

# FOR 2<sup>nd</sup> CYCLE OF ACCREDITATION

# KASEGAON EDUCATION SOCIETY'S RAJARAMBAPU INSTITUTE OF TECHNOLOGY

RAJARAMNAGAR TAL WALWA DIST SANGLI 415414 www.ritindia.edu

## Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

February 2022

## 1. EXECUTIVE SUMMARY

## 1.1 INTRODUCTION

- Rajarambapu Institute of Technology established in 1983 located in the region of Western Maharashtra, India in Sangli District, 50 kms from Kolhapur and 200 kms from Pune.
- RIT is leading technical autonomous self-financed, private institute offering Eight B.Tech., Nine M.Tech., Two MBA and Four Ph.D programs. RIT is recognized by A.I.C.T.E. And is affiliated to Shivaji University, Kolhapur. All eligible UG & PG programs are accredited/re-accredited by NBA. RIT was a network institute, under the Union Government of India's prestigious TEQIP-I&II program and was supported by the World Bank during 2003-2009 and 2011-2017 respectively. NAAC ``A'' Grade in 1st cycle from 2016-2021.
- RIT is ranked 75th across all over India by NIRF in 2016, 150-200 band in 2017 and in the band of 201-250 Institutions in India in 2021. RIT is ranked in band "PERFORMER" under category Private/Self-Financed Technical Institutes in Atal Ranking of Institutions on Innovation Achievement (ARIIA) 2021. RIT is awarded the Platinum Rank in first 150 Institutes in AICTE-CII Survey 2020.
- RIT has implemented Choice Based Credit System (CBCS) for First to final year students. Honor and Minor certification is offered with an additional 20 credits.
- 50+ student clubs are established for holistic development of students.
- RIT has signed 150+ MoUs with Industries, Research Organizations and Universities in India and 10+ with Foreign Universities to enhance the curriculum, student and faculty development, research projects and learn and develop through collaboration.
- RIT has a dedicated R&D cell to nurture research, innovation and entrepreneurship ideas among faculty and students. We have received grants worth Rs. 1.5 Crore in last three years from AICTE, Department of Science & Technology (DST) and industries. Institute has 48 provisionally registered 6 granted patents. Our 12 products are commercialized. Funds of Rs.5 Crore are sanctioned for RITTBI through MSINS. Institute has established NETRARIT Foundation, a Section 8 Company registered to GoI, which is Technology Business Incubator with the vision "To convert Engineering Campus into Product Innovation Center (PIC)". Currently 25 Startups are incubated. Institute is selected for funding for Idea Development, Evaluation and Application (IDEA) Lab by AICTE with Rs.1.05 Crore.

#### Vision

#### The Vision statement of the institute is as follows:

- To be a globally recognized institute committed to excellence in academics, research, knowledge creation and delivery to develop socially-responsible professionals.
- The founders acknowledge the commitment towards the society and nation and; thus envisage the trained and globally competent workforce shaping up the society. At RIT, excellence is valued and the quest for excellence in academics and research is encouraged and emphasized. The institute aims at broadening its footprint and contributing at international level.
- The vision statement of the institute at the time of establishment was reviewed and reformulated during 2016-17 during a series of meetings amongst the senior faculty members, Director, Deans, HoDs and the management. The opinions of the stakeholders like parents, students, alumni and industry were considered and so also the emerging challenges, technical education currents and national and state level policies. Having its presence of more than 30 years at that time, it was felt that the institute should seek global recognition by vehemently pursuing the quest for excellence in the core areas of academic design, delivery and meaningful research thereby serving the glocal society.
- It is ensured that the vision along with the mission of the institute is disseminated effectively across the faculty members, technical and non-technical staff, students and alumni. The statement is visible in all the departments, on the institute website and faculty cabins. However, the institute believes in actions towards the vision rather than the visibility and hence the institute has established Mission statements as a pathway towards the vision. The vision is reflected in the Mission statements and the Five-year Strategic Plan ensures that the institute progresses towards the set vision and mission with properly defined goals.
- The institute acknowledges the role and importance of the values to be cherished and demonstrated during its journey and hence identified six core values; 'Practice what we preach', 'Honesty and sincerity', 'Fairness and equality', 'Cooperation', 'Joy of learning' and 'Each one can excel'. An effort is made to follow and adhere to these values during the interactions and operations.

Mission

The following SEVEN missions were envisioned towards the institute vision.

- To provide innovation and excellence in academic design, delivery and assessment to ensure holistic development of students for employability, entrepreneurship, and higher education
- To design and keep the curricula updated, based on changing needs of industry and society worldwide, and to provide experiential learning through industry connect
- To be at the forefront of emerging technological research, innovation and creation of intellectual property to attract talent
- To retain talent by building relationships based on professionalism, mutual respect, accountability, engagement and integrity
- To leverage alumni to inculcate leadership skills, social awareness and a passion for lifelong learning to make students socially-responsible global citizens
- To build and maintain world-class infrastructure, and adopt modern automation technologies for the purpose of organizational efficiency
- To identify alternate sources of revenue and augment inflows.

In order for excellence in academics and research, the institute recognizes the role of industry, society, alumni, faculty, infrastructure and financial sustainability. The Five-year Strategic Plan of the institute identifies the goals and targets based on the mission statements and thrust areas.

Following THREE goals and SIX thrust areas are identified as per Strategic Plan of 2018-23:

- 1. To create international-class industry-ready students by keeping the curricula updated with the changing Industry requirements.
- 2. To be at the forefront of emerging technological research and innovation by maintaining world-beating infrastructure and facilities for academic and research excellence.
- 3. To uplift the surrounding rural and semi-urban areas by creating socially responsible entrepreneurs who will use their expertise to transform these areas.

The thrust areas are: academic design and delivery, industry readiness of students, attract the best talent (faculty & students), building a great team, raise quality of future alumni AND revenue augmentation, infrastructure, and operational efficiency.

The Strategic Plan is broken down into a yearly plan and the targets are set for all of the key areas. The incentive-based KRA (Key Result Area) system provides the targets right from the Director to the junior assistant professor. The achievements are reviewed and the incentives are provided. Thus, the journey towards the mission is tracked and ensured.

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

**Institutional Strength** 

#### 1. Good Governance

Visionary management with a proactive and transparent approach in advocating policies, developing institute and administrative systems.

## 2. Autonomy

An Autonomous institute permanently affiliated to Shivaji University, Kolhapur providing Undergraduate, Postgraduate and Ph. D. programs in various disciplines.

## 3. Accredited by national bodies

Accredited by NAAC and IE (I). The majority of the programs are NBA accredited. TEQIP I and II

Funded institute.

## 4. Qualified faculty

Institute has qualified and experienced faculty with good retention rate.

#### 5. Conducive Research Culture

Ecosystem to promote research outputs with seed funding and research rewards. Active MoUs with reputed foreign universities for research internships. Publication of Scopus indexed international journal titled 'Journal of Engineering Education Transformations' (JEET).

## 6. Strong Curriculum, delivery and assessment.

Industry oriented curriculum with Choice-based Credit System (CBCS) and various

tracks. Experiential learning pedagogy with transparent assessment system.

#### 7. State-of-the art Green infrastructure

Green, spacious and Wi-Fi enabled campus with a solar power plant, well-equipped laboratories. Spacious, secured, clean and separate hostel facilities for boys and girls. Availability of Gymnasium and sports facilities.

## 8. Excellent Library

The library of the college is one of the largest in our area having around 1.5 lakh books, 183 print journals and access to world class online databases in all relevant fields.

#### 9. Established Incubation Centre

The institute has an established Incubation Centre NETRA-RIT Foundation, RIT-TBI with graduated and ongoing startups along with Thinkering and IDEA laboratory to develop prototypes.

## 10. Supportive Alumni base

The institute has strong and connected alumni base spread globally with many high profile alumni occupying top positions in industry, academics and society.

## 11. Robust student development system

Student support systems in the form of mentoring and counselling are present. Development of students is promoted through various activity/hobby clubs like music, nature, rocketry, NSS etc. SAE Collegiate Club, IEEE and EWB students' chapter are actively contributing. Coaching facility for GATE and competitive examinations is offered. Student placements and internships at well-known companies and international internships are made available.

## 12. Strong faculty development policies

The institute supports faculty development and empowerment through financial, research, training and moral support.

#### **Institutional Weakness**

## 1. Input student Quality

Most of the students come from rural background and have weak language and IT skills. Despite efforts there is meager success in competitive examinations.

## 2. Lack of advanced facilities for OBE

Lack of OBE classrooms and facilities, creating limitations in effective implementation of OBE.

## 3. Lack of advanced industry belt with high turnover

The presence of industrial belt with MNCs, big corporate houses is lacking in this part of the world.

## 4. Less percentage of faculty contribution in research and consultancy

The institute has many non-Ph.D. Faculty and hence limited faculty are contributing in research and industrial consultancy. Publication in refereed journals is not adequate

## 5. Lack of collaborative projects

Less representation of faculty in national/international forums, contributing to less no. of collaborative projects with national/international institutes/universities for faculty or students

## **Institutional Opportunity**

## 1. New Education Policy

The New Education Policy opens up an opportunity for the institute to become a multidisciplinary university. The institute has sustained and meaningful interaction with various industries in tune with NEP and Skill Development Programs.

## 2. MoUs with Universities for mutual support

International faculty and student exchange with MoU connected universities through short term certification courses and other diverse programs. There is a good scope for quality educational exchange programs and tie-up with foreign universities

## 3. Application of IR4.0

Development of Centers of Excellence and new programs in emerging areas with reference to IR4.0.

## 4. Increasing Multi-disciplinary and Trans- disciplinary projects

The institute imparts high quality learning in all major branches of engineering and management. The institute can offer advanced programs that facilitate inter-disciplinary and transdisciplinary learning and research at the highest level.

## 5. Development of online courses

Most of the faculty are well versed with online teaching and Learning. The institute has

Page 7/136 29-06-2022 05:26:25

the good IT infrastructure, giving a big scope for developing online courses in all fields.

## 6. Emerging virtual workspace

As online learning culture is the new normal, there is an increased opportunity to organize International STTP, workshops, conferences.

**Institutional Challenge** 

## 1. Geographical disadvantage

Being located in semi-urban area, limitations to attract the talent- students and diverse faculties with industry experience from national and global regions. There is absence of industrial area in the vicinity. Attracting international participants for programs is difficult.

## 2. Quality placement and internships

Limited opportunities for student placements and internships as big MNCs do not hold campus here. Also, there are no big MNCs nearby and it is also difficult to attract core engineering companies for placement with higher package.

## 3. Less admissions in some programs

Less Admissions due to declining interest of students in automotive technology and hard branches in general. Lack of industry demand for postgraduate engineering program affects PG admissions.

## 4. A growth of more Autonomous and Affiliated Engineering Institutes in the vicinity

Many autonomous and affiliated Engineering Institutes have mushroomed in the near vicinity, creating challenges for admissions and retaining the faculty in highly demanding branches.

## 5. Lack of student's interest in Entrepreneurship and Research

The societal mindset in the region is to get a job post degree completion, resulting in lack of the student's interest in entrepreneurship as a career.

## 6. Improving out-of-state and international admissions

Another challenge for the institute is to increase its footprint outside the region. Hence, the institute is working towards improvements in out-of-Maharashtra and international admissions.

## 1.3 CRITERIA WISE SUMMARY

**Curricular Aspects** 

RIT, Rajaramnagar accorded autonomous status in 2011. The curriculum is designed to ensure the employability, innovation and research aspects of students. Recent technological trends, model curriculum prescribed by AICTE and suggestions from different stakeholders such as renowned alumni, industry experts, entrepreneur and employer contributes in framing curriculum of each program at RIT, Rajaramnagar. Choice Based Credit System (CBCS) is proposed in UG and PG curriculum. This CBCS includes, foreign languages, program electives, interdisciplinary open electives, different tracks of projects. To make our students industry ready, choice based professional skill development courses are part of the curriculum. While developing the curriculum institute focused on experiential model. Institute implemented project tracking system which comprises, Industry Internship & project, Undergraduate research experience and Entrepreneurship development. Students can opt one of the project tract, as per their choice. Capstone Project is compulsory for all students. In addition, the curriculum of the institute includes various courses that address environmental issues, concern for the environment and awareness on hazards for the environment, human values and professional ethics etc. Board Studies' members, develops a curriculum which is put forth in Academic Council of institute for approval.

The Institute has implemented Minor and Honor certification programs due to which students can learn interdisciplinary and advanced courses. The Institute worked out and ensured this responsibility through design and development of the curriculum which attains Program Outcomes and Program Specific Outcomes given by the NBA. Changes in credit structure and overall revision of the curriculum is taken up once in a two years. Institute exercises on scope of improvement in the curriculum through academic audits and feedbacks from stakeholders.

## **Teaching-learning and Evaluation**

RIT, Rajaramnagar focuses on holistic, intellectual, emotional, social and aesthetic development of the students. The Institute has adopted Outcome Based Education (OBE) to provide innovation and excellence in academic design, delivery and assessment. The teaching fraternity work conscientiously to reflect upon and enhance our pedagogic methods.

Hands on experiences like Engineering Exploration, workshop practices, Environmental project, mini project including Conceive Design Implement Operate (CDIO), field trainings, industry internship, research project, capstone project, entrepreneurship

development projects are the fundamental pillars in the learning of the students. The teachers identify the advanced and slow learners and remedial method is adopted to enhance the level of slow learners. The majority of the faculty has adopted various ICT tools for effective delivery. Institutes conduct a competition every year, which is named as an Innovative Practice League (IPL) wherein faculty presents the innovative practices adopted in teaching learning and In-semester evaluation.

The evaluation process is transparent and IT integrated. Students are evaluated on a continuous assessment system, comprising of written & oral examinations i.e. End Semester Evaluation (ESE) and In-semester evaluation (ISE). Faculties have been given freedom to use various innovative tools for ISE. Audit system is incorporated after question paper setting. In addition, exam center organizes the paper showing activity for ESE. The Institute has a practice to measure the attainment of Course, Outcomes, Program Outcomes and Program Specific Outcomes based on evaluation and student surveys. These attainments are analyzed by each faculty for further improvement in the learning of the student. All the academic activities of the institute are conducted in adherence to Academic Calendar. The Institute publishes the Rules and Regulation for all programs. Internal Quality Assurance Cell conducts students' feedback regarding teaching and learning for each course in every semester and faculty write an action report on the same.

## Research, Innovations and Extension

To promote research culture in institute well-defined policies is developed and implemented. Every year separate budget is allocated for R&D activities. Allocated budget is spent on seed funding, patent filing, reimbursement of conference registration fees etc. For promotion of research, in-house seed funding scheme has been started in 2013. Every year around Rs. 4 lakhs to Rs. 7 lakhs amount is spent on in-house seed funded projects. Quality publications, patents and innovative products are the outcomes of the in-house seed funding scheme.

To motivate faculties for undertaking quality research, the institute started giving best researcher award with effective from year 2016. This award consists of cash prize and certificate of appreciation. Faculties are encouraged to submit research proposal to various funding agencies. UG students get financial support up to Rs.3000 per group and PG students get support up to Rs.2000/ per student for attending conferences. Also UG students get financial support up to Rs.1000/ per students towards expenses on their capstone projects.

Laboratory facilities in the various departments of the institute are effectively utilized for

additional revenue generation by providing testing services to outside stakeholders. In addition, consultancy work has been done by faculties for industries. Institute has also done good amount of work under UNNAT BHARAT ABHIYAN for nearby villages.

Institute offers EEDP course to promote Interdisciplinary Innovative design thinking skills among students. Institute has taken a leadership role for development of an Incubation Centre, NETRARIT Foundation RIT-TBI (NRiT) - a Section 8 Company, with the vision of "Transforming an engineering campus into Product Innovation Centre (PIC)". The process of product based learning is developed from First Year Engineering and sustained throughout four years under CHED, to develop & convert ideas to working prototypes/products in multi-disciplinary domains by understanding customer needs based on real problems and commercialize it through Industry-Academic Partnerships to develop entrepreneurial ecosystem in Rural area. The TBI has been funded with INR 5.00 Cr from Maharashtra State Innovation Society (MSInS), Mumbai. Recently, we have received funding of Rs.1.05 Crores for AICTE IDEA Lab to provide hands on practice and product development facility to faculty and students.

## **Infrastructure and Learning Resources**

The Institute has beautiful green campus of 43.76 acres with modern facilities and learning resources. There are 47 dedicated classrooms equipped with LCD, Wi-Fi and LAN, 103 laboratories to encourage experiential learning and four Conference Halls. The institute has roof-top solar system worth 1.09 Cr. with capacity of 300 kW. Total power generation through solar power system is around 25,000 units, which contributes 30-35% of total electricity consumption. Entire campus is equipped with fire safety facilities adhering to the fire safety norms. Miyawaki forest, farm pond, biogas plant, rain water harvesting, waste management and gray water recycling plant ensure sustainability on the campus. Lifts and ramps are available for differently abled persons. Budgetary provision is made annually to maintain the facilities.

The institute provides 1662 computers with student-computer ratio of 2.23:1. Internet of 1500 Mbps ensures smooth and quick digital experience. The institute uses 15 servers, 93 UPS of different capacities, 110 printers, 125 LCD and 10 scanners. The institute owns 1294 application software licenses and 1508 system software licenses. The security of the campus is ensured with 250 CCTV cameras installed across the campus.

NETRA-RIT Foundation with 280 sq. m area, 3 office cabins, 13 startup cubicles and 3 conference halls facilitates incubation of start-ups. The Learning Studio and Thinkering Lab with 316.18 sq. m. area and investment of 23.57 Lakhs promotes multidisciplinary prototype development skills among the students. Wholesome grooming of students is

ensured through indoor and outdoor sports, yoga, gymnasium, cultural and extension activities round the year.

Central Library is a four-storied, state-of-the-art, AC & Wi-Fi enabled, furnished building with an area of 2133.36 sq. m. and has a seating capacity of more than 400 users. The library services are fully computerized with the help of automation software. It has a diverse collection of 1,08,436 print and electronic books, 416 standard codes and 3321 CDs. It has subscribed to 183 print journals, 13 newspapers and 3999 e-journals which are accessible through the intranet and web. KIOSK Online Public Access Catalogue (OPAC) terminals are available in the library. The library offers plagiarism services through TURNITIN software.

## **Student Support and Progression**

With our value 'Each one can excel', we believe that every student has a potential to develop his/her holistic personality by participation in various curricular, extracurricular, Sports and Club activities, field visits, educational tours and exhibitions.

The students are encouraged to participate in Project competitions, Technical paper Presentations, Vehicle design competitions, Hackathons etc. in premier organizations through faculty mentors and financial support. This helps develop confidence, provide exposure and improve their knowledge base. The student representatives are members of the BOS, CDC and IQAC and they are invited to attend and contribute to the meetings. The students are also part of the Anti-ragging committee, ICC, Student's Council etc.

E-Cell, Space club, Rocketry club, SAE Collegiate Club, IEEE students' Chapter offer opportunities for the students to develop hands-on skills through their hobbies and passions. Fully committed NSS cell is in place which helps to develop community connect.

The T & P Cell provides career guidance and helps students in achieving their goals through continuous training and value added courses. SPDP is set up to enhance their communications and other employability through AICTE funding. Entrepreneurship Development Cell nurtures the idea of entrepreneurship among the students through innovative activities and choice-based courses in the curriculum provided with global exposure through international internships, virtual internships, global cultural exchange programs with foreign universities through virtual mode, webinars and expert lectures from national and international experts.

The Competitive examination Cell is established to motivate aspiring students to take up all types of Competitive Exams like GRE, TOFEL, GATE, IELTS, RTO, IES, Railways

etc. and prepare them through rigorous training from expert agencies. There is well-structured mentoring and counselling through a mentor-mentee system with a professional counselor for the needy.

