-June, 2014(International )
Kelkar Tushars Kardare AS, Bhalerao SA	Comparative Study of arbuscular mycorrhizal colonization between some weeds & ornamentals from Brahmala lake garden, Thane, MS India.	International Journal of Life Sciences, 2014, Vol.2(3) : 207-211 (International)
Dr. S.S.Yeragi	Studies on biological studies on biological investigation of estuarine fish Ambassis Crotenia from Mithbav estuary, Sindhudurg district, Maharashtra India	Journal of Science Information( National )
	Aspects of Biology of Indian Silver king Megalops filamentous newly recorded in Mithbav estuary of Sindhudurg district, Maharashtra State, India	Journal of Advanced Zoology (2014) : 35(1) : 22-25
	"The genus Signaces the collection of mithbav creek of South Konkan Maharashtra, India. "	Journal of Advanced Zoology (2014) : 35(2) : 107-111. (International)
	Food and feeding of an economically important estuarine fish sillago sihama (Forsskal).	Journal of environmental Science - In Press (International)
	Gonado - somatic index of Gerres oblongus (cuvier) from Mithbav estuary, Sindhudurg district, Maharashtra State, India.	Journal of Environmental Science - In Press (International)
	Aspects of Biology of Indian moony, Diamond fish Monodactylous	Journal of Life Sciences Vol. 3(4)

	argenteus (linn) (1758) recently habitat in Mithbav creek, Sindhudurg district, Maharashtra, India.	December, 2014 : 399-402(International)
Dr.Geeta Nair Ms.Smita Survase	Synthesis and Characterization of Ni Nanoparticl	International Journal of Chemical and Physical Sciences Vol-3, May, 2014(International )
Mr.J.Pendharkar Mahesh Warang Anushree Tambe	Measurement of cognitive belief & brain Hemisphericity	Indian streams Research journal
	dominance amongst diff branches of engg.students	Vol-4 issue 5 June-2014(National )
Mr.J.Pendharkar Sheetal Thakare	Comparison of cognitive beliefs &	
Mahesh Warang Anushree Tambe	brain hemisphericity dominance amongst Engg students at Karjat & Navi Mumbai	Golden research Thoughts : Vol-III issue XII June-14(International)
Dr.Bhanu Raman Dr.Vanita Kulkarni	High Performance liquid chromatographic method development and validation	Asian Journal of Pharmaceutical and clinical research Vol.7 (International)Suppl 2, 2014
Dr.Bhanu Raman Dr.Vanita Kulkarni	Physicochemical and Phytochemical evaluation of Ampelocissus Latifolia Planch leaves	International Journal of Pharmacy and Pharmaceutical Sciences Vol.6 June 6, 2014, 504-507(International)
Dr.Bhanu Raman Dr.Vanita Kulkarni	Simultaneous determination of quercitin and	International Journal of Pharmacy and Pharmaceutical

		Sciences Vol.6 June 6, 2014, 504-507 Page 129-134 (International)
Dr.V.L.Khilnani Mr.Yash Punjabi Mrs.Padmaja Damle	Antibacterial Activity of flower extracts of Nymphone Nouchali	Pharmacophone 2014 Vol.5(2), 352- 357(International)
Dr.Bhanu Raman Dr.Vanita Kulkarni	Study of ampelacissus latitolia Planch & its different plant extracts	Int Journal of Pharmacy & Pharmaceutical Sciences Vol 5 (2), (International)
Dr.Vanita Kulkarni Dr.Bhanu Raman	A new method for estimation of Acc (III)	Int J.Chem Vol. 3 (4) 2014
Dr.Sugandha Shetye	Estimation of Totalphenolies & antioxidant activity of an Ayurvedic Formulation containing Aerial Post of F-bengalensis.	Online International Intrdisciplinary (International)Rese arch Journal (B) Monthly ISSN2249-9598, Volume IV, Issue -1, Jan- Febaruary, 2014 page no.145- 150
Dr.Sugandha Shetye	A Review on Natural and Synthetic Antioxiants Used in Fighting Neurodengenerative Diseases - A Review	International Journal of Innovations In pharmaceutical Sciences (ISSN2319-5223) Accepted(Internati onal)
Dr.Pradnya Prabhu Pradnya J.Prabhu * Rajiv T.Khombare	Synthesis reactions and aantimicrobial activity of some fused Thie	Int.J.Chem VOL 3 (1) (2014) : PP 91- 99(International)



