

# FOR 4<sup>th</sup> CYCLE OF ACCREDITATION

# K. J. SOMAIYA COLLEGE OF SCIENCE AND COMMERCE

K J SOMAIYA COLLEGE OF SCIENCE AND COMMERCE, VIDYANAGAR, VIDYAVIHAR, MUMBAI-400077
400077

www.kjssc.somaiya.in/en

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# Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

December 2022

# 1. EXECUTIVE SUMMARY

# 1.1 INTRODUCTION

In September 1960, a philanthropist and visionary **Padmabhushan Shri Karamshibhai Jethabhai Somaiya** proposed combining advanced science education with spiritual and value education, which led to the establishment of Somaiya Vidyavihar. Over the last six decades, the Somaiya Vidyavihar grew to include **35 educational establishments**. An institution to be reckoned with, the educational conglomerate occupies **65 acres of land in Vidyavihar and thirty-five acres in Sion Chunabhatti, an eastern suburb. Value education** is the foundation of modern education and is a distinctive feature of Somaiya Vidyavihar institutions.

The dynamic leadership was continued by Shri S.K.Somaiya, the founder's son till 2010. Currently, the legacy is carried on under the leadership and direction of **Shri Samir Somaiya** who is the current **President of Somaiya Trust**.

K. J. Somaiya College of Science and Commerce is one of the colleges under Somaiya Trust. The recognitions acquired from various auditing and accreditation agencies demonstrate this institution's ongoing efforts to become the BEST in all domains.

- Reaccredited A grade by NAAC in 2004, 2010 and 2016.
- Best College award by University of Mumbai in 2009-10 and shortlisted for the same in 2019-2020.
- Autonomous status from 2012.
- Grants-DST-FIST (Rs 90 lakhs),DST-SERB (Rs 12.83 lakhs) and DBT-STAR (Rs 1.99 crores), CPE (Rs 1.5 crores)
- ISO 9001: 2015
- Outstanding college award in 2008 and 2022 by Somaiya Trust
- Recognition from esteemed Prime Minister Shri Narendra Modiji for NSS activity.
- One of the first institution affiliated to University of Mumbai to design Curriculum of Undergraduate Programmes as per LOCF- Learning outcome-based Curriculum Framework by UGC and to map CLOs and POs with assessments
- Incorporation of Indian Cultural Heritage, Sports, Basic Communication in English, Tally, Introduction to soft skills as part of mainstream curriculum in tune with NEP.
- Credit transfer from foreign Universities and Dual degree facilitation
- Timely Career Advancement and promotional placements of Faculty and support staff.
- Institution Innovation Council (IIC), under MoE, GoI and RiiDL, centralized incubation unit. 4 Start ups incubated are registered.
- One-semester internship in PG programmes
- Innovative Teaching Learning Pedagogies and Effective Assessment strategies
- National and international collaborations
- UGC Quality Mandate Committees- Gurudakshata, Mulyapravah, Deeksharambh, SATAT

#### Vision

#### **VISION:**

- 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 to 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.

College follows the vision of our founder to provide the students with cutting edge information and abilities in their selected stream. The college has a thrust on value based education to assist them in overcoming obstacles in life, provides students with opportunities to excel. The Institute is committed to sustain a logical disposition, personality and culture among the understudies to constantly evaluate, improve, and reevaluate the strategy for building India according to the founder's vision.

#### Mission

#### Mission:

- 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.

# 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.

The institute uses holistic education to accomplish this goal. The establishment attempts for comprehensive character of its understudies through participation in social activities and games and various multi-talented expert exercises. Our goals and objectives are to build a strong bridge between academia and industry. The institute is privately managed, self-funded, and approved by the University Grants Commission. Efforts are made to make the courses that are offered flexible and to actively adjust to the changing requirements of students and society. The ultimate objective of every activity is to create a multidisciplinary activity center, to cultivate individuals who would preserve our nation's cultural heritage, make responsible citizens contributing to the build-up of the nation. Various Clubs, Associations, co-curricular and extra-curricular activities help accomplish the honing of the creative skills, thinking, self discipline, creativity and leadership qualities of the students. confidence, aptitude, sensitivity, a sense of fairness and respect for human dignity. The college sets standards to inculcate spiritual and ethical values that build the students' empathetic concern towards fellow human beings and to serve the downcast by generating awareness on social issues like illiteracy, health and hygiene, safe drinking water, HIV- Aids, insurance, small savings, dowry, harassment and women health.

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# 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

# **Institutional Strength**

# **Strengths**

- Effective leadership of members of the trust with passion toward working for excellence in education
- Well established autonomous institution with six decade of academic excellence.
- Recipient of prestigious grant such as STAR DBT, FIST DST SERB & CPE
- Certified with ISO 9000 2015
- Excellent Academic support & Affiliated Programme
- Conducive environment
- Learner centric curricula
- Internship opportunity for students
- Dedicated and Committed faculty with rich experience in teaching
- Plethora of various activities cater to the need for exploring student's potential and capability
- Lush green 61 acres Campus
- Academic flexibility due to Autonomy
- Regular **organization of FDP programmes** relevant to discipline and to enhance the potential of **faculty to keep pace with current trends**.
- A well defined and transparent student's admission Process
- A strong bond with a high level of interaction between student/ staff
- Excellent geographical location to provide easy accessibility to students.
- Transparency and accountability in administration
- Excellent sports facility
- Digitalization of admission & academic processes.
- Entrepreneurship encouraged through Entrepreneurship Development Course and IIC

#### Institutional Weakness

#### Weakness

- No recruitment of teachers due to ban on appointment by government of Maharashtra
- No UGC / Non Salary grants from government
- No financial or administrative autonomy
- First generation learners from low economic background
- Poor participation or involvement of Alumni
- Limited Campus placement
- High Student teacher ratio in Commerce
- Less number of major research projects/ consultancy

## **Institutional Opportunity**

## **Opportunity**

• Industry-Academia collaborations for research

- Strengthen alumni network to generate endowment fund and more employment opportunity for students.
- Introduce new skill based programme as per NEP.
- More skill based multi / Inter disciplinary course.
- Establishment of student teacher exchange programme with Indian and foreign universities
- Availing more funding opportunity for research project.
- Enhancing Contribution to green initiative for sustainable development of Society.
- Investment in e-learning and designing massive online courses for quality education.

# **Institutional Challenge**

# **Challenges**

- Offering electives in the curriculum due to limited infrastructure and ban on appointment.
- Taking up research projects due to lack of funds
- Retention of faculty appointed under unaided section.
- Declining enrolment in some basic Science Courses.
- Recovery of fees by the students due to Pandemic situation.
- Implementation of new skill based programmes
- Industrial training for faculty and students
- Encouraging students to appear for competitive exams.

# 1.3 CRITERIA WISE SUMMARY

# **Curricular Aspects**

K J Somaiya College of Science and Commerce, an autonomous institute, promotes successful curriculum creation and development by updating it regularly.

- College with Science and Commerce faculty offers 10 UG, 17 PG and 5 Ph.D programmes.
- The **Curriculum Development Committee**, the Dean of Academic Affairs, faculty members, the principal, and members of the Board of Studies and Academic Council work together in a **methodical manner** to establish and revise curricula.
- LOCF with Ability Enhancement Compulsory Courses, Discipline Specific Courses, Discipline Specific Electives, Skill Enhancement Courses and General Electives that fosters entrepreneurship and employability skills in accordance with the UGC Quality Mandate.
- Well defined **Graduate attributes**, **Programme Objectives**, **Programme Learning Outcome** for all programmes and **Course outcomes** for all courses.
- 97.6% of programmes revised their curricula
- 1130 new courses were added
- Inclusion of **skill-based programmes** in the curriculum, such as Tally, Basic English Communication, Soft Skills, etc.
- Courses that are given in accordance with **NEP** and are multi- and inter-disciplinary, including **sports** and **Indian Cultural Heritage**.

- 25 Value-added courses with transferable and life skills under Mulyapravaha to support the institution's vision and mission
- Inclusion of **cross-cutting topics** in the curriculum, such as **gender sensitization**, **environmental sustainability**, **business ethics**, **human values and professional ethics** etc
- Students and Faculty have enrolled for and completed several **MOOC's** offered by SWAYAM/NPTEL/COURSERA.
- Instructional teaching-learning methods that focus on the needs of the students.
- Continuous review and monitoring of academic delivery through faculty members' submissions of **Academic Diaries** and **Syllabus Completion Reports.**
- **Structured feedback** on curriculum by stakeholder that is sent to the Board of Studies for review and development of the curriculum.
- Internships with reputable organisations and businesses including BARC, TIFR, NIO, ACTREC, etc. for all postgraduate students in semester IV.
- Credit transfer from Universities abroad
- About 20 National and international academic collaborations/ MoU's with other colleges, universities and research institutes
- College has been identified as Active centre of SWAYAM
- According to NEP guidelines, the college has registered for the Academic Bank of Credits.

#### **Teaching-learning and Evaluation**

College has been consistently emphasizing on student centric academic and examination reforms and policies since the inception of autonomy.

- Transparent online admission procedure in accordance with UoM and state government regulations
- Gujarati linguistic minority institution
- 2018-19 onwards **caste reservation seats are discontinued** as per court order for the socially backward community students.
- College has approved strength of 960 for aided UG programmes at entry level, 200 seats for aided/unaided PG programmes and 110 for research programmes.
- College offered 6 self-finance courses in UG and 9 courses in PG till 2019-2020. These courses were transferred to Somaiya Vidyavihar University, a private University from 2020-21.
- Annual academic Calendar and plan posted online.
- Well Qualified 60 Aided and 42 Unaided faculty
- Diagnostic testing to evaluate the knowledge levels of second- and third-year students
- Formative evaluation during lectures
- **Student-centred teaching strategies** active problem-based learning, flipped classroom, case studies, presentations, cooperative learning, etc.
- Outcome-based education mapping CLO, PO and determination of direct and indirect course attainment
- Contemporary ICT tools for instruction, such as quizlet, mentimeter, mind maps, and crossword puzzles
- CIE methods include surveys, presentations, research paper reviews
- Efficient examination process automation.
- Creation of Question Papers for all courses following Bloom's Taxonomy
- **FDP** in a number of areas, including e-content creation, the use of **ICT** in teaching and learning, and the usage of **LMS** like MOODLE and Google Class, among others.

- 90.23 % pass percentage
- Induction programme -Diksharambha for newly admitted UG and PG students.
- Honours programme, participation in Avishkar-research convention, poster/paper presentations at conferences, enrolment in MOOCs for fast learners; remedial coaching and bridge courses for slow learners.
- Student's success in **competitive examinations** like MicrobiOlympiad, CONTECH, JAM, NET,SET,GATE,PET,CA,CS, CMA, MBA, etc
- Well defined mentor-mentee programme
- Students' **active engagement** in Department Fests, group discussions, debate, workshops, etc to enhance critical thinking.
- Organisation of Guest lectures-Learn from Stalwarts in various fields for students
- Student representation on BoS, IQAC, CDC, Student Council, and library committee.
- Top user of Amrita Virtual Labs

#### Research, Innovations and Extension

College takes a lead in inculcating the research culture among the students and promoting the research among the faculty members through various activities.

- Constitution of Research promotion and Monitoring, Ethics and Research Advisory Committee.
- Well framed **Research policy**.
- 6 research laboratories
- 48 students enrolled for Ph.D programs, 4 for M.Sc by Research
- 20 research guides
- **Central Instrumentation Laboratory** equipped with GC, HPLC, HPTLC, UV-VIS spectrophotometer, CO2 Incubator and Fermenter.
- Library subscription to online Journals (e-Resources) of **N-List** with more than 6000 e-Journals and 31,35,000 e-books, **J-gate** ,**SCOPUS** and **Web of Science**.
- 34 talks/workshops on Plagiarism awareness, IPR, proposal writing for funding, etc.
- Financial support to students/ staff to participate in national and international conferences, seminars and workshops.
- Provision of Seed money
- Rs 21.5 lacs of grant received from government/non government agencies in last 5 years
- 25 research projects with one major research project.
- College has established **IIC 2.0** (**IIC ID IC 201912690**), a flagship programme of Ministry of Education. **IIC** registered under **ARIIA**, **MHRD** (2-Star Certificate).
- MoU with RiDDL, an incubator and innovation centre on the campus.
- 3 projects selected at National Innovation Contest.
- 4 Start -ups
- 123 research publications in reputed UGC CARE/SCOPUS journals
- 73 books /chapters published

#### **EXTENSION ACTIVITIES:**

- 2 NSS units, one NCC unit for girls and Department of Lifelong Learning
- Mega Blood Donation Drives by NSS with total collection of **1160 blood units**, organ donation drives, stem-cell registration drive and thalassemia check up
- NSS Yuva Yoddha Award to NSS volunteer Mr. Robinsh Yadav
- Felicitation of NSS volunteers by **BMC**, **Rajawadi Hospital** / **Chinmay Yuva Kendra** for active participation in Covid-19 vaccination drive in July 2021.
- NSS Program Officer, Mr. Amit More was awarded the **outstanding performance award** for the year 2020-21 by Somaiya Vidyavihar management.
- Our students received 2 gold and 7 silver medals in competitions at NCC camp and 1 CDT represented Maharashtra in RDC

# **Infrastructure and Learning Resources**

The institute has adequate facilities and has augmented its infrastructure to cater to the needs of programmes offered.

- 61 acres of lush green campus.
- 4925 sq.mt. of built up area
- 26 ICT enabled classrooms
- 5 cybernetic boards
- 37 undergraduate, postgraduate and research laboratories
- 3 computer laboratories
- PTC laboratory, Language laboratory funded by CPE-UGC
- Central instrumentation laboratory, equipped with GC, HPLC and HPTLC, Fermenter funded by DST-FIST
- RST-GIS laboratory
- Collaboratively Understanding of Biology Education (**CUBE**) laboratory in collaboration with HBCSE (Homi Bhabha Center for Science Education)
- Commerce laboratory
- Examination cell and CAP room
- Spacious gymkhana with facilities for indoor games
- WiFi enabled, AC 2 seminar halls
- WiFi enabled staff room
- 1 Recording room
- Separate Girls and Boys common room
- Space for IQAC, Counselling cell, WDC, ICC, Grievance redressal Cell, Student's Council, NCC, NSS, DLLE, Cultural forum, etc.
- Botanical and Medicinal plant Garden, Biodiversity garden (financial aid received from Mumbai US consulate)
- Disabled friendly washroom

## Library:

- Fully Automated Library accommodating 250 users
- KIOSK system for renewal, issue and return of the books.
- 69,000 books with additional e-resources .
- Subscription of N-List programme of **INFLIBNET** which gives access to 6000+ e-Journals and 3135000+ e-books.
- Exclusive library for post graduate and research scholars.
- **Dual internet connection facility**, provided by Airtel (850Mbps) and Tata (150Mbps). wired as well as WIFI. The network backbone is connected by 10 G single mode optical fiber cable.
- Department libraries.
- Integrated Library Facility amongst all sister institutions on the campus

#### Centralized facilities:

- 3 hostels Few seats reserved for students of our college.
- 3 canteens.
- 24 × 7 security with CCTV surveillance
- 4 Auditoriums
- Health Centre
- Project office for maintenance and repair
- Data center for e-facilities.
- **Somaiya Sports Academy** is a premier institution with a dedicated team of certified coaches and sports development professionals. 10 Central Outdoor sports facilities for Athletics, Tennis, Cricket, etc.
- 8-lane Athletic Synthetic track

## **Student Support and Progression**

#### **CRITERIA 5**

- The college meets the needs of the students from different sections through scholarships, free ships, and financial support from government and non-government organisations.
- KJSSC strives for the **holistic development of students** through co-curricular and extracurricular activities like college clubs, panel discussions, seminars, commemorative days celebration, webinars, competitions, and department fests.
- The **Student council** promotes student participation in all initiatives that help them hone their leadership skills.
- The student council distributes the **monthly KJSSC bulletin** and oversees **Encomium**, a formal event for expressing admiration (**Annual Prize Distribution**)
- Nominations are made for student representation on the IQAC, CDC, IIC, BoS, and library committee.
- Students are allowed to pay the **fee in instalments**. **Financial assistance** to participate in events like **youth festivals**, the **Avishkar**-Research Convention, **conferences**, **workshops**, **and intercollegiate competitions**.
- Students who compete at the state, national, and worldwide levels in Sports receive a special

#### allowance.

- University of Mumbai awards students who are placed in the top eight in the individual and team championship in sports with 10 grace marks.
- College competes in about **28 sporting activities** at Intercollegiate University of Mumbai tournaments.
- 45 awards to the students in various sports and cultural activities at university/state/national level.
- College has organised **49 cultural/sports events** in last 5 years.
- Capacity development and skill enhancement activities like talk on career opportunities, communication skills, soft skills, yoga, health and hygiene.
- Guidance for competitive examinations/career counselling by career guidance cell.
- 126 students cleared various competitive examinations such as SET.NET,PET, GATE, JAM, etc.
- Internal Complaint Committee and Grievance Redressal Cell take care of grievances of students and staff.
- College has registered Alumni Association and also has US chapter with 46 registered members.
- Contribution of alumni to the institute in the form of training, placement, supporting students financially for international conference and **cash prizes to rank holders**.
- Lecture series by alumni **ENRICHING EXPRESSION** and development of skill enhancement course conducted and created by alumnus.

# Governance, Leadership and Management

The **vision of the founder** of the college is reflected in all **programmes, initiatives, and services** provided by the college. It has effective leadership, participative decision-making and academic, administrative and financial planning.

- Effective deployment of strategy plan and perspective plan of the college
- Participative management and decentralisation through constituting several committees
- Regular meetings of department heads, faculty, non-teaching with principal
- Implementation of e-governance in office administration, admissions, examination, accounting, library, students database and activities
- Several policies framed such as for recruitment and promotion of faculty and staff, etc.
- A **strong and vibrant IQAC** aims at continuous improvement of quality to achieve the academic excellence. IQAC has initiated several quality reforms to improve teaching-learning processes, brand building and adopting ICT enabled environment for smooth functioning of academic and administrative processes.
- Regular meetings of IQAC
- Timely submissions of AQAR
- Participation in NIRF
- Yearly submission of Self appraisal reports of aided faculty and confidential reports of staff
- Yearly academic and administrative audit, examination process audit and internal and external audits of accounts
- College certified with ISO 9001: 2015
- Grant in aid from the government is the main source of funding. In addition to this college has received **FIST-DST**, **STAR-DBT**, **DST-SERB** and **CPE** grant. Financial support by Management as requirement.

#### Welfare measures:

- Registered Credit Society which caters to financial needs of the staff.
- Faculty members attended **FDPs** in different areas in last 5 years which were financially supported by the college.
- The College has conducted administrative and professional development programmes
- Non teaching members are encouraged to attend various training programmes.
- Timely promotion of faculty and staff as per UGC guidelines of CAS
- Active participation of faculty and staff in interinstitution annual cricket tournaments -TOSS
- 2 support staff members pursuing graduation and cleared PhD entrance examination of ICT, respectively
- Awareness programmes on health, technology, stress management, picnic, festival advance, book bank facility
- Annual programme-Encomium to appreciate and felicitate the staff and faculty for their contribution
- Long service award

#### **Institutional Values and Best Practices**

The Institute has a effective WDC and other committees to support the students. It has always kept sustainability as the utmost priority in whatever areas possible.

- Anti-Ragging Committee, Internal Complaint Committee (ICC), Grievance Redressal Cell, and Women Development Cell monitor and resolve safety, security, and social issues.
- Organisation of seminars, lectures and webinars to promote gender equality, gender sensitivity and to spread awareness of Rights of men, women safety, dowry, women's health, women in science, Women education, Women Empowerment and premarital counselling.
- MoU with Bharatiya Stree Shakti, an NGO
- 24x7 security in the campus with CCTV cameras for 24 hour surveillance to ensure vigilance
- Separate Girls and boys common rooms
- **Counsellor** is available to the student twice a week.
- Helpline for students in association with Bharatiya Stree Shakti.
- Centralized Waste management system on Campus.
- PHYTORID plant for treatment of waste water from laboratories
- Regular E-waste collection by NSS volunteers in collaboration with NGO-ECO-ROX
- Synergy and ECO-ROX, Mumbai, presented the college with the Green Campus Award in January 2019 in recognition of all these endeavours.
- Organise various activities to promote social harmony such as International Matribhasha Diwas,

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Sanvardhan Pandharwada, Asmita-marathi language festival ,webinar on Odisha Culture and its Contribution to Peace and Harmony in India.

