



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

R. V. COLLEGE OF ENGINEERING

**RV VIDYANIKETAN POST, 8TH MILE, MYSURU ROAD
560059**

www.rvce.edu.in

SSR SUBMITTED DATE: 28-06-2024

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

June 2024

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Rashtreeya Shikshana Samithi Trust (RSST), founded in the year 1940 by the visionary late Sri M.C. Sivananda Sarma. Today, RSST has over 25 institutions across Bengaluru constituting around 20,000 students under its umbrella.

RV College of Engineering (RVCE) is a flagship institution under the Trust, established in 1963 is one of the earliest self-financing engineering colleges in the country. The institution is run by RSST, a not-for-profit Trust. RVCE is an Autonomous college. Currently, the institution offers 15 Bachelor, 14 Master Programs and all the departments have Research Centres, affiliated to Visvesvaraya Technological University (VTU) Belagavi.

RVCE has implemented Outcome Based Education (OBE) emphasising on experiential learning, research-based learning and skill-based learning. Memory based learning is slowly being replaced by innovation, problem solving and project-based learning. Information and Communication Technology is in the forefront for effective teaching-learning process. In this context, new pedagogy methods, new technologies, collaborative and interdisciplinary research has become very important.

RVCE has to its credit over 1700 national and international journal publications, 70 filed patents, out of which 59 were published patents, 38 granted patents and executed over Rs. 30 crores of sponsored research projects and consultancy in the last five years.

RVCE is one of the first institutions in the state to implement National Educational Policy-2020 during the year 2021. The institution has established 27 Centres of Excellence and Competencies in niche areas of science and technology, in collaboration with Industries and premier institutions.

Placement opportunities of students have increased over a period with more than 250 companies visiting the campus. Median Salary is Rs. 10.50 Lakhs and highest salary being Rs.92.50 Lakhs is offered for 2024 batch.

All the eligible UG and PG programs have been accredited by NBA multiple Times. Six UG Programs and 1 PG program have been accredited for six and five years respectively by NBA recently. The institution has international collaborations with THWS- Germany, Dortmund University of Arts & Science-Germany, Rosenheim Technical University of Applied Sciences–Germany, RWTH Aachen University–Germany, Florida International University-USA .

The institution has 25 Professional Associations for student and faculty technical enrichment and networking.

Vision

The new millennium is witnessing unprecedented challenges and opportunities in higher education because of liberalization and globalization. In this knowledge era, technical education plays a vital role in human resource development for enhancing industrial productivity and quality of life.

The Government of India's vision is to develop and nurture technical education system in the country by producing world-class manpower emphasizing innovation. In tune with this, *RVCE has evolved its vision 'Leadership in Quality Technical Education, Interdisciplinary Research & Innovation, with a Focus on Sustainable and Inclusive Technology'*.

Leadership in quality technical education encompasses innovation in teaching and learning, interdisciplinary research leading to product and technology development, which are sustainable and inclusive. It is imperative to stay abreast of current and future trends in education, business and industry to development professionals in pedagogy and research. Innovations in science and technology are an integral part of sustainable development, which means balancing the fulfilment of human needs with the protection of the natural environment so that these needs can be met not only in the present, but also in future. Inclusive growth means more and more schemes and support to attain the desired rate of economic and human development to foster economic growth, wealth distribution, social justice, adopting suitable technologies and industrial development.

RVCE is aligned with the above to contribute in the higher education space.

Mission

In line with the Vision, the Mission is evolved:

- To deliver Outcome Based Quality Education, emphasizing on experiential learning with state-of-the-art infrastructure.
- To create a conducive environment for interdisciplinary research and innovation.
- To develop professionals through holistic education focusing on individual growth, discipline, integrity, ethics and social sensitivity.
- To nurture industry-institution collaboration leading to competency enhancement and entrepreneurship.
- To focus on technologies that are sustainable and inclusive, benefiting all sections of the Society.

Quality Policy:

Achieving Excellence in Technical Education, Research and Consulting through an Outcome Based Curriculum focusing on Continuous Improvement and Innovation by Benchmarking against the global Best Practices.

Core Values:

Professionalism, Commitment, Integrity, Team Work, Innovation

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Reputed institution - first preferred college in Karnataka for meritorious students for more than two decades.
- NIRF Ranking – One in hundred in NIRF since inception.
- Committed management and conducive academic ambience.
- Good administrative processes and transparency.

- Retention of faculty is very good.
- Locational advantage – silicon city provides opportunities for industry-institute interaction.
- Autonomous institution – Academic autonomy enables flexibility in curriculum design and implementation.
- Extension programmes – Certification Courses with Industries and International Universities.
- Implementation of ERP system for various processes (SAP) – Student Life Cycle Management, Materials Management, HR Management and Financial Management.
- UG / PG programmes have been accredited by NBA multiple times.
- Qualified and committed faculty & staff with good faculty student ratio. 70% of faculty are Ph.D. holders.
- Faculty involvement in sponsored research, consultancy, patents and publications.
- Good number of MoU / MoA with industries, research and academic institutions, leading to Industry based laboratories, courses in various departments.
- Very good students' placement with very high offers.
- Illustrious alumni and alumni association
- Well established Entrepreneurship Development Cell and innovative teams.
- Effective student counselling system
- Digital transformation with upgradation of the campus network, ICT enabled smart class rooms, and seamless internet connectivity.
- Involvement of students in sports, co-curricular and extra-curricular activities and winning accolades at regional, national and international level competitions.
- State-of-the-art interdisciplinary research centres, Centre of Excellence and Centres of Competencies.
- Well-equipped on-campus students hostels for Boys and Girls.