and Mangesh D. Kadam		
P.Prabhu M.Muralidhar	Development & Validation of a High Performance Liquid Chromatography Method for Simultaneous Determination of Irbesartan and its related impurities in Pharmaceutical Tablets	International Journal of Pharmaceutical Sciences and Drug Research 2014 : 6(2) : 145-153(International)
Vanita Kulkarni, Parag Pednekar, Bhanu Raman	High Performance liquid chromatographic method development and validation for simultaneous determination of Gallic acid and betasitosterol in ampeloeissus latifolia (Rozb.) plant	Asian Journal of Pharmaceutical and clinical research Vol.7 Suppl.2 2014, ISSN No.0974-2441 (International)
Vanita Kulkarni Parag Pednekar, Bhanu Raman	Phytochemical and phytochemical evaluation of ampeloeissus latifolia (Roxb) plant leaves	International Journal of Pharmacy and Pharmaceutical sciences Vol.6 Issue 6, 2014, ISSN No.0975-1491
Dr.J.K.Verma Preeti Dwivedi	Synthesis and Characterization of a novel hexylthioglycolate ion-exchange resin from poly(ethylacrylate-acrylonitrile-divinyl benzene) beads and its use in the separation of heavy metals and recovery of some heavy metal ions	International Journal of Chemical and Environmental engineering Feb., 2014 Vol.5, no.1, ISSN pp57-63 e-ISSN : 2278-5736(International )
Dr.J.K.Verma, Preeti Dwivedi and Chitra R.Kamath	Synthesis of a novel chelating resin containing hexylthioglycolate group and few of its applications	International Journal of Advanced Research (2014) vol2 issue 10, 955-966, ISSN2320-5407
Dr.S.G.Yeragi, Dr.S.S.Yeragi	Aspects of Biology of Indian Silver King Megalops Filamentosus Newly	J.Adv.Zool. 2014 : 35(1) : 22-25

	Recorded in Mithbav Estuary of Sindhudurg District, Maharashtra State, India.	
Dr.S.G.Yeragi, Dr.S.S. Yeragi & Mr.Shaji Mathew	The Genus Siganus the collection of Mithbav creek of South Konkon, Maharashtra, India	J.Adv.Zool, 2014 : 35(2) : 107-111 (International)
Dr.S.S.Yeragi Dr.S.G.Yeragi	Aspects of Biology of Indian moony, Diamond fish <i>Monodactylus argenteus</i> (Linnaeus 1758) recently habitat in Mithbav creek, Sindhudurg district, Maharashtra, India	Int.J. of Life Sciences, 2014, Vol 2(4) : 399-402 (International)
Dr. G.V. Rao <sup>1</sup> , Amit Patil <sup>2</sup> , Krupali Vijaykar Vahalkar <sup>*1</sup> , Sumeet Patil <sup>2</sup> ,	“Estimation of Daily Temperature & Rainfall Using Inverse Distance Weightage (IDW) Method & Inter-Relationship with Water Quality & Adaptive Behaviors”	IJSER Vol 4. Issue 12 December 2013(International )

**2015**

Dr.Nishamol Kanat Dr.Chandana Basu	Fielded craft Acylation of deactivated benzene over solid acid catalyst	Global Research Analysis - (Impact Factor - A5408 13th March, 2015) (International)
Dr.Nishamol Kanat & Chandana Basu	Alkylation of Aniline using methanol over Fergospinels	Gloal Research analysis Impact factor- 3.1218 15th April, 2015(International )
Dr.Nishamol Kanat & Dr.Chandana Basu	Phenol alkylation over lanthana modified zinc manganese ferrosinels	Reaction Kinetics Mechanisms and Catalysis (International)