- College was selected for Unnat Bharat Abhiyan -Govt of India initiative
- Webinar series on AIDS Awareness, Cancer Awareness, Thalassemia Check-up, Organ Donation, Stem Cell, PCOS, Blood disorder, Mental health, Covid 19 Vaccination, Pulse Polio Immunization, Plasma Blood Bank by NSS
- Rakshabandhan with Railway police staff
- Eco-friendly Rakhi Selling
- Blood Donation camp
- Orphanage/ Old age home Visit
- Notebook Donation drive
- Flood Relief Donation for Kolhapur, Sangli and Konkan
- Promotion of use of bamboo goods
- Awareness programs on plastic ban, importance of hygiene practice, Swachh Bharat Abhiyan, etc.
- Celebration of national / International days and birthdays of our founder and eminent personalities, Democracy fortnight.
- Cleanliness drives under the aegis of the Swachh Bharat Abhiyan
- Workshops on online safety, counselling, heartfulness meditation by MulyaPravah Committee.
- The **Code of Conduct Committee** formulates policies that reflect core values and prepares a Code of conduct for all the stakeholders.

# 2. PROFILE

# 2.1 BASIC INFORMATION

Name and Address of the College			
Name	K. J. SOMAIYA COLLEGE OF SCIENCE AND COMMERCE		
Address	K J Somaiya College of Science and Commerce, Vidyanagar, Vidyavihar, Mumbai-400077		
City	Mumbai		
State	Maharashtra		
Pin	400077		
Website	www.kjssc.somaiya.in/en		

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Pradnya J Prabhu	022-21025919	9820009267	022-2102591 9	principal.kjssc@so maiya.edu
IQAC / CIQA coordinator	Lolly Jain	022-21020615	9819914206	022-2102591 9	lolly@somaiya.edu

Status of the Institution	
Institution Status	Grant-in-aid

Type of Institution	
By Gender	Co-education
By Shift	Regular

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Recognized Minority institution				
If it is a recognized minroity institution	Yes College Minority Certificate.pdf			
If Yes, Specify minority status				
Religious				
Linguistic	Gujarati			
Any Other				

Establishment Details		
Date of Establishment, Prior to the Grant of 'Autonomy'	20-06-1960	
Date of grant of 'Autonomy' to the College by UGC	22-11-2012	

University to which the college is affiliated				
State University name Document				
Maharashtra University of Mumbai <u>View Document</u>				

Details of UGC recognition				
Under Section Date View Document				
2f of UGC	20-01-2012	<u>View Document</u>		
12B of UGC	20-01-2012	<u>View Document</u>		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)					
Statutory Regulatory Authority  Recognition/App roval details Inst itution/Departme nt programme  Recognition/App year(dd-mm- yyyy)  Remarks  Remarks					
No contents					

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	Yes
If yes, date of recognition?	22-06-2017
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	University of Mumbai
Date of recognition	15-08-2010

Location and Area of Campus					
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	
Main campus area	K J Somaiya College of Science and Commerce, Vidyanagar, Vidyavihar, Mumbai-400077	Urban	61	6796.67	

# 2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BSc,Chemist ry	36	HSc	English	600	342
UG	BSc,Microbi ology	36	HSc	English	600	58
UG	BSc,Bioche mistry	36	HSc	English	600	34
UG	BSc,Physics	36	HSc	English	600	283
UG	BSc,Statistic s	36	HSc	English	600	53
UG	BSc,Mathem atics	36	HSc	English	600	108
UG	BSc,Botany	36	HSc	English	600	161
UG	BSc,Zoology	36	HSc	English	600	158
UG	BSc,Geology	36	HSc	English	600	22
UG	BCom,Com merce	36	HSc	English	360	324
PG	MSc,Chemis try	24	BSc	English	20	19
PG	MSc,Chemis try	24	BSc	English	20	19
PG	MSc,Chemis try	24	BSc	English,Hind	2	2
PG	MSc,Chemis try	24	BSc	English	20	20
PG	MSc,Chemis try	24	BSc	English	20	20
PG	MSc,Microbi ology	24	BSc	English	2	0
PG	MSc,Microbi ology	24	BSc	English	20	20
PG	MSc,Bioche	24	BSc	English	20	20

	mistry					
PG	MSc,Bioche mistry	24	BSc	English	5	0
PG	MSc,Physics	24	BSc	English	20	15
PG	MSc,Physics	24	BSc	English	5	0
PG	MSc,Botany	24	BSc	English	10	0
PG	MSc,Botany	24	BSc	English	20	12
PG	MSc,Zoolog	24	BSc	English	10	0
PG	MSc,Zoolog y	24	BSc	English	20	11
PG	MSc,Geolog y	24	BSc	English	4	0
PG	MSc,Geolog y	24	BSc	English	20	19
Doctoral (Ph.D)	PhD or DPhi 1,Chemistry	36	MSc PET	English	38	0
Doctoral (Ph.D)	PhD or DPhi l,Microbiolo gy	36	MSc PET	English	8	0
Doctoral (Ph.D)	PhD or DPhil,Botan y	36	MSc PET	English	10	0
Doctoral (Ph.D)	PhD or DPhi 1,Zoology	36	MSc PET	English	10	0
Doctoral (Ph.D)	PhD or DPhi l,Geology	36	MSc PET	English	6	0

Position Details of Faculty & Staff in the College

				Te	aching	g Facult	y					
	Profe	essor			Asso	ciate Pr	ofessor		Assis	stant Pr	ofessor	
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				1				25				64
Recruited	0	1	0	1	8	17	0	25	18	16	0	34
Yet to Recruit				0				0				30
Sanctioned by the Management/Soci ety or Other Authorized Bodies				0				0				42
Recruited	0	0	0	0	0	0	0	0	18	24	0	42
Yet to Recruit			•	0				0		'		0

		Non-Teaching	Staff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				109
Recruited	68	7	0	75
Yet to Recruit				34
Sanctioned by the Management/Society or Other Authorized Bodies				24
Recruited	16	8	0	24
Yet to Recruit				0

		Technical St	aff	
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

# Qualification Details of the Teaching Staff

			]	Perman	ent Teach	ers				
Highest Qualificatio n	Profes	ssor		Assoc	iate Profes	ssor	Assist	ant Profes	sor	
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	1	0	3	12	0	9	11	0	36
M.Phil.	0	0	0	3	4	0	0	0	0	7
PG	0	1	0	8	17	0	18	16	0	60
UG	0	0	0	0	0	0	0	0	0	0

			r	Гетрог	ary Teach	iers				
Highest Qualificatio n	Profes	ssor		Assoc	iate Profes	ssor	Assist	ant Profes	sor	
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	4	6	0	10
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	0	0	0	17	25	0	42
UG	0	0	0	0	0	0	0	0	0	0

				Part Ti	me Teach	ers				
Highest Qualificatio n	Profes	ssor		Assoc	iate Profes	ssor	Assist	ant Profes	ssor	
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	2	0	2
UG	0	0	0	0	0	0	0	0	0	0

<b>Details of Visting/Guest Faculties</b>				
Number of Visiting/Guest Faculty	Male	Female	Others	Total
engaged with the college?	0	0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	887	57	0	0	944
	Female	1040	42	0	0	1082
	Others	0	0	0	0	0
PG	Male	113	4	0	0	117
	Female	214	9	0	0	223
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	3	0	0	0	3
	Female	1	0	0	0	1
	Others	0	0	0	0	0

Provide the Followi Years	ng Details of Studer	nts admitted	to the College I	Ouring the last f	our Academic
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	0	27	3	3
	Female	0	22	4	9
	Others	0	0	0	0
ST	Male	0	4	3	0
	Female	0	4	4	0
	Others	0	0	0	0
OBC	Male	3	55	3	8
	Female	5	56	3	9
	Others	0	0	0	0
General	Male	576	697	334	344
	Female	630	563	397	400
	Others	0	0	0	0
Others	Male	33	9	0	0
	Female	34	18	0	0
	Others	0	0	0	0
Total	1	1281	1455	751	773

# 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Biochemistry	<u>View Document</u>
Botany	<u>View Document</u>
Chemistry	View Document
Commerce	<u>View Document</u>
Geology	<u>View Document</u>
Mathematics	View Document
Microbiology	<u>View Document</u>
Physics	View Document
Statistics	View Document
Zoology	<u>View Document</u>

# Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:  For students to understand modern business trends, where multitasking is the norm, interdisciplinary knowledge is essential. Interdisciplinary expertise helps to develop bridges between academic institutions, various disciplines and research institutes. It helps students to learn and become innovative. The creation of "Tinkering Labs" in higher education institutions is another goal in teaching interdisciplinary subjects to undergraduate students. College offers various electives at undergraduate and post graduate level. Certificate courses like Biophysics, Biostatistics, Field Biology, Ecotourism management, Cyber laws, etc are offered to the students which are interdisciplinary and multidisciplinary. College offers various Skill Enhancement Course (SEC) at third year level. College has introduced sports as a part of UG curriculum in which students are given 9 different options to select. General Electives are introduced at TY level which are multidisciplinary courses offered to all UG students. Students are encouraged to
undertake interdisciplinary projects which are conducted jointly by various departments. Students are also encouraged to enroll for various

# 2. Academic bank of credits (ABC):

The University Grants Commission developed the Academic Bank of Credits, a digital, virtual, and online entity that provides academic services. Through a formal system of credit recognition, credit accumulation, credit transfer, and credit redemption, the credits' objective is to make it easier for students to become the holders of their academic accounts, opening the way for seamless student mobility between or within degree-granting HEIs. This promotes flexible and distributed learning. According to National Education Policy 2020, Academic Bank of Credits (ABC) is a national facility to support flexible curriculum framework and provide academic mobility of students with appropriate credit transfer mechanisms to choose their own learning path to earn a degree, diploma, PG-diploma, etc., working on the principle of multiple entry-multiple exit as well as any-time, any-place, and any-level of learning. College has completed the process of registration on National Academic Depository (NAD) portal. Efforts are being taken to motivate and encourage students to register on the NAD portal.

#### 3. Skill development:

The driving elements behind a nation's growth and economic development are knowledge and skill. College offers various skill enhancement courses like Techniques in Food Microbiology, Immobilization, Business in Chemistry, Entrepreneurship, Subhash Palekar's Natural Farming, Statistical analysis using C and R programming, Field Geology, Post-harvest technology, Landscape designing, Tally etc. Project based Entrepreneurship Development course is offered to TYBCom students. Enhancing language ability and communication skills is prioritized through carefully tailored courses. Language Laboratory helps the students to enhance their language skills. There are 119 courses as a part of mainstream curricula's where different skill sets are imbibed in the students. MulyaPravah offers various value education programmes to students. Number of co curricular and extracurricular activities foster the development of soft skills and leadership skills among the students. Various workshops, conferences and seminars are organized by the college for the students . Experiential Learning through Industrial visits as a part of Curriculum is another forte of our Institute. Students are taken to Research Institute's of eminence such as Pasteur Institute, BARC,

ACTREC, etc., Bombay Stock Exchange, National Parks, Sanctuary's, etc. to offer concentrated thought and hands-on experience so that knowledge, skills, and values can be increased, developed, and clarified. Further, Autonomy allowed us to add Internships / research Projects for one full semester in Postgraduate Programme. The objective here also is to provide students a clear idea of their strengths, weaknesses, likes, and dislikes. Knowing that they have hands-on experience will make them more confident in job hunting and interviews.

4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):

With the advent of science and technology, the global knowledge economy has undergone fast change, which has had a significant impact on society. To provide students a sense of identification, belonging, and appreciation for various cultures and identities, it is necessary to foster cultural awareness. Taking this into consideration, K J Somaiya College of Science and Commerce, has offered a one credit course on Indian Cultural Heritage. This course is conducted by "Dharma Study Center" a sister institute under the umbrella of Somaiya Vidyavihar. This one credit course includes mythology, yoga, visit to heritage sites and meditation. Various Indian festivals and commemorative days are celebrated in the college with enthusiasm. This includes National as well as International Days to commemorate advances in Science, Environment Protection, Sustainability, etc. This allows students to connect with the national and global needs and mould themselves to contribute to being a part of their solution. Vedic Mathematics was taught to school children by our students from the Department of Mathematics.

5. Focus on Outcome based education (OBE):

Outcome-Based Education (OBE): It is a student-centric teaching and learning methodology, in which the course delivery, assessment are planned to achieve stated objectives and outcomes. It focuses on measuring student performance i.e. outcomes at different levels. Rationale: As per requirement of NAAC, implementing OBE in a well structured manner is mandatory and this is done with the help of PO's, PEO's, CLOs, Academic diary etc. The framing of an LOCF document by each department is also a step in this direction. Progress: The process of OBE implementation was initiated in 2020-21 with a four day workshop for the faculty on OBE, which was then implemented in the teaching learning

NPTEL-SWAYAM: College could motivate students to enroll for various MOOCs on SWAYAM portal to gain knowledge and upgrade their technical skills. 5)

consistently informed and encouraged to participate in different Webinars, online Workshops, Seminars

knowledge and ICT-based teaching-learning tools.

Faculty upgradation: Faculty members are

and Conferences for upgradation of subject

process in 2021-22. Constructive alignment approach was used in designing and implementing curriculum in the year 2021-22. The LOCF task force was formed to guide the departments from 2020-21. CLO attainment was practiced by direct method from the even sem of 19-20. All faculty members were completely involved in designing and implementation of the OBE. The Academic dean and COE monitor the working and functioning of OBE in teaching, learning and evaluation by the faculty members. 6. Distance education/online education: ICT-based online teaching learning and evaluation. 1) E-learning: Wherever applicable, faculty members adopt a blended approach of learning and evaluation. Teachers use ICT-based tools to upload academic resources, share the material to supplement remedial coaching and conduct career-related online sessions in the form of Webinars . 2) Complete online admissions: College has been carrying out online admissions since three years, which helped the learners to incorporate technology in the initial stages of their academic career. 3) ICT-based online formative assessment: College conducted online internal exams for the students using the software developed by OFFEE. 4) Active centre status by

# **Extended Profile**

# 1 Program

# 1.1

# Number of programs offered year-wise for last five years

2021-22	2020-21	2019-20	2018-19	2017-18
40	48	48	47	45

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

## 1.2

# Number of departments offering academic programmes

Response: 10

# 2 Students

# 2.1

# Number of students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3137	3965	4312	4092	4052

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

# 2.2

# Number of outgoing / final year students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1417	1424	1331	1089	1017

File Description	Document
Institutional data in prescribed format	View Document

# 2.3

# Number of students appeared in the examination conducted by the Institution, year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1531	1505	1405	1305	1190

File Description	Document
Institutional data in prescribed format	View Document

## 2.4

# Number of revaluation applications year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	79	65

# 3 Teachers

## 3.1

# Number of courses in all programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
557	708	789	766	742

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

# 3.2

# Number of full time teachers year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
122	143	148	139	124

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

# 3.3

# Number of sanctioned posts year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
151	171	175	163	142

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

# 4 Institution

# 4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
2479	3817	19278	22069	21898

File Description	Document
Institutional data in prescribed format	View Document

# 4.2

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
870	870	1376	1357	1324

File Description	Document
Institutional data in prescribed format	View Document

## 4.3

Total number of classrooms and seminar halls

Response: 28

4.4

Total number of computers in the campus for academic purpose

Response: 312

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4.5

Total Expenditure excluding salary year-wise during last five years ( INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
267.92	287.08	502.66	437.8	520.26

# 4. Quality Indicator Framework(QIF)

# **Criterion 1 - Curricular Aspects**

# 1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

#### **Response:**

K J Somaiya College of Science and Commerce is dedicated to provide students with a value-based education with carefully crafted and implemented programmes. All programmes deploy the Choice-Based Credit System (CBCS), and adopt guidelines of the UGC, Maharashtra University Act, and the University of Mumbai. Additionally, the programmes are designed to be in line with the National Education Policy (2020). The college offered 48 Programmes. till 2019-20. From 2021-22, as per the decision of Somaiya management, self financed courses were transferred to Somaiya Private University. So at present we are offering 17 undergraduate, 17 postgraduate, 5 PhD and 1 PG diploma programs, which are designed to facilitate development of global competencies, employability skills, and social responsibility in students.

Curriculum design and development plays a significant role in the higher education system as it has a decisive role in steering the other elements of quality. Regular review and updation of the curriculum is the essential step to be followed by the autonomous institutions. The third cycle of curriculum revision took place in 2021-22 after the college was granted autonomous status in 2013 to incorporate recent development in all the concerned subjects.

The curriculum revision done in 2021-22 was based on Learning Outcome-based Curriculum Framework (LOCF) as per UGC Quality Mandate to offer 21st century skills to the students. Graduate Attributes, Programme Education Objectives (PEOs), Programme Learning Outcomes (PLOs) and Course Outcomes (COs) are very well drafted keeping in mind the description of skills, abilities and attitudes that a student can demonstrate after completion of the programme.

The curriculum is regularly updated and amended in response to the input from institutional stakeholders and recommendations made by academicians, researchers and industry personnel. In order to cope up with emerging areas of global demand, these recommendations are submitted for approval to the Board of Studies (BOS) and the Academic Council. The college has established academic linkages with national and international institutes and universities to address the specific needs and requirements of the market.

The college has introduced various value added courses to support the institution's vision and mission. These courses give students, opportunities to improve their skill sets and practical knowledge. Students are offered extra credits on completion of these courses. College has introduced the courses-Basic communication in English and Introduction to Soft Skills at UG level to enhance their communication skills.

Opting for MOOCs through SWAYAM/NPTEL/COURSERA, courses are just a few of the initiatives used to help students. PG Semester IV internship programmes, and offering value-added

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courses expand their subject-domain knowledge and practical skills. The college has incorporated professional ethics, human values, gender sensitization, environmental and sustainability issues into the curriculum, so students can face all the challenges and obstacles in life.

College also encourages students to enroll for dual degree. We also offer credit transfer from other institutions.

In order to monitor the effective implementation of the curriculum, Academic diary of all teachers is periodically checked by the dean and syllabus completion reports are filled by the faculty regularly

File Description	Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

# 1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

# 1.1.2.1 Number of all Programmes offered by the institution during the last five years.

Response: 40

# 1.1.2.2 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 40

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 100

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development yearwise during the last five years..

2021-22	2020-21	2019-20	2018-19	2017-18
557	708	789	766	742

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 1.2 Academic Flexibility

# 1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

**Response:** 23.3

1.2.1.1 How many new courses are introduced within the last five years

Response: 830

# 1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Response: 3562

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document
Link for Additional Information	View Document

# 1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course

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# system has been implemented (Data for the latest completed academic year).

Response: 100

# 1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 40

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 1.3 Curriculum Enrichment

# 1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

# **Response:**

In a global society where companies and technologies are spreading and decentralizing, There are many opportunities, but there are also challenges. Students should be strongly grounded in higher ideals in order to be better prepared to handle these issues. Our college actively incorporates gender, professional ethics, human values, environmental and sustainability issues into the curriculum to further this purpose. By educating students on gender inequities, developing environmental solutions, and fostering ethics, the college takes an inclusive approach for the development of the society.

## **Environment and Sustainability**

Applications of environmental and sustainability ideas and practises are included in core courses. For example the "Environmental and green chemistry" course at MSc (Chemistry) describes about the pollution control technology, Sewage and waste water treatment system. Various workshops and talks are also arranged to orient the students on the reaction and behaviour of individuals in relation to ecological issues. The SATAT Committee organizes various challenges to involve students to work towards environmental sustainability. NSS team makes continuous efforts to educate students on Swachh Bharat Mission, Plastic Ban, etc.

#### **Professional Ethics:**

The College's value-based educational programme promotes ethical awareness and instils a feeling of responsibility in the students.

Professional ethics and ideals are incorporated into the curriculum. For example "Importance of

Workplace Ethics, Guidelines to Promote Workplace Ethics, Importance of Employee Code of Conduct, and Ethical Leadership" are included in the course "Ethics and Governance" which is offered at undergraduate level. There are various courses which focus on professional ethics and Values, business ethics and business etiquettes.

# **Gender Sensitivity:**

Empowering Women is one of the goal of the institution. This cannot be achieved in a day. It's a continuous process. As a part of this process college has a Women Development Cell which is dedicated to create awareness about gender equality. All disciplines' curricula are created with gender sensitization as one of the component of the learning process. Vishaka guidelines are included in the foundation course syllabus which is offered to both science as well as commerce stream. Topics like Social Evils prevalent in India, No education for girls, domestic violence, female infanticide & foeticide, prostitution, dowry and triple talaq, constitutional and legislative provisions to safeguard women are also included in the curriculum.