Institutional Weakness

- Sponsored research and consulting by faculty not equally spread across all the departments.
- A few faculty-undergone sabbaticals for industrial and overseas training.
- Skill of technical and support staff in newer areas of technology.
- Fewer community development projects.

Institutional Opportunity

- More collaborative research and consultancy with other institutions, universities and industries in India and abroad.
- Scope for more internal revenue generation utilizing the physical and intellectual infrastructure.
- Scope for offering demand-based Proficiency and Training Courses in all the departments.
- Scope for vertical progression of outperforming faculty beyond the cadre limitations.
- Scope for attaining Graded Autonomy / Private University status.
- Enhancement of Quality Placements for Post Graduate students.
- Branding the institution at the international level and better Alumni connect.
- Enhancing Community Development activities and adoption of villages.
- Granted patents to commercialization.

Institutional Challenge

- Retaining talented faculty in some programs.
- Handling Gen-Z and reducing gap of inter-personal relations of faculty and students.
- Meeting High aspirations of students and stakeholders.
- Rationalization of fee structure by authorities.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Programme Curricula are aligned with NEP-2020 and Learning Outcome Curricular Framework of UGC and Model curriculum of AICTE and VTU. The curricula are designed based on OBE and feedback from industry experts, Alumni and other stakeholders. The curricula are thoroughly scrutinised and approved by Departmental Academic Advisory Committee, BoS, and Academic Council. The curricula of all the programmes are designed to ensure the domain knowledge, professional skills, attitude and professional ethics.

The POs, PSOs and COs of the programme attainments are aligned to impart specific knowledge and skills relevant to industry, local, regional, national and global needs. The curricula ensure inclusiveness by incorporating several key components like experiential learning, project-based labs, design thinking lab, industry-driven electives, cluster based first-year courses, industry visits, and rubric based evaluation. The curricula are regularly revised based on feedback from stakeholders and technological advances. Ability enhancement courses including Business English, Yoga, Kannada language, UHV, sports, photography and music are included in the curricula.

RVCE has more than 100 active MoU with industries, reputed institutions and research organisations for collaborative activities like internships, consultancy, training, sabbatical, industry visits and projects. Environment and Sustainability is a mandatory component of programme curricula to address the SDGs. Promotion of gender equality is inculcated through mandatory courses such as UHV - I & II and Constitution of India and co-curricular activities.

By embracing crosscutting issues like **ethics, gender sensitivity, human values, environmental concerns, and sustainability**, RVCE equips its students with not only technical prowess but also moral and societal compass needed to excel as engineers and responsible global citizens.

Teaching-learning and Evaluation

An academic year comprises of THREE semesters; an odd, even and Fast-track. Supplementary examination is introduced in the recent scheme. Eligible students shall register for coursework at the beginning of each semester and students can drop / withdraw courses within the stipulated period. Vision, Mission, PEOs, POs PSOs and COs are widely published in RVCE website, syllabus books, lesson plans, CIE/SEE question papers and laboratories.

Innovative pedagogical methods such as flipped class room, participative learning, Project / problem based

learning and active learning are adopted as part of Outcome Based Education. Experiential-learning introduced with 40% weightage in CIE. Learning Management Systems like Quiklrn and Google class rooms are widely used. Students are benefitted by online resources: e-books and journals, virtual labs in collaboration with NITK Surathkal, IEEE Software Engineering Body of Knowledge(SWEBOK), NPTEL courses and research database. RVCE has created over twenty-five centres of Excellence/Competence and industry established laboratories in niche areas providing opportunities for research and skill enhancement.

RVCE organizes targeted intervention programmes for slow learners such as one-to-one tutoring and mentoring by senior faculty. Specific training programs are included in the curricula to enhance communication skills for slow learners. Advanced learners are provided option to register for B.E. (Honours) and B.E. (Minors) for which they have to earn extra credits. RVCE has integrated SLcM (Students Life Cycle Management) module of SAP ERP which is used for feedback generation and progress tracking. Students counselling is a proven system for creating supportive environment for students.

Entire examination process is integrated with SAP since 2019-20 through SLcM. Questions in CIE and SEE are mapped to COs and revised BT levels. In 2021-22, RVCE registered under Academic Bank of Credits (ABC) via National Academic Depository platform and ID of students are created for uploading the credits earned by the students to ABC. CO attainment is computed with 60% weightage to CIE and 40% to SEE, which is reduced to 90% and remaining 10 % given to course end survey. PO/PSO attainment is computed based on direct and indirect assessments, with 80% weightage to the former and 20% to the latter.

Research, Innovations and Extension

R&D at RVCE drives infrastructure development in advanced areas and implements a well-defined and structured research policy to foster research and innovation. RVCE provides annual budget for UG/PG/Research for each programme. Separate budget is allocated to interdisciplinary research centre, CoE and CoC. Research infrastructure is enriched through research projects. RVCE has research centres recognised by VTU in which over 350 research scholars are presently pursuing PhD.

RVCE has created ecosystem for research that fosters innovation and embraces Indian Knowledge System (IKS). RVCE has implemented several initiatives to support creation of IPR, and provide resources for Prototyping and device development that reflect Innovation. Mandatory courses on IKS and UHV are introduced. RVCE has vibrant Cultural Activities Team.

RVCE has established IPR co-ordination cell to provide services related to creation, protection and commercialization of IP. RVCE has IP coordination committee to drive IP activities. Present status of innovation at RVCE is reflected in 38 granted, 21 published and 11 submitted patents through institutional funding.

RVCE has set up incubation centre which has supported five incubatees. Several prototypes are developed in health care domain. Fall detection and Osteoporosis estimation devices are developed through sponsored project. A HRV device is developed with support from DST-Nidhiprayas.

RVCE nurtures innovation activities by extending financial support, laboratory and workshop infrastructure along with guidance by faculty to several innovative project teams.