The RIT Alumni Network comprises 12000+ members. The Alumni Association is a registered body which connects RIT with its alumni from various branches and builds an actively engaged community. They contribute towards development of RIT through webinars, support for internships and placements, conduct mock interviews, student training, global education opportunities outside India. The Association has contributed a gratitude fund of around Rs 30 Lakhs so far.

## Governance, Leadership and Management

The institute believes, in participative and transparent governance and decision-making. To attain the objectives in terms of knowledge, skills and development, the aim of RIT management is the holistic development of the institute which includes professional ethics and academic excellence. The BoG with faculty representation is responsible for strategic planning and decisions. The Five-year Strategic Plan of the institute approved by the BoG is implemented through Deans, HoDs and faculty members with the help of KRAs. The performers meeting the targets are incentivized. The Steering committee led by the Director and comprising Deans, Heads and Registrar and IQAC makes academic, administrative and financial decisions. Four statutory committees and twenty non-statutory committees like CDC, BOE, Library, ICC, Anti Ragging, Hostel, Admission etc. Meet at appropriate intervals and participate in the decision-making process.

The AC comprises academicians and industry persons guide on academic initiatives. The BoS at departments help frame the curriculum and implement academic initiatives. The respective DPCs contribute to program quality and sanctity. The CoE is responsible for scheduling, conducting and processing the examination and results. The examination committee reviews the students' progress.

The Finance committee helps make financial decisions. Financial auditing is made by third-party auditors. The Deans and Registrar are entitled to make an expenditure up to INR 50000 while HoDs up to INR10000. Annually program-wise budgets are allocated based on the requirements. Purchase of equipment is made through the Purchase Committee. The institute offers various faculty welfare measures like EPF, medical insurance, maternity and paternity leave, study leave, Diwali & Birthday Gift to the faculty and staff. Students and faculty grievance cells are online and the grievances are addressed. The student and faculty feedback is recorded online and used for improvement. The administrative processes are streamlined and web-enabled for

## efficiency and effectiveness.

A separate budget is kept aside for faculty training and development, student welfare and development and; research and development.

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

The institute has identified six core values; 'Practice what we preach', 'Honesty and sincerity', 'Fairness and equality', 'Cooperation', 'Joy of learning' and 'Each one can excel'. An effort is made to follow and demonstrate these values while interacting and communicating with all the stakeholders of the institute. The institute encourages gender equality and diversity which is reflected through various activities of ICC Cell like annual gender audits, awareness sessions, gender sensitization sessions such as Laws for Women Safety, Menstrual Hygiene Management etc. The institute emphasizes sustainability as is reflected through curriculum, social needs-based mini-projects and capstone projects, projects through Unnat Bharat Abhiyan, green audits, use of solar power, food waste management through biogas plant, rainwater harvesting and Miyawaki. The students and faculty members are exposed to universal human values and professional ethics through the curriculum, orientation programs and add-on training programs.

The institute has adopted various best practices in its quest for continuous improvement. The faculty reading club has resulted in exposure to 197 books on different subjects and 72 articles which have helped expand the horizons of the faculty. The in-house research funding, Best Researcher Award practice has resulted in 379 indexed papers and 21 patents filed and 4 are granted. The students are provided with internship opportunities and entrepreneurship opportunities as a part of the curriculum. 1242 students have undergone the internships in a five years span and around 35% of internships were converted into placements. Forty-six students have benefited from international research internships offered by globally reputed universities.

The institute is in its third cycle of Five-year Strategic Planning. The key result areas and respective targets are reviewed and the faculty is incentivized. The meetings of various committees are planned regularly and minutes and ATRs are maintained. Audits (academic, administrative, financial), Alumni-Meet, Technical Symposium Quantum, Virangula (annual cultural festival), Annual report, Vishwakarma (college magazine) are held regularly. The faculty members offer solutions to an identified problem through Quality Circles which have been represented at the international and national levels.

The Office follows best practices like Pasaydan (Prayer), 'Word of the day', Birthday celebrations to name a few.

## 2. PROFILE

## 2.1 BASIC INFORMATION

Name and Address of the College			
Name	KASEGAON EDUCATION SOCIETY'S RAJARAMBAPU INSTITUTE OF TECHNOLOGY		
Address	Rajaramnagar Tal Walwa Dist Sangli		
City	Islampur		
State	Maharashtra		
Pin	415414		
Website	www.ritindia.edu		

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Director	Mrs. Sushma S. Kulkarni	02342-220329	9970700710	02342-22032 9	director@ritindia.e du
IQAC / CIQA coordinator	satyajit R. Patil	02342-221005	9970700700	02342-22098 9	satyajit.patil@ritin dia.edu

Status of the Institution		
Institution Status	Self Financing	

Type of Institution		
By Gender	Co-education	
By Shift	Regular	

Recognized Minority institution	
If it is a recognized minroity institution	No

<b>Establishment Details</b>	
Date of Establishment, Prior to the Grant of	23-07-1983

Page 16/136 29-06-2022 05:26:26

'Autonomy'	
Date of grant of 'Autonomy' to the College by UGC	18-11-2011

University to which the college is affiliated				
State University name Document				
Maharashtra	Shivaji University	View Document		

Details of UGC recognition				
<b>Under Section</b>	Date	View Document		
2f of UGC	17-04-2013	<u>View Document</u>		
12B of UGC	17-04-2013	View Document		

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	Day,Month and year(dd-mm- yyyy)	Validity in months	Remarks	
AICTE	View Document	10-07-2021	12	Extension of Approval for the Academic Year Twenty Twenty One to Twenty Twenty Two	

Recognitions		
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No	
Is the College recognized for its performance by any other governmental agency?	No	

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Rajaramnagar Tal Walwa Dist Sangli	Rural	43.76	53986.76

## 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	BTech,Auto mobile Engineering	48	MHT-CET, JEE	English	240	104					
UG	BTech,Civil Engineering	48	MHT-CET, JEE	English	240	227					
UG	BTech,Comp uter Science And Engineering	48	MHT-CET, JEE	English	420	419					
UG	BTech,Electr ical Engineering	48	MHT-CET, JEE	English	240	221					
UG	BTech,Electr onic And Tel ecommunica tion Engineering	48	MHT-CET, JEE	English	240	224					
UG	BTech,Infor mation Technology	48	MHT-CET, JEE	English	240	236					
UG	BTech,Mech anical Engineering	48	MHT-CET, JEE	English	480	439					
UG	BTech,Mech anical Engineering	48	MHT-CET, JEE	English	120	73					
PG	Mtech, Auto	24	GATE	English	36	16					

	mobile Engineering					
PG	Mtech,Civil Engineering	24	GATE	English	36	29
PG	Mtech,Civil Engineering	24	GATE	English	48	44
PG	Mtech,Comp uter Science And Engineering	24	GATE	English	36	23
PG	Mtech,Electr ical Engineering	24	GATE	English	36	15
PG	Mtech,Electr onic And Tel ecommunica tion Engineering	24	GATE	English	36	14
PG	Mtech,Mech anical Engineering	24	GATE	English	48	32
PG	Mtech,Mech anical Engineering	24	GATE	English	36	11
PG	Mtech,Mech anical Engineering	24	GATE	English	36	16
PG	MBA,Master Of Business Administrati on	24	DTE CET, CAT & CMAT	English	240	240
PG	MBA,Master Of Business Administrati on	24	DTE CET, CAT & CMAT	English	30	30
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	72	GATE PG	English	9	0
Doctoral (Ph.D)	PhD or DPhi 1,Electronic	72	GATE, PG	English	7	0

	And Teleco mmunication Engineering					
Doctoral (Ph.D)	PhD or DPhi l,Mechanical Engineering	72	GATE, PG	English	22	0
Doctoral (Ph.D)	PhD or DPhil,Master Of Business Administrati on	72	GATE, PG	English	4	0

## Position Details of Faculty & Staff in the College

				Te	aching	Faculty	y					
	Profe	essor			Assoc	Associate Professor			<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government		1		18				38		1		113
Recruited	17	1	0	18	18	2	0	20	88	22	0	110
Yet to Recruit				0	, 7			18				3
Sanctioned by the Management/Soci ety or Other Authorized Bodies				0				0				26
Recruited	0	0	0	0	0	0	0	0	15	11	0	26
Yet to Recruit				0				0				0

		Non-Teaching	Staff	
	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				126
Recruited	114	12	0	126
Yet to Recruit				0

		<b>Technical Staff</b>		
	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				69
Recruited	69	0	0	69
Yet to Recruit				0

## Qualification Details of the Teaching Staff

	Permanent Teachers										
Highest Qualificatio n	Professor			Associate Professor			Assistant Professor				
	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.	17	1	0	11	2	0	18	8	0	57	
M.Phil.	0	0	0	0	0	0	1	1	0	2	
PG	0	0	0	7	0	0	84	24	0	115	

	Temporary Teachers										
Highest Qualificatio n	Professor			Associate Professor			Assist				
	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	0	0	0	

				Part Ti	me Teach	ers				
Highest Qualificatio n	Professor			Associate Professor			Assistant Professor			
	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	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	1677	28	0	48	1753	
	Female	741	6	0	0	747	
	Others	0	0	0	0	0	
PG	Male	257	2	0	0	259	
	Female	213	2	0	0	215	
	Others	0	0	0	0	0	
Doctoral (Ph.D)	Male	0	0	0	0	0	
	Female	0	0	0	0	0	
	Others	0	0	0	0	0	
Diploma	Male	0	0	0	0	0	
	Female	0	0	0	0	0	
	Others	0	0	0	0	0	

Provide the Following I Years	Details of Studer	nts admitted to	the College Dur	ing the last four	r Academic
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	186	158	186	197
	Female	109	97	102	98
	Others	0	0	0	0
ST	Male	18	12	32	35
	Female	1	1	4	4
	Others	0	0	0	0
OBC	Male	544	499	521	526
	Female	265	255	254	255
	Others	0	0	0	0
General	Male	1237	1049	1091	1103
	Female	614	578	621	586
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		2974	2649	2811	2804

## 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Automobile Engineering	<u>View Document</u>
Civil Engineering	View Document
Computer Science And Engineering	View Document
Electrical Engineering	View Document
Electronic And Telecommunication Engineering	View Document
Information Technology	View Document
Master Of Business Administration	View Document
Mechanical Engineering	View Document

#### **Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:

NEP's main objective is to improve the education system by making it inclusive, integrated, multidisciplinary and more productive. To provide high quality education and to develop human resources in our nation as global citizens, which is vision of National Education Policy, is well taken by the institute. A discussion among the faculty members were initiated on the key principles of NEP such as diversity for all curriculum and pedagogy with technological innovations in teaching and learning, encouraging logical decision making and innovation, critical thinking and creativity. The flexible and innovative curriculum emphasise on offering credit-based courses and projects in the areas of community engagement and service, environmental education and value-based education. In view of the NEP, the institute has stared NETRARIT Foundation. To promote start ups and make it product innovation campus. Academic programmes are redesigned to include Multidisciplinary /Interdisciplinary courses as open electives. All programmes are designed in such a way that students get maximum flexibility to choose elective courses offered by other Departments. Engineering Exploration and Design project is included in the curriculum to develop multidisciplinary approach. Looking to Global Scenario, Engineering students should have knowledge of subjects from other branches and some advanced subjects of their respective branch in which

they are pursuing the degree. Regarding the same institute has introduced Minor and Honor scheme in academics. There is also focus on language, humanities, finance, management related course in the curriculum. Moreover, major capstone project is added in the curriculum where in students are expected to do project in a group and work on project which may satisfy local, national, international social and industrial needs. While developing a project students use concepts and theories from multidisciplinary streams.

## 2. Academic bank of credits (ABC):

RIT Rajaramnagar is an official member through Shivaji University, Kolhapur of the National Academic Depository which is a government endeavour to offer an online repository for all academic awards under the Digital India Programme. The National Academic Bank of Credits (ABC) portal has now been integrated into the nad.digitallocker.gov.in platform. RIT Rajaramnagar follows a choice-based credit system for all of its programmes and is now in the process to pass a resolution related to the ABC in the Academic Council. RIT Rajaramnagar will formally register in the ABC portal as soon as the resolution is being approved by the higher academic bodies.

#### 3. Skill development:

Institute strives to develop skills of students like creativity and innovation, critical thinking and higherorder thinking capacities, problem-solving abilities, Communication skills, Teamwork, Planning and organizing, , Negotiation skills, Lifelong learning, Commercial awareness, Adaptability or flexibility through industry ready curriculum. Students are motivated to participate in extracurricular activities and organizing events, on and off the campus, to explore a number of qualities in their personality like Managerial skills/leadership skills, planning and enterprising skills, and interpersonal skills. The institution is providing value-based education to inculcate positivity amongst the learner that include the development of humanistic, ethical, constitutional, and universal human values of truth (satya), righteous conduct (dharma), peace (shanti), love (prem), nonviolence (ahimsa), scientific temper, citizenship values, and also life-skills. Pradhan Mantri Kaushal Vikas Yojana for Technical Institutions (PMKVY-TI were offered in our institute to enhance the skills of the students. The main

objective of this project is to provide skill based training to the school and college drop outs who to pursue/attain higher order skills and living in the vicinity of College. National Skill Development Corporation (NSDC) is the Strategic Partner in implementing PMKVY – TI project with AICTE.

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

As a part of the NEP-2020 implementation, students are motivated to use SWAYAM platform for learning courses of engineering in regional languages. To improve confidence in students from poor, rural and tribal backgrounds, faculty are using mother tongue as the medium of instruction in teaching learning process. In addition to English language institute is trying to offer some courses in bilingually for better understanding to the students and to promote Indian languages for diploma students . The competencies like cultural awareness and expression among the students are developed by motivating them to participate in cultural activities

5. Focus on Outcome based education (OBE):

Institute emphases on outcomes-based education (OBE) which is reflected in the curriculum design, teaching & learning process and assessment of the students. Learning by doing i.e. experiential learning is adopted in the curriculum which includes mini projects, major projects, internships, entrepreneurship development projects, Engineering Exploration etc. RIT has developed curriculum with clearly stated Institutes Vision & Mission, Department's Vision & Mission, Programme Outcomes (PO's), Programme Specific Outcomes (PSO's) and course outcomes (CO's). CO's are designed such that these are mapped with program outcomes, program specific outcomes and aligned with NEP policies. Then after curriculum content is designed by considering the course outcomes. All course syllabus has been designed with due consideration to macro-economic and social needs at large so as to apply the spirit of NEP. All courses are designed with outcomes centred on cognitive abilities namely Remembering, Understanding, Applying, Analysing, Evaluating and Creating. Apart from the domain-specific skills, learning outcomes at all levels ensure social responsiveness and ethics, as well as entrepreneurial skills so that student contribute proactively to economic, environmental and social well-being of the nation. Institute has practice to incorporate various innovative tools like project based learning, problem

based learning, ICT tools, collaborative learning and many more in delivery and assessment. After student's evaluation, all attainments of CO's, PO's and PSO's are measured and action plan is written to improve the respective attainment in the future. 6. Distance education/online education: Due to Covid -19 pandemic, educational institutions

in the country has increasingly involved in using the digital platforms for engaging classes, conducting conferences and meetings. Keeping aside the negative impact of lack of face to face learning, online education has broken the geographical barriers creating interaction of experts and students from distant geographies. Opening up of the economy including that of educational institutions has paved the way of adopting hybrid mode of education which combine online and offline resources. This can be considered as the new normal, which is envisaged in New Education Policy as well. Due to the experience gained during the closure period of Covid-19, access to online resources by educators and students will not be a constraint anymore. Faculty are encouraged to offer MOOC courses at RIT which promotes the blended learning system of learning. Our faculties use LCD projectors, Digital writing pads and many other devices to deliver online lectures through a leased internet connection. Few of the ICT tools used are: Kahoot game-based learning platform, Moodle Learning Management System, Zoom and Microsoft Teams for delivering online lectures, Digital writing software such as MS-Paint, OneNote, Presentation software such as MS-Powerpoint, Google slides etc. There are 47 smart class rooms in the institutes out of which 5 ICT enabled class rooms are equipped with 65" smart interactive white boards from Samsung. The laboratories, conference Room and video conference hall well equipped with ICT facilities. Most of the classrooms are equipped with the LCD Projector and other devices as aid to teaching learning process. Centre for Teaching and Learning (CTL) is established to promote ICT activities in the campus. During pandemics, CTL conducted workshop by inviting experts from industry for utilizing online ICT tools to enhance teaching learning process.

## **Extended Profile**

## 1 Program

## 1.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
22	23	23	23	23

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

#### 1.2

## Number of departments offering academic programmes

Response: 08

## 2 Students

## 2.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
2974	2649	2811	2804	2855

F	File Description		Docun	nent	
I	nstitutional data ir	n prescribed format	View 1	<u>Document</u>	

#### 2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
794	863	872	876	939

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

2020-21	2019-20	2018-19	2017-18	2016-17
2974	2646	2804	2804	2855

File Description	Document	
Institutional data in prescribed format	View Document	

#### 2.4

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	215	453	249	51

## 3 Teachers

#### 3.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
1023	944	915	964	831

File Description	Document
Institutional data in prescribed format	View Document

## 3.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
153	154	154	184	189

File Description	Document
Institutional data in prescribed format	View Document

## 3.3

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

2020-21	2019-20	2018-19	2017-18	2016-17
153	154	154	189	189

File Description	Document
Institutional data in prescribed format	View Document

## 4 Institution

#### 4.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
206	196	266	238	243

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

## 4.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
311	306	286	286	286

File Description	Document
Institutional data in prescribed format	View Document

#### 4.3

Total number of classrooms and seminar halls

Response: 53

4.4

Total number of computers in the campus for academic purpose

Response: 992

Page 31/136

29-06-2022 05:26:26

4.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
352.28	640.59	941.57	328.86	450.22

## 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:**

Institute's vision is to be a globally recognized institute committed to excellence in academics, research, knowledge creation and delivery to develop socially-responsible professionals. Hence, major emphasis is given on the outcome based curriculum design, teaching-Learning and Evaluation. Institutes approach is to transform all the departments into center of excellence by synergizing teaching-learning and research to produce globally competent, innovative and entrepreneurial mindsets. All the courses in the curriculum are developed by considering domain knowledge, experiential learning and professional skills to accomplish local, national, regional and global developmental needs. The aspects considered for design of curriculum are (i) Model curriculum prescribed by AICTE, (ii) Suggestions by industry experts and alumni, (iii) Syllabus of Graduate Aptitude Test Examination (GATE), (iv) Domain-specific technology developments, (v) Choice Based Project System (vi), and Professional skill development courses.

## Addressing POs through the Curriculum:

Designing of course content starts with consideration of Program outcomes (POs) provided by NBA. Although NBA has provided general PO statements, there are some attributes which are needed to be defined for specific program. Hence, Program Specific Outcomes (PSOs) are defined specifically for each program. The next step is to define Course Outcomes (COs) for each course. POs and PSOs are considered while designing the COs. COs are designed in such a way that each one is mapped to one or more PO and PSO. The curriculum is then developed to meet the needs of the COs which is based on experiential learning as main theme. Choice based courses, mini projects and Professional skills development courses have been added in the curriculum. RIT has implemented Choice Based Credit System (CBCS) from F.Y. to Final Year B.Tech for all programs.