#### **Human Values:**

A solid basis in human values is imparted to students through holistic education, and this is successfully secured by the curriculum, which is designed to include subject-specific information that emphasises the importance of values. In the course "Indian Ethos in Management", values for managers, Trans-Cultural Human Values in Management, Management Education, Secular v/s Spiritual Values in Management, and importance of Value System in Work Culture is incorporated. In some courses sense of patriotism and secularism is included. Value added course "Mulya Pravaha" is also offered to the students. From 2021-22, in order to make students aware about the rich Indian cultural heritage a compulsory 1 credit course is designed. Regular programs are arranged by NSS and NCC to promote culture representation and instill human values and social responsibility.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability. Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 134

#### 1.3.2.1 How many new value-added courses are added within the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
25	30	37	21	21

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

# 1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

**Response:** 7.83

# 1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
211	197	185	203	737

File Description	Document
List of students enrolled	View Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

# 1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 28.02

# 1.3.4.1 Number of students undertaking field projects / internships / student projects

Response: 879

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

### 1.4 Feedback System

# 1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

**Response:** A. All 4 of the above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

### 1.4.2 The feedback system of the Institution comprises of the following:

Response: A. Feedback collected, analysed and action taken and report made available on website

File Description	Document
Any additional information	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

### **Criterion 2 - Teaching-learning and Evaluation**

### 2.1 Student Enrollment and Profile

### 2.1.1 Average Enrolment percentage (Average of last five years)

Response: 86.59

### 2.1.1.1 Number of students admitted year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
916	962	1860	1766	1758

### 2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1270	1270	1920	1895	1850

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Response: 2.94

# 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
24	0	0	28	131

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document
Link for Additional Information	View Document

### 2.2 Catering to Student Diversity

# 2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

### **Response:**

Ever since the inception of Autonomy and its consequent implementation, the institution has been consistently **emphasizing student-centric academic reforms and policies**. Academic transactions are always customized to cater to **diverse groups of students** from different sections of society.

- At the commencement of a new academic year for both undergraduate and postgraduate classes, the college conducts **the Deeksharambh Induction program** to familiarize the students with the academic rules and regulations of the college, the curricular and extra-curricular opportunities, and the overall functioning of the college.
- Institution as earlier, adopted **diagnostic assessments** for the second-and third-year students to assess their level of knowledge acquired in the previous academic years.
- During the lectures, the teachers use questioning skills to differentiate advance and slow learners. Various **formative assessment** techniques were used during online lectures to assess their levels of understanding at a preliminary level. The Internal assessments conducted by the departments also gave a good indication of the types of learners. The biotechnology department conducted a self-check MCQ test on various subjects for S.Y.B.Sc. and T.Y.B.Sc. which gave both teachers and students a standpoint of the progress of students & whether they have improved.
- Considering the importance of the execution of a program for both types of learners without labeling them, hence College highly encouraged all students to participate in organizing **cultural events**, enrolling in **student councils**, and other **co-curricular activities**. **Remedial coaching** was imparted to the slow learners by all the departments on regular basis. The slow learners were also helped by the teachers by conducting extra sessions and tutorials to improve their academic performance.
- For advanced learners the College motivated and mentored the students to opt for various **Massive Open Online Courses** (**MOOCs**) offered by **NPTEL under SWAYAM**, Coursera, etc. Students were also **trained for competitive examinations** like SET, NET, etc., and were encouraged to appear for these competitive exams. Students appeared for various other national-level competitive examinations like **Microbiolympiad, Contech, JAM, and GATE. Commerce students appeared for CS, MBA, and CMA examinations**.
- As College believes in the **holistic development of a student**, and in order to provide a certain degree

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of guidance and counseling at every level of academic growth, College conducted sessions under the **Mentor-mentee scheme** and also continued with the same using online mode during the pandemic period. It consisted of a system to monitor student learning progress as well. Mentors were assigned to a group of 20-25 students to monitor their academic performance and interact frequently to assist in any issues the student might be facing which impede their learning.

• College conducted **offline and online workshops, sessions for the development of soft skills and interview skills,** etc. Students participated in national and international conferences and presented posters/papers. Students also participated in **departmental science festivals, group discussions, and debates**, which enhanced their **problem-solving abilities** and **critical thinking** in them. These activities also enriched and inculcated scientific temperament among the students.

File Description	Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

# 2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year) Response: 26:1 File Description Document Any additional information View Document View Document View Document

### 2.3 Teaching-Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

### **Response:**

Implementation of new student-centric online pedagogies like **Active learning**, **Problem-based learning** (**PBL**), **Flipped classrooms**, **and blending of ICT tools** into mainstream teaching facilitated better learning for all types of learners.

The college adopted **Outcome Based Education system** (**OBE**) and practiced a teaching methodology that focused on imparting education through a student-centric approach. This opened horizons for the college to transform students from passive recipients to active and participating stakeholders, apart from boosting their confidence and encouraging independent learning. The teacher facilitated active learning by allowing each individual student to comprehend at their personal level by ensuring their involvement in online class activities so that they can absorb and grasp information at their own pace.

• Courses offered by the College have very well-defined learning objectives, programs, and course

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**learning outcomes**. This provides a comprehensive understanding to the students right at the beginning of the course as to what should be the primary focus. It helps students self-evaluate their performance after completion of the course. Feedback from the course and teachers, given by students at the end of each semester provided an opportunity to identify any missing link which could then be addressed.

- Teachers made the classes as interactive as possible and encouraged innovative thoughts and novel interpretations. Flipped classroom expanded the domain of learning where resources are always available for the students. The use of modern ICT tools like Kahoot, Quizlet, Mentimeter, Mind maps, Crosswords, etc. enhanced the ability of students to think independently.
- Students also **published papers in reputed journals under Scopus**, on the research work done during the internship.
- Internal assessment of the students was done in various ways which involved PowerPoint presentation, research paper review, survey, participation in workshops and conferences, and report writing, which enhanced their confidence, developed their writing skills, and inculcated research interest among them. Various extra-curricular and co-curricular activities were organized by each department for students, which helped them in developing their leadership skills and inculcate teamwork.
- **Guest lectures** by eminent personalities from industries and renowned institutes were organized to familiarise the students with the recent trends in their disciplines. Science festivals were organized at the department level and were conceptualized by the students. Students were involved in the activities which helped them to develop and exhibit event management skills.
- Students participated in various extension activities under NSS, NCC, and DLLE.
- Student representation in administration was an important initiative taken by the college. Representatives of the students on committees like the **Board of Studies, IQAC, Library committee, and Student council** involved them in the **decision-making process** and maintained transparency apart from inculcating a sense of responsibility.

File Description	Document	
Any additional information	<u>View Document</u>	
Link for Additional Information	View Document	

# 2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

### **Response:**

Information and Communication Technology has become an integral part of the teaching, learning and evaluation process at college, especially since the onset of the pandemic. All the faculty members used modern teaching methodology using ICT-enabled tools and e-resources extensively.

### **Faculty Development Programmes:**

Almost all the faculty members were trained and have considerably become well-versed in advanced online teaching and learning technology. The college conducted programmes in different areas like E-content development, use of ICT tools in teaching and learning processes, gamification in E-learning, and use of **Learning Management Systems** like Moodle, Google Classroom, MS teams etc. to sensitize and motivate the teachers to adopt learner-centred approaches, ICT integrated learning and new pedagogic approaches to teaching and learning processes. The **teaching was made interactive** with the use of many online apps like Mentimeter, Kahoot, Quizlet, word cloud, mind maps etc. Teachers used innovative online methods to conduct a formative assessment during regular lectures. Some faculty members completed their refresher courses under ARPIT and through other online training programmes conducted under PMMMNMTT.

### Virtual laboratory nodal centre:

The college was selected for the Virtual Laboratory nodal centre program **promoted by UGC and AICTE.** As a nodal centre, the college was a part of the large ICT National Mission under the Ministry of Education, Govt. of India. The facility was used by undergraduate students of all disciplines to learn the experiments virtually during the pandemic situation.

During the academic year, 2020-21 the college was ranked as one of the top users of Virtual Labs. This provided visibility of our college amongst the top institutes in the country and consortia partners that include Amrita Vishwa Vidyapeetham, 7 top IITs, and others.

### **ICT-enabled tools:**

Learning Management Systems: Teachers used various platforms like Google classroom, MS Teams, and Moodle for conducting the lectures and for providing the learning resources like recorded YouTube videos to the students. During the pandemic, the regular lectures were conducted using Zoom, Google meet and MS Teams.

Various ICT tools like Edmodo, Mentimeter, Quizzes, and Canvas were used for formative assessment during the lectures. Teachers also used gaming tools like Kahoot, Hot Potato, Quizlet, and Crossword, to create **interactive communication during lectures**. During the pandemic, a summative assessment of the students was carried out using the software OFFEE.

### **Learning Resources:**

The College library is well-equipped with books, E-books, e-journals and journals. Library subscribed to the **N-list programme of INFLIBNET** which gave access to more than 6000 plus e-journals and more than 3135000 plus e-books. Access was also provided to **JSTOR** through N-List. Remote access to e-publications was available for N- LIST.

All the departments encouraged the students to take up various MOOCs on platforms like SWAYAM, Coursera etc. To encourage participation, several measures were taken, such as advertising selective courses (as per the need of our syllabi), providing active support to students through the teachers as mentors and felicitating Elite participants (students/Teachers) as a token of appreciation.

Teachers created their own YouTube videos which were made available for the students.

File Description	Document
Any additional information	View Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document
Link for Additional Information	View Document

# 2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 26:1

### 

Response: 122

File Description

Upload year wise, number of students enrolled and full time teachers on roll

Circulars pertaining to assigning mentors to mentees

Any additional information

View Document

View Document

View Document

View Document

### 2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution

### **Response:**

The academic calendar is the backbone of an institution. It serves as a schedule-based guiding principle used by the college to undertake various activities. A well-designed academic calendar ensures the smooth and systematic functioning of the institution.

Keeping into consideration the relevant guidelines and notifications issued by the central, and state governments and the University of Mumbai, the College designs, and publishes its academic calendar before the beginning of the term, and uploads it on the website of the College to make it available to all the stakeholders.

The principal, the Academic Dean, the IQAC Coordinator, the Controller of examinations, Heads of all the departments, and all committee conveners are involved in the process of planning the academic calendar. The University academic calendar is generally first referred to plan the terms of the year and the holidays.

The examination cell looks into the examination schedule for the entire year. Internal evaluation, term-end examinations, submission of question papers, submission of results, and declaration of results dates are added to the academic calendar.

The calendar also mentions the admission dates, induction for new students, the commencement of the lectures, and practicals as decided by the Dean of academics and the Heads of the departments.

BOS meetings, Academic council meetings, and regular HOD/faculty meetings, academic audits are planned by the Dean of academics.

IQAC decides a tentative plan for conducting Governing Body meetings, CDC, Finance committee meetings, and IQAC meetings.

All other activities are planned by the departments and the committee conveners accordingly which include departmental festivals, NCC/NSS/DLLE extension activities, field trips, and excursions as per the situation, cultural and parent meetings, placement drives, career guidance activities, guest lectures.

### **Teaching Plan**

- The teaching plan/academic plan of the college is uploaded on the website by the heads of all the departments.
- The **yearly workload** is calculated by the HODs and the Dean academics depending upon the strength of the students for the year. The allocation of the courses and classes for the new academic year to the faculty members is done by the heads of the departments at the end of the previous academic year. The timetable is basically framed and allotted to the faculty members at the same time by the respective heads of the departments. Syllabus distribution is done to earmark the syllabus to be covered for the internal and semester-end examinations.
- The academic **diary** is monitored regularly by the Heads of the Departments and the Dean of Academics to ensure that teachers strictly adhere to the schedule of the lesson plan.
- The documentation gives details of course objectives and outcomes, mapping of course outcomes with program outcomes, learning resources, teaching aids, delivery methodologies, detailed unit-wise lecture plan, links to video lectures, learning resources and topics beyond the syllabus and special events to be organized.
- Preparing course materials in advance and sharing them through Google classroom, facilitated student-centric flipped and blended learning in classrooms.

Academic Calendar and teaching plan add transparency to the process of teaching, learning, and evaluation

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

### 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

**Response:** 84.32

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 42.28

# 2.4.2.1 Number of full time teachers with *Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit.* year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
61	57	59	53	54

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 12.04

### 2.4.3.1 Total experience of full-time teachers

Response: 1468.31

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File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document
Link for Additional Information	View Document

### 2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 23

# 2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
37.1	14.29	16	22.6	25

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

# 2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0

### 2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Number of complaints and total number of students appeared year wise	View Document

2.5.3 IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution

### **Response:**

- The college has a well-established **Examination Cell**. The principal is the Chief Controller of examination. The other members of the examination cell are the Controller of Examinations, the Deputy Controller of Examinations, a few faculty members and the administrative staff which plan and execute the process of examination and the assessment in a systematic manner. Sincere efforts are made in the CoE office for the smooth, systematic and secure conduct of the examinations.
- At the beginning of the academic year, the CoE in consultation with the principal schedules the examinations for the entire academic year. All communications with students and teachers are done through e-mails and the college website. The website is regularly updated by the examination cell.
- Internal Assessment System:

The autonomy gave us flexibility in offering various ways of assessment to the students. Learning is easier when the students and teachers open themselves to new experiences and solve problems creatively.

1. The College followed the **60: 40 pattern of evaluation** in which 40 % of marks were allotted for internal evaluation and 60 % for semester-end summative examination. For undergraduates, 40 marks comprise 25 marks for evaluation by objective tests and 15 marks for assignments. For postgraduates, it was 20 marks for evaluation and 20 marks for the assignment.

The assignment was in the form of case studies, PowerPoint presentations, poster presentations, a review of a research paper, participation in workshops /seminars and writing reports on that etc. The tests were conducted both in offline and online mode using Google Classroom, Moodle, Edmodo or the software by the service provider, OFFEE(Offline Examination).

• IT Integration: Effective automation of the examination process streamlined the planning and execution of activities and made it easier and paperless. The various processes related to examinations and evaluations were automated.

Course learning outcomes were aligned with programme outcomes. Course learning outcomes are specific to a course of study within a given programme of study. The achievement by students of course-level learning outcomes leads to the attainment of the programme outcomes.

**Mapping analysis of each course** was maintained by the respective departments. The questions are framed in such a way that they should satisfy Bloom's Taxonomy, wherein each question was mapped to the appropriate course outcome of the respective course, which was evaluated based on the set attainment levels by the department.

• **Unfair Means:** Unfair-means committee took care of the malpractices during the examination processes. If the candidate was caught using any unfair means, then appropriate actions as per the exam rule were taken.

File Description	Document	
Any additional information	<u>View Document</u>	
Link for Additional Information	View Document	

### 2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

### **Response:**

**Outcome-Based Education**: College adopted Outcome Based Education (OBE) model which focuses on students' learning outcomes and aligning teaching and assessment with the intended learning outcomes. OBE is a student-centred learning model which gives prominence to what should be attained by the students on the completion of the programmes. The teacher and the learner have a clear understanding of the objectives to be achieved at each level, leading to the student's progression.

The Programme Educational Objectives, Programme Learning Outcomes and Course learning Outcomes were discussed in detail in the faculty meetings where all the faculty members expressed their views and contribute constructively towards framing the objectives and outcomes. The Programme Educational Objectives (PEOs) were derived to achieve the vision and mission of the College and were very well aligned with the inputs from the stakeholders like parents, alumni, employers etc.

Programme Learning Outcomes were designed for all the programmes offered, on the basis of the skills and the competencies that the students should be able to articulate or utilize after completing the degree programme. These are very well aligned with the **Graduate Attributes defined by UGC**. Course Learning Outcomes for individual courses were designed based on the knowledge student is expected to gain, and the ability to apply the knowledge gained at the end of a particular course. PLOs and CLOs were based on the six levels of revised Bloom's Taxonomy.

The derived PEOs, POs and COs were approved by the Board of Studies and passed in the Academic Council meeting. Course Learning Outcomes were mapped with the Programme Learning Outcomes using the various levels as high, medium and low as per the degree of mapping.

The PEOs, PLOs and CLOs were disseminated through the College website to all the stakeholders. Faculty members communicated the objectives and the course outcomes to the students at the beginning of every semester. It helped the students to concentrate on the specified objectives and work towards achieving them. At the beginning of the programme, in the department-level induction programme, the students were

educated on PLOs and POs of the programme.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

### 2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

### **Response:**

Taking cognizance of the **latest guidelines from the UGC** in Evaluation Reforms in Higher Educational institutions and with the onset of the New policy on Education, efforts were made to design a method not only to design learning outcomes but also to evaluate the level of their attainment. The scores of attainments indicate the level of understanding of the learners and their ability to apply the knowledge to solve a problem. The mapping of Programme Learning Outcomes (PLOs) with Course Learning Outcomes (CLOs) made it possible to explore how the students are achieving the Programme Learning Outcomes at the Course level. The effectiveness of this correlation was validated by a systematic process of collecting and evaluating data on Programme Learning Outcomes and Course Learning Outcomes and calculating the attainment of these outcomes. The institute adopted both direct (at the College level) and indirect (at the department level) methods for CLO attainment. Data obtained from the attainment of outcomes also helps in restructuring the existing curriculum and re-evaluating the pattern of the evaluation as per the latest guidelines to make it learner-centric. Data obtained from the attainment of outcomes enable the faculty members to explore the different cognitive abilities of the learners and customize the teaching methods to cater to various types of learners.

**Evaluation of attainment of POs and COs:** Evaluation of attainment of PLOs and CLOs was calculated as follows:

- 1. The weightage percentage of contribution of each course in the attainment of each PLO was calculated.
- 2. **CLO attainment** by using the direct assessment method was done on the basis of the performance of the students in the End Semester Examination and Practical examinations.
- 3. If a student scored 60% or above marks in a question it is considered that he has understood that unit considerably and has attained the corresponding CLOs. The average of all CLOs was then calculated for Semester end theory and practical examinations.
- 4. Weightage of 70 % is given to direct attainment scores and 30 % to indirect attainment scores to obtain the final attainment score for a course. Finally combined attainment percentage was calculated for the entire course.
- 5. **Question banks** were created and curated as per the requirements of the learners. The tagging of the questions was done as per Bloom's taxonomy and their difficulty levels. The blueprint of question papers for each course was designed in alignment with **Bloom's taxonomy**.

File Description	Document
Any additional information	View Document
Link for Additional Information	<u>View Document</u>

### 2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 92.55

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 1417

## 2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Response: 1531

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
Any additional information	<u>View Document</u>
Link for the annual report	View Document
Link for additional information	View Document

### 2.7 Student Satisfaction Survey

# 2.7.1 Online student satisfaction survey regarding teaching learning process Response: 3.37 File Description Upload database of all currently enrolled students Upload any additional information View Document Link for any additional information View Document View Document

### Criterion 3 - Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

### **Response:**

One of the key elements for every academic institution to succeed in the field of education is **research**. The college takes the lead in encouraging faculty members and students to conduct research through several activities.

The college has a **well-written research policy** that helps to promote a culture of high-quality research among students and staff. This policy lays forth the rules, processes, and principles for obtaining research funding, administering institute awards, and managing research funds to foster a research environment among teachers and students.

We established a distinct **research monitoring committee** with clearly defined tasks and functions in order to support the steady expansion of the research component at our college. A body called the **research advisory committee** has been established to periodically check on research students' progress. The committee's mandate is to **assess, improve, and develop connections** with reputable academic institutions and industries.

The institution features five **fully equipped research laboratories**. There are **now 48 Ph.D. students and 4 research scholars enrolled in the M.Sc.** by research programme. The **Central Instrumentation Laboratory** has been set up with high-end instruments like Gas Chromatographs, High Performance Liquid Chromatographs, High Pressure Thin Layer Chromatographs, Infrared Spectrophotometers, UV-VIS spectrophotometers, and Flame Photometers to aid instrumental analysis in research.

Since 2015–16, the college library has had a subscription to **N-List's Online Journals** (e-Resources), which comprises more than **6000 e-Journals and 31,35,000 e-books**. Through server(s) deployed at the **INFLIBNET** Centre Ahmedabad, the N-list initiative gives students, researchers, and faculty from colleges access to electronic resources. Since 2019–2020, **J-gate** has been subscribed to, and since 2020–21, **Web of Science**. Every year, workshops are held for PG students to help them use the aforementioned e-resources and other library services. In 2018–19, a session on using online resources to improve research was offered for teachers and students. In 2020–21, **online training sessions** for using J-Gate and Inflib net services were offered.

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The college features **Turnitin anti-plagiarism software**, which aids the researchers in publishing highquality research.

To develop and improve the research knowledge and abilities of the research scholars and guides, the college regularly holds a variety of programmes in the areas of plagiarism awareness, intellectual property rights, grant proposal writing, strengthening and understanding of research journals, critical reading of research papers, etc. Additionally, the institution hosts the Learn from Stalwarts lecture series, which gives students the chance to connect with distinguished experts from different research institutes.