NSS-RVCE with over 100 volunteers conducts community based activities - plantation drives, lake

rejuvenation and teaching school children. NCC is adjudged BEST Institution of Karnataka and Goa Directorate five times. NCC/NSS/Rotaract Club organise Blood Donation Camps every year. In the recent Blood Donation camp 13 Blood Banks, including Lions Club, NIMHANS, and Indian Red Cross Society participated and over 800 units of blood were collected.

Online Ambient Air Quality Monitoring Station funded by KSPCB is installed to monitor Air pollutants in and around RVCE. NSS-RVCE conducted **Environment Awareness** drive to promote Environmental consciousness and engaged them on plantation of native species. RVCE Health Centre with NSS and NCC conducted COVID 19 vaccination drive in which over 1000 people were vaccinated.

Infrastructure and Learning Resources

RVCE has 122 classrooms (95 smart boards, 27 LED projectors), 155 laboratories, 14 seminar halls with ICT enabled facilities as per statutory norms and one auditorium of 350 seating capacity. RVCE is planning to build integrated classrooms, innovation center and 2800 capacity auditorium with indoor sports facilities. RVCE has deployed Learning Management System (LMS- Quiklrm) as Online-platform and has Language laboratory for Professional English.

RVCE has Data Centre with 11 servers, one HPC server, 2499 desktops, 73 computer labs with computer student ratio of 1:2, ten workstations, UPS and Wi-Fi connectivity of 1000 Mbps with 140 access points. RVCE has comprehensive IT Policy under which IT Planning and Monitoring Committee is constituted. During last five years (2018-23), Non-Recurring expenses INR 544.91 lakh and recurring expenses INR 665.79 lakh are incurred towards IT infrastructure upgradation. In 2022-23 campus network backbone was upgraded from **1 Gig to 10 Gig** using OFC with two path redundancy. Three-tier Architecture was installed at INR 8.5 crore. RVCE has **24/7 operational Data Centre**. During 2018-22 Data Centre had six servers which were upgraded in 2022-23 with Hyper-Converged Infrastructure with seven servers. Digital Media Centre was established in 2009. Media Communication Cell is established to digitise materials. Extended Reality Centre for Education and Research is set-up VGST (INR 30 Lakh) grants and Institutional support of INR 42 Lakh. RVCE has established comprehensive systems and procedures for maintenance through AMC.

Library has seating capacity of 350 and subscribes to 158 technical journals, 23 technical magazines, e-Books, e-Journals through VTU e-Resource Consortium. Library is automated with integrated library management system (ILMS). Plagiarism check was performed using Turnitin till 2022 and presently Drillbit is used. Library provides **Knimbus remote access and** access to IRINS. RVCE is committed to No-piracy Software Policy and ensures usage of legal software.

RVCE has Department of Physical Education and is constructing Gymnatorium for indoor sports and boxing with 2800 capacity auditorium.

RVCE has three Boys Hostels (1450 capacity), one on-campus Girls Hostel (285 capacity) and off-campus Girls Hostel (132 capacity), VIP Guest House and one international hostel for foreign students in pipeline.

Student Support and Progression

RVCE is fully committed to providing career counselling and it is implemented through Department of Placement and Training. Soft skills training, pre-placement training and career counselling is provided through

external agencies and industrial professionals. Professionals from Defense, ISRO, Research organisations, Public Sectors address students on career options apart from pre-placement talks. Placement department regularly organises sessions on career options in foreign universities and prerequisites (CAT, GMAT,..).

Engineering Departments conduct coaching classes on GATE, CAT, GMAT and UPSC examinations. Over 25 students have cleared UPSC examinations over the last five years. RVCE regularly organizes workshops and seminars on entrepreneurship and skill development, empowering students to consider entrepreneurial ventures and develop essential skills for their careers. Student placement coordinators work in tandem with placement department in various placements related activities and career counselling. RVCE has a number of student forums/clubs to provide opportunity to students to participate in wide range of research, innovative, co-curricular, extra-curricular, and social / community development activities. RVCE has a vibrant Cultural Activities Team (CAT), NSS, NCC, Rotaract with a large number of students' participation. Students work on areas prescribed by AICTE related to community development. As members of Professional Society Chapters students take leadership in organising a number of co-curricular activities.

Governing Body (GB) of RVCE, Anti-ragging committee, Hostel committee and BoS have students' representation. Representation of students in academic and administrative bodies /committees enabled RVCE in creating a student-centric ambience that values inclusivity, collaboration, and shared governance.

Alumni Association of RVCE (AARVCE) has around 47,000 registered members spread across the globe serving as a reservoir of professional contacts. Saarthaka Trust an Alumni Association of Civil Department formed in 2005 contributes towards supporting students through scholarships. Alumni meets are conducted at RVCE annually at department and institutional levels. It is planned to conduct Alumni meets in other places including US. RVCE Alumni are also members of BoS of respective departments. Two to three generations of Alumni wards are studying in RVCE at present evidencing sustained quality of education.

Governance, Leadership and Management

Governing Body (GB) defines role and responsibilities of RVCE and provides strategic directions. GB comprises of members of RSST, faculty, educationist / industrialist and VTU / State Govt. nominees. Faculty of all cadres participate in effective functioning of RVCE. Heads of the departments and Deans are members of Academic Council. Board of Appointments with external expert and VTU nominee ensure induction of quality faculty and staff. Finance committee is responsible for financial approvals and Budget committee scrutinises proposals. Principal is authorised to approve proposals up to INR 25 K and non-recurring up to INR 5.0 lakh from April 2024 onwards.