## Annexure

### 3.4.3 Chapters in Books

Faculty	Title of the Book	Chapter / book edited	Year
Dr. J.K.Verma	Inorganic & Analytical Chemistry Inorganic Chemistry	SYBSC TYBSC	2011 onwards
Ms. S. P. Turakhia	College Practical Chemistry College Practical Chemistry College Practical Chemistry College Practical Chemistry College Inorganic Chemistry Inorganic & Industrial Chemistry College Inorganic Chemistry College Practical Chemistry- Goa Univ College Practical Chemistry- Goa Univ College Practical Chemistry- Goa Univ Applied Chem Practicals College Industrial Chemistry Practs	F.Y.BSc S.Y.BSc T.Y.BSc M.Sc.I F.Y.BSc S.Y.BSc T.Y.BSc F.Y.BSc S.Y.BSc T.Y.BSc F.Y.Engg F.Y.B.Sc.	<b>2010</b> onwards
Mr. B.S.Yadav	Organic Chemistry FYBSC. Organic Chemistry SYBSC	FYBSC. SYBSC.	<b>2010</b> <b>onwards</b>
Dr. Bhooshan Shanbhag	Concepts in inorganic chemistry Concepts in inorganic chemistry Concepts in inorganic chemistry	F.Y.BSc S.Y.BSc T.Y.BSc	2010 onwards
Mrs. Nutan Navelkar	Pathways of Inorganic chemistry	T.Y.B.Sc.	2010 onwards
Mrs. Jyoti Tiwari	Pathways of Organic chemistry	T.Y.B.Sc.	2010 onwards
Dr.Bhanu Raman	Practical Hand Book- Analytical Chemistry	M.Sc. I	2010 onwards
Dr. Yogesh Ghalsasi	College Analytical Chemistry	T.Y.B.Sc.	2010 onwards
Dr. Pradnya Prabhu	Pathways of Analytical Chemistry, Practical Hand Book-Analytical Chemistry	T.Y.BSc M.Sc. II	2010 onwards
Mrs. Asha Rao	College Organic & Industrial Chemistry	S.Y.B.Sc.	2010 onwards

Dr.S.S.Shetye	Basic Principles in Physical & Analytical Chemistry Basic Principles in Physical Chemistry Physical Chemistry	S.Y.B.Sc. F.Y.B.Sc.	2010 onwards
Dept of Chemistry	Chemistry Practical Hand Books CCLT Practical Hand Book	F.Y.BSc S.Y.BSc T.Y.BSc	2010 onwards
Mrs.Usha Iyer	Economics - F.Y.J.C. Economics -S.Y.J.C. Business Economics – I F.Y.B.Com Business Economics - II Business Economics - III	FYJC SYJC F.Y.B.Com S.Y.B.Com T.Y.B.Com	2010-11 2010-11 2010-11 2010-11 2010-11
Mr.Subhash Krishnan	Calculus and Analytic Geometry. Discreet Mathematics	F. Y. B. Sc. F. Y. B. Sc.	2010 onwards
Prashant Shah	Mathematics and Statistics text-book	XII standard (Arts, Science and Commerce)	2010 onwards
Dr.Ajit Katdare	Textbook of Botany Vol II	S.Y. B.Sc.	Aug 2011
	Textbook of Botany Vol II	S.Y. B.Sc.	Sept 2011
Dr. Mrs. S. S. Yeragi	Flora of Sacred Groves of Thiruvananthapuram district, Kerala State, India”		2012
Mrs Chitra Trehan	Strategic management	ISBN 978-93-83003-00-6	2014-15
Dr. Usha Iyer	Research paper entitled “Challenges in the Implementation of Food Security Act 2013 in “Implementation of National Food Security Act – 2013	Published by Himalaya Publishing House, Mumbai, with ISBN: 978-93-5202-385-1	2015
	Research paper entitled “ANC and PNC and Delivery Care Services among Slum and Non-slum Women with Linkages to Maternal Health in a book Millennium Development Goals Related to Reproductive Health: Status, Challenges and Future Directions	Published by National Institute for Research in Reproductive Health (NIRRH) Indian Council of Medical Research	2013

		(ICMR) and World Health Organization (WHO)	
	'Health Services to Women : An Economic Perspective'	Published by Lambert Academic Publishing, Saarbruken, Germany with ISBN No. 978-3-8484-0740-8 distributed worldwide by <a href="http://www.amazonbooks">www.amazonbooks</a> ; and through online shop as <a href="http://www.morebooks.de">www.morebooks.de</a>	April 2012
	Business Economics	IX & XII Standards of Maharashtra Board F.Y.B.Com., S.Y.B.Com., & T.Y.B.com. Business	June 2012 & 2013.
	Research paper entitled "Reproductive Health problems of Women in Mumbai : A need for Gender sensitive policy reforms", has been published by the Women Press, New Delhi in an edited book, under the title Empowering Women Worldwide Series 12, "Gender and Development"	Edited Book Pg Nos. 105-126	2011
Dr Elizabeth Abba	"For Young Indian Scientist, US study brings reward"	IIP Digital site maintained U.S Department of State	March 2012

Dr, Veena Rao	Textbook on Engineering Geology, Published by TechMax Publications, Pune.	Based on Pune University Syllabus ISBN: 978-93-5077-454-0	2014
Dr Elizabeth Abba	Indoor Air Quality in Mumbai	Hindustan Times	April 2012
Dr Elizabeth Abba	Health Effects of Particulates	Hindustan Times	8 <sup>th</sup> September 2012