The college supports the faculty and students' participation in several national and international conferences, seminars, workshops, etc. by paying their registration fees. The college has budget provisions for the **Seed money** to be given to the faculty members to motivate them to undertake research projects. The college has supported the faculty members financially to file the patents and to visit The Michigan State University for a collaborative research project. Two undergraduate students from the Microbiology Department were given financial assistance to cover their travel costs to Boston so they could attend the renowned international conference I-Gem.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	
Any additional information	<u>View Document</u>
URL of Policy document on promotion of research uploaded on website	View Document

### 3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 0.2

### 3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
0.34	0.64	0	0	0

File Description	Document
Minutes of the relevant bodies of the Institution	View Document
List of teachers receiving grant and details of grant received	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document
Any additional information	View Document

# 3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Response: 0

# 3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
List of teachers and their international fellowship details	View Document

### 3.2 Resource Mobilization for Research

3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

**Response:** 11.2

# 3.2.1.1 Total Grants from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	2.7	5.9	2.6

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by government and non- government	View Document
Any additional information	View Document

### 3.2.2 Percentage of teachers having research projects during the last five years

**Response:** 3.7

### 3.2.2.1 Number of teachers having research projects during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	7	10	8

File Description	Document
Names of teachers having research projects	View Document
Any additional information	View Document
Link for additional information	View Document

### 3.2.3 Percentage of teachers recognised as research guides

**Response:** 18.85

### 3.2.3.1 Number of teachers recognized as research guides

Response: 23

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Any additional information	<u>View Document</u>
Link for additional information	View Document

# 3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

Response: 13.59

# 3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	4	4	4

### 3.2.4.2 Number of departments offering academic programes

2021-22	2020-21	2019-20	2018-19	2017-18
10	16	18	18	17

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	<u>View Document</u>
Any additional information	View Document
Paste link to funding agency website	View Document

### 3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.

### **Response:**

We have a **centralized Incubation center RiiDL** (**Research Innovation Incubation Design Lab**) on our campus which provides pre-incubation and incubation facilities to our students. It focuses on-

- Creating focused groups who work on solving real-world problems, skill development projects, and creating new ventures.
- Organizing conferences, workshops, and competitions on campus.
- Funding and mentoring projects.

Our college has entered into an MoU with RiiDL and the outcomes have been remarkable-

### Start-Up's

2017: Agrobeads by Ms. Pooja Nandi

2018: Health Eatos by Mr. Ankit Raj, Ms. Sayli Welekar

2018: Mr. Vikrant Yadav, Mr Pratik Kane, Mr. Mooni Deb Barman -development of IOT and Automation Techniques

2019: MOSS by Mr. Akash Sheth

Funding from RiiDLto incubates startup: 30,000/- per month from Jan 2021 to Dec 2021 to TYBSc student Abhishek Rajak.

RIIDL planned a 'Fintech design challenge' for the students of the entrepreneurship course 'Theatre Khoj' and 'Pushpagabhda' were the projects shortlisted and 'Cultural Haven' has been incubated.

RiiDL's **Darwin Conference** has seen remarkable participation from our students and faculty. Over the last 2 years, our students have registered remarkable participation in this Life-Science international event with 3 selected papers/reviews published in the International Journal of Life Sciences.

### IIC

In 2019, College has established **Institution Innovation Council- IIC 2.0** (IIC ID IC 201912690). Various events are organized as per IIC calendar where the students participate. We participate in events organized by MIC. IIC actively involves in organizing sessions on IPR awareness, Entrepreneurship, and holds competitions and presentations.

For the calendar year 2.0 we secured one star, for 3.0 we secured 2.5 star, for 4.0 we got 2 star. Our college (ARI-C-33631) has been placed under 'Band Performer' in the category of general (Non-technical)' in ARIIA rankings 2021

Under the Impact Lecture series, we got financial assistance from IIC, MoE (Rs.24,000/-)

Under the Innovation Ambassador program, six faculties were trained for basic level.

Our college has enrolled in NISP, KAPILA program, Innovation contest.

A few projects incubated are as follows:

- How an invasive plant species can be put to use in a productive manner using principles of green chemistry
- Health soup
- Automated Hardware Module (Cane) for Visually Impaired Person to Detect Obstacles and Movement

### **Internship/Research Project Outcomes:**

The research project carried out as part fulfillment of PG programme in Microbiology has yielded patent grant- 'A method of detection of DNA transformation using carbon Dots' by Mr. Vishal Shetty and

### Dr. Seema Sambrani.

Mr. Pratik Barve was involved in the design and development of Muon detector during his internship. Selected to be showcased in "Vigyan Samagam" - a multi-venue mega science exhibition organized by the Department of Atomic energy (DAE) and the Department of Science and Technology (DST)- India in collaboration with renowned international research institutes.

**Mr. Vidyesh Sathe**, M.Sc. Geology student, has written an abstract, first author, on the dissertation work that he did at **Indian Institute of Remote Sensing, Dehradun**. This abstract has been selected for presentation at the Indian Planetary Science Conference (IPSC) conference held at Physical Research Laboratory, Ahmedabad.

File Description	Document	
Upload any additional information	<u>View Document</u>	
Paste link for additional information	View Document	

# 3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 29

# 3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
18	9	1	1	0

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	View Document
Any additional information	View Document
Any additional information	View Document

### 3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: A. All of the above		
File Description	Document	
Any additional information	<u>View Document</u>	
Link for additional information	View Document	

# 3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years

Response: 0.96

3.4.2.1 How many Ph.Ds are registered within last 5 years

Response: 22

3.4.2.2 Number of teachers recognized as guides during the last five years

Response: 23

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

# 3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years

**Response:** 0.75

3.4.3.1 Number of research papers in the Journals notified on UGC website during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
17	21	16	15	33

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	View Document

### 3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last

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### five years

Response: 0.56

# 3.4.4.1 Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
15	7	21	20	13

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

# 3.4.5 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

### **Response:**

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	View Document

# 3.4.6 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - hindex of the Institution

### **Response:**

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	<u>View Document</u>

### 3.5 Consultancy

3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

### Response: 4.6

# 3.5.1.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
0.81	0	0	1.73	2.06

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View Document
Any additional information	View Document

# 3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

### Response: 0

# 3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
List of facilities and staff available for undertaking consultancy	View Document

### 3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community,-sensitising students to social issues, for their holistic development, and impact thereof during the last five years

### **Response:**

As a socially responsible institution, the college always extends a hand towards the

Community. The college conducts a **large number of social activities** in the neighbourhood communities to sensitize the students to social issues like illiteracy, poverty, unemployment, health and hygiene, etc

The college has two vibrant NSS units, one NCC unit for girls and Department of

**Lifelong Learning and Extension (DLLE)** which mould the students in nation building activities. **1 MAH GIRLS BN NCC** is one of the oldest girl BN in Mumbai of Army Wing. Current strength of the unit is 80 which is under the batallion at Colaba and is commanded by ANO Lt. Dr. Rohini Arun Kasabe, Colonel Satish Vats.

College has been enrolling students for projects under D.L.L.E since 15 years. More

than 200 students get enrolled in DLLE every year. Students have done internship in industries like CIPLA, RCF, Godavari Bio refinery under Industry Orientation Project. Students are involved in volunteering in various social awareness programmes which are conducted through various government organizations and NGOs for Cancer awareness, safe driving, organic farming etc. Several prizes in intercollegiate UDDAN festival organised by University of Mumbai..

The college has implemented various outreach and extension activities under NSS, NCC and DLLE such as -

Swachh Bharat Abhiyan

Unnat Bharat Abhiyan

Solar ambassador workshop

Propagation of use of Eco friendly goods

E-waste collection

Blood/organ donation drives

Stem-cell registration

Assistance in Covid-19 vaccination drive

Visit to orphanages

To educate the cadets with special military subjects college has conducted the camps

through battalion. Students participate in various competitions during this camp and won several

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### accolades:

- Combined Annual Training Camp 7 medals
- All India ThalSainik Camp- 1 Medal
- Pre-TSC Camp- 3 medals
- Republic Day Camp- CDT Yashvi Patel was a part of Malkambh during RD parade
- G.V.Mavlankar Camp- 3 medals
- Ek Bharat Shresth Bharat Camp- 1 Medal
- Advance Leadership Camp- 2 Prizes
- Scuba Diving Camp- Best Cadet Medal

### **Achievements of the NSS /NCC volunteers/coordinators:**

- Prime minister Narendra Modiji appreciated the efforts of our NSS students in beautifying the Kalyan Junction railway Station in MANN KI BAAT on 27th February 2022.
- NSS volunteer Mr. Robinsh Yadav received NSS Yuva Yoddha Award from Krisha Foundation in September 2021
- NSS volunteers were felicitated by **BMC Mumbai** along with **Rajawadi Hospital and Chinmay Yuva Kendra** for their active participation in **Covid-19 vaccination** drive in July 2021.
- NSS Program Officer, Mr. Amit More was awarded with outstanding

performance award in 2020-21 by Somaiya Vidyavihar management.

• ANO Lt. Dr. Rohini Arun Kasabe has successfully completed the training of

Associated NCC Officer at OTA Gwalior.

### **Impact on students:**

These activities has helped to instill among students-

- social responsibilities,
- service-mindedness
- develop sense of empathy and selflessness
- groom overall personality, and
- create awareness of social issues.

### Impact on the society:

- Improved health and cleanliness
- Proper waste management systems
- Increased number of blood units and stem-cell registrations

File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

# 3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 24

# 3.6.2.1 Total number of awards and recognition received for extension activities from Government/Government recognised bodies year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
4	4	6	4	6

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	View Document
Any additional information	View Document

# 3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 173

# 3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
45	39	49	23	17

File Description	Document
Reports of the event organized	<u>View Document</u>
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document
Any additional information	View Document

# 3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 65.61

# 3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
1914	5543	3556	988	836

File Description	Document
Reports of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document
Any additional information	View Document

### 3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on \_the-job training/ project work

Response: 1.6

# 3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

2021-22	2020-21	2019-20	2018-19	2017-18
1	3	4	0	0

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document
Any additional information	View Document

# 3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 20

# 3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
6	1	9	2	2

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	View Document
Any additional information	View Document

### **Criterion 4 - Infrastructure and Learning Resources**

### 4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

### **Response:**

The institute has adequate facilities and has augmented its infrastructure to cater to the needs of all the courses. The institution is situated in 61 acres of lush green campus at Vidyavihar, Mumbai, 4392.82 sq mt of built up area provides an eco-friendly and safe environment for the students and teachers.

### **Classrooms:**

- 26 well-ventilated, well illuminated, spacious, ICT enabled classrooms.
- 5 cybernetic boards

### Laboratories:

- 37 undergraduate, postgraduate and research laboratories
- 3 computer laboratories
- PTC laboratory (CPE)
- Central instrumentation laboratory, equipped with GC, HPLC and HPTLC, (DST-FIST)
- Fermenter (DST-FIST)
- Ph.D. Microbiology and RST-GIS laboratory renovated
- Collaboratively Understanding of Biology Education (CUBE) laboratory in collaboration with HBCSE (Homi Bhabha Center for Science Education)
- Language laboratory (CPE)
- Commerce laboratory

### **Innovation cell:**

- Central, well equipped Research Innovation Incubation Design Laboratory (RiiDL) facilitates interdisciplinary research and provides incubation facilities to start ups and budding entrepreneurs. College has a MoU with RiiDL.
- Somaiya Institute of Research and Consultancy (SIRAC) facilitates internship, projects and research.
- Institution Innovation Council registered under ARIIA, MHRD (2-Star Certificate).

### Other facilities:

- Air conditioned -Principal's cabin and administrative office
- Examination cell and CAP room
- Spacious gymkhana with facilities for indoor games
- 312 computers

- WiFi enabled Air conditioned 2 seminar halls (1 seminar hall with lecture capturing system)
- WiFi enabled staff room
- Recording room
- Girls and Boys common room
- IQAC, Counseling cell, WDC, ICC, Grievance redressal Cell, Student's Council, NCC, NSS, DLLE, Cultural forum, etc.
- Periodic maintenance of all laboratory instruments, AC, water purifiers, water coolers, computers, elevators through AMC
- Periodic Pest control
- Botanical and Medicinal plant Garden developed by Department of Botany, maintained by the students.
- Biodiversity garden set up with the financial aid received from Mumbai US consulate, under their mentorship programme for youth leaders working towards environment conservation. This project was initiated to develop urban greening
- Disabled friendly washrooms
- Adequate, Well maintained toilets

### Library:

- Accommodates 250 users
- Fully digitized Library with more than 85,783 books and 41 e-books, 2716 Journals.
- KIOSK system for renewal, issue and return of the books
- Exclusive space for post graduate and research scholars
- Subscribes to the N-List programme of INFLIBNET, providing access to more than 6000+ e-Journals and more than 3135000+ e-books
- Access to JSTOR through N-List
- Departmental library
- Integrated Library Facility amongst all sister institutions on the campus

### **Centralized facilities:**

- 3 hostels for boys and girls equipped with WiFi facility. Certain seats are reserved in all the hostels for students of our college.
- 3 canteens on the campus
- $24 \times 7$  security
- CCTV surveillance.
- 4 Auditoriums
- Health Centre
- Project office for maintenance and repair
- Data center for e-facilities.
- Central Outdoor sports facilities for Athletics, Tennis, Badminton, cricket, etc.

File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

# 4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

### **Response:**

Indoor games including Carrom, Chess, Table Tennis, yoga, judo, martial arts, and Taekwondo are available in the college's gymkhana. Yoga classes are also held in the gymkhana. The centralized indoor/outdoor sporting facilities include:

Games and sports ground	Make and Dimensions	
Athletics	8 lane X 400 meters international standard IAAF certified Synthand triple-jump pits;	netic tra
Foot ball	65 m X 105 m natural grass field, one of very few well maintained	grass
Basket ball	Synthetic Acrylic Coated Basketball Court 28m x 15m	
Volley ball	Standard volley ball Mud court 18m x 9m	
Cricket	45 meters boundary with center pitch suitable for Tennis ball match	h or sea
Kabaddi & Kho-kho	Red soil based mud Kabaddi court 13mx 10m,  Kho-kho court 25m x 12	
Squash	Two wooden courts with concrete wall	
Badminton	Indoor Synthetic Court 44ft by 20ft	
Tennis	All weather outdoor TT tables for recreational play	

Taekwondo  Korean Martial Arts form, Designated room with inter-locking Taekwondo  Size: 9 x 7m	Outdoor Table tennis	Synthetic court with Acrylic coated surface
Carom Carom size 34 inches x 34 inches  Chess 10 leather standard size chess board. 2 inches to 2.5 inches  Synthetic mat floor with necessary cardio and strengthening equipment.  Gymnasium  Indian Martial Arts Form 12 x12m  Throw ball Throw ball court 12.20 X 18.30m  Taekwondo Korean Martial Arts form, Designated room with inter-locking Taekwondo Size : 9 x 7m		
Chess 10 leather standard size chess board. 2 inches to 2.5 inches  Synthetic mat floor with necessary cardio and strengthening equipment.  Gymnasium  Indian Martial Arts Form 12 x12m  Throw ball  Throw ball court 12.20 X 18.30m  Korean Martial Arts form, Designated room with inter-locking Taekwonde Size : 9 x 7m	ndoor table	tennis Table size 2.74m x 1.525m
Synthetic mat floor with necessary cardio and strengthening equipment.  Gymnasium  Indian Martial Arts Form 12 x12m  Throw ball  Throw ball court 12.20 X 18.30m  Korean Martial Arts form, Designated room with inter-locking Taekwondo  Size: 9 x 7m	Carom	Carom size 34 inches x 34 inches
Kalaripayattu  Indian Martial Arts Form 12 x12m  Throw ball  Throw ball court 12.20 X 18.30m  Korean Martial Arts form, Designated room with inter-locking Taekwondo  Size: 9 x 7m	Chess	10 leather standard size chess board. 2 inches to 2.5 inches
Gymnasium  Indian Martial Arts Form 12 x12m  Throw ball  Throw ball court 12.20 X 18.30m  Taekwondo  Korean Martial Arts form, Designated room with inter-locking Taekwondo Size : 9 x 7m		
Throw ball  Throw ball court 12.20 X 18.30m  Taekwondo  Korean Martial Arts form, Designated room with inter-locking Taekwondo  Size: 9 x 7m	<b>Jymnasium</b>	Synthetic mat 1100r with necessary cardio and strengthening equipment.
Taekwondo  Korean Martial Arts form, Designated room with inter-locking Taekwondo  Size: 9 x 7m	Kalaripayattu	
Size : 9 x 7m	Γhrow ball	Throw ball court 12.20 X 18.30m
	Γaekwondo	
	Mega chess	

The Somaiya Sports Academy's central facility is a top-tier athletic organization with a committed group of certified instructors and experts in sports development. It offers instruction and caters to individuals and teams who want to compete at a high level.

Special Allowances are given to the students who participate at the State, National and International levels. The University of Mumbai awards students who are placed in the top eight in the individual and team championships with 10 Grace marks. The Inter Collegiate University of Mumbai Tournaments for Men and Women feature roughly 28 sporting activities in which the college competes. Gymkhana holds a selection trial for almost 1000 students in a variety of sports to determine the top athletes to represent the institution at the intercollegiate competition. The college celebrates Inter College Tournaments, the Fit India programme, and Sports Day.

College boasts a vibrant Cultural Forum, a group of students that organize all yearly cultural events. Events like the Surabhi Competitions, Asmita- the Marathi Program, and the Annual Day are organized. There are three auditoriums on the college campus where the school's cultural events are held. The college also features Tagore Amphitheatre, which serves as a venue for a variety of cultural events. Students can also compete in regional and national events like the Indian National Theater, Lokankika, and the Youth Festival. Events such as the Marathi Bhasha Divas, Shravansari, and numerous tournaments are organized by the Marathi Vangmay Mandal.

File Description	Document
Upload any additional information	View Document
Geotagged pictures	<u>View Document</u>
Paste link for additional information	View Document

### 4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 100

### 4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 28

**Document File Description** Upload any additional information **View Document** Institutional data in prescribed format View Document Paste link for additional information View Document

# 4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 12.21

# 4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0.452745	24.64552	25.45802	136.69476	83.16151

File Description	Document
Upload Details of Expenditure, excluding salary during the last five years	View Document
Upload audited utilization statements	View Document
Upload any additional information	View Document
Link for any additional information	View Document

### 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS)

### **Response:**

The college library, setup in 1971 has more than 58,000 books with addition of e-resources. The growth of the library collections has been in tune with the growing needs of the institution. Library is fully automated with a seating capacity of 250.

Library is using an In-house software 'BOOKWORM' (introduced in 2012). It is an integrated software used in all colleges of the Somaiya Campus and Ayurvihar campus.

Webopac is available through which students, faculty ,staff can search the books available in the Somaiya campus and Ayuvihar campus libraries. Also renewal and online payment of fine facilities are available through the software.

Web Opac Link: https://opac.somaiya.edu

All Somaiya users will be able to borrow one book for 7 days from any library in Somaiya and Ayurvihar campus.

Every user gets an auto reminder for issued books before the due date and after the due date. They can renew books online by using a reference link sent through the reminder.

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Library has an automated KIOSK (Introduce in the Academic Year 2018-19) Self Check system which helps the students/ faculty/staff to borrow, return and renew the books on their own using their RFID Identity Cards or SVV Net Id. Also, they can view information on their library account. The Action buttons show the processes which the user can complete using the kiosk, including Check-out (Borrow), Renew, Check-in (Return) and Account Summary. The kiosk has smart card functionality, the user can hold their RFID enabled card against the smart card reader to login. The smart card reader has a contactless icon displayed on it. User needs to select action buttons from the Welcome Screen for performing the transaction. The first step is to do authentication by using your Member ID Card OR else by using your SVV NetID and Password. The system will check the books and once the row goes green the books are issued / return successfully. Then user needs to click on Done button to proceed further. At a time 4 to 5 books can be issued and returned. Users don't need a physical book at the time of renewal.

CCTV camera and Anti-theft Door is installed at the entrance gate of the main library. Each and every book is tagged with an anti theft label. This will prevent and minimize the loss of book from the library.

The library has remote access to e-books and e-journals through the following databases namely, EBSCO discovery, NLIST, J-gate and Web of Science. The library subscribes to Online Journals (e-Resources) of N-List since 2015-16, which includes more than 6000 e-Journals and 31,35,000 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 Ahmedabad. The college has e-resources like e-Shodh Sindhu, and ShodhGanga.

Also students and faculty get remote access to the other journals subscribed by Somaiya campus includes, Ebsco Discovery, web of science, Wiley e-journals, Elsevier science direct, Elsevier Scopus etc.