Transparency in administration is reflected in publishing the Organogram, roles and responsibilities of statutory and functional committees in website. RVCE has implemented Institutional Strategic Development Plan hosted in website. RVCE has structured Regulations and Policies and e-governance is enabled through SAP-ERP modules such as Finance and Controlling (FICO), HR (Success factors), Students Life Cycle Management (SLCM) and Materials Management (MM). RVCE has instituted performance appraisal using SAP ERP Success factors. Faculty and staff are provided with welfare measures and incentive schemes to foster institutional and individual growth. RVCE initiated Leadership Development program 'GROW' to nurture Future Leaders.

Resource Mobilization is achieved by collaborating with industries, research organisations, Government Departments and sponsored research. Resource mobilisation is also augmented through Advanced Diploma and Certification Courses through MoU with industries and Universities abroad.

RVCE established Internal Quality Assurance Cell(IQAC) with internal and external members. Two major practices institutionalized by IQAC are Academic and Examination Audits by external experts and Usage of Learning Management System (LMS) and ICT tools. SPARK was introduced in 2021-22 under IUCEE RVCE chapter and Special Skills lab to facilitate MEME to impart Foundation, Domain specific, Domain Advanced and Research skills.

Internal and external financial audits are conducted by certified chartered accountants as per Regulatory guidelines and reporting standards. Funded projects are also audited by the external auditors. Accounts of RVCE hostels are maintained and are audited separately. RVCE ensures strict adherence to GST norms. RVCE publishes audited Financial Statements in website.

Institutional Values and Best Practices

RVCE conducts Gender Audit and has created safe ambiance for all. There are 26% girl students, 44% women faculty, 18% women technical staff, 25% women support staff, and over 35% women in administration.

RVCE has constituted statutory College Internal Complaints Committee (CICC) to prevent gender-based harassment.

RVCE follows protocols to ensure responsible and efficient waste disposal. Solid waste is disposed through BBMP approved vendors and organic waste is transported to piggeries. RVCE has installed STP with capacity of 2.5 lakh litres/day. Treated water is utilized for campus gardening and toilet flushing. Biomedical waste is disposed as per Bio-Medical waste management norms. E-waste is disposed through recyclers approved by Karnataka State Pollution Control Board as per e-waste management norms. Laboratory-generated hazardous chemicals are disposed as per Material Safety Data Sheet (MSDS) guidelines. Liquid chemicals are neutralised and disposed as per MSDS norms through KSPCB approved agency.

RVCE has structured Green Campus Policy, ensures restricted entry of automobiles into the campus and has battery powered Six Seater Buggy for guests, aged and disabled to travel inside the campus. Use of plastics is restricted and the campus has over 2000 trees / plants with Gardens and lawns. RVCE has ramps and lifts in most of the buildings and has constructed specially designed washrooms for differently abled and signage systems for the visually impaired.

RVCE conducts awareness campaigns on Voter Education, Environmental conservation, Gender Equality and Value System through Electoral Club of RVCE, NSS/NCC/Rotaract RVCE.

Two best practices implemented by RVCE are **‘Fostering Innovation through Inter-disciplinary Student Innovative Teams’** and **‘Establishment of Centres of Competence (CoC) and imparting advanced skills’**

First students’ innovative team ASHWA RACING was formed in 2003 for designing Formula-Style Race Cars. Success of ASHWA led to formation of 14 more teams in diverse areas. The teams have won prizes in national/international events.

RVCE established seven interdisciplinary CoC with industry collaboration for imparting advanced skills to students. RVCE introduced Special Skills lab in 2021-22 cluster wise for all programmes.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	R. V. COLLEGE OF ENGINEERING
Address	RV Vidyaniketan Post, 8th Mile, Mysuru Road
City	Bengaluru
State	Karnataka
Pin	560059
Website	www.rvce.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	K N Subramanya	080-68188111	9663699299	080-68188111	principal@rvce.edu.in
IQAC / CIQA coordinator	Shanmukha N	080-68188127	9845129398	080-68188127	shanmukhan@rvce.edu.in

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 minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-1963

Date of grant of 'Autonomy' to the College by UGC	18-11-2008			
University to which the college is affiliated				
State	University name	Document		
Karnataka	Visvesvaraya Technological University	View Document		
Details of UGC recognition				
Under Section	Date	View Document		
2f of UGC	30-09-2008	View Document		
12B of UGC	30-09-2008	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/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	03-06-2023	12	
AICTE	View Document	03-06-2023	12	

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	RV Vidyaniketan Post, 8th Mile, Mysuru Road	Urban	16.85	67721

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Aerospace Engineering,	48	II PUC	English	65	65
UG	BE,Biotechnology,	48	II PUC	English	64	64
UG	BE,Civil Engineering,	48	II PUC	English	129	122
UG	BE,Chemical Engineering,	48	II PUC	English	43	42
UG	BE,Electrical And Electronics Engineering,	48	II PUC	English	65	65
UG	BE,Electronics And Communication Engineering,	48	II PUC	English	191	191
UG	BE,Electronics And Instrumentation Engineering,	48	II PUC	English	63	63
UG	BE,Industrial Engineering And Management,	48	II PUC	English	63	63
UG	BE,Information Science And Engineering,	48	II PUC	English	81	81
UG	BE,Computer Science And Engineering,CSE Cyber	48	II PUC	English	63	63