- **CBCS for F.Y.B.Tech includes** open electives like Creativity-Design Thinking & Entrepreneurial mindset, Green-Technology, Thermodynamics etc. and choice-based Languages like English, German and Japanese.
- CBCS for S.Y.B.Tech includes Professional skill development courses such as Personal Effectiveness and Body Language, Interpersonal Skills [Jivanvidya-work-life-balance], Professional Leadership Skills, Innovation Tools and Methods for Entrepreneurs.
- **CBCS for T.Y.B.Tech includes** open and program electives. Verticals related to specific areas are included in the list of program electives.
- CBCS for Final Year B.Tech includes choice based Four-track project system comprising Industry Internship & Projects, Under graduate Research experience, Entrepreneurship development, and Capstone Project. Students are encouraged to consider regional, national, and global needs when selecting the projects.
- Curriculum Design Process:

Each department in RIT has established Board of Studies (BOS). It comprises Industry experts, Parents, Alumni, students and faculty of the department. BOS develops the initial version of the curriculum based on inputs regarding COs, content of the syllabus from members. Moreover, feedback is collected from different stakeholders like alumni, employers etc. to be considered for designing the curriculum. BOS comprises employers of national and international organizations who give the inputs regarding local, regional and global needs. Moreover, faculty attend the webinars, seminars, conferences hosted by IUCEE, GEDC and others to get exposure of recent technologies and global requirements to be incorporated in curriculum. Finally, Academic Council approve the curriculum.

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: 81.82

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

Response: 22

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

Response: 18

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

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

Response: 95.03

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

2020-21	2019-20	2018-19	2017-18	2016-17
970	940	861	883	790

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

## 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: 14.06

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

Response: 331

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

Response: 2354

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

## 1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course 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: 22	
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

#### 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:**

The curriculum of the institute includes various courses that address environmental issues, environmental concern and awareness, human values and professional ethics etc.

The courses such as Work Life Balance (Interpersonal Skills) (SH2612), Leadership and Public Speaking (SH2632), Indian Constitution (SH3012), Human Values and Professional Ethics (CE2102), Indian Constitution (SH301), Indian Ethos & Business Ethics help students to inspire with morals, social values, loyalty and to appreciate the rights of others. The prime objective of these courses is to develop the ability to deal effectively with moral complexity in students. Moreover, students are guided to follow the ethical practices while selecting and completing the mini as well as major projects. Furthermore, industry internship is part of the curriculum and institute conducts a session in which students are guided on professional ethics to be followed during their internship.

The courses like Environmental Science (SH2011, SH2172) and Environmental Project (SH2602) are offered compulsory in the curriculum of second year B. Tech for all the programs. These courses create the awareness among the students related to environmental issues. Environmental Engineering (CE3072), Environmental Engineering Lab (CE3132), Instrumental Monitoring of Environment & Modelling (CE3272), Air Pollution and Control (CE4492) and Environment Management Systems (CE3382) are the program specific courses offered by Civil Engineering Department relevant to environment, its management and sustainability issues. The Automobile Engineering Department offers courses such as Automotive Emission and Alternative Fuels etc. focussing on the environmental sustainability. Nowadays, trends in electrical vehicle have emerged due to effect of conventional fuels on air pollution. To cope up with this trend, department of Electrical Engineering offers courses such as Battery Management System and Hybrid Electrical Vehicles. The courses like Environment Impact Assessment (OE4492), Non-Conventional Energy Sources (OE4292), Smart Cities and Sustainable Development (OE4082), Green Technology (SE2131), Green Technology Lab (SE1631) etc. are offered as open electives for students of all the programs to understand the environmental issues. These courses enhance the critical thinking ability of students in relevance to environmental sustainability solutions.

The present curriculum structure does not include any gender-related course. The work culture, on the other hand, creates an environment in which students can demonstrate professionally. The Women Cell and the Anti-sexual harassment committee continuously offers various programs like Debate, seminar,

Page 36/136 29-06-2022 05:26:26

panel discussions on gender equality and related issues. The impact of these programs creates an equal behavioral ambience among the students irrespective of their gender. Moreover, Director of the institute was the production Editor of the book entitled as "Rising to the Top". This book focuses on the challenges faced by Indian women leaders to reach the top and sustain the position.

The National Service Scheme (NSS) unit was established in 2009, and it organizes a variety of activities and programs for the students to familiarize with the prevailing problems of rural India. During these activities, participating students understand the importance of gender equality as they are engaged together to give their service to societal issues.

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	
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: 175

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

2020-21	2019-20	2018-19	2017-18	2016-17
39	40	40	35	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

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

Response: 100

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

2020-21	2019-20	2018-19	2017-18	2016-17
2974	2649	2811	2804	2855

File Description	Document	
List of students enrolled	View Document	

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

Response: 100

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

Response: 2974

File Description	Document	
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document	
Any additional information	View Document	
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	<u>View Document</u>
URL for stakeholder feedback report	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
URL for stakeholder feedback report	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: 85.94

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

2020-21	2019-20	2018-19	2017-18	2016-17
734	716	706	704	739

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

2020-21	2019-20	2018-19	2017-18	2016-17
894	870	810	810	810

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any 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: 58.62

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

2020-21	2019-20	2018-19	2017-18	2016-17
180	172	172	157	183

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

### 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:**

Being an autonomous status, the institute has adopted a continuous evaluation system, which assesses the learning levels of the students throughout the semester. In semester evaluation (ISE) and End Semester evaluation (ESE) helps to identify slow learners and advanced learners. The faculty members of the respective classes of UG and PG extend valid support in classifying the students with reports based on observation and class tests.

- The institute organizes Orientation programs/Induction programs for newly admitted students both at the institutional level and at the department level. The facilities at the college and the scope of the subjects being learnt are introduced in these sessions. Apart from this, sessions are also included to inculcate universal humane values, positive attitude and competitive spirit among students, which helps as a foundation to mentor the future progress of the students.
- The institute has given special preference to foreign languages like Japanese and German. The Institute conducts English Proficiency test during the start of first semester. Advanced learners who qualify this test are then motivated to opt German or Japanese language as per their choice.
- Remedial Classes are conducted with an aim to improve the academic performance of the slow learners. This practice helps the struggling learners to improve subject knowledge and helps them catch up with their peers.
- Implementation of active learning tools and techniques during the delivery of the course helps us to encourage the slow learners to keep up with the advanced learners. This ensures the peer learning.
- Academic and personal counselling are given to slow learners through assigned mentors from the respective departments.
- Bilingual explanation and discussions are imparted to the slow learners after the class hours for better understanding. A special coaching is also given in Skill Development Program like Communicative English, Aptitude and Placement.
- Advanced learners are encouraged to enroll in special scheme of the institute called Minor and Honor certification. This scheme allows advanced learners to enroll for interdisciplinary/multidisciplinary courses under Minor scheme. Similarly, advanced courses of the respective programs from platforms such as Swayam, EdX Coursera etc. are offered under Honor scheme. To get Minor and Honor certificate, aspiring student must register for additional five theory courses and acquire additional maximum 15 credits for any one of the schemes (either Minor or Honor). A student who completes these courses get Minor/Honor degree certificate along with a major degree of their respective branch.
- Advanced Learners are motivated and guided to prepare for competitive exams like GATE, GRE, IES, PSU's etc as per their choice.
- Students participate in the competitions like SUPRA, BAJA, GO KART etc. wherein they need to design, develop and manufacture the racing cars. The Institute conducts the interview of students to identify advanced learners and get them involved in such competitions.
- The Institute offers choice based project tracks like Industry Internship & Project (IIP), Undergraduate Research Experience (URE), Entrepreneurship Development (ED) in the Final Year B. Tech. Advanced learners are motivated to opt URE project track to explore and enhance their research skills.

File Description	Document
Link for Additional Information	View Document

# 2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)Response: 19.44

# 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:**

The Institute has focused on experiential learning, participative learning and problem-solving methodologies which help to transform students for employability, entrepreneurship or higher education by applying the knowledge they learnt.

- 1. Engineering Exploration and Design project is included in the curriculum of F.Y.B. Tech to develop multidisciplinary approach. Under this project two labs have been developed. One is Learning studio wherein students of first year get exposure of fundamentals of Mechanical, Electronics, Data acquisition system, Mechatronics, project management, engineering ethics etc. And second is Think Ring Lab, wherein students are availed with equipments and tools to do the projects.
- 2. Students of S.Y.B. Tech are expected to work on environment related projects which helps them to develop skills necessary to address complex environmental issues and sustainable for the future as a socially responsible citizen.
- 3. In the curriculum of T.Y.B.Tech Mini project of the respective core domain is included. Conceive-Design-Implement-Operate (CDIO) initiative is implemented for Mechanical Engineering students.
- 4. For final year B. Tech and MBA curriculum include three track project systems. Under this system, students can select one choice from,
- 1. **Industry Internship & Project:** Students are permitted for internship for minimum 20 weeks in 8th semester.
- 2. Undergraduate Research Experience: Students are expected to complete research project.
- 3. **Entrepreneurship Development:** Objective of this track is that the students can develop an entrepreneurial way of thinking that will allow them to identify and create business opportunities that may be commercialized successfully.
- 1. Moreover, the Regular capstone project is made compulsory to all Final Year B. Tech and MBA students. Under this student need to do a project in group.
- 2. Furthermore, the institute has stared NETRARIT Foundation. Under this foundation students work on community-based problems with an interdisciplinary approach.
- 3. To develop the entrepreneurial mindset among the students, open electives like Creativity-Design Thinking &Entrepreneurial mindset is included in curriculum of F.Y.B.Tech and Innovation tools

& methods for Entrepreneurs is allotted in S.Y.B.Tech curriculum. Students who opt these two courses are motivated to select ED track in the final Year B.Tech.

The various active learning tools like collaborative learning, project based learning, problem based learning, surveys, quizzes etc. are used during teaching-learning activity as well as for the In Semester Evaluation. To enhance the interest of students in learning, institute practices various ICT tools such as Moodle content management system, Pollseverywhere, Slido, OBS software, Google classroom, Google form, Audacity etc. These interactive tools encourage active engagement of students in the teaching and learning process.

According to program and course requirements, the department organizes field visits to construction sites, manufacturing and process industries, electrical-substations, water pumping-stations, and exhibitions. In addition, the second-year curriculum includes one-month summer internship wherein students can apply theories taught in class to real-world situations.

During laboratory sessions, students use laboratory facilities to prove scientific theories and learn concepts more effectively due to hands on experience. The department prepares a laboratory plan, such that four different experiments are conducted simultaneously, so that only four or five students can perform the particular experiment during a session without chaos.

File Description	Document
Link for Additional Information	View Document

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

#### **Response:**

RIT uses several ICT tools for effective teaching and learning process. These tools help in delivery, assessment and sharing of educational resources with students. Most of the faculties take advantage of ICT tools in campus and cloud. Our faculties use LCD projectors, Digital writing pads and many other devices to deliver online lectures through a leased internet connection. Few of the software ICT tools used are:

- 1. Kahoot game-based learning platform
- 2. Moodle Learning Management System
- 3. Zoom and Microsoft Teams for delivering online lectures
- 4. Digital writing software such as MS-Paint, OneNote etc.
- 5. Presentation software such as MS-Powerpoint, Google slides etc.

There are 47 smart class rooms in the institutes out of which 5 ICT enabled class rooms are equipped with 65" smart interactive white boards from Samsung. The laboratories, conference Room and video conference hall are well equipped with ICT facilities. Most of the classrooms are equipped with the LCD Projector and other devices as aid to teaching learning process.

Centre for Teaching and Learning (CTL) is established to promote ICT activities in the campus. During pandemics, CTL conducted workshop by inviting experts from industry for utilizing online ICT tools to enhance teaching learning process.

General ICT Tools used by faculties are Desktop and laptops, Projectors, tablets, Pen Drives, Microphones, interactive white board, DVDs and CDs, Flash discs

There is leased internet connection which helps our students to attend online MOOC courses across the campus due to wide availability of internet connectivity through wired and wifi technologies.

File Description	Document
ICT Tools used Link to Learning Management Syster	ICT Tools used.xlsx hhttp://210.212.171.173/login/index.php
(MOODLE)	
Link to Centre for Teaching an	dhttp://www.ctlrit.com/
Learning CTL website	

#### **Link to ICT Facilities at RIT**

https://youtu.be/mWReD8lbZ88

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

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

Response: 27:1

#### 2.3.3.1 Number of mentors

Response: 112		
File Description	Document	
Upload year wise, number of students enrolled and full time teachers on roll	View Document	
Circulars pertaining to assigning mentors to mentees	S View Document	
Any additional information	View Document	
Link for additional information	View Document	

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

#### **Response:**

The institute attempts to achieve academic discipline by adhering to Academic Calendar. It is available to the students, faculty members and all other concerned in electronic form or in print. The academic activities of the institute are governed by academic calendar that is prepared by academic coordinator and approved by Dean Academics and The Director. It is notified at the beginning of each academic year. Academic calendar refers to a schedule of commencement of instruction for the semester, course delivery period, examinations/evaluation, other co-curricular activities, holidays and student related major activities schedule. The curriculum is typically delivered in two semesters in an academic year. Each semester is of 20 weeks' duration, including curriculum delivery, evaluation, and grade declaration. The exact academic days are mentioned in the academic calendar. The minimum total teaching days in an academic year are 180 Co-curricular and extra-curricular activities that make student, especially responsible are scheduled so as not to interface with the curricular activities as stipulated in the academic calendar.

The course teachers prepare teaching plans of theory courses as well as lab courses taking into consideration the days allotted in the academic calendar. The teaching plan contains details of syllabus and dates on which unit topics are to be delivered. The head of the concern department approves the teaching plans. Sometimes some of the faculties lag in the content delivery as per the schedule. Nevertheless, the faculty conducts extra sessions to bridge the remaining part of the curriculum and try to cope up with the sanctioned plan. The Institute has implemented review system, through which follow up of the syllabus covered by the faculty is taken in a semester. Head of the department and Dean Academics conduct this syllabus review and guide the faculty.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
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: 99.47

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

# 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: 28.68

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
57	53	46	41	37

File Description	Document	
Institutional data in prescribed format (Data Template)	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:** 11.33

### 2.4.3.1 Total experience of full-time teachers

Response: 1734

File Description	Document	
Institutional data in prescribed format	View Document	
Any 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: 11

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
13	11	15	9	7

File Description	Document	
Institutional data in prescribed format (Data Template)	<u>View Document</u>	
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

2020-21	2019-20	2018-19	2017-18	2016-17
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:** 

Examination Management System (EMS) has been developed in-house. This EMS is password protected and server based system. It is not connected to the internet and cloud hence there no possibility of this system being hacked. Following functionalities are available in the EMS:

- 1. Add the course structure in the application
- 2. Collect Students Data from Student section for allotment of the Courses.
- 3. Feeding or import the Marks of In Semester Evaluations (ISE) / Unit Tests (UT) and End Semester Examinations (ESE) and generate the mark sheets which are then verified by the concerned course teachers.
- 4. Collect "XX" (students is assigned an "XX" grade when a student fails to complete the academic requirements due to poor attendance or poor performance in the academic assessments) student list from the Academic Development Committee and feed the same into the Software.
- 5. Generate Exam Form and Hall Tickets (Entry Tickets) for the End Semester Examinations.
- 6. Create Seating arrangement and generate Students Attendance report for Theory and/or Practical and oral examinations.
- 7. Masking Code generation for the masking of students answer books before assessment. This ensures that the student's identity is not disclosed during to the assessor of the answer books.
- 8. When assessment of the answer books is over bitwise marks are entered into the system.
- 9. When marks of all the courses are entered results are processed.
- 10. Similar to the regular exams Re-Exam, Re-registered students exams and Make up exams can be added to the system and all the above steps can be applied to these exams.
- 11. Provision has been made in the system for students to apply for Re-Exam via both Online and Offline mode
- 12. Correlating the courses from the pre-revised curriculum with Equivalent courses in the revised curriculum.
- 13. When all results are processed following reports can be generated from the system:
  - 1. Result ledgers.
  - 2. Semester Grade Point Average (SGPA) of each student.
  - 3. Semester Grade Point Average (SGPA) of each student.
  - 4. Print pass/fail summary.
  - 5. Print the grade cards
  - 6. Print the official transcripts.
  - 7. Generate the reports on course wise distribution of grades.

The Institute has subscribed to the Online Examination Platform of Maharashtra Knowledge Corporation Ltd; Pune. This platform is used to conduct the online examinations of any type like a) Multiple Choice Questions (MCQs), b) Descriptive exams etc.

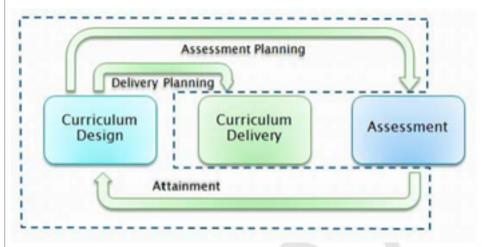
All the exams of courses in Computer Programming Languages, courses using the CAD softwares like Engineering Graphics, Machine drawing etc. are conducted in an online mode only.

The Institute has subscribed to the IonCudos software of IonIdea, Bangalore. This software is used for implementation of Outcomes Based education (OBE) implementation. Some of the functionalities available in this software are:

- Calculation of attainment of Course Outcomes (COs).
- Calculation of attainment of Program Outcomes (POs).
- Calculation of weightages of the questions in the question paper as per Bloom's Taxonomy etc.

### Curriculum Management System in IonCudos:

Curriculum management system has three sub-systems. Curriculum Management System focuses on the first sub-system, Curriculum design. It provides seamless integration inputs to the other two sub-systems i.e delivery planning for Curriculum Delivery and assessment planning for Assessment. Scope of IonCUDOS© is outlined with the dotted line in the above figure. It needs the Assessment result as input for generating the attainment reports that helps to fine tune the present Curricula and also improve the future Curricula of Institution.

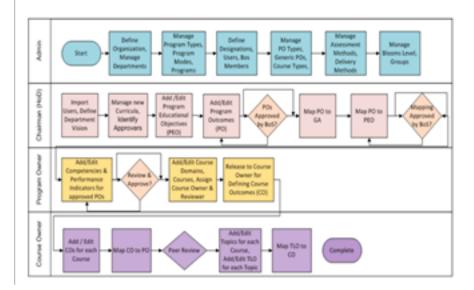


Functions of the course owner in IonCudos:

The challenges faced at the Course Owner level:

- To set topic level outcome and bloom's level.
- To map topic outcomes to Course Outcomes for delivering Program Outcomes.
- To adopt delivery methods and to employ assessment methods for assessing the effectiveness of the delivery.
- To overcome the preoccupancy in the volume of data and rigor of mapping.

### Curriculum Design Workflow in IonCudos:



Page 49/136 29-06-2022 05:26:27

File Description	Document
Any 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:**

The Institute disseminates information about CO's and PO's on various academic platform:

### **Syllabus:**

All courses of the curriculum have well defined COs, The CO-PO mapping with its strength is included in the teaching file and course file. The hardcopy of the syllabus is made available to every student.

#### Web Site:

The syllabus of all programs offered by the department is uploaded on the Institute website that includes the COs of various courses of the curriculum.

#### Library:

The syllabus files of all programs are maintained in the institute's central library. Syllabus copy includes all the CO's related to the respective course. Moreover, PO's and PSO's are easily accessible to students and faculty in the library.

#### Lab Manual:

All POs, PSOs and COs of specific lab course printed in lab manuals and issued to all students at the beginning of every semester.

#### **Course Files:**

All the faculty members prepare a course file for each semester that includes, detailed plan of content delivery, CO attainment action plan, CO to PO mapping, In Semester Evaluation scheme, Active learning tools to be adopted, etc.

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

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

#### **Response:**

#### 1. Attainment of Course Outcomes (CO's):

Course outcomes are assessed by using two kinds of tools, namely direct assessment and indirect assessment. Evaluation components like In-Semester Evaluation (ISE), Unit test (UT) and End Semester Examination (ESE) are considered as a tools of direct assessment for theory course. Direct assessment tools for practical courses include ISE of practicals along with practical oral examinations (i.e. ESE).