File Description	Document
Upload any additional information	View Document
Paste Link for additional information	View Document

# 4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

**Response:** A. Any 4 or more of the above

File Description	Document
Upload any additional information	<u>View Document</u>
Institutional data in prescribed format	View Document
Details of subscriptions like e-journals, e-books, e-ShodhSindhu, Shodhganga Membership etc	View Document

# 4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

**Response:** 10.64

# 4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
2.58888	2.83105	8.98818	14.86626	23.94731

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	View Document
Audited statements of accounts	View Document
Any additional information	View Document

# 4.2.4 Percentage per day usage of library by teachers and students ( foot falls and login data for online access) during the latest completed academic year

Response: 0.55

# 4.2.4.1 Number of teachers and students using library per day over last one year

Response: 18

File Description	Document	
Details of library usage by teachers and students	<u>View Document</u>	
Any additional information	<u>View Document</u>	

## 4.3 IT Infrastructure

# **4.3.1** Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities

## **Response:**

The Institution has the IT policy addressing standards on IT Service Management, Information Security, Network Security, Risk Management and Software Management.

A centralized data center provides support in maintenance of Computers, Network infrastructure, Wi-Fi network and also provides Computing facilities, Technological resources for Staff, Faculty and Students. Firewall solution is implemented to secure the network from various types of attacks. The ICT equipments are replaced or upgraded every five years. Separate budget is allocated for this upgradation of IT Infrastructure.

#### Web services, Hosting and Collaboration:

- The hosting service is based on Linux, Apache, MySQL, and PHP (LAMP) & Windows, IIS, MSSQL and C#. Hosting services on cloud with Amazon Web Services, Net Magic simpli cloud and GoDaddy.
- Office 365
- Virtual hosting to host virtual servers and machines operating systems.
- Campus Mailing lists
- Datacenter Shared Services consolidates campus server rooms
- Bulk SMS & Email services.
- DSpace: Library repository system
  - Learning Management Systems-Moodle and Google Classroom

# **Software and Business Applications**

- Collegeworm: Student management system including Online admission module, Merit Process, Admission, Fees, Online fees payment, Result Process, Attendance, Integrated with Oracle NetSuite System.
- Bookworm -Integrated, multi-user, multi-tasking library management software. Major features include: Self borrow & return (RFID based technology), Online Self Renewal, Auto Renewal, Inter Library Loan.
- OPAC -Online Public Access Catalogue database of all the resources available in the libraries. Features include online Self Renewal and Reservation of a book.
- HR &ESS:

An Employee Self Service module for staff and faculty for Leave application, attendance, payroll, salary slip, etc

- Oracle Netsuite A complete, scalable cloud ERP solution-automates financial, revenue, order and inventory management, fixed assets, and billing.
- Grievance Portal [grievances.somaiya.edu]

An online platform to receive and act on complaints reported by stakeholders

- Social Media
- Myaccount portal [myaccount.somaiya.edu]

A single portal for all our stakeholders; covers application like ID Card Management, IT Support Ticketing, Scholarship, Vehicle Module System, Hostel Management, Certificates, Notification Management & MIS reports on Student Management & Library Management.

#### Wi-Fi facilities:

• College has dual internet connection facility, wired as well as WIFI, available on campus. Wifi is provided by Airtel (850Mbps) and Tata (150Mbps). The network backbone is connected by 10 G single mode optical fiber cable.

#### Hardware:

College has three computer laboratories.

Computer Laboratory (first floor)- 34 desktops

Language laboratory-20 computers.

Computer Laboratory (fifth floor)- 51 desktops

PG section of library- 27 desktops (library reference)

GIS laboratory - 23 desktops.

All departments have been provided with desktop/laptop and overhead projectors (125 desktops, 39 laptops and 18 overhead projectors). All computers are connected to the network through a wired net and protected by Kaspersky Antivirus.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

# **4.3.2** Student - Computer ratio (Data for the latest completed academic year)

Response: 10:1

File Description	Document	
Upload any additional information	<u>View Document</u>	
Student - computer ratio	View Document	

## 4.3.3 Bandwidth of internet connection in the Institution.

Response: ?50 MBPS		
File Description	Document	
Upload any additional information	<u>View Document</u>	
Details of available bandwidth of internet connection in the Institution	View Document	

# 4.3.4 Institution has the following Facilities for e-content development

- 1. Media centre
- 2. Audio visual centre
- 3. Lecture Capturing System(LCS)
- 4. Mixing equipments and softwares for editing

**Response:** A. All of the above

File Description	Document	
Upload Additional information	View Document	
Institutional data in prescribed format	View Document	

# 4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

**Response:** 100.36

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
268.86	288.00	504.34	439.48	522.32

File Description	Document
Upload any additional information	View Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts	View Document

# 4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

# **Response:**

The maintenance and use of the college's physical, academic, and support facilities are all handled according to extremely well defined protocols and procedures.

# Maintenance of campus and college premises:

The centralized project office situated in the campus has a qualified and well trained team who takes care of plumbing, carpentry, electrical work, civil work, welding, painting, water supply, security, fire extinguishers and cleaning of the campus. The college has a lush green campus which is maintained by the project office gardeners.

Pest control of the building is done through AMC. Cleaning of the college building is partially outsourced. Laboratory cleaning is done by the non teaching staff as per the duties allotted to them. Water purifiers are installed on all floors which are under AMC. College has a rain water harvesting unit which is regularly monitored by the project office. Solar panels are maintained by the housekeeping team.

Effective solid and liquid waste management systems are in place in the college and in the campus.

For any repair work the online complaint can be registered on http://maintenance.somaiya.edu which is attended by the respective department of the project office on top priority.

After the completion of work, requester gets the confirmation/completion mail.

Classrooms: Allocation of class rooms is done by the time table committee in consultation with the Dean, Academics for maximum utilization. Classrooms are well equipped with LCD projectors, LAN and Wi-Fi facilities. Maintenance of IT facilities in the classrooms is done by the IT administrative committee and the centralized data center. Cleaning of the classrooms is regularly done by the service provider. The repairing and maintenance of benches and desks is done on a regular basis by the carpentry department of the project office. The electrical systems in the classrooms are maintained by the infrastructure committee with the help of the project office team.

Laboratories: All laboratories are very well maintained by the laboratory attendants and laboratory assistants. The laboratory assistant maintains a stock register for the consumables and the equipments

available in the laboratory. Regular maintenance of electronic equipments is done by the supplier. AMC is given for high end instruments like GC, HPLC, and HPTLC etc

Library: Librarian, Assistant Librarian and Library attendants take care of maintenance and cleanliness of the library. Library budget is declared as per the library fees collected by the students. Before the commencement of every academic year the departments submit the list of the books/journals required by them to the librarian. The purchase of the books is done through the reliable vendors as per the policy of the college. The books are given an accession number before shelving. Library advisory committee which comprises the faculty members and students also are involved in the process of the upgradation of the library facilities. Accession Register for books and back volumes are maintained. Internal stock verification is carried out by the librarian and Assistant librarian. Old books and magazines are written off after the approval of governing body members.

**Sports:** College gymkhana is maintained by the Sports coordinator and the staff. The schedule for use of indoor sports facilities is shared with the students. The old sports material is replaced as and when required. The centralized sports facilities are very well maintained by the project office.

# IT infrastructure procurement and maintenance:

Design, customization and building customized Bill of Materials and Scopes of Work is decided on the basis of the requirements of the end users. IT budget for the institute is finalized on the basis of these requirements. Purchase and Maintenance of IT equipments are done by authorized vendor who are registered with Purchase department. Quarterly maintenance of IT equipments are done on regular basis. Service Level Agreement is followed for part delivery or replacement during AMC and warranty period. Users (staff/students) can raise tickets in the Myaccount portal for any issues relating to IT technical support, which serves as Incident management.

Data centre conducts regular training programmes in hardware and software for faculty and staff. Internal annual audits are conducted in the college with respect to the IT infrastructure (network and computers). It is during these audits we come across system issues/resource utilization etc resulting into capacity planning and change management.

**Air conditioners, Fire extinguishers:** AMC is given for regular maintenance of fire extinguishers and air conditioners.

**Botanical Garden** –College has a 1 Acre Botanical Garden which is maintained by the project office gardeners and the students of the Botany department. The Department of Botany has also developed a Medicinal plant Garden under DBT scheme which has 51 medicinal plants.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

# **Criterion 5 - Student Support and Progression**

# **5.1 Student Support**

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

**Response:** 4.1

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2021-22	2020-21	2019-20	2018-19	2017-18
72	125	205	225	194

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	View Document
Upload any additional information	<u>View Document</u>
Institutional data in prescribed format	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years

Response: 0.37

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2021-22	2020-21	2019-20	2018-19	2017-18
7	4	24	23	16

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	View Document
Institutional data in prescribed format	View Document

# 5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

**Response:** A. All of the above

File Description	Document	
Details of capability enhancement and development schemes	View Document	
Any additional information	View Document	
Link to Institutional website	View Document	

# 5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 23.37

# 5.1.4.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
969	1427	1307	617	185

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

# 5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies

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- 2. Organisation wide awareness and undertakings on policies with zero tolerance
- 3. Mechanisms for submission of online/offline students' grievances
- 4. Timely redressal of the grievances through appropriate committees

**Response:** A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

# 5.2 Student Progression

# 5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 9.45

# 5.2.1.1 Number of outgoing students placed year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
47	75	131	163	141

File Description	Document
Upload any additional information	View Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

# 5.2.2 Percentage of student progression to higher education (previous graduating batch).

Response: 30.35

# 5.2.2.1 Number of outgoing student progressing to higher education.

Response: 430

File Description	Document
Upload supporting data for student/alumni	<u>View Document</u>
Details of student progression to higher education	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in state/national/international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 100

# 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, *etc.*)) year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
31	41	28	20	6

# 5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
31	41	28	20	6

File Description	Document
Upload supporting data for student/alumni	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Any additional information	View Document

# **5.3 Student Participation and Activities**

5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

## **Response:** 45

# 5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
16	3	15	2	9

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at interuniversity / state / national / international level during the last five years	View Document
e-copies of award letters and certificates	View Document
Any additional information	View Document

# 5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

#### **Response:**

The Students' Council of the college is the student's democratic representation where the students' leadership is practiced. Student council is an active body representing students from different genres such as NSS, NCC, Cultural forum and representatives of various classes. The students are usually nominated or selected by the convener in coordination with teachers in-charge as representatives from different streams of science and commerce who excel in academics and interpersonal skills. The council is continuously encouraged and motivated by the principal, Convener Students welfare and Students council for shouldering responsibility and excelling in all their endeavours.

# **Student Participation and Activities- Role and Responsibility:**

Student's council is actively involved during fests, activities and awareness programmes. The student council office bearers maintain the discipline and support the programme organizers for the smooth conduct of programmes. The President and Secretary of the student council also assist the General Secretary and Joint Secretary of the Cultural Forum. The members of the Student Council bridge the students' body and the management by representing and executing plans both ways. Their active participation paves way for an organized student system inside and outside the campus. The student council supports maintaining the institute's status quo as a ragging free campus.

The responsibilities and deputations of the student council are as per the norms of the management. The students' council rapport with all the students in the college achieves effective management of the

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council's activities throughout the academic year. It ensures that all students are fully informed about the activities of the college. It surveys the students' views on issues and rightly represents them to the authorities for constructive solutions. It also maintains strict discipline, empathizes with peer grievances, seeks advice from the principal and teacher coordinator, and promotes friendship, harmony and unity among the students. It maintains a cordial and reverential relationship with the teaching and nonteaching staff members. It values and promotes the vision, mission, and objectives of the college.

The council encourages students' involvement in every sphere of activity within the college, that enables them to develop leadership qualities resulting in their overall development. They are active members in various academic, co- curricular and extracurricular activities such as college clubs, activities such as panel discussions, seminars, essay competitions, commemorative day celebrations, webinars, BOS, IQAC, IIC, sports; this helps them to become responsible citizens. Every science and commerce department hosts a fest which is planned, organised and executed from the beginning to the end by the student council members, for the student community within and outside the campus. A few remarkable endeavours solely handled by the student council requires special mention - ENCOMIUM- Formal Expression of HIGH PRAISE and the monthly KJSSC BULLETIN edited, designed and published by them, in 2021-2022. The involvement of the students in various spheres helps in enriching their holistic development.

## SUGGESTIONS FOR EXPANSION

Involvement of students as Mentors under the Mentoring policy of the institute.

Active engagement in alumni registration. Appointment on different statutory committees such as grievance redressal, IIC, etc.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for Additional Information	View Document

# 5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 9.8

# 5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
12	9	14	9	5

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Number of sports and cultural events / competitions organised per year	View Document

# 5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

## **Response:**

K. J. Somaiya College of Science and Commerce has a registered Alumni association since 2015. **Alumni association Soc. Reg. No.: 2061/2015/GBBSD, P.T.R. No.: F66106**. The Alumni Association is governed by a Managing Committee, chaired by the Principal of the College. The Managing Committee holds frequent meetings to talk about how it might advance the Institute while also helping the students. Many graduates express a desire to give back to the organisation that laid the groundwork for the success they are currently experiencing. Through **financial and other support services**, the Alumni Association / Chapters (registered and functional) substantially contributes to the growth of the Institute.

The KJSSCAA's goal is to boost alumni involvement all around the world. Therefore, one way to boost alumni engagement is to encourage the creation of Chapters. **The KJSSC Alumni Association's North American Chapter** was established with this goal in mind, as well as the growth of the institution and the welfare of the students.

#### Notable activities of the association are:

1. **Enriching Expressions** is a lecture series given by distinguished graduates. These talks centre on current issues in science, career advice, and other areas. In addition to the lectures and workshops organized by the different departments, the organisation hosts around 4-6 talks, inviting alumni as resource persons.

**Eminent alumni** have given talks as part of this series, including **Dr. Krishnanand Hosalikar**, Director,IMD in Pune, **Prof. Dr. Mukesh Joshi**, scientist at RRCAT, Indore and **Dr. Shubhada Chiplunkar**, Former Director, ACTREC.

2. Limited financial resources sometimes prevent registered college students from **travelling overseas to attend conferences or contests.** The Alumni Association contributes money to help offset some of the costs because they recognise the crucial significance of such engagement in students' overall development.

Students participating in **iGEM competition at Boston** were generously supported.

3. Alumni provide students with **training and job placement** in their organisations. These internships are advantageous to the company and the students in equal measure. After completing their internships,

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students are frequently hired by the company.

Chemistry department students are frequently assigned to 'Analytical solutions'. The organization's Director is alumnus **Dr. Ranjan Mogre**. Additionally, the organisation and the college signed an **MoU** outlining the **mutual benefits of the relationship**.

- 4. **Cash prizes to first rank holders** in all subjects in the graduate and post graduate programs are awarded to the students. This is funded by the Alumni Association.
- 5. Alumni of the Chemistry Department developed and taught **a skill-enhancement course** titled **"Business Skills for Chemists,"** and students from the academic years 2020–2021, 2021–22 and 2022–23 have benefited from this course.
- 6. The Alumni Association has recently initiated **publication of a quarterly newsletter** called **Campus Calling**. Each issue is sent out by email to about 13,000 alumni. A notable aspect of the Newsletter is a feature known as "**Alumnus Illuminatus**", in which one alumnus who has a achieved something noteworthy is spotlighted.

The KJSSC Alumni Association is avidly supported by the Management of the Somaiya Group of Institutions.

File Description	Document	
Any additional information	View Document	
Link for additional information	View Document	

# 5.4.2 Alumni financial contribution during the last five years (in INR).

**Response:** E. <2 Lakhs

File Description	Document
Any additional information	<u>View Document</u>
Link for additional information	View Document

# **Criterion 6 - Governance, Leadership and Management**

# **6.1 Institutional Vision and Leadership**

# 6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

# **Response:**

K J Somaiya College of Science and Commerce was established on a solid foundation created by pioneers who anticipated the requirements of next generations. This vision is reflected in all programmes, initiatives, and services provided by the College, with genuine leadership qualities.

A large, bi-faculty institution requires diversity in its operations, effectively managed at all levels through accountable governance. The statutory bodies and institutional Committees have created and implemented a streamlined approach with the effective use of technology, based on a clearly defined strategic plan. The "Perspective Plan" was created utilising a bottom-up methodology, with initial direction provided by the Governing Body.

The following demonstrates how the efforts of all parties involved and effective governance is in tune with the Vision and Mission of the institution:

Vision	Mission	Reflection of alignment of governance of the inswith Vision/Mission
Equip the students with knowledge and skill of their chosen vocation.	To equip the students with advanced knowledge and skill in their chosen vocation.	<ul><li> Qualified and self-motivated faculty</li><li> All syllabi in UGC-LOCF</li></ul>
Inculcate <b>values</b>	To provide value-based education and opportunities to the students to help them to facechallenges in life.	<ul> <li>Mulyapravah Committee activities/credit cou</li> <li>Travel funding to promote student involvement</li> </ul>

Shri. Narendra Modiji in Mann Ki Baat and by

Greater Mumbai Municipal Corporation

		<ul> <li>Grievance Redressal Cell for Students, Women</li> </ul>
		Empowerment Cell, Internal Complaints Com-
		Anti-ragging Cell
		• Sports, cultural, and other co-curricular and ex
		curricular activities
Provide them opportunity	forTo nurture a <b>scientific</b>	• IYPT INDIA 2019 PROGRAM
	andattitude, temperament and	
prepare them for life.	<b>culture</b> among the students.	• Certificate of recognition from the RGNIIPM,
		Government of India's Ministry of Commerce
		Industry, for efforts in raising awareness regard
		IPR training through NIPAM.
		<ul> <li>Seed money for students and teachers.</li> </ul>
	To continually review,	• Unnat Bharat Abhiyan- adopted 5 villages in 7
	develop and renew the	Dahanu Dist. Palghar
	approach to build India of	
	the Founder's dream.	• NAAC certified – 'A' grade for 3 cycles.
		<ul> <li>Best College Award from University of M</li> </ul>
		2010
		• INDIA TODAY -Top 10 science colleges in city
		<ul> <li>"College with Potential for Excellence" by UC</li> </ul>
		• FIST by DST
		• DBT -STAR COLLEGE SCHEME to 6 science
		departments in 2014 and 11 in 2017
		• ISO 9001:2015 certification
		<ul> <li>Active NPTEL Learning Centre</li> </ul>
		• Top Users of Amrita Virtual Labs
		• Regular academic, Examination process, Gree
		Administration and Gender audit
		• Well represented IQAC, CDC, GB, AC, BOS

File Description	Document
Any additional information	View Document
Link for additional information	View Document

# 6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

# **Response:**

The **Principal** is the academic and administrative leader of the college. The **Vice-Principal and IQAC** provide support to the Principal.

The **Dean of Academic Affairs** is responsible for overseeing academic activities like developing curricula, creating syllabi, gathering student comments, etc. The curriculum is first drafted by **department** 

**members**, presented to the **Board of Studies** members for review, approved by **Academic Council**, and then implemented by a team effort between **faculty**, **teaching staff and non-teaching staff**. The **Dean of Research and Development** focuses on encouraging the faculty to engage in research activities, notifying opportunities for research collaboration, drafting policies, and proposing rewards.

# **Case Study:**

# **Curriculum Design - Teacher Centric to Learner Centric**

When it comes to shifting from what teachers want to teach to what students want to learn, curriculum design has gone a long way. The faculty received training in 2016–17 on how to create curriculum with clear objectives and outcomes. A syllabus with module-specific Learning Outcomes was produced as a result. Moving forward, the syllabi for 2018–2020 were better organised to include Programme and Course learning outcomes. From this point on, the curriculum was changed in 2020–2021 based on the UGC-LOCF document. This was unquestionably the result of in-depth workshops that were held for the faculty.

By adding required credit courses such as **Indian Cultural Heritage**, **Sports**, **Tally**, **Basic Communication Skills**, etc., the **number of credits** for an undergraduate programme were increased from **120 to 132**. Students could select from a variety of courses as suggested by **NEP**. Through the provision of roughly 26 **certificate courses** in a variety of areas, the students also had the opportunity of improving their learning abilities across the streams.

In light of the **pandemic**, the faculty were self-motivated to improve themselves by changing the methodology for delivering the curriculum. All of the faculty participated in **training sessions** that the institution and other HEIs conducted. Additionally, the IQAC trained the faculty in **calculation of CLO** attainment scores and the mapping of CLOs to PLO in order to validate the effectiveness of delivery.

To encourage industry-oriented research , the college established the **Institution's Innovation Council (IC201912690)** in accordance with the requirements of the Ministry of Education. A **RiiDL chapter** (a common in-house Research, Innovation, Incubation Design Laboratory supported by DST)was also set up.