	Security					
UG	BE,Computer Science And Engineering,Artificial Intelligence and Machine Learning	48	II PUC	English	63	63
UG	BE,Computer Science And Engineering,	48	II PUC	English	239	239
UG	BE,Computer Science And Engineering,CSE Data Science	48	II PUC	English	63	63
UG	BE,Mechanical Engineering,	48	II PUC	English	127	127
UG	BE,Telecommunication Engineering,	48	II PUC	English	63	63
PG	Mtech,Biotechnology,Biotechnology	24	BE or B.Tech	English	18	12
PG	Mtech,Civil Engineering, Highway Technology	24	BE or B.Tech	English	18	18
PG	Mtech,Civil Engineering, Structural Engineering	24	BE or B.Tech	English	18	18
PG	Mtech,Electrical And Electronics Engineering,Power Electronics	24	BE or B.Tech	English	18	18
PG	Mtech,Electr	24	BE or	English	36	36

	onics And Communication Engineering, VLSI Design and Embedded System		B.Tech			
PG	Mtech,Electronics And Communication Engineering, Communication System	24	BE or B.Tech	English	18	10
PG	Mtech,Information Science And Engineering,Information Technology	24	BE or B.Tech	English	18	17
PG	Mtech,Information Science And Engineering, Software Engineering	24	BE or B.Tech	English	18	13
PG	Mtech,Computer Science And Engineering,Computer Science and Engineering	24	BE or B.Tech	English	18	17
PG	Mtech,Computer Science And Engineering,Computer Networking Engineering	24	BE or B.Tech	English	18	17
PG	Mtech,Mechanical Engineering,Machine Design	24	BE or B.Tech	English	18	18

PG	Mtech,Mechanical Engineering,Product Design and Manufacturing	24	BE or B.Tech	English	36	29
PG	Mtech,Telecommunication Engineering,Digital Communication	24	BE or B.Tech	English	18	12
PG	MCA,Master Of Computer Applications, Master of Computer Applications	24	BCA or BSc Maths	English	120	120
Doctoral (Ph.D)	PhD or DPhil ,Biotechnology,	48	Postgraduation	English	40	27
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering,	48	Postgraduation	English	52	27
Doctoral (Ph.D)	PhD or DPhil ,Chemical Engineering,	48	Postgraduation	English	40	7
Doctoral (Ph.D)	PhD or DPhil ,Electrical And Electronics Engineering,	48	Postgraduation	English	52	22
Doctoral (Ph.D)	PhD or DPhil ,Electronics And Communication Engineering,	48	Postgraduation	English	52	28
Doctoral (Ph.D)	PhD or DPhil ,Electronics And Instrumentation Engineering,	48	Postgraduation	English	40	6
Doctoral	PhD or DPhil	48	Postgraduation	English	24	9

(Ph.D)	,Industrial Engineering And Management,		n			
Doctoral (Ph.D)	PhD or DPhil ,Information Science And Engineering,	48	Postgraduation	English	32	18
Doctoral (Ph.D)	PhD or DPhil ,Computer Science And Engineering,	48	Postgraduation	English	84	53
Doctoral (Ph.D)	PhD or DPhil ,Mechanical Engineering,	48	Postgraduation	English	92	43
Doctoral (Ph.D)	PhD or DPhil ,Telecommunication Engineering,	48	Postgraduation	English	40	5
Doctoral (Ph.D)	PhD or DPhil,Master Of Computer Applications,	48	Postgraduation	English	40	21
Doctoral (Ph.D)	PhD or DPhil,Physics,	48	Postgraduation	English	36	7
Doctoral (Ph.D)	PhD or DPhil ,Chemistry,	48	Postgraduation	English	28	6
Doctoral (Ph.D)	PhD or DPhil ,Mathematics ,	48	Postgraduation	English	40	9

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	47				80				193			
Recruited	27	20	0	47	49	31	0	80	97	96	0	193
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						72
Recruited	43		29		0	72
Yet to Recruit						0

Technical 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				168
Recruited	139	29	0	168
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	27	20	0	48	31	0	62	55	0	243
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	0	0	36	40	0	77
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	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
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	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
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	8		3		11

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	686	316	0	0	1002
	Female	296	75	0	0	371
	Others	0	0	0	0	0
PG	Male	221	15	0	0	236
	Female	108	11	0	0	119
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	7	0	0	0	7
	Female	10	1	0	0	11
	Others	0	0	0	0	0
Certificate / Awareness	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	68	62	61	61
	Female	38	33	19	37
	Others	0	0	0	0
ST	Male	9	7	10	14
	Female	7	6	5	6
	Others	0	0	0	0
OBC	Male	175	139	145	152
	Female	75	41	62	64
	Others	0	0	0	0
General	Male	989	885	825	802
	Female	384	334	363	366
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		1745	1507	1490	1502

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Aerospace Engineering	View Document
Biotechnology	View Document
Chemical Engineering	View Document
Chemistry	View Document
Civil Engineering	View Document
Computer Science And Engineering	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Electronics And Instrumentation Engineering	View Document
Industrial Engineering And Management	View Document
Information Science And Engineering	View Document
Master Of Computer Applications	View Document
Mathematics	View Document
Mechanical Engineering	View Document
Physics	View Document
Telecommunication Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>The National Education Policy – 2020 brought out by Govt. of India, is changing the landscape of Higher Education in the Country. The focus is on use of Interdisciplinary and Multidisciplinary approach, Outcome Based Education with a focus on Experiential Learning, use of digital technologies for blended learning and integrating liberal education with technical courses. The outcomes include employability through 21st century skills, meeting the Sustainable Development Goals and making education contextual in order to make India Self Reliant. RVCE has introduced NEP-2020 from 2021 and Outcome Based Education much earlier, with a focus on experiential learning in every course a student goes through in four years. Introduced Ability Enhancement Courses (AEC), Universal Human</p>
---	---