The question papers include question statement, addressed COs, bloom's level assigned. To ensure the quality of paper setting; the question paper audit is done. After the assessment, CO attainment is calculated. Rubrics are framed for the practical, Project and internship evaluations by considering all the quality parameters. These rubrics which are announced to the students at the beginning of the semester are used for assessment. Components of ISE e.g. quizzes, collaborative leanings, problem based, project based etc are designed such that all CO's gets mapped. Attainment of CO's is calculated by considering some threshold values. In the attainment calculation, the number of students out of total intake who secure marks more than the threshold value is considered.

The CO attainment is calculated by following formula,

# $COattainment = \frac{The Number of students secured Mark sabove Threshold value}{Total number of students appeared}$

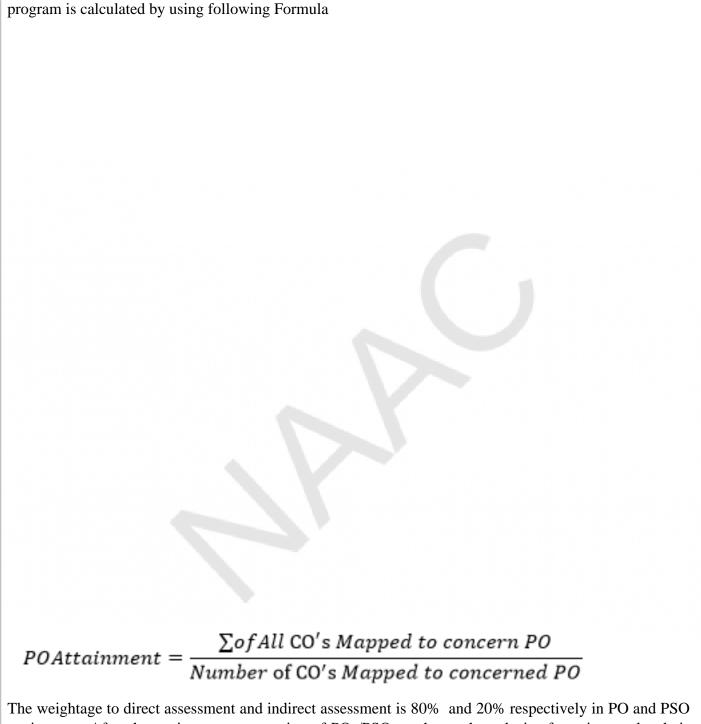
The threshold value for particular CO is calculated by considering the average of attainment of that CO calculated in past three years. Each course faculty does qualitative analysis of the CO attainment for further improvement. Faculty write action taken report in which he/she mentions the action which will be taken in the future to improve the CO attainment.

Indirect assessment includes course exit survey which is taken at the end of each semester. The weightage to direct assessment and indirect assessment is 80% and 20% respectively in CO attainment.

#### 2. Attainment of program outcomes (PO's), program specific outcomes (PSO's):

Program Outcomes and Program Specific Outcomes are also assessed by using two kinds of tools viz. direct assessment and indirect assessment. Direct assessment of PO's and PSO's considers the CO attainment and Indirect assessment comprises course exit survey. The PO & PSO attainment for the

Page 51/136 29-06-2022 05:26:27



The weightage to direct assessment and indirect assessment is 80% and 20% respectively in PO and PSO attainment. After the attainment computation of POs/PSOs, a thorough analysis of attainment levels is done by the department. This analysis includes finding the weak areas towards the attainment of POs/PSOs and Furthermore, detailed action plan is prepared for the improvement. The fig 1 and Fig 2 depicts the whole process of PO assessment along with tools used to evaluate UG and PG PO attainment respectively.

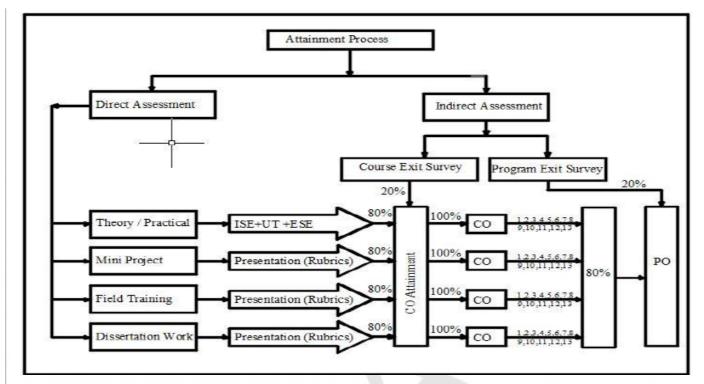


Fig.1 PO attainment process for UG

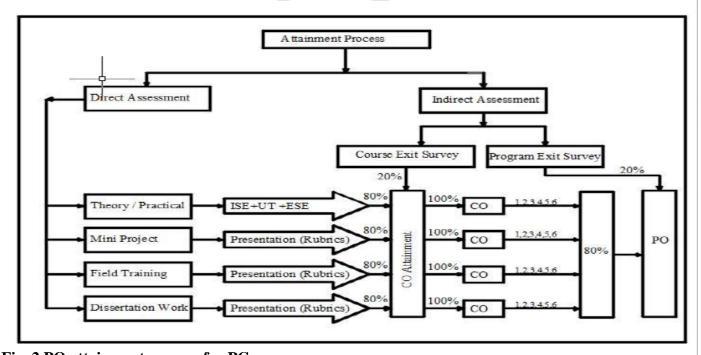


Fig. 2 PO attainment process for PG

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

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

Page 53/136 29-06-2022 05:26:27

Response: 79.35

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

Response: 615

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

Response: 775

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

# 2.7 Student Satisfaction Survey

### 2.7.1 Online student satisfaction survey regarding teaching learning process

**Response:** 3.62

File Description	Document	
Upload database of all currently enrolled students	View Document	
Upload any additional information	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:**

Several initiatives are taken to update research facilities in the institute and also well-defined policies are developed to promote research. Every year, three to four MODROBs proposals are submitted to AICTE from various departments of institute. Since 2016, seven proposals are sanctioned by AICTE with total funding of Rs.92,006,26/-. Funds received under MODROBs scheme have been utilized to develop research facilities in all the departments of the institute. In addition, each department gets separate budget for procurement of various instruments and software from institute. Major part of the allocated budget is utilized by departments to purchase equipment and software useful for carrying out research as well as experiments.

Some of best research facilities developed in the various departments of institute are

Name of Department	Research facilities		
Automobile Engineering	<ul> <li>Variable compression ratio research engine emission testing to test engine performance Alternative fuels.</li> <li>Shock absorber test rig to test vibrations of newly developed shock absorbers like MR d</li> <li>Drive shaft test rig to test performance of various propeller shafts designed and developed advanced materials.</li> </ul>		
Computer Science	<ul> <li>Cuda Teaching Centre</li> <li>Aneka cloud lab and Apple Education Centr</li> </ul>		
Computer Science and Information Technology	<ul> <li>Machine Learning Lab</li> <li>Internet of Things (IOT) Lab</li> <li>Cyber Security Lab</li> </ul>		
Electronics & Telecommunication	VLSI lab. Logic Analyser, and Vector network ana		

Electrical	Power quality analyser, Thermal imager, A		
	Battery reconditioning		
Mechanical	<ul> <li>Hand Arm &amp; Whole Body Vibration Analyze VM 31</li> </ul>		
	• VM25 Vibration /RPM/Temperature meter i		
	Portable Vibration Calibrator		
	• Ultrasonic Flaw Detector		
	• Micro Vickers Hardness Tester		
	• Power Oscillator, Vibration Exciter		
Civil	Non-destructing testing facility, loading fram tons capacity		
	Prestressed concrete laboratory sponsored by		
Sciences and Humanities	Low temperature synthesis of materials (Chemistry		
MBA	SPSS lab, Sponsored lab of Angle One broking firm		
Institute	Turunitin software for Plagiarism check,		
	• E journals, E books, Print journals		

For promotion of research, in-house seed funding scheme has been started in 2013. Every year around Rs. 4 lacs to Rs. 7 lacs amount is spent on in-house seed funded projects. Quality publications, patents and innovative products are the outcomes of in-house seed funding scheme.

To motivate faculties for undertaking quality research, institute started giving best researcher award with effective from year 2016. For best researcher award, two faculties from each department are selected for award based on their outcomes in research such as quality publication, patents, consultancy work, externally funded project. First and second prize consist of Rs.10,000/ and Rs. 5000/ cash prize respectively along with certificates.

Well defined policies are developed to distribute revenue generated through consultancy work and by using research facilities in the institute. For different types of R&D activities different policies are developed to share revenue between institute and faculties involved in the R&D activities. Intellectual Property Rights policy is also

developed for sharing revenue earned through commercialization of any patent. There is separate policy for supporting registration fees of conferences attended by UG and PG students. Many UG and PG students get financial benefit of this policy towards registration fees of conference.

File Description	Document	
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: 8.96

# 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).

2020-21	2019-20	2018-19	2017-18	2016-17
7.58	7.23	7.71	5.63	16.644

File Description	Document
List of teachers receiving grant and details of grant received	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:** 0.6

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

2020-21	2019-20	2018-19	2017-18	2016-17
01	01	01	01	01

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers	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:** 791.09

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)

2020-21	2019-20	2018-19	2017-18	2016-17
100.30	49.77	597.24	38.65	5.13

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

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

Response: 5.04

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

2020-21	2019-20	2018-19	2017-18	2016-17
10	07	13	09	03

File Description	Document
Names of teachers having research projects	<u>View Document</u>
Any additional information	View Document
Link for additional information	View Document

### 3.2.3 Percentage of teachers recognised as research guides

**Response:** 27.45

### 3.2.3.1 Number of teachers recognized as research guides

Response: 42

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Any additional information	View Document
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:** 65

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

2020-21	2019-20	2018-19	2017-18	2016-17
05	07	06	06	02

### 3.2.4.2 Number of departments offering academic programes

2020-21	2019-20	2018-19	2017-18	2016-17
08	08	08	08	08

File Description	Document
Supporting document from Funding Agency	<u>View Document</u>
List of research projects and funding details	<u>View Document</u>
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:**

To promote research culture in institute separate budget is allocated every year for in house seed funding, patent filing, PG student conference paper support, prototype development of student start-ups, project competitions like Supra, BAJA, Go cart. Outcomes of financial support for various activities are quality publications, patents, student success in national level project competitions. Dedicated efforts are taken to promote entrepreneurship at institute level. Choice based Entrepreneurship vertical has been introduced in curriculum. Various choice-based courses have been introduced in UG Curriculum right from first year B. Tech program to nurture entrepreneurship aptitude among students. In addition, choice based Under Graduate Research Experience vertical has been introduced in Final year B. Tech of UG program. Under this vertical, students carry out research on their topic of interest and if needed financial support is provided from institute. Institute has developed tinkering lab for development of prototypes and training students.

Institute is sensitive to community problems and also work under Unnat Bharat Abhiyan for past several years and already done significant work in the nearby villages related to water shed management, drinking water, sewage treatment etc. This type of work will be continued in the years to come. In addition, NSS team of institute has done activities for community during floods and COVID pandemic.

Institute has its Technology Business Incubator registered as Section 8 Company with GoI, named as NETRARIT Foundation RIT-TBI (NRiT). The NETRARIT Foundation NRiT RIT-TBI is the Section 8 Company Registered with the Registrar of Companies [ROC], Government of India. Vision of Incubation Centre is 'To Develop a self-sustaining incubation model to transform engineering campus into Product Innovation Centre (PIC) and goal as an Innovation Centre with 100 successful startups by the Year 2025-30. The mission is 'to develop & convert the Ideas to working prototypes/products in multi-disciplinary domains by understanding the customer

needs based on real problems and commercialize it through Industry/Academic Partnerships to develop entrepreneurial ecosystem in Rural area'.

Students work in interdisciplinary domains, understand customer needs and solve real problems. The process of product-based learning is developed from first year engineering and sustained through-out four years in the entrepreneurial ecosystem. The idea behind this initiative is to develop an Entrepreneurial Ecosystem in western Maharashtra. It is engaged in Pre-incubation, Incubation and Startup Support Activities at RIT, Rajaramnagar Campus.

### The objectives are,

- Product Innovation Centre(PIC).
- Interdisciplinary domains for students' projects.
- Prepare locally customizable (market driven) MODELs to solve real problems.
- Curriculum Development in Innovation and Entrepreneurship.
- Create an Entrepreneurial Ecosystem to nurture startups through NRiT(RIT-TBI).
- Prepare Skill Based Courses.
- To conduct Incubator Programs for its sustainability.

To create hand in hand partnership with Industries and build an innovation model with the vision of transforming the engineering campus into Product Innovation Centre (PIC).

As on today, there are 22 start-ups incubated in RIT-TBI out of which 10 Startups are On-Campus Startups and 10 are Virtual Startups while 2 Startups have Graduated. In the future there is a plan of making an Innovation Centre which occupies 30-40 On-Campus Start-ups.

File Description	Document
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: 202

### 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.

2020-21	2019-20	2018-19	2017-18	2016-17
32	64	46	23	37

File Description	Document
Report of the event	<u>View Document</u>
List of workshops/seminars during last 5 years	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:** B. 3 of the above

File Description	Document
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: 2.5

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

Response: 55

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

Response: 22

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

> Page 62/136 29-06-2022 05:26:28

### Response: 2.24

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

2020-21	2019-20	2018-19	2017-18	2016-17
56	45	32	30	211

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 five years

Response: 2.81

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
45	67	130	102	125

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:** 2.63

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: 11

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

# 3.5 Consultancy

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

Response: 0

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
List of consultants and revenue generated by them	<u>View Document</u>

# 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:** 164.53

# 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)

2020-21	2019-20	2018-19	2017-18	2016-17
41.35	22.04	37.64	14.43	49.07

File Description	Document
List of facilities and staff available for undertaking consultancy	View Document
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff 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:**

The institute has an annual planned schedule of activities to connect with the neighbourhood community during the academic year. The community engagement is focused through various curricular and extra-curricular activities by student's club, sports, NSS, cultural cell etc. Activities like post flood cleaning campaigns, blood donation camp, Covid-19 Vaccination camp, tree plantation, road safety campaign, social promotional street plays etc. are conducted.

After the floods in August 2019 more than 100 students actively participated in the flood affected areas nearby Islampur to clean the villages along with the Gram Panchayats officials and social workers. Structural audit was carried out by the students and faculty of the Civil Engineering to assess the damage to the houses due to flood for two villages.

Students have worked on rain water harvesting for college hostel and administrative building area for collecting and storing the rainfall with minimal quantitative loss. RIT has sewage treatment plant for Hostel and laundry to reuse the water for other purposes.

Students celebrated "Road Safety Week" for creating awareness in nearby community. Various Quiz, Slogan and Poster competitions, Youth awareness lectures and session by RTO officials were organised. The safety messages were communicated through poster display in the campus, and the Street-play on road safety. **RIT TEAM "MRITYUNJAY"** is listed in top 50 teams in India under iSAFE championship initiated by Ministry of Road Transport and Highways and IIT Delhi. Few activities are mentioned here.

Sr. No.	Activities		Date	•
1.	Field Activity (Quiz competition ar	Field Activity (Quiz competition and classroom interaction)		1/2019
1.	Message to mass activity	activity Online poll		0/2019
		Nautanki – A Street Play	27/1	1/2019
		First responders workshop	15/0	1/2020
		Road safety awareness rally	17/0	1/2020
		Webinar on "Road safety and Pedestria	an05/0′	7/2020
		safety		
1.	Domain-specific activity (Design and development of Smart helmet)		Aug.	.2019 1

Two weeks Induction program is conducted for the First-year students to sensitize and motivate them to enroll for the National Service Scheme (NSS), Vivek Vahini (a Discussion forum), Vishakha Cell (ICC), Student Forums/Clubs like Engineers without Borders, Finance club etc. Participation of students in programs organized by various cells and bodies ensure their involvement in extension and outreach programs.

A campaign was conducted in the NSS adopted village 'Sakharale' under "Maze Gaav Corona mukt Gaav". Community extension activities in last five years are:

Sr. No.	Parameter	Year	Year			
		2016-17	2017-18	2018-19	2019-20	
1.	Plantation programs organized	03	03	03	03	
	Total Saplings planted	225	250	300	250	
1.	Blood Donation Camps organized	02	02	02	03	
	Total blood bags collected	155	175	190	225	
1.	Health check-up camps organized	01	02	01	01	
1.	Environmental awareness programs	01	03	03	05	
1.	Road safety, Water Conservation, Vot	ing08	10	15	17	
	awareness, Health, education, Digital curren	ıcy,				
	Single use plastic ban etc.					
1.	UBA community projects	<b>y</b> -	-	05	03	
1.	National day celebration	05	05	07	07	
	Eg. Sardar Vallabhbhai Patel Jayanti - Ur	nity				
	Day etc					
	As per AICTE guidelines					

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:** 83

# 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.

2020-21	2019-20	2018-19	2017-18	2016-17
5	32	19	16	11

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	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:** 75

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
9	21	16	14	15

File Description	Document
Reports of the event organized	View Document
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: 52.17

# 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.

2020-21	2019-20	2018-19	2017-18	2016-17
955	1690	1200	1950	1505

File Description	Document
Reports of the event	<u>View Document</u>
Average percentage of students participating in extension activities with Govt or NGO etc	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: 0

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
Number of Collaborative activities for research, faculty etc	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: 107

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

2020-21	2019-20	2018-19	2017-18	2016-17
18	13	17	28	31

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



# **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 a beautiful green campus of 43.76 acres. An impressive and state-of-art infrastructure of total built up area of **53,986.76 sqm** with modern facilities and learning resources as per the prescribed norms of statutory bodies like UGC and AICTE **are available on the campus.** There are 49 classrooms for UG, PG, MBA and Diploma programs. All the classrooms are equipped with LCD/Wi-Fi and LAN facilities. To promote experiential learning in the institute there are 103 well equipped with latest state-of-the-art technology and equipments. Some laboratory setups are sponsored by industries. There are Four well equipped seminar halls that are used for organization of workshops and conferences. Institute has a rooftop solar system of 300 kW capacity generating, 30-35% of total electricity consumption. As per the fire safety norms of government, entire campus is equipped with fire safety facilities.

The institute provides 1662 computers of P-IV and above configuration and 40 laptops to fulfill various academic needs. Student-computer ratio is 2.23:1. There are 15 servers, 93 UPS of different capacity, 110 printers, 125 LCD, and 10 scanners. In the software section there are 1294 application software licenses and 1508 system software licenses. Open-source software are also being used by the faculty as and when there are curricular requirements. 1500 Mbps of Internet bandwidth and 142 secured Wi-Fi connectivity access points are provided in the campus. The security of the campus is ensured with installation of 250 CCTV cameras at strategic locations.

Institute is supporting new incubators by providing the facilities through NETRA-RIT-TBI Section 8 Company. Three office cabins, thirteen startup cubicles and three conference halls of carpet area of 280 sqm are established at RIT incubation center. Learning Studio and Thinkering Lab of 316 sqm are set up in the institute to imbibe multidisciplinary prototype development skills in the student. First year students are using these labs for the Engineering Exploration, Design Project Development and student start-ups. Efforts are made to imbibe graduate attributes among students through maximum utilization of the space, infrastructure and human resources. Wholesome grooming of students is ensured through indoor and outdoor sports, yoga, gymnasium, cultural and extension activities.

Central library is provided with state-of-art facilities. It is full-fledged, high tech learning center for the engineering and management community. The library houses a Digital Library in its premises where students and staff members can browse varied databases as well as institutional repository. The Reprographics section is also housed in the library. Cubicles for research scholars and two ultra-modern reading halls are provided in the library.

The Language Laboratory is set up with state-of-the-art audio-visual equipment to aid in imparting language skills. It is effectively utilized by students and faculty members for various self-enhancement and soft skill development activities.

Central workshop of built up area of 994 sqm, provides hands on training to next generation engineers. All basic and advanced manufacturing facilities including CNC machine are available to

Page 70/136 29-06-2022 05:26:28

enhance the skill of students.