The introduction of a **full semester internship** into the curriculum of postgraduate programmes marked a significant shift with the aim of **exposing students to the research culture**, cutting-edge research facilities and providing them with practical training.

Students are also urged to enroll in **NPTEL**, **Swayam**, and **Coursera courses** in order to further their education. We received recognition for the same in **June 2019 and July 2021 as the Active Center for NPTEL**. The institute signed up for the **Amrita Virtual Labs Nodal Center** as well, and in **2020–21** we were named the best-performing nodal centre.

We were able to successfully and efficiently combat the unprecedented Covid-19 outbreak thanks to all these actions sponsored by several department faculty and committee conveners.

File Description	Document
Any additional informatiom	<u>View Document</u>
Link for strategic plan and deployment documents on the website	View Document
Link for additional information	View Document

# **6.2 Strategy Development and Deployment**

# 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

## **Response:**

IT integration was envisioned in all aspects of administration in the institution's perspective and strategic plan and was successfully implemented.

The Somaiya Trust has a **centralized data centre and promotes the use of following softwares-**.

# **Developed In-house:**

- **Bookworm software** is used to keep track of libraries (in-house)
- Student database and activities upkeep using the **brainstorming tool** (EMIS)

#### **Licensed Softwares:**

- Sensys software for managing staffrelated tasks like time management, payroll, PF administration, and income tax deductions
- For Accounting- Oracle Netsuite

These softwares came in **handy during the pandemic** as they are **cloud-based** and allowed for **remote access**. **Oracle Netsuite** offers financial analysis for forecasting and budgeting. It conducts **transactions in real time**. Previously, **Tally 9.1** was used to record all forms of internal financial operations, including payments and receipts.

#### **Office Activities- Online Initiatives**

• Generation of student register:

The general student register lists student information by class. Data entry for a year is about 4000 entries and **each entry takes 12-15 minutes**. The student register can now be accessed directly from the software as the required fields are recorded at the time of admission.

• Recruitment:

All communications related to recruitment were made via email and official website. This has reduced the

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### amount of paper-based communication.

#### Student online initiatives

• Railway concessions:

Students can apply for railway concession online through the My Account portal connected to the brainstorming software and pick up the form at the counter, as against the offline process which took 10 minutes per student.

# • Admissions:

For in-house S.Y/T.Y.B.Sc/B.Com students, the college offered **online enrollment in 2019-20.** This allows to complete the admissions form, choose the course and pay the tuition fees online through the payment gateway. **All admissions since 2020-2021 are online for all students**.

#### Online initiatives for staff:

Sensys HR software provides each employee with an individual login account to access the services online-

- Leave request and history and email updates on the same
- Pay stubs
- Overview of **income and outgoings** for the entire fiscal year
- View of daily, monthly and annual attendance

#### Assisted office personnel in the following areas:

- No need to print and distribute monthly salary stubs.
- **Generate leave records** for each year, except for maternity and childcare cases, that are recorded manually.
- Generate payroll records for each year, eliminating the need for human input for payroll records.
- All of stakeholders, of stakeholders, including students, instructors, staff, and management, may access **Myaccount**.It is used for a broad variety of purposes-ID Card Management, IT Support Ticketing, Scholarship, Vehicle Module System, Hostel Management, Ce rtificates, Notification Management, and MIS reports on Student Management and Library Manage ment.
  - Create hall tickets and roll calls.

## **Initiatives for Online Teaching and Learning**

- LMS-MOODLE 3.3.1, Google Classroom
- Online communication tools including Zoom, Microsoft Teams, and Google Meet

#### **OUTCOMES:**

- Efficient management of office personnel and student time.
- Transition to a paperless office.

Thus, the institutional Strategic/Perspective plan is successfully implemented.

File Description	Document
Any additional information	View Document
Link for additional information	<u>View Document</u>
Link for Strategic Plan and deployment documents on the website	View Document

# 6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

# **Response:**

The **Governing body** is an exceptional blend of experienced minds from academia and industries. The deliberations help the President and Secretary to forge ahead the administration of the college. The **Principal** at the helm of affairs is the **strong link** between the human resources and the management. The **Vice-principal**, the Dean, **Academic Affairs** and **Dean, Research and Development** work in close coordination with the Principal to give shape to the vision of the management.

The smooth operation of all academic and administrative procedures is overseen by the Controller and Deputy Controllers of Examinations, the Heads of the Departments, the Deans, the Coordinator of the Student Council, the IQAC Coordinator, the NAAC Coordinator, the Faculty Members, the Non Teaching Staff of the Office, and the Convenors of various Committees, Clubs, and Cells. The department heads and the principal meet at least once a month, and the Department Heads then meet with the faculty in their respective departments. The instructions are then translated by the faculty for the benefit of the students, who are the most significant stakeholder. Additionally, the Principal, Vice-Principal, Deans, Examination Controllers, ICC convenors, and WDC Convenors are all readily available to the students, and they are given all pertinent email addresses with whom they may interact in case of any support solicited. The Institute with the support of the NSS, NCC, DLLE and Mulyapravah committees completes its CSR responsibly.

The Coordinator-led student council serves as a **conduit between the institution's head and the student body**. It responsibly undertakes the organization of fests, cultural programmes, annual days, workshops, seminars, etc.

The **Placement cell Coordinator** also strives hard to ensure an increase in the employability quotient of the student members by organizing various workshops, campus placement drives, signing MOU's with placement firms, etc.

The **IQAC** team, which is made up of both internal and external members, works hard to put quality initiatives into practise in a variety of areas, including administration, academics, faculty development, faculty empowerment, support staff welfare, audits to examine various procedures, etc. The improvement of the **Institute's quality is the goal of the arranged or proposed activities**.

In order to effectively manage the liaison between the affiliating University, management, faculty, non-teac hing staff, and students, the administrative office, which serves as the core of the academic institution, is le d by the **Registrar** and is ranked above others by the **office superintendent, accountant, senior and junior clerks**.

All these efforts culminated to achieve the satisfaction of all stakeholders.

#### **Service Rules & Procedures**

Standard Operating Procedures (SOPs), which are scrupulously followed, are developed for a variety of academic and administrative operations. **Statutes for teaching and non-teaching employees, HR Policy, and Administrative Manual of the State Government** offer rules and regulations, duties and responsibilities, and advice in the recruiting, selection, pay and incentive, promotion, and training processes. The affiliating university establishes the **leave policies, promotion policies, appointment policies**, etc. for the aided personnel, while the management establishes these policies for the unaided workforce.

File Description	Document	
Any additional information	<u>View Document</u>	
Link for additional information	View Document	
Link to Organogram of the Institution webpage	View Document	

## 6.2.3 Implementation of e-governance in areas of operation

- 1. Administration
- 2. Finance and Accounts
- 3. Student Admission and Support
- 4. Examination

**Response:** A. All of the above

File Description	Document	
Screen shots of user interfaces	<u>View Document</u>	
Institutional data in prescribed format	View Document	
ERP (Enterprise Resource Planning) Document	<u>View Document</u>	
Any additional information	<u>View Document</u>	
Link for additional information	View Document	

# **6.3 Faculty Empowerment Strategies**

# 6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

# **Response:**

The **status of an employee's physical and mental health** as a result of dynamics within and occasionally beyond the workplace is referred to as their **well-being**. These include their interactions with co-workers, how they work, and a variety of other things. Providing for the wellbeing of employees translates to:

- Higher staff morale,
- Increased productivity,
- Greater talent attraction, and
- Employee retention.

A wide range of benefits to employees are offered:

#### Work-life balance benefits

- Casual leave, Earned leave and Medical leave
- On duty leave for teaching personnel to attend seminars, conferences, examinations in other colleges and universities, etc.
- Special leave for exigencies
- Compensatory off
- Sabbatical leaves
- Maternity Leave to all female members
- Paternity leave to all male members

#### **Financial benefits**

- Encashment of earned leave
- Employees Provident Fund
- Gratuity to all eligible staff members
- Increments on award of PhD in accordance with government policies
- Support to employees to avail loan
- Fee payable in instalments for the wards of non-teaching staff admitted to the institute on request.

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- Festival advance and credit facility in case of exigency
- Loan via Credit society
- Book bank facility for wards of non teaching staff
- Fund for supporting the family of untimely sad demise of members
- Retirement felicitation by management and College

#### Physical health benefits

- Free health screening events
- Picnic organized for teaching staff by Staff common room.
- Picnic organized by IQAC for non-teaching staff.
- Access to facilities for indoor games to both support staff and Faculty.
- Organization of sports day for faculty and non-teaching staff.
- Encouraging all the personnel to take part in the annual cricket tournament TOSS, both teaching and non-teaching.

## Mental health and well-being programs

- Awareness programmes on health, technology, stress management for the teaching and non-teaching members
- Counselling by a Psychologist is made available
- Yoga sessions for mental and physical wellbeing
- Haldi-Kumkum -Avenue for social interaction between female members

## **Avenues for Career Development**

- Timely promotion of staff members as per the UGC guidelines for CAS
- Induction programmes for the newly hired faculty and the non-teaching staff
- FIP fellowship for pursuing Ph.D
- Financial support in the form of seed money to the faculty members to concentrate on Research and Development
- Travel reimbursement for researchers and students attending international and National conferences, seminars, and other activities
- Registration fee for seminars, conferences, FDPs, and workshops is sponsored by the college.
- Specialised programmes for professional and personal growth based on need.

## Other fringe activities for motivation and encouraging comradely on campus

- Annual lunch organised by the staff common room.
- On Teachers' Day, the employees (teaching and non-teaching) are recognised for their positive contributions with long service awards and mementos.
- Felicitation of Achievers in research, Academics, professional progress, etc.

Management presents a number of prizes on foundation day to recognise the accomplishments of the institute's teachers, non-teaching staff, and students.

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File Description	Document	
Any additional information	<u>View Document</u>	
Link for additional information	View Document	

# 6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

Response: 26.21

# 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
43	10	85	38	5

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document
Link for additional information	View Document

# 6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Response: 7.4

# 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
11	4	8	6	8

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	View Document
Reports of Academic Staff College or similar centers	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).

Response: 30.44

# 6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
33	60	77	31	11

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

# **6.4 Financial Management and Resource Mobilization**

# 6.4.1 Institution conducts internal and external financial audits regularly

## **Response:**

The institution conducts **routine internal and external financial audits every six months**. The Somaiya Trust's Chief financial officer receives the comprehensive report. **Once a year, a statutory external audit is performed**, and the Somaiya Trust is given the report. At the college level, the **Finance Committee** is

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set up as an **advising body** on all issues pertaining to the institution's finances.

The **Departments send their annual budget requisition** which is discussed by the accountant with the Principal. Following it a **budget for the entire Institute is prepared**. It is then placed in the **Finance Committee for approval**. Before the start of the next fiscal year, it is sent to the **Governing body for evaluation and additional approval**.

## **Internal Audit**

All invoices, payments, receipts, journals, vouchers of transactions, cash books, and ledger account evaluations completed in the previous six months are **verified by an auditor** designated by the Somaiya Trust, under which the college operates. The internal auditor uses a compliance audit process to evaluate different claims of financial data that are recorded in income and expense accounts and the balance sheet in order to assure the validity and effectiveness of the internal control system. **A thorough approach is used to verify the quality, accuracy, and completeness of the data.** When vouching for, verifying, and valuing assets and liabilities, many aspects are examined. **The report is written and delivered to management based on the audit.** 

## **External/Statutory Audit**

The annual statutory audit of the college's financial accounts is carried out by the auditor that the Trust has hired. At the conclusion of each fiscal year, a **Chartered Accountant audits the financial records**, and the **audited balance sheets and statements of revenue and expenditure are certified**. The auditor checks to see if the required elements of revenue, expenditure, assets, and liabilities are recorded in the income and expenditure account and balance sheet. The audit makes sure that the financial statements give an accurate picture of **the institution's performance and financial situation** for the time under review.

#### **Audits of Grants**

Grants received from various bodies like UGC, DST-FIST, DBT-STAR, CPE, Autonomy Grant etc. are audited as per the **government norms and utilization certificates are submitted** to the respective funding agencies for the grants received.

The Trust receives the audited financial accounts, and the Principal also receives a copy of them.

Every financial year, the institution's finances are reviewed and audited, and the **audit report has been kept on file from 2016–2017 until 2021–2022.** 

For each assessment year, the Somaiya Trust submits a consolidated Return of Income based on the Institute's audited financial records. Up to the assessment year 2021–2022, the Return of Income has been filed.

## **Mechanism for Settling Audit Objections**

The Finance Committee resolves the problems as they come up. **The Institute's Accountant promptly addresses any clarifying requests.** The necessary bills or papers are generated for validation. **The audit reports from the previous five years contained no concerns with the audit.** 

File Description	Document	
Any additional information	<u>View Document</u>	
Link for additional information	View Document	

# 6.4.2~Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

# Response: 0

# 6.4.2.1 Total Grants received from non-government bodies, individuals, Philanthropers year-wise during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

# 6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

#### **Response:**

To accomplish the strategic aims, goals, and general growth of the institution, the resource mobilization policy offers guidance for expanding and diversifying the organization's resource base. The policy aids in locating and evaluating the resources that may be used to allocate budget funds effectively. The policy aids in the timely and economical acquisition of the necessary resources.

#### **Procedures of the Institution**

In conjunction with all the departments, the Finance & Accounts department creates a yearly budget estimate before creating the master budget. The Principal submits it to the Governing Body for approval. The strategy plan for achieving the resource mobilization is created by the Governing Body. Finally, the funds are approved in accordance with the resource needs.

### **Resource Mobilization**

The maximum resource mobilization is through tuition fee and Management support. The other resources are :

- Funds and grants from various governmental / non governmental bodies (DBT, DST, UGC, University of Mumbai, etc.)
- Scholarship for the students from the Government, the management and individuals.

• Rent for outsourcing auditorium of the college

Funds generated from the above are principally used for the development and maintenance of the college.

#### **Resource Utilization**

- Adequate funds are allocated to introduce innovative teaching learning practices
- Based on the budget requirements, funds are allocated and utilized by the various committees and clubs, NSS and NCC to conduct activities.
- Funds are allocated to the associations and departments to conduct seminars, FDPs, workshops and conferences.
- Staff salary
- Examination Charges
- Staff and student welfare expenses
- Maintenance of the building and infrastructure.
- Procurement of lab consumables, LCD projectors, Laptops etc.
- Awards for students and staff members
- Establishing a green campus
- Seed money to conduct research activities
- Scholarship from government and non-government agencies
- Funds from the Government and non Government sponsoring agencies are optimally utilized for the conduct of seminars and workshops.

The funds mobilized are utilized according to the provisions of management and other funding agencies. After utilization, a Certificate of utilization is obtained from a qualified auditor to be submitted to the funding organizations. The surplus, if generated from income over expenditure is transferred to the capital fund of the college.

File Description	Document
Any additional information	<u>View Document</u>
Link for additional information	View Document

# **6.5 Internal Quality Assurance System**

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

#### **Response:**

The IQAC is set up in accordance with UGC norms with relevant representation of stakeholders on the committee. A detailed action plan is presented to the house which also ensures that the recommendations

made in audits during the preceding academic year are addressed. The quality initiatives planned are evaluated by the members and then forwarded to the Governing Body for further discussion.

#### **Practice 1: Research and collaborations**

In order to foster innovations and create market-ready graduates, MoUs with several industries and academic institutions have been struck. In the postgraduate programme, one semester for an internship/on-job training/research project, helps students develop the skills necessary to be employable. Collaborations with reputable institutions like IISER, IIT, BARC, etc. are advanced with the goal of enhancing academic activities, introducing current trends and developments in the area, and developing core and soft skills. Under STAR-DBT scheme, undergraduate students were encouraged to do short research projects. Few UG students were able to submit research publications as a result.

Seminars and workshops like the following are **just a few of the events** the institution hosts to inspire students-

- "Fine Tuning Research Planning Using Elsevier's Tools"
- "Art of Critically Reading a Research Paper"
- 'Bioinformatics Tools and Database'
- 'Effective Utilisation Of J-Gate Plus'
- The rise in publications, projects undertaken, and papers/posters presented indicates that this approach has unquestionably helped the institute's research flourish. The development of research-based questions in students' thoughts, particularly those from the Commerce stream, deserves special mention.

## **Practice 2: Student Support Activities**

#### **Induction Program:**

Student induction programmes are held to acclimate incoming students to their surroundings, instil in them the institution's ethos and culture, foster relationships between students and teachers, and expose them to a feeling of greater purpose and self-discovery.

The institute's leader converses informally with the students as well under the moniker **MANN KI BAATE**, solicits feedback directly from the students, and **ensures appropriate action**.

#### **Skill Enhancement:**

The college sponsors a number of initiatives to encourage students to take part in online conferences and competitions. The **Collaboratively Understanding Biology Education programme (CUBE)** in collaboration with HBCSE feature frugal methods to culture and study different model organisms, using locally and easily accessible items.

#### **MOOCs and ONLINE Courses:**

Faculty and students have registered for a variety of courses through **NPTEL**, **Swayam**, **ARPIT**, **Coursera** etc. In May 2018, we founded the **Local Chapter of NPTEL** (one of SWAYAM's course coordinators) (**Registration Number 1986**). Since then, students have been urged to enrol in the courses

on these platforms. NPTEL designated our college as a "Active Local Chapter" in 2019 and 2021. Extra credits were granted and reflected on their mark sheets.

# **Innovation and Start-ups:**

In accordance with the guidelines of the Innovation Cell, Ministry of Education, Government of India, the Institution Innovation Council (IIC) was formed to encourage innovation and start-ups on campus.

The students and faculty have expressed **appreciation for these efforts** of motivating students to learn beyond from experts and provide opportunities to **satisfy the quest of the Advanced Learners** too.

File Description	Document
Any additional information	<u>View Document</u>
Link for additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities ( For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives )

## **Response:**

#### Reform 1: Academic and examination audit

The IQAC has **advocated auditing by internal and external members** in order to constantly improve quality procedures in teaching and learning and hence increase student performance. This method has been meticulously documented and **complies with quality maintenance standards.** A faculty-driven paradigm of continuing self-reflection, cooperation, teamwork, and peer criticism is the Academic and Examination Audit. It is built on organised discussions with teachers, stakeholders, and peer reviewers who are all focused on the same objective. It identifies efforts for improvement by presenting chances for improvement throughout the evaluation.

The departments and committees were able to develop a **fruitful understanding** to investigate academic and research-based paths, thanks to the comments of the distinguished specialists. **Planning the activities for the next year** was aided by the evaluation. A significant step was taken in the right direction towards improving the teaching and learning process overall. The Institute benefited from the team of **Audit's constructive remarks and observations**.

The **first examination process audit was held in 2018–2019**, and it persisted after that. It was viewed as a challenge for self-improvement. **At this level, none of the established institutes do this audit.** It is often included in the academic audit itself, but the IQAC felt that it was crucial to the operation of the academic system. As a result, it was decided to conduct an exclusive audit of the examination procedure, and the

experts' recommendations really helped us. The committee concluded that the examination was conducted in a **very well-governed manner**, and the system used was effective. It was quite successful for the institute and gave everyone a lot of confidence.

Every academic year begins with the planning of an **academic calendar** including all of the planned events. Before the academic year begins, all departments draught an **academic plan** that is posted on the college website for the whole academic year. The different departments determine the **class schedule for the year** and submit it to the committee in charge of scheduling classes. The students can then view it on the notice boards. Each faculty member keeps a **Teacher's Diary**, which is signed at the conclusion of each month/semester by the Department Head and the Dean, Academic affairs, in which they record all of the lectures and practicals they teach on a daily basis.

Every faculty member **receives input from the students** twice a year, and the Department Head and the Principal evaluate it. The **feedback analysis report is reviewed** with the relevant teacher as needed. All **class outcomes are rigorously analysed**, and if necessary, steps are taken to **enhance the results**.

#### Reform 2

# ICT Tools in Teaching, Learning and Evaluation

ICT technologies are introduced to create **student-centered classrooms** for the tech-savvy age. The classroom is kept lively via **visual displays, individual engagement, and interactive teaching techniques**. The teaching and learning process now includes **blended learning and flipped classes**. Applications like Kahoot, Hot Potatoes, Socrative, and Plickers encourage student participation and provide the teacher with **real-time feedback** on the students' comprehension level. Even beyond contact hours, Google Classroom keeps students and teachers in contact. To cut down on time spent providing study materials in class, students are given access to **up-to-date, high-quality information via online tools**. The time is well spent on **domain-related debate and consideration**.