	<p>Values (UHV), Indian Knowledge System (IKS), Yoga, IDEA lab, Design Thinking Lab in its curriculum for UG courses, during 2021 scheme. Experiential learning includes innovation, industry-based activities, co-curricular and extra-curricular activities as part of assessment. Open electives for interdisciplinary courses, IKS to develop all capacities of human beings - intellectual, aesthetic, social, physical, emotional, and moral - in an integrated manner. RVCE has created an ecosystem in the campus to become entrepreneurs. There are 5 courses available for students. They are learning courses on Intellectual Property Rights, Management & Entrepreneurship. Adopting digital technologies for online learning, quizzes and tests, demonstrations, expert lectures, proctored tests and various online events to make students learn better. The programs are designed with requisite number of foundation courses, advanced courses, SWEBOK, MOOCS, NPTEL, QEEE, interdisciplinary industry-based electives and skill-based laboratories to facilitate MEME and enhancement of competence of the students in all the relevant domains and render them employable, prepare them for higher studies, entrepreneurship, and public service.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>RVCE registered in NSDL-NAD portal in the year 2018 with an ID NAD010584 and started uploading the data into NAD portal with the help of NSDL. In the year 2020, the Ministry of Education designated UGC as authorized body to implement NAD in co-operation with Digi Locker as single depository of NAD. As per the directions, the institution registered afresh and continue to upload the students' credentials, i.e. the grade cards through the specified CSV format. Subsequently, UGC issue the circulars to create mandatory APAAR/ABC IDs for all the students joined during 2021-22 and after, to facilitate the students to learn at their convenience. Accordingly, RVCE created APAAR/ABC IDs for the students joined in 2021 and later through bulk ABC ID creation facility of the NAD portal. RVCE also uploaded PDCs of the students who completed their degree in the year 2023. Some statistics includes - Total awards lodged -15697, Provisional Degree certificates-1465, Total marksheets-14232, ABC account created-7182 and Number of students with credit data-5614.</p>

3. Skill development:

RVCE is continuously in the process of upgrading its infrastructure to support skill development activities. This includes setting up of Centres of Excellence / Centres of Competencies, laboratories, workshops, state-of-the-art facilities, and other spaces conducive to hands-on learning. The college has collaborated with industry partners, NGOs, and other organizations to provide students with exposure to real-world scenarios and hands-on experience in various fields. To enhance employment potential, RVCE has established a knowledge and skill-based training centres such as Bosch Rexroth Automation Technologies Labs, Tata Ready Engineer's program, Suryamitra and Varunamitra Programs etc. The institution has conducted training on computer hardware, software and solar maintenance for rural students. Keeping in mind the pre-requisites studied in theory courses, skill lab components are systematically designed from first to third year of UG programs. The courses includes: Fundamentals: Data Visualization Tools, Basic Fabrication and Services, Water Testing, IT Essentials, Engineering Skills and Basic Hardware & Service. Domain: Networking & UX Design, Aerospace Design & Modelling, Industrial Biotechnology, Networking Essentials, Sewage Treatment, Building Information Modelling & Geographic Information System, Design & Development of PCBs, Electrical Circuits & Electrical Machines, CAD & 3D Printing, Advances and Computing Hardware Multicore Processors. Research: Cloud Computing, Full Stack Development, Blockchain Technologies, AR&VR, Fabrication of Composites, Geometrical Dimensioning & Tolerance, Computational Fluid Dynamics, Pharmaceutical Formulation, RF Communication, Distribution Control Systems, Desktop Servicing, EDA Tools, Power Systems & Smart Grid, Renewable Energy, IoT & Automation, , Hydraulics & Pneumatics, Automotive Mechatronics, EV Technology, Automobile Integrated Systems Discrete Event Simulation, Advanced Robotics Automation & Robotics and Process Mapping. RVCE has leveraged technology to enhance skill development initiatives that include the use of online learning platforms, simulations, virtual labs, and educational apps that facilitate interactive and experiential learning. The training programs are designed with requisite number of foundation

	<p>courses, advanced courses, industry-based electives and skill-based laboratories to facilitate MEME and enhancement of competence of the students in all the relevant domains and render them employable.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>INDIAN KNOWLEDGE SYSTEM (IKS) was introduced as one credit course in 2021 scheme and has five units which comprised of philosophy, traditional knowledge, humanities and science, professional domain and Contemporary topics in an undergraduate program course in first year, where all the 1300 students have taken this course Assessment was conducted for CIE and SEE with a weightage of 50% each. Students were assessed with rubrics of quiz and test along with Experiential Learning. As a part of experiential learning students have exhibited their work in the form of skits/drama, elocution, debate, PPT, brainstorming, chanting of mantras & shlokas, etc. Heritage Walk for the better understanding of IKS was conducted, wherein students have showcased their indulgent and empathetic view on such a diverse topic. For the holistic development of student, Scientific Foundations of Health: Yoga Practice (01 credit) course has been introduced, where students are taught various aspects, postures, asanas and significance of yoga under the expert guidance. Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA) and Indian Yoga Association (IYA) have come forward to teach both students and faculty; now many of the faculty volunteers are there to train the students. Evaluation matrix is completely practical oriented with quiz included in it. IKS and Yoga Practice has brought a significant momentum into the understanding and wellbeing of the students and it adheres to the guideline, purpose and vision of NEP 2020. Faculty have undergone training and attended certificate courses for the same; Dr. Ashwani Sharma & Prof. Raghvendra SG have been selected to train the trainers program for faculty across India Master Trainers' Faculty Training Program on IKS organized by IKS Division, MoE, GoI, in collaboration with UGC, New Delhi. Dr. Ranjini G attended workshop on IKS and IPR organized by IKS Division, and CSIR-TKDL Unit, Ministry of S&T.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>Outcome-Based Education (OBE) is a learner-centric approach aimed at improving learning outcomes. RVCE implements the following steps: Curriculum</p>