Radio sugar- community radio station with frequency 90.8 is functional in institute's campus.

File Description	Document
Upload Any 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:**

Overall development of the students is ensured in the institute by providing a healthy environment for sports and cultural activities. Balance of curricular (academic) and co-curricular activities with extracurricular activities for all-round development of students are achieved by providing sufficient space for sports, gymnasium, and yoga, cultural and social activities in the campus. Students make use of this space to develop them academically as well as other development activities. The Institute has provided outdoor sports facilities that include:

#### **Outdoor facilities**

Description	No.
Kho-kho Ground	1
Kabaddi Ground	1
Basketball Court	1
Volleyball Court	2
Cricket Ground	1
Football Ground	1

The space for yoga session is provided at main building no. 2. Institute has well equipped gymnasium for boys and a separate gymnasium for girls located in girls' hostel.

Following are the equipments available:

# **Cardio Fitness Equipments**

Equipments	Quantity
Star Track Treadmill	27
Cross Trainer	11
Torso Rotator	01

RBX Bike	02
Rowing Machine	01
Upright Row Bike	01
Recommended Bike	07
Air Dyne Bike	01

# **Strength Fitness Equipments**

Particulars	Quantity
Nine Station Gym	01
Weight Lifting Plates set	01
Incline, Decline Adjustable Olympic Bench	04
Smith Machine	01
Peck Fly	01
Back Extension	01
Multi Station 1 & 2	03
Benches with Barbell, Incline	01
Leg Press	01
Seated Calf Raise	01
Abroker	01
Pectrol Fly	01
Abdominal Machine	01
Forearm	01
Preacher/Arm Curl	01
Dual Pulley	01
Max Rack	01
Dumbbells, Plates & Rack	04 set
Bars	11
Cable cross over machine	01
Strive Lat pull Down	01
Strive Lateral Raise	01
Calf raise machine	01
Strive Prone Leg Curl	01
Strive Leg Curl	01
Strive Machine Chest Press	01
David Assisted Chin up	01
Strive Leg Press	01
Strive Leg Extension	01
Strive Seated Row	01
Max Rack	01
Squat Rack	01
Abdominal Machine	01
Human sport pec fly machine & cable seated row	02
Human sport cable crossover machine	01
Squat Machine	01

Indoor stadium consisting of 4 Badminton Courts and athletic track of 400m are also available to the institute. There is open air theater with the area of 500 sqm for conducting various cultural and extracurricular activities.

Cultural cell is active in nurturing students' hobbies of various arts like music, dancing, drama, and photography through different cultural and student centric activities. There is a dedicated cultural hall of 150 sqm area located in the main building. Students get support from professional trainers in singing and music. With these facilities, students have achieved various awards in different competitions.

#### **List of the Instruments**

Particular	Quantity
Harmonium	4
Guitar	19
Tabla Set, Dagga	7
Mandolium	2
Key Board	1
Ampli - Speaker	1
Snare Stand	2
Travel Congo	2
Dholaki	1
Studio Master	1
USB Audio Interface	1
Powerpak Tripod	1
SD Camera	1
Music System	2

They participate in various cultural and sports activities and competitions at university, state, national, international level to showcase their talent through such events.

Two days' cultural camp 2021 in collaboration with University of Tanjapura, Indonesia was successfully organized.

File Description	Document			
Upload any additional information	View Document			
Geotagged pictures	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

Page 73/136 29-06-2022 05:26:28

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

Response: 53

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

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

Response: 55.29

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

2020-21	2019-20	2018-19	2017-18	2016-17
193.24	152.29	301.89	351.34	265.33

File Description	Document
Upload Details of Expenditure, excluding salary during the last five years	View Document
Upload audited utilization statements	<u>View Document</u>

### 4.2 Library as a Learning Resource

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

#### **Response:**

The library is fully automated and operates with e-Granthalaya ILMS. The library has adequate number of workstations, Touch Screen KIOSK to facilitate searching/accessing OPAC for online book search, e-resources, web browsing and for other academic works. RFID access control, automatic door for Students and Staff In-Out entry from the access to the central library.

It has a diverse collection of 1,05,752 print and e-books, 416 standards and 3321 CDs of various disciplines. The library has subscribed 183 print journals and 13 newspapers. The library has a rich collection of references such as Handbooks, encyclopedia, dictionaries, and yearbooks etc.

The Library subscribed 3999 e-journals like ASCE, ASME, Science direct, Taylor and Francis. 7254 e-books and provides access through Intranet and Internet.

The library has subscribed Turnitin for plagiarism check and Ginger software for a grammar check.

The library has an institutional membership of ARAI, Pune, NDLI, Shivaji University Kolhapur.

There are two AC reading halls having capacity of 500 students, it has also facility of separate cubical, discussion rooms, faculty rooms, mini conference rooms etc.

To ensure original writing among students and teachers, the library also has access to a fully automated software, TURNITIN which checks submitted text for plagiarism.

The institution library was fully automated in a phased manner the details of which are given below:

Sr. No	Phase	Period	Upgradation
			10
i	Phase 1	1997-2015	Libr
2	Phase 2	2016	Automated E-Granthalaya
			(Free Software, NIC)

- Name of the ILMS software E-Granthalaya
- Nature of automation (fully or partially) Partially
- Version– 3.0
- Year of automation with E-granthalaya 2016-17

File Description	Document		
Upload any additional information	<u>View Document</u>		
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)

Page 75/136 29-06-2022 05:26:28

Response: 55.23

# 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)

2020-21	2019-20	2018-19	2017-18	2016-17
50.43	51.22	60.58	56.93	57.01

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	<u>View Document</u>
Any additional information	<u>View Document</u>

# 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:** 7.36

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

Response: 230

File Description	Document
Details of library usage by teachers and students	View Document
Any additional information	View Document

### **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:**

Vision of computer center is "To be a state of art center which will strive to provide the latest Information Technological resources to all the stakeholders in the form of providing quality engineering education".

Computer Center has the responsibility of running the institute's intranet and Internet services. It is running the Firewall security, DHCP, DNS, email, web and application servers and managing the network

of the institute along with In-house ERP system and website. Internet access in institute campus is available through LAN & WAN. Institute and Hostel Campus is covered with 142 Indoor & Outdoor access points with 24x7-internet availability.

Institute and Hostel Campus is under Surveillance with 250 CCTV cameras.

Institute is having IT Policy, being documented for fair and transparent academic purpose for use of various IT resources in the Campus for stakeholders. IT Policy mainly includes- IT Hardware Installation Policy, Software Installation and Licensing Policy, Network & Email Account Use Policy, Website Hosting Policy, Institute Database Use Policy, Wi-Fi Use Policy. It is available on institute website.

Institute is getting its Internet bandwidth from BSNL & Gazon(Airtel). Total bandwidth availability is 1500 Mbps (leased line 1:1). Infility labs device is installed for link aggregation and load balancing of internet bandwidth.

Average Recurring IT budget for last five years is Rs. 12,18,400.

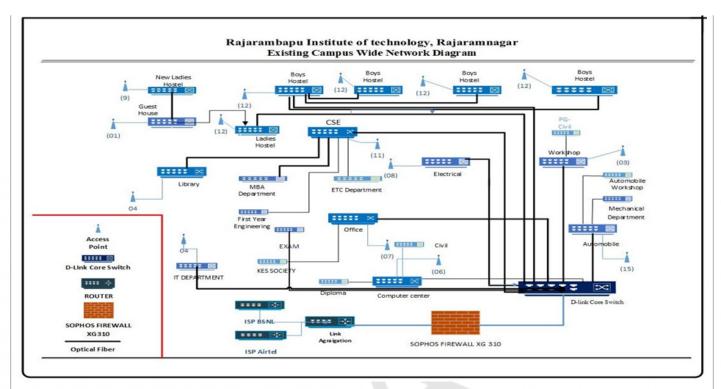
Average budget for Internet expenses is Rs. 48,00,000.

#### **Details of Computer Hardware**

Computer I IV & Above		Laptop	UPS 3,4,6,20 KVA		Application Software	Printers	LCD		CCTV Surveillance
1593	15	40	93	1508	1294	110	125	10	250

#### Wi-Fi Availability

• Campus is covered with 142 Indoor & Outdoor access points with 24x7-internet availability.



#### **Security Mechanism**

- For internet security and user management we are having:
  - SOPHOS Next Gen Firewall XG310 in high availability mode. Having 4500 concurrent user's capacity.
  - All Users need to login through Captive portal to access the internet facility.
  - Firewall Provides enterprise-level Secure Web Gateway policy controls to easily manage sophisticated user and group web controls. The security policies applied are based upon uploaded web keywords indicating inappropriate use or behaviour.
  - For every computer we are having Segrite Endpoint Security (Quick Heal Antivirus).

#### **Up gradation of IT Facilities**

Year / IT Resource	ГСоі	mput	ers	La	ptop	ı	Softv	ware	Printers	LCD Projector	Networkin Compone	O
	<b>i</b> 7	i5	i3	i7	<b>i</b> 5	i3	os	Antivirus			Switches	Access point
2020-2021		65	2	-	1	-	68	1140	2	2	10	72
2019-2020	20	66	8	-	3	-	100	-	3	11	13	-
2018-2019	20	23	44	1	-	1	66	-	04	05	1	02
2017-2018	40	83	30	-	-	-	153	198	07	08	04	12
2016-2017	_	77	14	-	-	02	91	133	08	05	23	30

#### **IT Budget**

Year	Recurring (INR)	Internet / Broadband Networking (INR)	/Interne
2020-2021	14,28,000	40,00,000	1000 M
2019-2020	12,48,000	60,00,000	300 Mb
2018-2019	15,83,000	50,00,000	300 Mb
2017-2018	16,33,000	40,00,000	155 Mb
2016-2017	20,00,000	50,00,000	155 Mb

File Description	Document
Paste link for additional information	View Document

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

**Response:** 3

File Description	Document
Student - computer ratio	View Document

#### 4.3.3 Bandwidth of internet connection in the Institution.

**Response:** ?50 MBPS

File Description	Document
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

<b>Response:</b> C. 2 of the above				
File Description	Document			
Institutional data in prescribed format	<u>View Document</u>			

### 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:** 115.89

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)

2020-21	2019-20	2018-19	2017-18	2016-17
399.03	668.29	739.66	577.52	484.88

File Description	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 institute has well defined system of maintenance of infrastructure.

The objectives are:

- 1. To provide safe, clean and green campus all the stakeholders.
- 2. To apply engineering concepts for the optimization of equipments and department budgets for better maintainability, reliability and availability of infrastructure.
- 3. To create ambience to enhance teaching-learning process.
- 4. To provide all the facilities as per norms to handicapped people on campus.

Maintenance of the campus is done through the Infrastructure Department with civil maintenance team, electrical maintenance team, computer maintenance team and security team. There are annual maintenance

Page 80/136 29-06-2022 05:26:28

contracts (AMCs) for various systems in the campus.

The civil maintenance team consists of three dedicated staff, two gardeners and two peons. This team looks after all the maintenance of buildings, roads, garden and grounds on the campus. Housekeeping of the campus is done by agency appointed on annual contract. All the cleanliness and up keeping of the campus is done by housekeeping contractor as per the given schedule.

Repair and maintenance are carried out through building contractors, plumbers, carpenters, electricians and painters etc as per the requirement. List of such persons is available with the infrastructure department.

The electrical maintenance team consists of one electrical engineer and four dedicated electricians. They look after all the electrical maintenance of the campus. It consists of maintenance of wiring, electrical appliances, PA system, occupancy sensors, roof-top solar system, telephone system, gen set, new electrical related installations, lifts and fire protection etc. Maintenance compliance register is maintained where break down and troubleshooting complaints are registered. These complaints will be rectified on routine basis.

The team of central computer department looks after all the computer hardware and software related maintenance in the campus. This team does the maintenance and recording of CCTV cameras installed at strategic locations in the campus. Updating work of college web site is coordinated by one faculty member through central computer department. Outsourcing is done for service and maintenance of computers, if required. Register is maintained for complaints and rectification.

For security purpose institute has appointed professional security agency on annual contract basis consisting of 30 security guards working in three shifts (8 hours duty) as per the given schedule.

Annual Maintenance Contract is given for passenger elevators, air conditioners, water coolers & purifiers, gen set, telephone (EPBAX system) and refilling of fire extinguishers. All the building blocks are connected with fire hydrant system. Fire extinguishers are placed at prominent locations as a safety measure.

Procedure for appointing agency/contractor for security, housekeeping and construction or maintenance purpose and for purchase of material is as follows:

Office invites the budgetary requirements from all the departments, accordingly Infrastructure Department prepares the budget for the academic year and submits it to office. Office allocates the budget to the departments. Then Infrastructure Department plans to work as per budgetary allocations by the Office.

#### Procedure for appointing security and housekeeping agencies on annual contract basis:

- 1. Call for quotations from agencies by publishing tender document on institute's website.
- 2. Get at least three quotations.
- 3. Call the agencies for negotiation meeting with committee consisting of management representatives, director, dean infrastructure, head department of civil engineering, registrar.
- 4. Negotiate the rates with the agencies
- 5. Select the one who is competent and cost effective.
- 6. Inform the decision to concerned agency.
- 7. Give the appointment order.

#### Procedure for appointing building contractor for new construction work:

- 1. Appoint Architect for big project and get estimate of the project
- 2. Call for quotations from contractors by publishing tender document on institute's website for big project and get at least three quotations.
- 4. Call the contractors for negotiation meeting with committee consisting of management representatives, director, dean infrastructure, head, department of civil engineering, registrar.
- 5. Negotiate the rates with the contractors
- 6. Select the one who is competent and cost effective and inform the decision to concerned contractor.
- 8. Give the appointment order.

#### Procedure for appointing person for small construction work/maintenance work in the institute:

- 1. Prepare the estimate of the work by infrastructure department.
- 2. Call for quotations from agencies.

- 3. Negotiate the rates with the agencies
- 4. Select the one who is competent and cost effective and inform the decision to concerned agency.
- 6. Give the appointment order.

#### Procedure for purchase of material for maintenance work in the institute:

- 1. Prepare a list of material required.
- 2. Get the quotations from the vendors
- 3. Select the one who is competent and cost effective and inform the decision to concerned vendor.
- 6. Give the work order.

#### Maintenance of different units in the institute:

**Library:** Maintenance and up keeping of library infrastructure is done through infrastructure department and housekeeping staff. Annual Maintenance Contract is given for maintenance of air conditioning system and lifts.

• Cleanliness and up-keeping of the laboratories are carried out by department staff. The equipment and machineries in the laboratory/workshop are maintained by well-trained technical staff of the department. Maintenance of furniture and electric connections are done by infrastructure maintenance teams. The calibration of the equipment is done through NABL accredited agencies. The repair and maintenance work is done through competent agencies.

**Classrooms:** The cleanliness of the class room is the duty of the house keeping staff. Maintenance of furniture is carried out through maintenance department. The Dustbins are placed in every floor in the campus.

 All the grounds are well maintained by housekeeping staff with the help of infrastructure department supported by Director of Physical Education. Indoor and outdoor sports and games facilities are being supervised and maintained by director of physical education and his team consisting of professional trainers, faculty, staff and students.

**Transport facility:** The institute possesses 9 buses offering transportation facilities to students and faculty/staff. The maintenance of these buses is regularly carried out at bus authorized dealers and in local garages.

COVID19 preventive and precautionary measures: Thermal scanning of all faculty, students and

Page 83/136 29-06-2022 05:26:28

visitors is done at the entry gates. The sanitizer dispensing machines are installed at strategic locations in the campus.

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: 0

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)

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	View Document
Institutional data in prescribed format	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: 0.88

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)

2020-21	2019-20	2018-19	2017-18	2016-17
27	29	31	21	15

File Description	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

Page 85/136 29-06-2022 05:26:28

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	<u>View Document</u>
schemes	

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: 53.71

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

2020-21	2019-20	2018-19	2017-18	2016-17
1688	1166	884	1510	2355

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
- 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	<u>View Document</u>
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:** 44.47

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

2020-21	2019-20	2018-19	2017-18	2016-17
407	346	371	428	372

Document
View Document
_

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

**Response:** 4.53

#### 5.2.2.1 Number of outgoing student progressing to higher education.

Response: 36

File Description	Document
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: 11.72

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
38	41	63	18	8

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
279	301	278	299	299

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Any additional information	<u>View Document</u>

# 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: 129

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.

2020-21	2019-20	2018-19	2017-18	2016-17
10	50	26	23	20

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

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

#### **Response:**

The institute has an active Student Council in place as per the University norms. It is an amalgam of diverse students to bring on table a unique perspective to bridge the gap between students and management for overall development of the students. The Student council makes an effort to fulfil the objectives, as mentioned in Maharashtra Public Universities act 2016.

The council offers a platform through various Student Forums/Clubs for providing opportunities to participate in a broad spectrum of Co-Curricular, Extra-Curricular, Social and Community Development Activities. The students take part in various events organized by the institute as per their area of interest at the university, state and national level. Student Council representatives actively participate in various activities at the institute level. They help in coordinating academic as well as extra-curricular activities like Virangula, Sport Competition, Quantum (Technical Competition) and other technical events. The council also plays a vital role in bringing out annual magazine Vishwakarma with a distinct theme every year. The magazine features various sections to showcase the innate and creative quality of the students. One student is working as a secretary of the student council at university level by voting.

The students take an active participation in service and extension activities through Gymkhana committee, NSS and Cultural cell. Their participation in these activities is in the form of organizing committee members and volunteers. The students contribute in various community activities like blood donation and health checkup camps, creating awareness regarding gender sensitization, sanitation, superstitions etc. For social development and upliftment. Their participation in institute level bodies like IQAC, College Development Committee (CDC), Students Grievance committee, and Hostel committee ensures the smooth functioning and development of the institute. The representation of students on ICC and the Anti ragging committee helps create a discrimination and harassment free environment at the campus. The students also contribute academically through brainstorm sessions for defining Vision and Mission of institutions and departments, initiating new courses, curriculum design, improving teaching methodology etc.

As per the letter given from Shivaji University, Kolhapur ref. No. S.U./ Student Development/ 5260. Dated- 14/08/2019 the student council committee elections has been postponed from academic year 2019-20 till further instructions from Shivaji University, Kolhapur

#### **College Student Council:**

- Chairman
- Principal Nominee Assistant professor

- Sports & NSS Coordinator, Faculty
- N.C.C. Officer (if any)
- Cultural Head
- First Year Topper Student Representative
- Second Year Topper Student Representative
- Third Year Topper Student Representative
- Final Year Topper Student Representative
- M. Tech. First Year Topper Student Representative
- M. Tech. Second Year Topper Student Representative
- MBA First Year Topper Student Representative
- MBA Second Year Topper Student Representative
- Cultural Student Representative
- Sports Student Representative
- NSS Student Representative
- Principal Nominee Girls Representative
- Principal Nominee Girls Representative

File Description	Document
Upload any additional information	View Document
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: 11.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
16	09	11	09	11

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:**

RIT Alumni Association, Rajaramnagar is registered as per (Act 21) under society registration act 1860 with Reg. No. Maharashtra/55/11/Sangli on 18th March 2011 and also registered as a public trust as per Bombay Public Trust Act 1950 (Bombay Act No. 29) with registration no F-15320 on 14th March 2012. The PAN card number of the RIT Alumni Association is AACTR9166Q.

It is a very active functional association working dedicatedly towards the overall development of students, faculty and the institute. The Alumni provides support in the form of trainings, expert sessions, gratitude fund, internships and placements. They mentor student and faculty for projects, research, higher studies, consultancy and business development. The financial and technical support provided for projects like BAJA and SUPRA has helped the students to win national level awards. Alumni also contribute towards curriculum development and student assessment. Department labs like plumbing lab, Engine development and Pre-stressing lab are developed with the help of Alumni contributions in the form of equipment and monetary support. The Alumni Association has also donated water purifiers and smart boards for enhancing infrastructural and academic ambience. It is also supporting institute for signing MOU with reputed institutes viz. CSIR-CBRI Roorkee, ARAI, Pune etc.