Faculty members and students receive training on how to **utilise smartphones effectively** for learning. Learning management systems, **Google Classroom**, **Moodle** and all other educational software aid students in deepening their understanding of their chosen fields of study. Through these applications, students participate in **online tests**, **upload recorded video or audio seminars**, **and submit assignments**. When students use mobile technology to work in the cloud, their **organisational abilities are enhanced**.

The use of **ICT tools is heavily weighted in the evaluation procedure**. When lessons are discussed or tested, the teachers are given **rapid feedback**. Through the LMS, tests for **continuous internal assessment are administered** (Moodle, Google Classroom and OFEE - software). The ICT-based **evaluation's openness inspires trust in the instructor**. The advantages of technology and healthy teaching interaction from competent teachers are blended to **maximize the learning outcomes**.

In order to **progressively transit to self-paced learning**, we urged faculty members to use advanced pedagogy. The purpose of implementing the flipped classroom model is to enable students to engage in **higher order thinking** during class time. In 2018–19, the college had acquired Moodle 3.3.1. For the faculty, many workshops were scheduled. More than **4284 students have registered in the 20 active Moodle courses created by faculty members**.

Six ordinary classrooms have been transformed into smart classrooms as part of the college's investment

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in **RBPT** infrastructure expansion and the use of ICT tools in everyday teaching to improve teacher productivity and make the **learning process engaging and interactive**.

Our institution conducted the **online poll** to better understand the challenges that teachers and students have while using the internet for **instruction and evaluation**. Workshops were held to teach teachers how to set up virtual classrooms using tools like Microsoft Team, Google Classroom, Moodle, etc. based on the survey results.

Higher education has **experienced disruption** as a result of the **Covid-19 pandemic**. The response from the pupils and the remarks made by the parents at the **virtual parent meetings** showed that the trainings that were given and the ongoing usage of ICT technologies even before the pandemic struck helped us to properly handle the issue. However, the pandemic has also given faculty more room to use **blended learning**, **flipped classrooms**, **ICT**, **virtual laboratories**, **LMS**, **and other strategies** into their academic and administrative endeavours.

These tools, including Google Classroom for managing courses, Google Forms and Microsoft Forms for administering online tests and assignments, are now being used effectively by all teachers. Teachers frequently utilise Google Drawing, Jam Board, and Peardeck in their online classrooms **to promote group collaboration and problem-based learning**. Additionally, a **college-level online help desk** is accessible for the assistance of G Suite and MS Teams programmes to **address any technical or informational issues**.

File Description	Document
Any additional information	<u>View Document</u>
Link for additional information	View Document

## 6.5.3 Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
- 2. Collaborative quality initiatives with other institution(s)
- 3. Participation in NIRF
- **4.** Any other quality audit recognized by state, national or international agencies (ISO Certification)

**Response:** All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document
Paste web link of Annual reports of Institution	View Document

# **Criterion 7 - Institutional Values and Best Practices**

# 7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

# **Response:**

- K J Somaiya College of Science and Commerce's Women Development Cell (WDC) is dedicated to the purpose of promoting gender justice and raising students' understanding of gender issues throughout their formative years. Every year, WDC creates an action plan to guarantee a secure setting for gender justice sensitization. Our institute has always handled sensitive matters involving the community of students and staff members with care. The college maintains committees including the Anti-Ragging Committee, Internal Complaint Committee (ICC), Grievance Redressal Cell, and Women Development Cell to monitor and resolve safety, security, and social issues.
- On May 17, 2021, a gender audit for the academic year 2017–2021 was completed.

## The committee applauded the institute for:

- Inclusion of gender equity in the foundation course curriculum
- More female faculty members participating in the institute's governance
- High female students enrolment

#### **Concerns:**

- Male to female ratio in postgraduate programmes and in select undergraduate subjects.
- Proportion of women working in non-teaching positions.
- Female student's participation more in sports
- Workshops and seminars to raise understanding of the laws that apply to gender discrimination and harassment.
- WDC and IQAC took the initiative to draft a policy statement to provide a secure atmosphere for all genders.

# **Co-curricular Activities**

- Seminars, lectures, and webinars to promote gender equality, gender sensitivity and to draw attention to social issues like Rights of men, women safety, dowry, women's health, women in science, Women education, Women Empowerment and premarital counselling.
- National conference on Human Rights of Women: Contemporary issues and challenges on 9th March 2020

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• National Webinar on "Indian Feminism" in association with NGO, Bharatiya Stree Shakti on 9th September 2020

# Linkages

• Our college and the NGO Bharatiya Stree Shakti have signed a MOU with the goal of addressing gender inequality, ensuring active women's participation in the decision-making process in all spheres of society, empowering women, and resolving issues through five-point programmes like "Education, health, financial independence, equality, and self respect."

#### **Facilities**

# a. Safety and security

- 24-7 security at the campus entry with ID and with ID evidence for non-ID members.
- CCTV cameras for 24 hour surveillance to ensure vigilance.
- Somaiya Vidyavihar campus has a health care centre with medical practitioners to dispense.
- **Fire drills** for the staff members. **Fire alarms and extinguishers** are installed as per provisions of fire safety.
- Campus is set up with **complaint boxes** with a purpose to resolve the grieved students/staff complaints and invites ideas, if any.

### **b.** Common Rooms

• Male and female students have separate **common rooms** with first aid equipment, and the girls' common area has a sanitary napkin vending machine.

## c. Counselling

- Our college has always shown compassion in providing our students with individualised counselling and mentoring. A counsellor is accessible to the students twice a week.
- In addition to counselling, mentors work with their mentees to address and resolve all of their academic, personal, and stress-related concerns and grievances as needed.
- A helpline for students is set up with the help of Bharatiya Stree Shakti.

File Description	Document
Annual gender sensitization action plan	View Document
Specific facilities provided for women in terms of: a.Safety and security b.Counselling c.Common Rooms d. Day care center for young children e. Any other relevant information	View Document

# 7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1. Solar energy
- 2. Biogas plant
- 3. Wheeling to the Grid
- 4. Sensor-based energy conservation
- 5. Use of LED bulbs/ power efficient equipment

# **Response:** B. 3 of the above

File Description	Document
Geotagged Photographs	<u>View Document</u>
Any other relevant information	View Document

# 7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

## **Response:**

The campus of Somaiya Vidyavihar makes significant efforts to recycle and reduce solid waste. This economically streamlines waste management procedures and encourages stakeholders and visitors to protect the environment. To sensitise staff and students about waste management several workshops and seminars are organised.

#### **Actions taken to reduce trash output:**

Solid waste management

#### **Curriculum:**

- Green Chemistry and Waste Management in the MSc. Environmental Science programme.
- The **FYBCom EVS Program** links the ecosystem and its diversity and sensitise the students towards the responsibility for environment protection.
- Contemplate adding environmental science at **TY-level as Ability Enhancement Compulsory Course** (AECC).
- As part of an MOU, a one-year diploma in solid waste management was planned in partnership with the NGO, National Solid Waste Association of India (NSWAI).
- Capacity-building initiatives— The institution and MMRDA signed a MOU, under which, a 5-day certificate programme on municipal solid waste management was organised for the public and personnel from Urban Local Bodies.
- Department of Chemistry uses **microscale techniques** to reduce use of chemicals. The **SYBSc** Chemistry Syllabus covers an introduction to green chemistry.
- Organic Terrace Farming by the Department of Botany gives students hands-on experience for recycling solid waste for sustainable farming lowering pollution and controlling trash.

#### Centralized waste management system on Campus.

To collect waste, trash cans are positioned in the staff rooms, laboratories, classrooms, and common spaces. The professional housekeeping agency (Cleantech) has been entrusted with collecting the segregated garbage from the departments and sending the biodegradable waste to the composting site on the campus. Rest is sent to recyclers and Municipal Corporation of Greater Mumbai. The campus project office keeps track of the garbage's characteristics and takes action to enhance waste disposal.

Recycle bins are strategically placed at the entrance to collect electronic garbage regularly. Printing on both sides of the page and encouraging email for documentation and communications, departments and offices can reduce their paper waste. NSS volunteers gather used papers and notebooks from the students and recycle them.

#### Liquid waste management

Through drainage pipelines, waste water from the college's restrooms and laboratories is gathered and sent to a **PHYTORID plant** for recycling. Without using chemicals, "Phytorid Technology" can naturally treat wastewaters. Aquatic or semi-aquatic plants and the biota that goes along with them, have been used to achieve this. It is a more effective wetland ecosystem for wastewater treatment. It involves effective engineering parameter optimization and biological treatment capacity use.

The capacity of the plant 5 m3/ Day

Grass Species Used – Cyperus (Cyperus rotundus), Canna indica.

The plants and trees on the college grounds are watered using recycled water.

#### E-waste management

We collect the electronic waste (E-Waste) produced by laboratory sessions for UG and PG students. Volunteers from the NSS and the NGO-ECO-ROX organises e-waste collection programmes.

#### Hazardous chemicals and radioactive waste management

Since it is an Educational Institution no Hazardous waste is generated.

Senergy and ECO-ROX, Mumbai, presented the college with the Green Campus Award in January 2019 in recognition of all these endeavours.

File Description	Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

#### 7.1.4 Water conservation facilities available in the Institution:

- 1. Rain water harvesting
- 2. Borewell /Open well recharge
- 3. Construction of tanks and bunds
- 4. Waste water recycling
- 5. Maintenance of water bodies and distribution system in the campus

**Response:** A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document
Link for any additional information	<u>View Document</u>

#### 7.1.5 Green campus initiatives include:

- 1. Restricted entry of automobiles
- 2. Use of Bicycles/ Battery powered vehicles
- 3. Pedestrian Friendly pathways
- 4. Ban on use of Plastic
- **5.**landscaping with trees and plants

**Response:** A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

# 7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions / awards
- 5. Beyond the campus environmental promotion activities

**Response:** A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

#### 7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.
- 2. Divyangjan friendly washrooms
- 3. Signage including tactile path, lights, display boards and signposts
- 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment
- 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

**Response:** A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

#### **Response:**

The K J Somaiya College of Science and Commerce values inclusivity and diversity because it helps students reach their full potential by fostering a sense of social belonging. The construction of a dynamic campus that caters to varied pupils is done with constant and coordinated effort.

#### **Activities to Promote Social Harmony and Language**

- Cultural forum organized **International Matribhasha Diwas** on 22nd February which was a celebration of the existence of different languages.
- Marathi Bhasha Sanvardhan Pandharwada was celebrated by organising guest lecture series to explain rich literature of marathi language and importance of communication.
- Asmita is a marathi language festival every year organised by the college to promote rich regional culture.
- NSS unit of the college organised a webinar on **Odisha Culture and its Contribution to Peace and Harmony in India** to highlight the cultural background of Odisha and to show its linkage with peace and harmony in Indian Society.
- To celebrate **Hindi Diwas**, a prose and poem reading competition was organised.
- To give virtual tour of **Bharat's rich heritage a workshop on Route to roots** was organised.
- College was selected for **Unnat Bharat Abhiyan** (A Govt. of India Initiative) and under UBA college adopted 5 villages namely Pardi, Sisane, Haladpada, Ghadni and Dhanivari in Taluka Dahanu Dist. Palghar. The household and the village survey of these 5 villages was completed in May 2019 and the survey outcome is available on UBA portal.

#### **Awareness Programmes Organised:**

NSS unit of the college organised Talent Hunt which provided a platform for people of all age groups to showcase their creativity and thoughts in many competitions which were mainly based on uprooting social issues. Then a string of webinars were organized on the topics like AIDS Awareness, Cancer Awareness, Thalassemia Check-up, Organ Donation, Stem Cell, Polycystic ovarian Syndrome, Blood disorder, Mental health, Covid 19 Vaccination, Pulse Polio Immunization, Plasma Blood Bank. The webinars aimed to create awareness about the respective topics through ppts, open discussions, etc.

#### **Festival Celebration**

- Every year, the Cultural Forum organises **Gurupournima and teachers day** to honour teachers efforts
- Rakshabandhan with Railway police staff
- Eco-friendly Rakhi Selling
- Departments do Dusshera Pooja and also have diwali celebrations
- Secret Santa celebrations bring a little pleasure of gifting

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Any other relevant information	<u>View Document</u>

# 7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

#### **Response:**

India, as a nation, comprises of individuals from divergent surroundings viz., cultural, social, economic, linguistic, and ethnic distinctiveness governed and directed by the Constitution irrespective of gender, religion, language, race, caste, creed, etc. K. J. Somaiya College of Science and Commerce sensitizes the students and the stakeholders of the institution to the constitutional obligations about values, rights, duties, and responsibilities of citizens which enable them to conduct as a responsible citizen. The objective of these activities is to equip students with the knowledge, skill and values that are necessary for sustaining the balance between a livelihood and life by providing an effectual, encouraging, safe, approachable, and affordable learning environment. These elements are inculcated in the value system of the institute's stakeholder community.

The students are inspired by participating in various programs on culture, traditions, values, duties, and responsibilities. The institute conducts awareness programs on **plastic ban, importance of hygiene practice, Swachh Bharat Abhiyan, etc.** involving students. The college establishes policies that reflect core values.

K.J. Somaiya College of Science and Commerce an autonomous institution has incorporated Professional ethics, human values and Constitutional provisions in curriculum as a small step to inculcate constitutional

obligations amongst the students. Students and staff members are sensitized by introducing laws for the protection of women's and children's rights namely The Protection of Women from Domestic Violence Act, 2005, The POSH Act, 2013 and The POCSO Act, 2012. Guest lectures and workshops are arranged to deliver and deliberate on ethics, values, duties, and responsibilities and on saving the environment. Ethical Values, rights, duties, and responsibilities of citizens are some of the topics that are enlisted in Elocution, debates, and class presentations too.

The college has undertaken celebration of national / International days and birthdays of our founder and eminent personalities. College curriculum is revised to inculcate values propounded by the new National Education Policy. Regular Parents-Teachers meetings are conducted.

**Democracy fortnight** was celebrated to provide knowledge of citizen rights and duties and increase awareness about voting rights. The Commerce department have organised programmes on **dowry**, **infanticide and other social issues**. Awareness workshops for adulteration of **food**, **malnutrition**, **gender sensitisation and gender discrimination** were conducted.

Scientific aptitude was inculcated through **CUBE** (**HBCSE**) projects in collaboration with SCEL, RIIDL and Institution Innovation Council to promote entrepreneurship and make in India campaign.

Cleanliness drives were conducted under the aegis of the Swachh Bharat Abhiyan. NSS students volunteered for Milk adulteration, Crowd Control, Assistance to Police during Gapati idol immersion, Road safety, Run for Unity, Fire drill and Demo, Addiction to Narcotics, Cyber Crime, Voters ID registration, Swachhata Rally, Financial Literacy, Youth Empowerment, Significance of Constitution are few of the other topics covered for seminars/ drives.

Workshops on online safety, counselling, heartfulness meditation and self-development programmes were conducted by **MulyaPravah Committee**.

The **Code of Conduct Committee** formulates policies that reflect core values and prepares a Code of conduct for all the stakeholders. The same is propagated amongst the students during the induction programme, regular posts on social media, website, etc.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	View Document
Any other relevant information	View Document

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website
- 2. There is a committee to monitor adherence to the Code of Conduct
- 3. Institution organizes professional ethics programmes for students, teachers, administrators

#### and other staff

#### 4. Annual awareness programmes on Code of Conduct are organized

**Response:** A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document
Any other relevant information	View Document

# 7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

#### **Response:**

The commemoration of festivals enables Students to comprehend and value historic and cultural values also adapt to a diverse environment. The celebrations unite the heterogeneous student body under the banner of nationalism.

In recognition of the value yoga offers in our stressed day-to-day lives, yoga training programmes are organised every year on June 21, **International Yoga Day** as well during the year. **Nutritional Week celebration** is done between 1st to 7th September to increase awareness about good nutrition and promote the profession of dieticians. **World Mental health day** is celebration on 10th October to raise awareness of mental health issues and to mobilize efforts in support of mental health.

On 28th February, **National Science Day** is celebrated to encourage the students and to popularize science and technology. The college celebrates **National Mathematics Day** on 22nd December to remember the birth anniversary of the legendary mathematician, Srinivasan Ramanujan and **National Statistics Day** on 29th June every year to honour the work and contribution of Professor and Scientist Prasanta Chandra Mahalanobis.

International Women's Day is celebrated on 8th March, to celebrate the women strength. World Day Against Trafficking in Person, National Minority Rights Day, International Day for the Elimination of Racial Discrimination are celebrated by Department of Business Law to make the younger generation to be aware of their commitment towards 'society for all'.

Cultural forum organizes **International Native language day or 'Matribhasha Diwas'** on 22nd February which was celebration of different languages. **Marathi Bhasha Sanvardhan Pandharwada** was celebrated by organising guest lecture series to explain rich literature of marathi language and importance

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of communication. **Asmita is a marathi language festival** organised annually by the college to promote rich regional culture. To celebrate **Hindi Diwas**, a prose and poem reading competition was organised.

**Teachers' Day** is celebrated on 5th September everyyear to mark the birth anniversary of Dr. Sarvepalli Radhakrishnan and to acknowledge the efforts of the teachers in empowering student community. **Independence Day and Republic Day** are celebrated with great zeal. NCC cadets present a parade and students exhibit their patriotic fervour through programmes like elocution, singing and enacting important events from freedom movement.

#### **Examples of Commemorative Days celebrated:**

3 January – Birth Anniversary of Savitribai Phule

23rd January - Birth Anniversary of Netaji Subhas Chandra Bose

26th February - Death anniversary of Veer Savarkar – Tribute

1st August – Death anniversary of Lokmanya Bal Gangadhar Tilak

2nd October - Birth Anniversary of Mahatma Gandhi and Shri Lal Bahadur Shastri

#### **Environment related Commemorative days:**

5th June - Mangrove Day

29th August - World Ocean Day

16th September - World Ozone Day

3rd March - World Wildlife Day

20th March - International Forest Day

**Annual Department festivals** are organised and celebrated by the students of each department in the college. Every festival has unique subject based theme and they are packed with activities, competitions, workshops, awareness programs, exhibitions etc. These festivals provide opportunities for students to think out of the box and inculcate abilities like team work, problem solving, effective communication, etc.

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant information	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

#### 7.2 Best Practices

7.2.1 Describe two best practices successfully	implemented by th	e Institution as per	NAAC forma
provided in the Manual.			

#### **Response:**

#### **Best Practices**

The institute would like to promulgate the following two best practices, "Learn from stalwarts" and "Enriching expressions," which encourages active learning from renowned speakers from top universities and institute alumni of eminence, respectively.

#### **Best Practice-1**

#### 1. Title of the Practice

LEARN FROM STALWARTS

#### 2. Objectives of the Practice

- Fostering participation in learning among students
- Enables the students to discuss significant issues from a variety of angles, raising students' interest in and engagement with the course material.
- Actively engage Students in a variety of experiences while furthering the objectives of a certain curriculum.

#### 3. The Context

Education is moving away from a teacher-centred setting towards a learner-centred where students investigate subjects in greater depth and design engaging learning opportunities. The "Learn from

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Stalwarts" exercise in the classroom allows students and teachers to share their theoretical background knowledge on a variety of current, recent advances in the respective fields.
4. The Practice
Numerous distinguished academicians and researchers from premier institutes, including BARC, IISER, Pune and IIT, Mumbai have delivered talks during the sessions and inspired the students to undertake research projects and gain an understanding of multidisciplinary subjects. To instil appreciation for Basic Natural sciences, career counselling is also included as a part of the lecture series.
5. Evidence of Success
Learner's Word

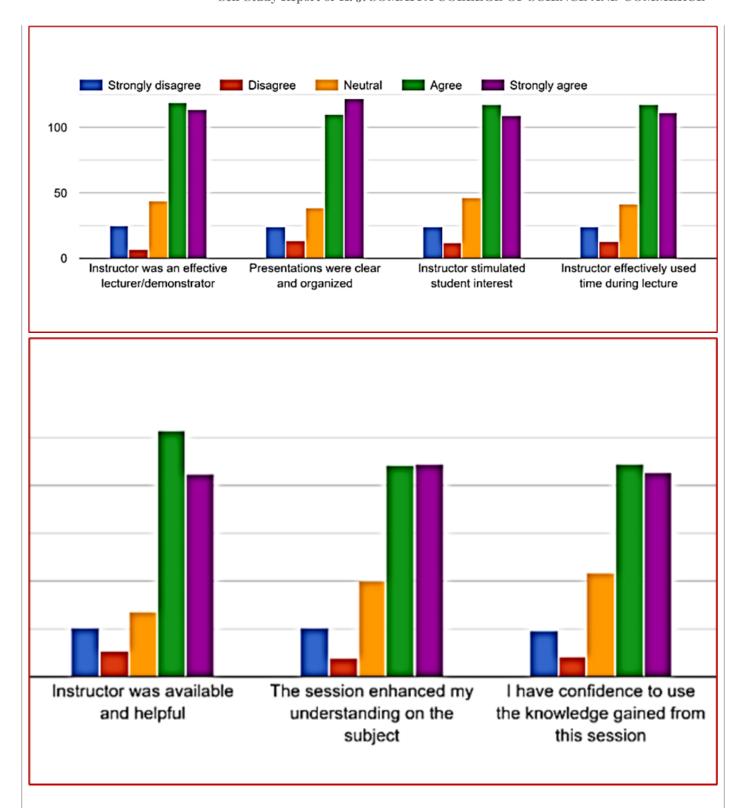
I am Kushal Surana third year B.Com Sudent of KJSSC. Everyone grows from their experiences, as is sagely said. Every KJSSC student wants to learn from the best experiences available, and the seminars that are held, the learning programmes, and the mentors who offer their knowledge aid in instilling values in the students and allowing them to learn from the experienced. Each Student is a work in progress who, after receiving instruction from the finest of the best, emerges as a role model.