	<p>Design Curriculum design is a multidimensional process involving input from various stakeholders (academia, industry, alumni) and considering factors like Sustainable Development Goals, 21st-century skills, Industry 5.0, and Education 5.0. Twelve graduate attributes or Program Outcomes (POs) defined by the National Board of Accreditation (NBA) are integrated into the curriculum. Course Outcomes (COs) are established for each course, adhering to the SMART criteria. The correlation between COs and POs is delineated through a CO-PO mapping matrix, assigning weightage as high (H), medium (M), or low (L). Teaching-Learning Process Content delivery employs various modes including traditional, online, and hybrid methods. Modern technology such as smart boards, Learning Management Systems (LMS), and online/offline activities engage learners. Evaluation comprises 50% Continuous Internal Evaluation (CIE) and 50% Semester End Evaluation (SEE). Attainment is calculated directly (CIE, SEE) and indirectly (Course End Survey) using rubrics. Attainment of Course Outcomes Methods include calculating individual student CO attainment after each CIE using automated tools. CO attainment is determined by the ratio of total CO marks to student marks. Target CO attainment is set based on previous data and teacher experience. Overall attainment considers 90% of (CIE (60%) + SEE (40%)), and course end survey (10%). Attainment of Program Outcomes COs are mapped to POs to assess correlation levels. PO attainment is calculated by multiplying CO attainment with corresponding weightage. Final PO attainment is the average contribution of all courses for a particular PO. Action Plan Gap analysis based on PO attainment identifies areas for improvement in learning outcomes, leading to action plans for enhancement.</p>
6. Distance education/online education:	<p>RVCE is not offering Distance Education. However, online courses are offered to UG and PG students as part of credit. RVCE has been an active Local Chapter of NPTEL since 2015, with LC ID:239. Institution has adopted NPTEL as part of the Undergraduate (UG) curriculum from 2018 scheme of all programmes. In 2018 scheme of syllabus, during the third year, (5th semester) of the programme, an Elective group was allotted to</p>

NPTEL courses. Here a student had to opt for a course from the set of NPTEL courses identified by the respective departments. These were 12-week courses for 3 credits. During the revision of the syllabus in 2021, MOOC courses are offered during the second and third year (4th and 5th semester), as part of the elective group. In 2021 scheme, students opt for an 8-week NPTEL courses during their 4th semester and 5th semester. NPTEL courses is formally introduced as part of Post Graduate curriculum (M.Tech and MCA) in its 2022 scheme. This is as part of the Professional Development Program (PDP). Apart from this, students who have opted for an additional degree B.E.(Honors) by VTU, earn 18 credits through NPTEL courses. Students are also encouraged to take up and clear NPTEL course examination as part of Experiential Learning (EL) evaluation for the courses wherever applicable and possible. Faculty members also take up NPTEL courses regularly to improve upon their knowledge and skill sets on the latest technologies and receive an AICTE approved FDP certificate based on the duration of the course. It is found that learners at RVCE are regularly performing extremely well in these courses, at the National level. RVCE NPTEL local chapter is rated in AAA category during most of the semesters. Many students and faculty members are recognized by NPTEL as NPTEL Superstars, NPTEL Domain scholars, NPTEL Enthusiasts, NPTEL Believers, NPTEL Motivated Learners and NPTEL Discipline stars based on the number of courses they have completed and the domain. Top performing students have also received paid Summer internships and Winter internships from different IIT's in India. RVCE stands 2nd in Karnataka and 16th position in all India with AA rating in the July-Dec. 2023 by NPTEL. During COVID-19 pandemic, third year students of RVCE had undergone one-week Soft Skills training program in virtual mode conducted by NPTEL. A practice mock interview was held as part of this program. Eligible students received certificates from NPTEL.

Institutional Initiatives for Electoral Literacy

<p>1. Whether Electoral Literacy Club (ELC) has been set up in the College?</p>	<p>Yes. ELC is set up in RVCE to promote electoral literacy in the students and the neighbourhood community. ELC-RVCE consists of Principal, Dean Student-Affairs, NSS Program Officer of RVCE, student coordinator Arpita R S and student members of different departments.</p>
<p>2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?</p>	<p>Yes. Arpita R S student of B.E.(Biotechnology) is appointed as students coordinator. Dr. Mahendra Kumar S (NCC Officer), Dr. M Lokeshwari (NSS Programme Officer) and Dr. Shireesha G (Associate Dean-Cultural Activities) are appointed as faculty coordinators of RVCE ELC. RVCE - ELC is functional and is actively engaged in creating awareness on electoral literacy among the students and the neighbourhood community. All the members are apolitical and hence represent in character the ELC. The members of ELC are from major student clubs of RVCE involved in community services.</p>
<p>3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.</p>	<p>ELC–RVCE organized sessions on voting awareness amongst the students and general public in which Police officers, BBMP officials and Media representatives educated the students on registration and voting through EVM. ELC RVCE organised campaign for public on using EVM and facilitated training program from BBMP officials, conducted demonstration on proper usage of EVM, RVCE is a regular mustering and demustering centre during elections. RVCE regularly deutes faculty for election duty as sector officer, squad, counting supervisor, nodal officer, etc., and hence the faculty are well trained in educating the students on Electoral processes.</p>
<p>4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.</p>	<p>ELC RVCE conducted interactive sessions on high/low voting turnout in elections and their implications. Members of ELC have given interviews, and awareness talks in Akashavani on ethical voting and importance of voting. ELC contributed to promote democratic values and participation in electoral process.</p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.</p>	<p>ELC RVCE created kiosk in RVCE campus to help students and general public of 17+ and above 18 years to register for getting voter ID using VOTER HELPLINE app provided by BBMP. The event resulted in 60 students registered as new voters. ELC focus on enrolling eligible students as first time</p>

voters by creating awareness among first year students with the slogan Mera pehla vote desh ke liye.