The alumni gratitude fund is utilized for helping the needy students, lab development and for rewarding the meritorious students. The alumni association publishes "RIT Communique", a quarterly newsletter that highlights the achievement of students, faculty and institute.

Regular alumni meets are organized to strengthen the bond between alumni and the institute. A separate alumni portal is developed for RIT Alumni association () with online payment gateway.

RIT Alumni Advisory Hub (RAAH) -RAAH is a subgroup of alumni of RIT established in the year 2020 to create an active network among alumni, students and the institute. RAAH has become a section 8 company in 2021 under the ministry of corporate Affairs Government of India. RAAH community is working under the mentorship of Hon. Sharad Marathe, Chairman of Taskforce set up by Ayush Ministry, Government of India. It works in various portfolios like Business network forum, Business Innovation forum, Overseas Community, Media cell community, Cultural forum, Training and Mentoring community.

RAAH has conducted online sessions, workshop, mock interviews and fifteen business leader presentations. The RAAH business forum has generated more than nine core businesses from nearby industry. RAAH has developed an **E-bicycle project** and undertaken **Design of wind turbine** for electric power generation at low wind speed. They function by meeting on every weekend with a theme and networking activity which keeps the alumni network active and connected to RIT.

Page 91/136 29-06-2022 05:26:29

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

5.4.2 Alumni financial contribution during the last five years (in INR).		
<b>Response:</b> E. <2 Lakhs		
File Description Document		
Any additional information	View Document	
Link for additional information	nformation <u>View Document</u>	

# 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:**

We at RIT are exercising governance through participative approaches. Importance is given to values and care is taken to have transparent processes and procedures at RIT through statutory bodies i.e. Board of Governance, Academic Council, Board of Studies, Finance and Planning & other non-statutory bodies like College Development Committee. Board of Governance (BOG) is our apex body engaged in designing strategies for growth and development. It aims at designing excellence in academics, strategic plan, raising funds, financial planning, research and development, employee welfare policies and enhancing placements. RIT BOG consists of management members deputed by Kasegaon Education Society, Educationalist, Industrialist, UGC nominee, Shivaji University nominee, DTE Nominee and faculty members nominated by Director. Director is Member Secretary of BOG. BOG meeting is conducted 2-3 times in year to take strategic decisions, review the performance and contribute to overall growth. Minutes of BOG meeting are maintained, ATR is prepared and follow up is done regularly.

Steering Committee is instrumental in implementation of strategic objectives into operational activities. Director is Chairperson and all Deans, Registrar, Librarian, HODs, Head Training & Placement are members of committee. It meets once in a month and institute related issues are discussed, defined and solutions are brainstormed in a participative way. Academic Review Committee (ARC) is headed by Dean Academics where the details of academics are disseminated to all departments with action plan. Deliberations in ARC are conveyed to faculty and staff at department through department HOD meeting headed by respective HOD. Thus the chain of command is maintained and there is free flow of upward and downward communication in participative way. Financial and Academic Authority is delegated at every level of hierarchy and employees are empowered to take decisions. Thus RIT is marching ahead and encouraging upward communication. The grievance of staff and faculty are redressed through Faculty Staff Redressal committee. Students are involved in various committees as per UGC guidelines like Students' Grievances Redressal Committee, Internal Complaint Committee, Anti Ragging committee.

With a vision for Global recognition and to follow global best practices, RIT is member of International forums working on improving quality of engineering education like Global Engineering Deans Council (GEDC) and Indo US Collaboration for Engineering Education (IUCEE). RIT Director is an elected executive committee member of GEDC and founder member of IUCEE Foundation (section 8 company). We are benefited by attending their Industry forums, International conferences, webinars, Leadership Summit, Student forums etc. RIT has done tie up with Foreign Universities for various collaborative programs.

Page 93/136 29-06-2022 05:26:29

Our tagline of placement cell is "Career Assured", we are laying strong foundation for career of students by developing students into professional personalities through innovative curriculum development in collaboration with industry and research association. Research culture is promoted through Dean R&D and related committees for research papers, patents, commercialization of products and start-ups.

RIT has active IQAC composed as per NAAC guidelines which meets 4 times in a year to discuss on strategic issues related to development of Institute thereby helping decision-making process. The MoMs and ATRs are recorded and approved versions are uploaded on Institute website.

File Description	Document
Any additional information	<u>View Document</u>
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:**

Effective Governance is necessary for growth and development of institute and implementing the innovative ideas as per stakeholders' requirement. Board of Governance being the apex body, the members are involved in strategic planning of RIT, admission strategy, placement, academic activities, R&D, starting new courses as per industry needs, financial requirements (Budget Approval) etc.

Decisions taken in BOG meeting which is conducted 2 to 3 times in the year are reflected in minutes of meeting and through action taken report these decisions are percolated in Steering Committee meeting chaired by Director and meets monthly. All Deans, Registrar, Librarian, HODs, Training Placement officer are members of this committee. It implements directions given by BOG. Through Academic Review Committee (ARC) headed by Dean Academics the goals and objectives are disseminated to various departments and actual implementation is done at departmental level. Deliberations in ARC are conveyed to the faculty and staff at departments through Departmental meeting. In this way, the chain of command is maintained and the decentralization and participation is ensured by involving faculty and staff and properly communicated to grass root level in view of implementation and day to day operation.

Annual Report of Institute, minutes of the BOG and Academic Council meeting are published on Institute's website. Appropriate information is communicated to employees and students in the form of circulars through email.

Recommendations given in Finance and Planning committee are presented in BOG and CDC meeting such as budget, increase in DA etc. Budgetary provisions for departments are made based on requirements provided by the HOD. Institute also publishes audited financial statements on website for information. Financial power is delegated to Director, Registrar, Dean and HODs.

RIT has statutory bodies such as Board of Governance, Academic Council, Board of Studies, Finance & Planning and non-statutory bodies such as Faculty, Staff Grievances & Redressal Committee, College Development Committee etc. These committees comprise of key stakeholders including Government officials, educationalist, faculty, staff, industry, employer, alumni, parent and students which monitors and controls the academic - administrative activities thus promoting inputs from different stakeholders and participative management.

All HODs are members of the Academic Council in which major Academic decisions are taken. BOS is headed by respective HODs as Chairman. Administrative positions like Deans, HODs Placement Head, Rector, Controller of Examination are allocated to senior faculty members. They are part of various decision making administrative bodies. An administrative manual is published on our website, which provides details of policies, procedures, rules, benefits and other service matters thus promoting transparency in the organization.

We have in-house developed ERP named RITAGE which is used by Office Accounts, Student Section & Establishment Section for online leave management, faculty record, Students Record & financial transactions etc.

Faculty participation is reflected in the purchase of books, equipment, etc. thus promoting E-governance. Stationary and for daily use items are made available to the students at reasonable rates in Grahak Bhandar, the consumer stores at RIT.

File Description	Document
Any additional informatiom	View Document
Link for strategic plan and deployment documents on the website	View Document

# 6.2 Strategy Development and Deployment

#### 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

#### **Response:**

The Five-year Strategic Plan (2018-2023) of Rajarambapu Institute of Technology (RIT) has been developed based on RIT's current progress and; inputs and expectations from various stakeholders like the management, students, faculty and supporting staff, employers and parents. The plan has derived its goals from RIT's revised Vision and Mission statements. The strategies are planned to meet these goals. The thrust areas as envisaged by the stakeholders are listed along with the ownerships and measurement indices. The thrust areas identified are Academic Design, Delivery and Assessment, Industry readiness of Students, to attract the Best Talent (Faculty & Students), Build a Great Team, Raise Quality of Future

Alumni, Revenue Augmentation, Infrastructure, and Operational Efficiency. To implement and monitor the strategic plan, it is broken into yearly 'One Page Strategic Plan' (OPSP) based on the Varne Harnish model. The strategic plan of RIT is implemented and monitored through KRAs (Key Result Areas), a yearly performance-based incentive scheme wherein the KRAs based on the strategic plan of the institute are identified for the academic year along with measurement metrics and targets spread over five levels of achievement. The KRA targets owe to a variety of functional areas like academics, research, placements, institute admissions, infrastructure etc. The targets of the owners are linked to the targets of the co-owners. The evaluations are made at the end of the academic year and the score of every individual KRA holder is calculated on a scale of 0 to 5. The annual budget of Rs. 10 Lakhs is allocated every year for the KRA awards. The incentive-based on the KRA achievement score is awarded to the KRA holders.

One of the thrust areas as identified based on the Strategic Plan is academic innovation and excellence. Curricula reforms in terms of CBCS, industry internships, capstone project-Undergraduate Research Experience (URE) –Entrepreneurship tracks, Honors and Minors scheme, program and institute electives, community based mini-projects, soft-skills and foreign language courses; and use of NPTEL MOOCs as a part of self-learning. The emphasis is given on active learning methods, ICT and experiential learning through project and problem based approaches. Various evaluation strategies like quiz, presentations, course mini-projects, open book tests, assignments, survey reports are used by the faculty members for student evaluation. The relative grading system and digital evaluation system are being implemented for examinations. Continuation of academic activities was ensured through effective use of MS Teams during the COVID pandemic. Industry interface is ensured through industry representation during curriculum design, delivery and evaluation. The focus on academic initiatives has resulted in students' placements in various industries, progression to higher education, incubations/start-ups, products/prototypes, patents, quality research publications, research internships in reputed foreign universities and collaborations. The integration of academics, research and entrepreneurship ensures the transformation of raw talent into industry- ready workforce and aligns with the institutional vision.

File Description	Document
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:**

RIT has statutory and non-statutory bodies carrying out functions and responsibilities in pursuit of institutional mission and core values.

Strategic level committees such as Board of Governance, Academic Council, Board of Studies, etc. plays important role in development of Institute. Operational level committees include Steering committee,

Academic Review Committee, Faculty meeting at department level. Rhythm of meetings is maintained as per UGC guidelines. Follow-up is taken through ATR. Special focus is kept on incomplete task in ATR till it is completed.

Expenses of the meetings are done as per the sanctioned budget.

Board of Governance is apex body, which meets regularly and meeting is conducted in a transparent manner. The BOG approves strategic plan in line with the Vision. The institution is well known for its good administrative practices and work culture. Director of Institute is the Member Secretary of BOG. For academic part, all Deans, HODs, Head-Training and Placement report to Director. Faculty works as per instructions given by HODs. In administration Registrar, Librarian, Computer Centre In-charge, Director of Marketing (International Admissions), Rector are the authority in hierarchy who report to Director. Non-Teaching staff such as Lab Assistants, Clerks & Peons works as per instructions given by seniors in the hierarchy. Thus unity of command is maintained. Authority/ Responsibility and Financial power is delegated to all HODs, Deans, Registrar and Director as per organization structure.

Administrative manual is well designed and uploaded on website. It provides guidelines about rules, regulations and policies thus creating awareness in faculty and staff.

We have in-house developed ERP named RITAGE which monitors data filled by faculty and staff such as Research, Publication, Consultancy, MOU, Training programme organised/ attended, online leaves etc.

Organisation structure is framed so that unity of command is maintained. Delegation of authority, responsibility, financial power and hierarchy of reporting is maintained

Academic Council is highest academic body, which decides, and advices on all academic matters. Academic proposals of BoS from each department are scrutinized and approved. It also recommends/advise the BoG on proposals for new programme of study and other academic matters.

COE part -

RIT has statutory and non-statutory Committees, which continuously monitor academic and administrative activities.

Faculty Appraisal policy is well designed. Performance Based Appraisal System is implemented as per UGC norms with proper counselling to improve and develop them. Nonteaching staff has in-house

designed appraisal system. 360° appraisals are done as per AICTE guidelines.

RIT follows service rules as per guidelines of UGC and Shivaji University statutes.

Recruitment of faculty / staff is done by two ways: 1) At Institute level by trust management following AICTE norms and 2) As per Shivaji University interview process and guidelines

Faculty are extended with revised AICTE scales (Sixth Pay Commission 2006 with DA). Eligible faculty members are given placement/promotion under Career Advancement Scheme [CAS] of Shivaji University. Service books of employees are well maintained.

Staff welfare measures include monetary benefits. Additional increments on completion of Ph.D., deputation for Ph.D. with financial assistance, Rewards system for research projects etc.

File Description	Document
Any additional information	View Document
Link to Organogram of the Institution webpage	View Document
Link for additional information	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	View Document
Any additional information	View Document
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:**

Institute has implemented various welfare schemes for faculty and staff. It has created the goodwill in mind of the faculty and staff towards the Institute. Implementation of these schemes has developed a teamwork and positive mind-set which ultimately helped in development of Institute.

- **Diwali Gift** Diwali gifts are distributed to every faculty and staff members before Diwali holidays. Budgetary provision is made every year for purchasing of Diwali Gifts.
- Advance for Faculty and Staff We provide advance to faculty and staff in case of medical emergency. This advance is given to them against their salary. To obtain the advance, they apply to the Director for the advance mentioning the reason. After the permission of the Director the application is processed and the mentioned amount is deposited in the account of the applicant. Later on this amount is recovered from their salary.
- Safety fund scheme is implemented for all staff as per the guidelines of Shivaji University, Kolhapur.
- **Health Insurance** Institute supports teaching and non-teaching staff to avail health insurance (Mediclaim). Institute is contributing 50% of insurance amount for all Drivers.
- Institute provides financial help for teaching and non-teaching staff to fulfill their medical expenses, other calamities through RIT community fund. The concerned teaching, non-teaching staff applies for the financial help and provides the evidences along with the application such as receipt of medicines, receipt of diagnostic tests conducted etc. These documents are scrutinized in the Community of Engineering College meeting and after scrutiny, the particular amount is issued to the applicant.

#### Avenues for career development / progression:

#### PBAS - 360 degree appraisal, student learning index, feedback

Faculty Appraisal policy is designed Performance Based Appraisal System as per UGC norms is implemented with proper counselling to improve and develop them. Nonteaching staff has in-house designed appraisal system. 360° appraisals are also done as per AICTE guidelines. The Student Learning Index (SLI) is checked and the feedback is provided to the faculty for the further improvement.

Page 99/136 29-06-2022 05:26:29

#### Other benefits provided are as follows -

- Sponsorship for Ph. D Institute provides sponsorship to the faculty for completing their Ph.D. It helps the faculty to concentrate on their Ph.D study and complete it within a stipulated time. Till today 13 faculties are sponsored.
- Institute has Implemented CAS scheme as per norms of Shivaji University
- Budget allocation is made for training and development of faculty and non-teaching staff on per head basis.
- In-house seed funding is provided to faculty for research projects.
- Institute has provided the funds to organize workshops/ conferences/ FDP/ STTP to faculty.
- Institute has deputed faculty to attend national and international conferences.
- Institute has developed a policy to share the revenue generated by faculty through consultancy, training programs, virtual internship etc. The distribution of the generated revenue is done as per the policy.
  - Financial support is provided to faculty for presenting papers in National / International conferences and filing patents.
  - Activities such as Office cultural program, playing Cricket, celebrating traditional days are conducted to build a strong team.

File Description	Document
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: 68.61

## 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

2020-21	2019-20	2018-19	2017-18	2016-17
71	135	165	166	22

File Description	Document
Institutional data in prescribed format	View Document
Any 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: 22.2

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
21	36	19	19	16

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

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:** 108.66

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
190	183	180	171	171

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

### 6.4 Financial Management and Resource Mobilization

#### 6.4.1 Institution conducts internal and external financial audits regularly

#### **Response:**

The Institute has a mechanism for internal (Pre audit) and external audit to ensure financial compliance every year.

#### **Internal Audit**

The respective Department submits voucher, original invoice and supporting documents, including approvals of purchase to account section of the Institute.

Account section verifies documents, make observations, check whether the financial delegation is properly maintained or not and if any discrepancy found, the same is brought to the notice of concerned department/Cell for immediate rectification. Account section prepares and keeps ready all the vouchers for pre audit. Pre audit is done by the appointed Chartered Accountant's team. This team visits the institute fortnightly and verifies all the bills, vouchers and supporting documents, if found any discrepancies they inform to the account section and account section rectifies the discrepancy at the same time. After completing the pre audit process account section processes the all vouchers and post transactions accordingly.

#### **External Audit**

The financial records are audited by chartered accountants at the end of each financial year. Statutory financial audit of Institute is conducted in two sessions, first in the month of October/ November for period of six months starting from 1st April to September and second in the month of April / May for the period from October to March every year. All Government Scholarships and Funds received from Government as Grants are audited separately.

Audit is conducted in accordance with auditing standards. Amounts and disclosures in the financial statements are verified on the basis of evidences.

Financial statements of RIT incorporates identifiable assets, liabilities and expenditure. The auditor ensures that all payments are duly authorized after the audit, the report is sent to the management for review. Any queries, in the process of audit are attended immediately along with the supporting documents within the prescribed time limits. All these mechanisms exhibit the transparency being maintained in financial matters and adherence to financial discipline.

The audited income and expenditures statements are certified. Balance sheet is duly signed by the Director and Chartered Accountant. The duly signed annual audit report is submitted to Kasegaon Education Society annually. All accounting systems are computerized with using in-house developed ERP for accounting modules named RITAGE.

The Institution also publishes audited financial statements on the institutions website for the public information.

File Description	Document
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)

Page 102/136 29-06-2022 05:26:29

#### Response: 0.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
0.1	0.1	0.1	0.1	0.1

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Annual statements of accounts	<u>View Document</u>

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

#### **Response:**

Receipts of funds are generated through Students Fees, Internal Revenue Generation and Grants. The major part of receipts is generated though Fees paid by the students of B. Tech, M. Tech & MBA as per the fees sanctioned by Fee Regulating authority (FRA), Maharashtra State. Another part of receipt is generated through Internal Revenue Generation (IRG) and Grants received through Research Proposals sanctioned by faculty.

The institutional budget is prepared every year by considering recurring, nonrecurring and Capital expenditure comparing last year actual expenditure and proposed expenditure given by the department. All administrative and academic heads submit the budget required for the subsequent financial year. All coordinators of different cells like Training & Placement Cell, Research & Development, Controller of Examination, Cultural cell etc., are also instructed to submit their budget. Fees sanctioned by FRA is accounted in Tuition fees and Development Fees. Provision of recurring and capital budget is done by considering Tuition fee and Development Fee respectively. Income from IRG and Consultancy are considered for recurring budget. Provision for salary is done by the management through fixed deposits in banks. Monthly expenditure on salary and recurring expenses are planned for UG (B. Tech), PG (M. Tech) and MBA and accordingly the provision is made through Fixed Deposit annually in the bank. The interest of Fixed Deposit is deposited in corpus fund. This helps in optimal utilization of resources. Provision of salary considering annual increments, increase in Dearness Allowance (DA), provision of gratuity, Provident Fund, incentives for Key Result Area (KRA), taxes, starting new courses, Software & Internet charges, Library Books, Journals, Repair & maintenance, Printing & stationary, Equipment & Consumables, Furniture, electricity, Contingency Expenditure etc. is made in the Recurring budget.

The decisions to be taken are presented in Finance and Planning Committee and College Development Committee meeting for recommendation and further put into Board of Governance (BOG) meeting for final approval. The sanctioned budget is distributed to all departments and review of expenditure is taken every six months. Departments who are lagging behind are informed for utilization of funds. If any

department requires additional budget, it is sanctioned as a special case with appropriate approval, thus reappropriation of fund is done.

The institute has well defined purchase procedure. The department sends their requirement to Central store. Central store compiles all the requirements and forward to Central Technical Purchase Committee Chaired by the Director. After getting approval by the committee, the concerned departments/Cells call the quotations and prepare the comparative statement accordingly. After negotiation the final approval is done by the Central Purchase Committee headed by Management representative from the RIT Board of Governance (BOG).