I am Aman Gautam, enrolled in the first year of the B.Com programme at K J Somaiya College in 2019. Every Year College organises seminars and conferences for undergraduate and postgraduate students in order to interact with a variety of knowledgeable resource people working in various fields and industries to inform students about the most recent trends and business requirements. Students who attend these seminars will gain more understanding about current issues affecting the nation's legal, economic, political, and social systems, as well as about personality development and career counselling. Even the annual fests are managed by select students with the help of seniors and professors from the different departments. These events were planned by coordinators and student council members to learn the management of events. Students, who learn from seniors and receive guidance from them, as well as from teachers, are more likely to approach decisions with a decision-making mentality. Students in their final year gain confidence and leadership skills thanks to this system of teaching and planning. Due to the activities I engaged in during my graduation between 2019 and 2022, I have improved my self-assurance and ability to make quick decisions. A student's personality develops overall as a result of these experiences and endeavours.

My name is Krusha Shah, and I'm a second-year student in the master's degree in Science. I previously served as president of the Institutions Innovation Council. The opportunities that were my academic and offered to me in extracurricular pursuits have shaped who I am. Along my journey, I was given a variety of opportunities, such as a number of lectures, symposiums, competitions, seminars, councils, exchange programmes, etc. Later in my post-graduate career, our college introduced me to The Somaiya Institute of Research and Consultancy. My life turned around at this point because I got to attend a symposium and learn about the agricultural sector. In addition to learning about Somaiya's research centre in Sameerwadi, Karnataka, I also learned about the possibilities of soil science. I've had a lot of luck, and I'm grateful to KJSSC for helping to develop my profession, giving me so many possibilities, and guiding the course of my career.

I'm Shreya M. Nair, a BSc graduate of the K. J. Somaiya College of Science and Commerce's and a fellow at the SIB ShInE IITK-KGMU Biodesign Program at the moment. The Learn From Stalwarts series not only shaped my personality but also my practical and theoretical knowledge. I had been interested in conducting my own small research projects ever since I started the bachelor's programme, and the institution welcomed me to do so and even encouraged me to demonstrate my abilities by planning various workshops for curricular purposes (like the hands on molecular biology and IPR workshops).

Feedback of Some of the lectures organised under Learn from Stalwarts



### 6. Problems Encountered and Resources Required

- Raising funds for activities
- Matching the availability of the speakers

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#### **Best Practice-2**

#### 1. Title of the Practice

**Enriching Expressions** 

#### 2. Objective of the Practice

- Encourage, cultivate and promote strong relationships between K J Somaiya College of Science and Commerce and its Alumni for the advancement of the institution in the areas of industry contact, admissions, internships and placement.
- Alumni make excellent mentors for current students since they can impart knowledge on the competitive job market to help them choose better options.

#### 3. The Context

The idea of Enriching Expressions emerged in response to demands from academicians and professionals, i.e., with the intention of bridging college life and career life and empowering recent graduates to take charge of the problems of the competitive professional world. Both sides must cooperate with one another to advance the objective. Thus, the Best Practice-Enriching Expressions came to be and the concept took shape.

#### 4. The Practice

Speaking of engagements, seminars and workshops on career options, soft-skill development, competitive exam preparation, and advanced studies in science are organised as a part of the "Enriching Expressions" series by eminent alumni in their respective fields of expertise.

Several college departments have created new courses as a result of alumni engagement. The Department of Chemistry has launched one such programme, a skill-enhancement course titled "Business skills for Chemists." This course is intended for T.Y.B.Sc Chemistry Semester V and is taught by alumni of the chemistry department who have been employed in their fields for 10 to 15 years and are experts in their own fields.

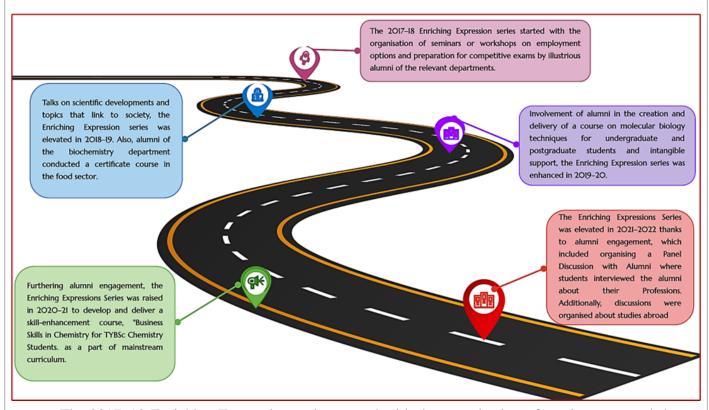
Alumni from the Department of Biochemistry created and led a certificate programme in the food sector for T.Y.B.Sc Biochemistry students.

Two more one credit certificate courses—Basic Molecular Biology Techniques for Undergraduate Students

and Molecular Biology: Fundamentals of Gene Cloning for Post Graduate Students—had been designed and delivered by alumni of the Department of Microbiology.

Alumni frequently serve as judges and sponsors at Biochemistry and Microbiology departmental festivals, respectively. Department of Chemistry and Physics organised Panel Discussion in which students interviewed alumni about their professional paths.

#### 5. Evidence of Success



- The 2017–18 Enriching Expression series started with the organisation of seminars or workshops on employment options and preparation for competitive exams by illustrious alumni of the relevant departments.
- Talks on scientific developments and topics that link to society, the Enriching Expression series was elevated in 2018–19. Also, alumni of the biochemistry department conducted a certificate course in the food sector.
- Involvement of alumni in the creation and delivery of a course on molecular biology techniques for undergraduate and postgraduate students and intangible support, the Enriching Expression series was enhanced in 2019–20.
- Furthering alumni engagement, the Enriching Expressions Series was raised in 2020–21 to develop and deliver a skill-enhancement course, "Business Skills in Chemistry for TYBSc Chemistry Students. as a part of mainstream curriculum.
- The Enriching Expressions Series was elevated in 2021–2022 thanks to alumni engagement, which included organising a Panel Discussion with Alumni where students interviewed the alumni about their Professions. Additionally, discussions were organised about studies abroad

#### 6. Problems Encountered and Resources Required

• Registration of alumni

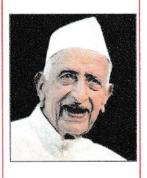
File Description	Document
Best practices in the Institutional web site	View Document
Any other relevant information	View Document

#### 7.3 Institutional Distinctiveness

# 7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

#### **Response:**

#### **Effective ISR Fulfillment**



#### 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.

As highlighted above, the Institute owns the responsibility of contributing towards the community and society in large.

In tune with this goal, a plethora of initiatives are undertaken through -

- NSS
- NCC
- DLLF
- Science and Commerce Departments
- Overall Institute

#### **CONTRIBUTION AND OUTCOMES:**

#### Physical Well-Being -

- **Blood Donation Drives:** 1180 Units of blood collected of which 836 collected during pandemic times.
- Stem cell Donation drive: 117 registrations
- Covid-19 Vaccination: NSS Volunteers at Rajawadi Municipal Hospital in Ghatkopar and on campus helped to vaccinate 6,000+ persons.
- Awareness for Pulse Polio Vaccination, Plasma Blood Bank, Organ Donation, Food Adulteration
- Awareness sessions for disease conditions: AID's, Cancer, Thalassemia, PCOS, Blood disorders, malaria, dengue, Malnutrition, Hygiene during Menstruation (Beneficiaries 1745)

#### **Mental Well-Being -**

• Visit to Orphanages





Students in the Undergraduate and Post-graduate class visited Children's Aid Home Makhurd for two weeks and taught basic English, Communication skills, Science and Maths to the underprivileged children (4<sup>th</sup> and 5<sup>th</sup> Standard). Two students visited the orphanage in each turn.

• Visit to Old age homes



Commerce club initiated a visit to Sai Care old age home, Mulund founded by Mr. Vaibhav Desai. Students interacted with senior citizens and learned about their experiences. Also, they distributed roses, sweets and donated sugar and cooking oil.

- **Health Card to senior citizens-**A creative initiative to gather health data and put them on a handy card so the elderly may quickly refer to it in an emergency. On February 24, 2022, they issued the cards in the presence of Prof. Sushil Shinde, OSD, University of Mumbai, to more than 1000 elderly residents.
- Awareness session for mental well being of students: 185 Beneficiaries
- Traffic Management- On December 6, the day commemorating Dr. Babasaheb Ambedkar's death, the NSS unit hosts an exhibition of awareness posters and offers police, support in crowd management.

### Financial Well-Being -

- Warli Gifts We give Warli Gifts to all of our visitors/Guests and support the Warli tribals.
- Assistance during Natural Disasters: During the floods in Kolhapur, Sangli, and Konkan (700 kg of foodgrains, 500 relief kits, 1500 litres of drinking water, 500 or more blankets, 100 or more first aid kits, and 5000 sanitary pads)
- AAKAR-Connect to Change: Notebook Donation Drive: 502 notebooks and cash Rs. 2200/-

#### **Responsible Citizenship Promotion-**

• **Voter card registration drives-** All of the eligible students on our campus should soon be registered to vote, is our goal.

#### Sensitization towards environment issues-

- Regular beach clean-ups, mangrove conservation, and tree plantations are done.
- To promote ban on use of plastic bags, more than 2000+ paper bags were distributed.

- **Promoting the usage of eco-friendly products**: Bamboo rakhis, toothbrushes, and lanterns during Diwali benefitted the tribal people who make these products and also contribute to environmental preservation.
- As part of the Swachha Bharat Abhiyan, the NSS Unit carried out "Railway Wall Beautification" at Kalyan Junction. The goal of this effort was to raise public awareness towards cleanliness.
- Biochemistry Department participated in one-week campaign on the **GOI** theme "Swachha Bharat Swastha Bharat," and painted various images and messages about health and cleanliness on the Vidyavihar railway FOB.
- Solar Ambassador Workshop- The project was carried out on Gandhi Jayanthi, to encourage the use of solar power. 1036 students participated and learned how to manufacture solar lamps. This activity was a big success in educating student about renewable energy sources.

In order to aid the learning of underprivileged children of Girivanwasi Niwasi Shala, Nareshwadi, Dahanu pupils received 25 solar lamps as donation from KJSSC.

• Connecting Dream's Foundation - Our team performed 6 surveys in the Policy colony, Ramabai nagar as part of Connecting Dreams Foundation 's "Connect and Change" project. With the intention of moulding young minds in the indicated field through creative learning, it launched the "AAKAR" initiative. As the first step a "Yoga Session" was organised in Ramabai Municipal School on February 20, 2020. And now, it has plans to advance eagerly and progressively.

#### **Adoption of Villages:**

#### • Unnat Bharat Abhiyan

The KJSSC was chosen for UBA, and five villages in the Dahanu Taluka of the Palghar District have been adopted: Pardi, Sisane, Haladpada, Ghadne, and Dhanivari. All five villages' household and village surveys have been completed and are available on the UBA website. In order to encourage initiatives based on the requirements identified during the survey, this project will now be advanced.

#### • Ramabai Nagar's Police Colony:

During holiday's, NSS volunteers provided academic and non-academic support to children from Ramabai Colony, where pupils were taught the material from their academic books for the school year 2018–19 and also asanas, Suryanamaskars, and behavioural development concepts. Beneficiaries: 60 pupils.

#### • Library Set-up

To assist underprivileged kids to build reading habits and acquire information outside of the classroom, a library was constructed in Dhundalwadi, Dahanu, on September 15, 2019, with about 110 books. 200 kids would benefit as a result of the activity.

#### **Intangible Outcomes student per se:**

- Inculcation of values of feeling morally responsible to contribute to the well being of the community, especially the under-privileged sections of the society
- Sensitization of students to environment issues
- Generation of mental well being amongst the students
- Development of skills such as that of leadership, confidence building, team spirit, integrity towards work, compassion, and empathy
- Enabling of good citizenship
- Building the India of Founders Dream
- Contribution to future the development of society

#### **Tangible Outcomes Institute per se:**

• Swachha Bharat Abhiyan: On February 27, 2022, as part of the "Mann Ki Baat" programme, Prime Minister Narendra Modi praised the efforts of the NSS unit at Kalyan Railway Station.



• Covid-19 Vaccination drive: An acknowledgement letter and certificates were received from the Municipal Corporation of Greater Mumbai for the NSS volunteer work during the COVID-19 pandemic.

# MUNICIPAL CORPORATION OF GREATER MUMBAI

### Seth V C Gandhi & M A Vora Rajawadi Municipal General Hospital

Rajawadi, Ghatkopar (East), Mumbai – 400 077. Tel.: +91-22-21025149 / 21025610 • Email : hospital.rajawadi@gmail.com

Ref. No.: HO/RGH/

Date: 4/12/2021

TO.

THE PRINCIPAL

K.J.SOMAIYA COLLEGE OF SCIENCE AND COMMERCE,

VIDYAVIHAR, MUMBAI

SUB: APPRECIATION OF VOLUNTARY SERVICE RENDERED BY YOUR NSS STUDENTS

Dear Madam,

Since February 2021 the government had started the covid -19 vaccination drive in our hospital.

To run it more efficiently we had asked Capt swaminathan to help us with volunteers to help in the process of vaccination.

Till date we had 60 volunteers from NSS of your college, participating in this seva, without any monetary gains, they helped us with great enthusiasm and made the process very smooth. We appreciate the efforts of all this volunteers.

We acknowledge their selfless good work and our sincerely appreciation to you, to Dr Amit More for allowing the students for this social work.

Thanking you

Medical Superintendent Rajawadi Hospital

• Bamboo Sewak Award- Mr. Amit More, NSS Coordinator received Bamboo Sevak Sanmaan from Hon. Governor of Maharashtra



• **ZEE Sakal Award** - The Sakal News Network honored Mr. Amit More with the Idol of Maharashtra Award for organizing 22 blood donation camps under the campaign "Jithe raktadata, tithe raktadaan."

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• **Memento of Appreciation** Received from **University of Mumbai** for Social activities at the hands of Prof. Dr. Suhas Pednekar, Vice-Chancellor, University of Mumbai.





190 activities, touching the lives of over about 20000 people makes the Institute Distinctively stand apart....

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### Learner's Testimonial

When we reached there, they were overwhelmed and I could see the happiness in their eyes. They looked happy, but still we can feel their pain of not being able to live with their dear ones. The home usually has a care taker who monitors the residents of the home and a few helpers to take care of the residents. A visit to an old-age home is a life-changing experience as it is filled with emotions and sentiments. I had an opportunity to visit an old-age home with my college friends and faculty member for a local NGO.

The visit to the old-age home was a fulfilling experience for me as I came back home with not only memories but also some valuable lessons. When I reached home, I ran straight to my mother and hugged her tight saying that I would never abandon her or my father when they grew old. She held me tight with teary eyes.

Nihar Mehata (2018-19)

When we entered the home, we were taken by surprise as there was more number of people than we had imagined. There was a common room where elderly men and women ranging from the ages of 60 till late 80s were seen. Some of them were busy in watching the television, some were chatting, some ladies were busy knitting and others were staring at us. We had brought with us food which we distributed amongst the members. They were ecstatic to have food from outside. We segregated ourselves and went to talk individually to everyone.

There we learnt more about true life sharing and caring we spoke to them shared our love. They shared their stories with us.

Tanu Karmokar(2019-20)

When we reached, At the entrance there's one beautiful door, which had an italic font "Good vibes only". Since, sticking to Covid-19 norms there were only 2 students were allowed. When they entered they saw there were total 9 experienced precious beings, Some of them were sleeping, some of them were watching Television, Some of them were just sitting. One of the Aaji had shared a life lesson & she wanted us to remember that for a lifetime "Life is precious, Enjoy every moment, Be happy in the present & make your parents proud". Then, We all enjoyed, cried, talked, Starred, Sang & at the end felt grateful. Though, the moment was filled with full of tears, but it was not a representation of sadness. It was tears of happiness & gratefulness. At the end, we gave the ladoos & woollen mufflers to the aaji's & around I:OO pm we left the place with a heavy heart & teary eyes.

Archana Paloi (2022-23)



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### 5. CONCLUSION

#### **Additional Information:**

Distinguished industrialist and outstanding thinker Late Padmabhushan Pujya Shree Karamshibhai Jethabhai Somaiya's ambition of founding Somaiya Vidyavihar was realised. In order to provide high-quality, all-encompassing education, he established the Somaiya Vidyavihar Education Trust in 1960. He did this because he believed that education is a crucial component of nation building and has the power to transform lives, and that it is the responsibility of the privileged to support those who wish to pursue an education.

**34 institutes make up Somaiya Vidyavihar**, which has more than 39,000 students and 1,700 staff members. Its educational institutions are dispersed throughout two large campuses: the **61-acre Vidyavihar complex and the 100-acre Chunabhatti complex**, both in the centre of Mumbai, as well as a number of smaller campuses spread out across rural Maharashtra, Karnataka, and Gujarat.

K J Somaiya College of Science and Commerce, which offers UG, PG, and Research programmes, has grown significantly in terms of the courses it provides, its teaching techniques, and its facilities during the past 60 years.

Considering the NEP standards, the autonomous college updated its curriculum a third time in 2021–2022.

According to UGC rules, ability enhancement compulsory courses, skill enhancement courses, general electives, and discipline-specific electives are added to the curriculum. The pinnacle of the multidisciplinary and value-based curriculum is the inclusion of nine different sports and Indian cultural heritage as skill-enhancement courses in partnership with Sports Academy and Dharma Studies Center, respectively.

Students start thinking out of the box as a result of experience and problem-based learning. 11 college departments have received STAR DBT grants totaling Rs. 1.99 crore for the construction of undergraduate laboratories' infrastructure. All scientific students participated in a number of multidisciplinary projects under this programme.

The annual departmental festivals are planned in creative ways that encourage students to see the subject from new dimensions. These events aid students in developing and enhancing their teamwork, communication, and organisation abilities, as well as their ability to think creatively.

# **Concluding Remarks:**

College has made significant progress in all areas reflected through academic and administrative deliveries.

As per the **Peer Team's suggestions**, in the last seven years, the college has focused more on the following aspects of teaching -learning and evaluation processes.

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- Student centric teaching and learning which includes internships, skill based curricula, experiential learning, Field projects ,use of new teaching pedagogies like Flip Class, RBPT and innovations in CIE methods.
- **Promotion of culture of innovation** by establishment of IIC, E cell, CUBE (Collaboratively Understanding Biology Education) in collaboration with HBCSE to inculcate research culture among the UG students.
- **Incentives to the teachers and students** who excel in the field of research, in terms of travel grant, registration fee for attending conferences/innovative programmes in India and abroad.
- New post graduate courses in Polymer Science, Mathematics and Statistics and certificate courses in Plant Tissue Culture, Cancer Biology, Microbiome etc were introduced.
- Institutionalization of feedback process by stake holders
- College is **unique** among the other affiliated colleges to offer **Indian Cultural Heritage and Sports as** a **part of curriculum** which helps in holistic development of the students.
- In tune with NEP the college has offered Credit Transfer from universities abroad to the students which has given the exposure to the students at international level.
- College has developed a **strong institution-industry interface** and have more collaborations with Corporate and other training institutes for internship and projects.
- Career counselling and placement cell take efforts to organise Career guidance programmes, career fair and placement drive by various industries and institutions.
- Strengthening of ICT facilities in the college by providing class rooms with projectors, recording room, cybernetics smart boards and lecture capturing system.
- Digitisation of academic and administrative activities.
- 14 foreign students have opted for UG and PG programmes in last 5 years.
- **IQAC** of the college has **institutionalised all processes** by framing various policies. This has resulted in **designing the strategy plan for overall quality growth**.
- Social responsibility of the college is effectively fulfilled.