Thus the institute has a well-defined mechanism to examine effective and efficient utilization of available financial resources for the development of the academic processes and infrastructure development.

File Description	Document
Any 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:**

#### **SEED funding and Research Awards:**

The practice of offering in-house seed funding to deserving faculty members and students and institutionalizing a yearly 'Best Researcher Award' for the faculty from each department has promoted the research activities across the institute and has increased research throughputs. Every year the research proposals are invited for seed funding, screened by the research committee and the sanctioned proposals receive the funding. During the last five years, the institute has provided Rs. 42.79 Lakhs as seed money to the faculty members. For the 'Best Researcher Award', the applicants need to apply as per the proforma and the research contributions are evaluated by the committee as per the set criteria and guidelines. Various types of research contributions like research publications, patents, consultancy services and external research funding are considered with different weightages. The topmost award fetches Rs. 10000/- while the next best award fetches INR 5000/-. A yearly budget of INR Rs. 1,50,000 is allocated for these awards. During the last five years, the institute has spent INR 4.00 Lakhs for the research awards.

As an outcome of the practice, during the last five years (2016-17 to 2020-21), a total of 341 research papers has been published in Web of Science or Scopus indexed journals. The 735 papers were published in National/International conference proceedings or as a book chapter. The highest H-index of journal publications is 215. Total 21 patents have been filed out of which 4 have been granted. The institute has received Rs. 791.09 Lakhs research funding from government and non-government agencies.

#### **CBCS Implementation**

RIT has implemented Choice Based Credit System (CBCS) from FY to Final Year B. Tech. Programs.

- CBCS, for F.Y. B. Tech. Includes open electives like Creativity-Design Thinking & Entrepreneurial mind-set, Green Technology, Basics of Electronics, etc.; and choice-based Languages like English, German and Japanese.
- CBCS, for S. Y. B. Tech. Includes choice based Professional skill development courses such as Personal Effectiveness and Body Language, Interpersonal Skills [Jivanvidya for work life balance], Professional Leadership Skills, Innovation Tools and Methods for Entrepreneurs, and mini-project of Environmental Science.
- CBCS, for T. Y. B. Tech includes open and program electives. Verticals related to specific areas are included in the list of program electives. Students can opt courses of particular vertical to become an expert in that area.
- CBCS, for Final Year B. Tech. Includes choice based Four track project system comprising Industry Internship & Projects, Undergraduate Research Experience, Entrepreneurship development, and Capstone Project.

The Institute has started Minor & Honor certification scheme to foster the interdisciplinary approach of learning. Students can enroll for multidisciplinary courses under Minor scheme. Similarly, advanced courses of the respective programs from platforms such as Swayam, EdX etc., are offered under Honor scheme. To get Minor and Honor certificate, aspiring student must register for additional five theory courses and acquire additional maximum 15 credits for any one of the schemes. A student who completes these courses get Minor/Honor degree certificate along with Major degree of their respective branch.

File Description	Document	
Any additional information	View Document	
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:**

The IQAC has significantly contributed towards improving the academic environment consisting teaching, and learning process, curriculum and evaluation methods and research environment in the institution. Following are the major reforms brought in the teaching learning process facilitated by the IQAC.

Page 105/136 29-06-2022 05:26:29

### 1. Minor and Honor Certification Program

The Institute has implemented Minor and Honor certification programs wherein students can learn interdisciplinary and advanced courses. Under Minor Certification Scheme, students can learn courses from another department. In Honor Certification scheme, Students can select advanced courses from their respective branch in which they are perusing the degree. To get minor or Honor degree certificate, aspiring student must register for additional five theory courses and acquire additional maximum 15 credits (3 credits/course) for any one of the schemes.

Twenty-two students completed minor certification and ten students completed honor Certification till the year 2020-21.

### 2. Three Track Project system

Keeping in view changing needs of industry and society for final year B. Tech and MBA courses a major change is incorporated in the syllabus. Choice based three track system is introduced where, students can select one choice.

### **Choice 1: Industry Internship & Project (IIP):**

It is an opportunity for students to receive the experience of application of theoretical knowledge in the community and at work place. Students are expected to complete an internship of 20 weeks with industry. Total 954 students opted IIP as a choice from academic year 2017-18 to 2020-21.

# 1. Choice 2: Undergraduate Research Experience (URE):

Participating in research projects strengthens engineering concepts, while emphasizing hands-on experiences builds the student's resume. Total 60 students opted URE as a choice from academic year 2017-18 to 2020-21.

# **Choice 3: Entrepreneurship Development (ED):**

On Entrepreneurship Development track students' work and apply an entrepreneurial way of thinking in a business idea. Total 94 students opted ED as a choice from academic year 2017-18 to 2020-21.

Major Capstone Project (CP) is made compulsory for all students and it is included in the seventh semester of Engineering students and third semester of MBA. Under CP students are expected to complete projects in a group.

### 3. Center for Teaching and Learning (RIT-CTL)

Center for Teaching and Learning (RIT-CTL) has been established in 2018. RIT-CTL focuses on faculty & student development, curriculum development, use of ICT and improvement in teaching techniques in engineering education. Total thirty five faculty and student development programs have been conducted by RIT-CTL from 2018-19 to 2020-21.

RIT-CTL has secured IUCEE Transformation Awards at ICTIEE 2020 under the category of Teaching and Learning Centers (TLC).

### 4. Student Learning Index (SLI)

IQAC conducts an overall feedback, of course faculty related to teaching, learning as well as the overall behavior of the faculty in each semester. Faculty who secures less SLI are counseled and such faculty gives action taken report for future improvement.

### 5. Relative grading

As per the decision of IQAC members, the institute has reformed grading system from absolute to relative.

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
Paste web link of Annual reports of Institution	View Document
Link for additional information	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:**

As per the International Labour Organization (2000), gender equity refers to "fairness of treatment for both women and men, according to their respective needs. This may include equal treatment or treatment that is different but which is considered equivalent in terms of rights, benefits, obligations and opportunities"

The institute has a strong ethical work culture that is based on inclusivity. Equal opportunities are provided to all students, teaching and non-teaching staff irrespective of gender, race, caste, creed, religion, language, national or social origin. Safety, security and well-being, along with gender equity and friendly working atmosphere are the issues of prime concern to RIT.

The institute promote gender sensitivity and equity through several measures:

# 1. Safety and Security

- Security checkpoints are provided at all campus entries and exits.
- Strict implementation of Anti-Ragging measures and keeping the campus ragging free
- Awareness campaigns on women safety and gender sensitivity through street plays rallies and camps by NSS and ICC
- Separate hostels are provided for girls with appropriate security arrangements and hostel committees are formed to take care of the students. Well-trained and vigilant women rector appointed to the Girls Hostel
- Security guards are deployed at main gate and students with valid identity cards are allowed into the campus.
- The college campus is under CCTV surveillance with cameras installed at all prominent locations.
- Internal Complaints Committee (ICC) interacts regularly with the girl students and resolves the issues addressed by them.

#### 2. Common Rooms

- Common rooms have been allocated for girls where they have enough space to work and rest securely.
- Sanitary pad vending machines are installed in all common rooms.

### 3. Counselling

- Health Centre is available in the campus with qualified physician and counsellor
- ICC members interacts with girls and counsel them in case of any problem or query.
- Strong mentor –mentee system is working to ensure overall development of girls and boys through

Page 109/136 29-06-2022 05:26:29

proper guidance and counselling.

#### 4. Gender Audit

The institute carries out Gender audit to assess the gender balance and quality of gender based initiatives. We rigorously work upon the recommendations to ensure a fair and equitable treatment to both genders.

The average male female ratio for UG programmes is 67.65: 32.35 and for PG programmes 55.13:44.87 in last 4 years. The average male female ratio of Teaching Staff ratio is 80.71:19.29 and for non-teaching staff it is 92.62:7.38. As per the Gender Audit Report Staff and teachers both are encouraged to take maternity leave and paternity leave. They enjoy all other facilities. faculty are provided leave for faculty development pogrammes, refresher courses, orientations, as participant or resource person, etc. College provides for a separate budgetary provision for Gender Equity Programmes every year.

#### 5. Other Measures

- The ICC Committee organizes various cultural, technical and no-technical competitions under a program "Shardanyas" exclusively for girls to improve their self-confidence and empowerment.
- Project competition is organized for girls to showcase their scientific vigour every year on International Women's day.

File Description	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
Annual gender sensitization action plan	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:**

### **Solid Waste Management**

# 1. Composting, Vermi-composting and Mulching: -

The institute has 2 m3 of composting pits in the lawn area. The leafy waste from the campus is used for composting. Vermi-composting pits of 14.6 m3 capacity are available in the college and hostel campus. Leafy waste from the campus is collected and used for vermi-composting. Mulching is in the teak wood plantation area and in the Miyawaki Forest area.

# 2. Biogas Plant

The food waste 1200 kg/month (approx) from the hostel is treated in the biogas plant (anaerobic digester) of 10m3 capacity. The biogas generated from these plants is then used for cooking purposes in boys' hostel mess.

#### 3. Reuse of construction waste

Construction waste generated during the construction of buildings in the institute, is reused for construction of roads and filling of pits in the campus. The road of 600m length from Haripriya hostel to Miyawaki Forest is constructed by using this waste and also pits in the area on sides of this road are filled by the construction waste.

# Liquid waste management

The total wastewater generated campus approximately 50,000 lit/day. This water from campus collected, and discharged to municipal drainage at two different places. To reuse grey water the institute installed grey water treatment plant of 4.5 m/day capacity. About 4,500 liters of water are treated in this treatment plant and remaining water goes to the municipal drainage line. Treated water is then used for gardening purpose.

### E-waste management

Computers, printers, keyboards, etc., are used in the institute for routine work. Irreparable computers, printers, keyboards, etc., are given for recycling to an authorized dealer: Mahalaxmi E-Recyclers, Kolhapur for further disposal. Old computers not required in the institute are given to schools in nearby villages and also at the institute for needy students.

# Waste recycling system

Paper waste from college is sold to scrap vendor: Shree Nilesh Traders, Kolhapur who further sells it to GVG Paper Mills, Nallur, Pushpathur village. Thus waste paper is recycled for making the paper.

The activities in workshops generate approximately 6.3 kg of metal waste. This waste is sold to scrap vendor who supplies it to recycling unit.

Old table frames made from mild steel pipes with damaged tops were available. Drawing boards were also available. Using the frames and tops of drawing boards more than 100 tables are prepared which are used by students for various competitions like drawing competitions and during an annual social gathering in the institute.

### Hazardous chemicals and radioactive waste management

Chemicals used in the chemistry laboratory are diluted and then released in the drainage system. Chemical reactions in the laboratory are carried out in the closed compartment and fumes generated are released in the atmosphere at sufficient height.

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

## 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:** B. 3 of the above

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

# 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:** B. 3 of the above

File Description	Document
Geotagged photographs / videos of the facilities	<u>View Document</u>
Details of the Software procured for providing the assistance	View Document
Any other relevant information	<u>View Document</u>

# 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 faculty and students of RIT come from diverse backgrounds. The institute is committed to provide an inclusive environment where student, faculty and staff can work together for their development, learning and upward mobility. It helps in creating a culture where all can work free of discrimination, exploitation, impediments and harassments. We respect and admire different religions, languages and cultures to nurture unity in diversity and provide an inclusive environment. Different festivals & days like Diwali, Ganesh Festival, Navratri, Christmas, Dr. Babasaheb Ambedkar Jayanti, Dr. APJ Abdul Kalam Jayanti etc. are celebrated. We invite Indian and foreign students for feast, which helps to exchange ones culture and maintain the religious, social and communal harmony. In our annual gathering, a traditional dress competition is organized to represent our Indian culture, which helps students to admire different cultures of our nation. It assists to develop the tolerance and harmony towards regional, communal socioeconomic and other diversities. We organize various anniversaries of Eminent personalities, National Festivals, outreach and other extension activities. This enables us to provide an inclusive environment by bringing students and teachers with diverse background on single platform. Convocation/graduation ceremony is conducted every year, wherein an eminent leader like Hon. Ratan Tata, Hon. Noushad Forbes have delivered the convocation address to inspire the students for future journey. National festivals, Republic Day and Independence Day are celebrated every year to imbibe patriotic fervour. For the promotion of unity in diversity, Cultural and NSS Cell organizes programs under Ek Bharat Shrestha Bharat campaign. NSS organises Blood donation, Health check-up camp, Tree plantation drives, Road safety awareness, cleanliness drives, computer donated in adopted village. We conduct gender sensitization program, Shardanyas, Menstrual hygiene, girl's project competition under Internal complaint committee every year.

Vivek-Vahini is a likeminded voluntary group of students and teachers interested in changing themselves and the society. It helps to criticize youth about their career-centeredness and lack of interest in the governance of the society and suggest measures to improve. The topics like Caste Eradication, Gender Equality, Environment Protection, De-addiction, Science & Astrology, and Religion & Morality etc are discussed. It helps to develop their thought process, improve communication skill and they learn to respect others thought process.

The student mentoring system is actively in place for the holistic development of the students. One mentor

Page 114/136 29-06-2022 05:26:29

is allotted for a group of 15-20 students. There is a professional counsellor to support the needy students as and when required.

To motivate students to perform at their optimum level, the institute organizes a ceremony to reward meritorious (Top three rankers) students of FY, SY, and TY from all branches including students admitted in first year. Final year students are rewarded in the graduation ceremony. Budgetary provision of around 3 lakh is made available for the awards.

The institute also supports the nearby communities in collaboration with the Rajarambapu Dnyanprabodhini (NGO) for women empowerment, AIDS Awareness, help for drought and flood affected people. During pandemic, our volunteers had joined them for providing oxygen concentrators in community hospitals.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

# 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:**

RIT undertakes different initiatives to make its students socially responsible professionals and global citizens. RIT organizes various activities to sensitize the students and employees to the values, rights, duties and responsibilities offered in the Indian constitution for its citizens. RIT celebrates Constitution Day on November 26th every year as per the guidelines given by Government and University. On this occasion RIT organizes reading of the Preamble of Indian Constitution in the presence of faculty members, support staff and students. This is usually followed by in RIT with an address to the audience. This year Mrs. Archana Thorat from Radio sugar 90.8 has narrated the fundamental rights, duties, values and responsibilities of Indian citizens as stated in the Constitution of India. Last year, RIT has organized a guest lecture of Dr. Pramod Ganganmale, Asst. Professor and Head, Department of English, Karmveer Bhaurao Patil College, Islampur. He highlighted that the Constitution of India is the thread that connects the entire Indian community. The Constitution of India looks after the interests of the group than individuals and establishes social justice. Additionally, we conduct a quiz competition for students as well as employees and winners are rewarded by offering a print copy of the preamble of the constitution.

On Republic day RIT organizes activities to highlight importance of Indian Constitution. We screen the videos of the national war memorial on this occasion. To promote a sense of responsibility towards the nation and its citizens, we conduct every year 03 blood donation camp. The National Service Scheme (NSS) of the RIT organizes seven day residential camp in an adopted village for solving social and health related problems. It helps students in understanding the importance of generating social awareness along with protecting the cultural heritage of the country. Students of RIT have undertaken many cleanliness drives under Swachh Bharat Abhiyan both inside the campus and in nearby villages considering it as a responsibility of every citizen. RIT has conducted a Voter Awareness Program for all the students and they

were sensitized about their powers of voting offered by the Indian constitution.

Our students across all UG courses, study Constitution of India as a compulsory paper which sensitizes the students about constitutional obligations. As per guidelines of Shivaji University, an affiliated university, RIT facilitates Student Union's Election every year. Likewise, Elections of the registered associations of non-teaching staff, officers and teachers are also held as per constitutional guidelines that help in the promotion of democratic values among RITians. RIT daily plays the national anthem at 11:00am and faculty members, staff, and students sing it. These different activities remind us of our forefathers' struggle for freedom and generate respect for National Flag and National Anthem. The superiority of the Constitution in the national life is underlined with these activities and makes us aware that the Constitution of India offers human dignity, equality, social justice, human rights, freedom, law, equity and respect.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	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:** C. 2 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

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

**Response:** 

The institute takes immense efforts in organizing and celebrating national and international level days and events. Our faculty and students respect and admire different religions, languages and cultures, which implicitly nurture unity in diversity. We celebrate various days of eminent personalities, National Festivals, NSS, outreach and other extension activities. These activities provide an inclusive environment by bringing students and teachers with diverse background on a single platform. Various important International/National festivals are celebrated every year such as:

- Independence Day
- Republic Day
- Constitution day
- Ek Bharat Shrestha Bharat campaign
- Azadi ka Amrut Mohatsav
- "Kargil Vijay Diwas" celebration
- Death Anniversary of Lokmanya Tilak
- Birth and Death Anniversary of Loknete Rajarambapu Patil
- Birth and Death Anniversary of Late Kusumtai Patil (Aaisaheb)
- Birth Anniversary of Lokshahir Annabhau Sathe
- Induction Program Non-Technical activities
- Diwali Celebration with foreign national students
- Birth Anniversary of Guru Tegh Bahadur ji
- Cultural events:
  - Youth Festival 2019
  - Annual Gathering Virangula
  - Shree Ganesh Festival
  - Xmas Celebration
  - o Dassera Celebration
  - Elocution competition
  - Essay Competition
  - Drama Competitions
  - Dance competition
  - Music & singing competitions
- Netaji Subhash Chandra Bose Birth Anniversary
- Hutatma Din Celebration
- Jayant Career Saptah
- Marathi Bhasa Gaurav Din
- International Women's day celebration
- Shiv Swaraj Din
- Chhatrapati Shivaji Maharaj Jayanti
- International Yoga Day
- National Service Scheme day
- National Sports day
- Engineers day
- Teachers' day
- Environment Day
- Road Safety week
- National Youth day
- Aids awareness day
- National Unity day

- Dr. B. R Ambedkar Birth & Death anniversary
- International library day
- Science day

File Description	Document
Geotagged photographs of some of the events	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 imple	emented by the	Institution a	as per NAAC format
provided in the Manual.			

provided in the Manual.	
Response:	

**Best Practices: 1** 

1. Title of the Practice: Making classroom delivery interactive and joyful through Innovative Practice League (IPL) competition at the Institute level

### 2. Objectives of the Practice:

The major purpose of this practice is to promote the use of active learning methods in the classroom delivery. This practice encourages teaching faculty members to use innovative methods in classroom delivery to make the students learning experience interactive and joyful. Following are various objectives of this practice:

- i) To motivate teaching faculty members to use innovative practices and active learning methods in academic delivery.
- ii) To ensure 100% faculty members implement this concept in a holistic manner and further reward best performers at the Institute level.
- iii) To improve effectiveness of online academic delivery during the pandemic period.

#### 3. The Context:

Research shows us that it is not possible to transmit understanding to students by simply telling them what they need to know. Instead, teachers need to make sure that they challenge their students' thinking. With active learning, students build knowledge and understanding in response to opportunities provided by their teacher. It helps to improve metacognition and self-efficacy.

Innovative Practice League (IPL) competition introduced in the Institute from academic year 2017-2018. The purpose of this competition is to promote Active learning methods, Experiential learning methods, Project-based learning, and other innovative teaching-learning practices.

Due to Covid-19 pandemic academic Institutes were greatly depending on online academic delivery. Ensuring effectiveness in the online academic delivery is highly important. Recent IPL competitions (IPL 2020 and IPL 2021) designed to motivate individual faculty members and academic departments for showing their best performance in the online academic delivery.

### 4. The Practice:

Innovative Practice League (IPL) competition organized every year in the even academic semester. As part of this competition, every faculty member needs to present one innovative teaching, learning practice that is used by him/her during classroom delivery. This competition is conducted in two stages – Firstly, at each department level and then at the Institute level. The evaluation criteria for each stage are pre-announced.

Department level presentations are attended by an observer from other academic department. Each department shortlists two best practices and the selected faculty members present their innovative practices at the Institute level. Top innovative practices are awarded with cash prizes and appreciation certificates.

After Covid-19 the nature and format of the IPL competition changed in order to focus on the effectiveness of online academic delivery. The IPL-2021 and IPL-2022 addressed various challenges related to improving quality on online academic delivery.

#### **5. Evidence of Success:**

The IPL competition started in the Institute from 2017-18 academic year. Till date this competition is conducted 4 times with 100% faculty members participating in the same.

Sr. No.	Academic Year Total Number of Faculty Presented their wor			
		<b>Department Level</b>	Institute Level	
1	2017-18	183	20	
2	2018-19	180	22	
3	2019-20	171	10	
4	2020-21	171	7* (Respective	Hea
			Department)	I

IPL helped many faculty members to present and publish their innovative practices in different pedagogical research Conferences and Journals.

# Faculty paper publication in International Conferences in pedagogy area

Sr. No.	AY	Name of Conference	To
1	2017-18	ICTEE	16
2	2018-19	ICTIEE- Hyderabad	25
3	2018-19	ICTIEE- Chandigarh	
4	2019-20	ICTIEE	32
5	2020-21	IIEECP	11
6	2021-22	ICTIEE	06

Faculty paper publication in Journal of Engineering Education Transformations (JEET), a peer reviewed International Journal (UGC CARE listed/Scopus indexed)

Sr. No.	
1	
2	
3	
4	
5	v distributed in last 4 accessions of IDL is Do. 40 000/ Overell IDL has major contributions.

Total prize money distributed in last 4 occasions of IPL is Rs. 40,000/- Overall IPL has major contributions in implementation of interactive, innovative and joyful teaching learning practices in the Institute.

# 6. Problems encountered and Resources required

Following the challenges addressed by the Institute for successful implementation of this practice:

- 1. Faculty awareness and training activity based teaching, learning methods
- 2. Faculty hands-on training on ICT tools useful for effective online academic delivery
- 3. Upgrading ICT infrastructure to have smooth online academic delivery experience

Following resources required during implementation of this practice:

- 1. Administrative support of management and administrative authorities.
- 2. Budget provision for training of faculties and rewarding best performers
- 3. Increasing availability and upgrading of computing facilities, Internet bandwidth and connecting devices like Web camera, Writing pad, Mikes, etc.

#### 7. Notes

IPL (Innovative Practice League) helped in improving classroom interaction experience in the Institute. This practice can be implemented in other Institutes with financial and administrative support from higher management. Competitive feeling helps in better learning.

**Best Practices: 2** 

1.Title of the Practice: Reading Club Activity for faculty

### 2. Objectives of the Practice:

The objective of this activity is to improve the reading habits of faculty and inculcate the reading culture at the institute. The practice demands reading of books other than technical in nature like biography, motivational, leadership development etc. It helps broaden the persona and perspectives of the readers. The faculty members share their reading content and experiences with other faculty members of the department. Hence, another objective of this practice is to initiate the idea exchange among the faculty members, thereby promote their presentation skills and cohesion.

### 3. The Context:

RIT's Central Library has started the Reading Club Activity to enhance the reading habits of the faculty. The benefits of reading are mental stimulation, stress reduction, knowledge, vocabulary expansion, stronger analytical thinking skills, improved focus and concentration and better writing skills along with personality development of the faculty members. The NAAC committee members during their visit at the

institute had interacted with faculty members on reading habits and advised to read non-technical texts so as to improve thinking and language skills. The management then weighed in this suggestion and decided to implement this practice.

#### 4. The Practice:

The groups of faculty members are formed in each department for reading and knowledge sharing discussions. The faculty groups are formed voluntarily. The ideal group size recommended is about 5 faculty members and care is taken not to have less than 3 members and more than 5 members. One of the group members act as a coordinator. The coordinator makes sure that all members are actively reading and participating in the group. Reading Club activities is conducted in all departments and the HOD coordinates the activities. HOD plays the role of facilitator and encourages the faculty members in the department to participate in the activity. A particular theme is selected for the year and the readers are expected to choose the book based on the theme. For 2019-20, the theme chosen was motivational book egIkigai -The Japanese Secret for long and Happy Life by Hector Garcia, Power of Subconscious Mind by Mr. Joseph Murthy, Attitude is everything: Change your attitude changes your life by Keller, Jeff, Mindset - The new psychology of success by Dr. Carol S. Dweck, When: The Scientific Secrets of Perfect Timing by Daniel H. Pink etc.

For 2020-21, the theme chosen was any article to be selected and read from the engineering education journal JEET (Journal of Engineering Education Transformations). At the end of the year, a meeting of all reading groups within the department is held and the members share their reading experiences with each other. The coordinator facilitates the discussions. The report is prepared and submitted to Central Library.

#### **5. Evidence of Success:**

This best practice was implemented from 2016-17. A total of 240 groups was formed across all the departments from 2016-17 to 2020-2021. During this period, a cumulative 943 faculty members across the institute participated and 197 books as well as 72 research articles were read by them. Each department conducted a presentation on the book review at the end of the semester. The department-wise reports are submitted to the Central Library. Feedback by faculty from the last five years reveal that the reading club activity has helped improve their personality, communication and reading skills and broadened the horizons.

### 6. Problems encountered, and Resources required

Faculty members find it difficult to find time for such additional reading. Some of the faculty members are interested in technical literature reading only. The resources required are good collection of motivational books or biographies and availability of reading rooms and seminar halls for having discussions and presentations.

#### 7. Notes

With a good collection of books, similar practice could be followed by any institute.

File Description	Document
Best practices in the Institutional web site	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:**

Being an autonomous institute, Rajarambapu Institute of technology (RIT), Rajaramnagar decided to start choice based four tracks of projects for final year engineering students from the year 2017-18 to develop them globally competent. As per this system student can opt one choice for industry internship & projects (IIP), undergraduate research experience (URE), Entrepreneurship development (ED) and regular capstone project (CP) by their choice.

# **Industry internship and projects (IIP)**

Under IIP track, students are expected to be associated with industry for minimum 20 weeks in the eighth semester. A student works in the industry for this period. During this Internship it is expected that, students should identify the problems arising in the industry related to Engineering and they need to give a solution to the company. In the eighth semester of engineering, total 24 credits are allotted to this track. Out of these, 10 credits are allotted to internship, 11 credits are allotted to project and 3 credits are allotted to online learning course.

IIP track helped the students to Correlate skills taught at the institute with actual practice which developed the technical skills in the students. Moreover, this track helped the students to develop an attitude to adjust to the company culture, work norms, code of conduct, leadership abilities and communication. Students completed internships in reputed organizations like ARAI, Pune, Tata Motors, L&T, Persistent, Emtech, Bentely and many more. Around 35% of IIP opted Students are retained in the same industry where they completed internship. The remaining students secured a job in various industries through campus placement provided by the institute. Placement of the institute has increased from 66.92 % (2016-17) to 81% (2021-22).

#### **Undergraduate research experience (URE)**

URE track allows students to carry out in-depth study of engineering concepts, while emphasizing handson experiences and practical applications. Under URE track students are expected to carry out a research topic and present their work in international journals and conferences. In the eighth semester of

Page 123/136 29-06-2022 05:26:29

engineering, total 24 credits are allotted to this track. Out of these, 17 credits are allotted to research project, 4 credits are allotted to Research methodology-theory and practical course and 3 credits are allotted to technical course related to project.

Education through research projects has a positive effect on student knowledge and the development of skills such as collaboration, critical thinking, and problem solving which increases their motivation and engagement. More than 42 students have secured admissions for Masters in abroad from 2017-18. URE track helped many students to build their resumes from a research point of view.

# **Entrepreneurship development (ED)**

Curriculum of ED track is developed with an objective that, the students can develop and systematically apply an entrepreneurial way of thinking, which will allow them to identify and create business opportunities that may be commercialized successfully. In the eighth semester of engineering, total 24 credits are allotted to this track. Out of these, 16 credits are allotted in Project Report on Product/start up with a complete techno economic feasibility assessed by funding agencies and approved for funding, 3 credits are allotted to Project feasibility, 3 credits are allotted to Commercial aspects of project course and one credit is allotted to ED program.

Under ED track, students are expected to, determine distinct entrepreneurial traits and design a business plan.

Total 6 students of RIT have started their business from 2017-18. These start-ups are of small scale.

### **Regular capstone project (CP)**

Under the Regular capstone project, students must do a project in a group. Moreover, they need to learn Program and open electives as per their choice. In the eighth semester of engineering, total 24 credits are allotted to this track. Out of these, 16 credits are allotted to the project. Remaining credits are allotted to the program and open electives.

Under CP track, students learned skills like teamwork, leadership, innovation and time management. Students who had opted CP track showed good performance in Graduate Aptitude Test in Engineering (GATE) and campus placement. Total 77 students qualified in GATE from 2016-17 to 2020-21. These students were eligible to take admissions for PG at reputed institutes like IIT, NIT etc.

#### **Student Internships (Global)**

RIT has signed MOU with many prestigious universities like Asia University, Taiwan, Teesside University, UK, IUKL, Malaysia and University of Nottingham, Malaysia for various short term and long term programs. This MOU has helped RIT students to get fully / partially funding to attend international programs. Total 18 students completed two month internship on Artificial Intelligence at Asia University, Taiwan in 2019-20. RIT is also collaborating with CTIF Global Capsule for 45 days' international internship (UG Fellowship) in various prestigious universities from Poland, the USA, Italy, Thailand,

Denmark, England and Russia. Total 7 students secured UG fellowship at reputed organizations like University of Poznan, Poland, Ural Federal University, Russia, University of Nevada, USA.

# **Virtual Internship Programs (VIP)**

RIT organized five weeks' virtual internship program (VIP) in collaboration with the Global Engineering Deans Council (GEDC) in the year 2020 and 2021. In COVID-19 pandemic situation, institute organized total 16 programs for national and international students and faculties. Emerging topics were introduced in virtual internship and planned with specific outcomes. Virtual internship was planned for 150 hours, which includes activity based teaching, laboratory work and mini project. Theory classes were planned activity based teaching and laboratory work were conducted using the software and by sharing recorded video of particular experiment. Evaluation of students conducted on the basis of performance in mini project and involvement in the program. Certificate and grade issued after successful completion of internship. In the VIP innovative topics like Automotive Technology, Machine Learning and Applications, Python Programming for Complex Problem Solving, Renewable Energy Integration and Optimization of Power System, VLSI Front End Design, Composite Materials were focused. In VIP more than 565 students participated from all over India as well as from other countries like USA and UAE.

File Description	Document
Any other relevant information	View Document

# 5. CONCLUSION

# **Additional Information:**

- National Institutional Ranking Framework (NIRF) Ranking-
- 1. The institute was ranked 75th across all over India, 7th at State level and 1st in Shivaji University, Kolhapur as per NIRF of MHRD, GOI in 2016.
- 2. The institute was ranked in the band of 150-200 across all over India & 14th at State level in 2017.
- 3. The institute was ranked in the band of 201–250 across India in 2021.
- RIT is ranked within the band of 25-50 institutions across all over India in ATAL Ranking of Institutions on Innovation Achievements (ARIIA) in August 2020.

• RIT is awarded the Platinum Rank in first 150 Institutes in AICTE-CII Survey 2020.

- The institute has recently been selected for funding for Idea Development, Evaluation and Application (IDEA) Lab by AICTE with Rs. 1.05 Crore. The objective of IDEA Lab is to develop innovative and creative engineers with "Learning by Doing"
- Community Radio Station (CRS) established in 2021 with the name 'Radio Sugar 90.8' to fulfil the social responsibility.
- RIT has won "One District, One Green Champion" award for Swachhata Action Plan- Exemplary Performance Awards 2020 -2021 by Mahatma Gandhi National Council of Rural Education, New Delhi (MGNCRE).
- RIT is rated as an AAA+ Institution in Engineering Special Rating in West Zone of India's Best Engineering Colleges, 2021 survey by Careers 360.
- Permission is granted by AICTE for International admissions under Foreign National (FN) / Overseas Citizen of India (OCI) quota.
- RIT has signed MoU with few reputed foreign universities. These are University of Nottingham – Malaysia, Asia University – Taiwan, BICOL University – Philippines, Teesside University, Middlesbrough – London, Infrastructure University - Kuala Lumpur, Universitas Pendidikan – Indonesia

Page 126/136 29-06-2022 05:26:30

• The institute was declared as 'Most Innovative Brand' in Maharashtra in 2019 by Arthasanket.

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# **Concluding Remarks:**

The institute situated in semi-urban area of western Maharashtra, established in 1983 with the vision of pursuing excellence of global standards in academics and research and; offering trained manpower with societal obligations has contributed for more than three decades effectively. The quest for excellence is evident from the fact that the programs of the institute have been accredited and re-accredited by the NBA and apart from institutional NAAC accreditation. On account of its distinctiveness, the institute was funded by TEQIP Phase I and II.

Under the guidance of the BoG and the visionary leadership, the institute has been able to metamorphose itself into a vibrant and experimenting organization which is about to complete two cycles of UGC autonomy successfully. Active participation of BoG members comprising educationists, industry professional, proven academicians, well laid-out systems and processes, use of automation, Five-year strategic planning and vertical as well as horizontal communication define the governance practices at RIT. The thrust on academics is evident through CBCS and curricular reforms, 20 week internship, Honor and Minor certification, experiential learning opportunities, courses on soft skills and continuous evaluations. The research, ecosystem evolved over the period has resulted in publications, patents, prototypes and technology transfers. The incubation center and entrepreneurship track in the curriculum have helped campus startups. The physical infrastructure in terms of Library, workshops, laboratories, smart classrooms, computational facilities, gymnasium and sports facilities with focus on sustainability augment the teaching-learning process at the institute. The digital infrastructure allows the faculty and students, seamless connectivity and quality digital experience. Various opportunities in the form of student hobby clubs, college magazines, cultural programs and competitions ensure the all-round growth of the students.

The institute is well aware of the challenges and limitations and, thus invests heavily in the faculty training, Skilling and recycling. It is realigning its strategies in tune with the NEP and thus introduced Ph. D. Programs recently. It is in the process of strengthening its infrastructure, faculty base and industry linkages with the belief that excellence is not the destination, but a journey.

# **6.ANNEXURE**

#### 1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

- 1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.
  - 1.1.2.1. Number of all Programmes offered by the institution during the last five years.

Answer before DVV Verification: 18 Answer after DVV Verification: 22

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

Answer before DVV Verification: 18 Answer after DVV Verification: 18

Remark: DVV has made the changes as per 1.1

- 1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).
  - 1.2.2.1. Number of Programmes in which CBCS / Elective course system implemented.

Answer before DVV Verification: 18 Answer after DVV Verification: 22

Remark: DVV has made the changes as per EP- 1.1

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
198	187	179	168	192

# Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
180	172	172	157	183

Remark: DVV has made the changes as per shared report of actual students admitted from the reserved categories by HEI.

- 2.6.3 Pass Percentage of students(Data for the latest completed academic year)
  - 2.6.3.1. Total number of final year students who passed the examination conducted by

#### Institution.

Answer before DVV Verification: 721 Answer after DVV Verification: 615

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

Answer before DVV Verification: 792 Answer after DVV Verification: 775

Remark: DVV has made the changes as per shared report of final year students who passed by HEI.

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
07	10	13	25	17

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
01	01	01	01	01

Remark: DVV has not considered teachers awarded national/international fellowship for advanced studies/ research only, presentations and participations in conferences /seminars in this metric.

# 3.2.3 Percentage of teachers recognised as research guides

#### 3.2.3.1. Number of teachers recognized as research guides

Answer before DVV Verification: 57 Answer after DVV Verification: 42

Remark: DVV has made the changes as per shared report of teachers research guide.

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
98	96	69	31	47

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
56	45	32	30	211

Remark: DVV has considered papers published in UGC care/Scopus/Web of sciences only.

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
62	77	150	171	275

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
45	67	130	102	125

Remark : DVV has considered only books and chapters in edited volumes/ books published with ISBN.

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
12.13	12.10	14.86	14.04	4.29

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

Remark: DVV has given 0 as HEI has not provided any proof of orders for consultants.

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

# 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.

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
9	47	25	22	19

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
5	32	19	16	11

Remark: DVV has considered only awards and recognition received by the Institution, its teachers and students for extension activities.

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

# 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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
15	27	23	20	20

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
9	21	16	14	15

Remark: DVV has excluded days activities.

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

# 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.

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
2800	2629	2811	2804	2855

### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
955	1690	1200	1950	1505

Remark: DVV has given the input as per 3.6.3

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
475	489	423	323	121

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

Remark: Relevant supporting documents has not shared by HEI.

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
2223	2244	2199	1583	1547

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

Remark: HEI has not shared relevant documents as per SOP.

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17

22	15	15	13	19
1				

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
16	09	11	09	11

Remark : DVV has considered only sports and cultural events / competitions organized by the institution.

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

Answer before DVV Verification: C. 5 Lakhs - 10 Lakhs

Answer After DVV Verification: E. <2 Lakhs

Remark: Alumni has not reflected in shared report by HEI.

- 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.
  - 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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
27	47	28	24	27

Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
21	36	19	19	16

Remark : DVV has considered number of professional development / administrative training only etc.

- Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)
  - 6.4.2.1. Total Grants received from non-government bodies, individuals, Philanthropers yearwise during the last five years (INR in Lakhs)

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
1.97	3.92	1.12	4.89	1.96

#### Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
0.1	0.1	0.1	0.1	0.1

Remark: Amount has not reflected in given audited statement bY HEI.

# 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

Answer before DVV Verification: A. 4 or All of the above

Answer After DVV Verification: B. 3 of the above

Remark: DVV has considered B. 3 of the above as per shared report by HEI.

# 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

Answer before DVV Verification: A. Any 4 or All of the above

Answer After DVV Verification: B. 3 of the above

Remark: DVV has considered B. 3 of the above as per shared report by HEI.

# 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

Answer before DVV Verification: A. Any 4 or all of the above

Answer After DVV Verification: B. 3 of the above

Remark: DVV has considered B. 3 of the above as per shared report by HEI.

# 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

Answer before DVV Verification : A. All of the above Answer After DVV Verification: C. 2 of the above

Remark: DVV has considered C. 2 of the above as per shared report bY HEI.

# 2.Extended Profile Deviations

ID	Extended (	Questions					
1.2	Number o	of outgoing /	final year s	students yea	r-wise dur		
	A a.v la a	fore DVV V	lauiti aati au.				
		efore DVV V		2017 10	2016 17		
	2020-21	2019-20	2018-19	2017-18	2016-17		
	725	835	771	834	888		
	Answer A	fter DVV Ve	erification:				
	2020-21	2019-20	2018-19	2017-18	2016-17		
	794	863	872	876	939		
2.2	Number o	f full time t	eachers vea	r-wise durir	ng the last f		
	1 (0222200 0		oncere j ou	- 1120 00011	-8		
	Answer be	fore DVV V	erification:				
	2020-21	2019-20	2018-19	2017-18	2016-17		
	172	171	181	184	192		
	Answer At	fter DVV Ve	erification:				
	2020-21	2019-20	2018-19	2017-18	2016-17		
	153	154	154	184	189		
3.4	Total num	nber of com	puters in th	e campus fo	r academic		
	Answer before DVV Verification: 1092						
	Answer after DVV Verification: 992						
3.5	Total Exp	enditure ex	cluding sala	ry year-wis	e during la		
	Answer be	fore DVV V	erification:				
	2020-21	2019-20	2018-19	2017-18	2016-17		
	592.28	820.59	1041.57	928.86	750.22		
	2,2.23	320.07	-0.1.07	20.00	7.00.22		

# Answer After DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
352.28	640.59	941.57	328.86	450.22