Extended Profile

1 Students

1.1

Number of students on rolls year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
5653	5541	5567	5496	5653
File Description		Document		
Institutional data in the prescribed format (data		View Document		

1.2

Number of final year outgoing students year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1396	1523	1400	1382	1430
File Description		Document		
Institutional data in the prescribed format (data		View Document		

2 Teachers

2.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
320	334	348	356	370
File Description		Document		
Institutional data in the prescribed format		View Document		
Certified list of full time teachers		View Document		

2.2

Total number of full time teachers worked/working in the institution (without repeat count) during last five years:

Response: 370

File Description	Document
Institutional data in the prescribed format	View Document

3 Institution

3.1

Total expenditure excluding salary year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
3314.19	2876.71	2108.21	3610.75	3498.56

File Description	Document
Provide Links for any other relevant document	View Document

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, regional, national, and global developmental needs, which is reflected in the Programme outcomes (POs) and Course Outcomes(COs) of the Programmes offered by the institution

Response:

RVCE is committed to implementing robust curricula for all its programmes to meet the local, national, regional and global needs. RVCE firmly believes that the curricula should provide both knowledge and skills to meet the current and future challenges. The curriculum design process ensures that Programme Outcomes (POs), Programme Specific Outcomes (PSOs), Course Outcomes (COs) reflect this commitment. POs of all the programmes offered align with those specified by the National Board of Accreditation (NBA) to ensure the domain knowledge, professional skills, attitude and professional ethics.

RVCE systematically adopts the curricula as stipulated by the Statutory Authorities, namely, Learning Outcome Curricular Framework of UGC and Model curriculum of AICTE and VTU. This ensures that the curricula remain in harmony with National needs. The programme curricula at RVCE are thoroughly scrutinised and approved by Departmental Academic Advisory Committee (AAC), Boards of Studies (BoS), and finally the Academic Council (AC).

The curriculum design includes identifying, understanding and developing strategies to meet the local and regional needs. The components of the curricula such as courses on regional language, environment, sustainability, entrepreneurship, ability enhancement, Constitution of India, address local and national perspectives, culture and socioeconomic parameters and hence lead to enhancement in employability. The POs, PSOs and COs of the programme attainments are aligned to impart the specific knowledge and skills relevant to the industry needs.

RVCE is committed to provide education and skills to meet the national challenges. The curricula are designed and implemented aligning with the national priorities and technological advances across different sectors of the economy. The curricula are regularly revised and updated to include the contemporary courses reflecting industry trends. The POs, PSOs and Cos ensure meeting relevant National mission objectives such as digital literacy, research and innovation, ethical practices and national mission. To address national priorities the engineering curricula include mandatory courses; IDEA Lab in first year and Design Thinking in second year to stimulate the students to evolve solutions to the issues related to water, energy and Education which are also part of the Sustainable Development Goals(SDGs)

RVCE places high importance for addressing global needs in the programme curricula. The curricula include courses to foster global perspectives and 21st Century skills. The Design Thinking Course address SDGs. The POs, PSOs, and COs of the Programs drive global competencies and challenges. The

program design emphasizes a balanced integration of foundational, core, and discipline-specific and interdisciplinary electives, along with the courses aimed at enhancing abilities and skill development. This holistic approach ensures well-rounded education conducive to successful careers and lifelong learning.

The curricula at RVCE is evolved based on guidelines of AICTE, VTU, Professional Societies, feedback from industry and alumni, curricula of Institutions of Excellence and technological advancements. Approval of BoS and AC authenticate the inclusiveness of the curricula. The curricula incorporate several key elements like experiential learning, project-based labs, design thinking lab, industry-driven electives, cluster based first-year courses, industry visits, and rubric based evaluation. Thus the programme curricula address the local, regional, national and global needs.

File Description	Document
Upload Additional information	View Document

1.1.2

The programmes offered by the institution focus on employability/ entrepreneurship/ skill development and their course syllabi are adequately revised to incorporate contemporary requirements

Response:

RVCE is committed to providing the students comprehensive higher education oriented at employability, entrepreneurship and research skills. It ensures that students are well-equipped to meet the demands of the contemporary job market. At RVCE the programmes are systematically designed to prepare industry ready engineers by providing strong foundation knowledge in the respective field of specialisation along with interdisciplinary and multidisciplinary knowledge and skills. The curricula are regularly revised based on the feedback from the stakeholders and technological advances. This ensures that students graduate with up-to-date domain-specific knowledge coupled with an innate ability to adapt to evolving professional challenges. Ability enhancement courses including Business English, Yoga, Kannada language, UHV, sports, photography and music are included in the curricula.

Entrepreneurship is an important component of the programme curricula at RVCE which is reflected in mandatory courses such as Management and Professional Ethics and IPR integrated into the curricula. The students explore their innate potential, develop business plans and learn from successful entrepreneurs through programmes of E-cell, such as e-summit, a regular activity at RVCE. RVCE provides resources and support for the aspiring entrepreneurs through ideation, proof of concept and prototype development at the specialised incubation laboratories of the Institution. RVCE collaborates with Industry-partners to identify and incorporate industry-specific skill-enhancement modules into the syllabi to make the students Industry-worthy and domain-relevant. Employability, entrepreneurship and skills are developed in the students through experiential learning, industry visits, partial delivery by industry experts, minor and major projects in industries, interdisciplinary projects, innovative clubs, internships at CoE/CoC or outside and Hackathon.

In cognisance of the need to maintain relevancy of the curricula, RVCE vibrantly interacts with industry professionals, academic experts, research networks, collaborative engagements through MoU. RVCE has more than 100 active MoU with industries, reputed institutions and research organisations for collaborative activities like internships, consultancy, training, sabbatical, industry visits and projects. The programme faculty discuss the inputs and suggestions in detail and suggest suitable changes and improvements to the appropriate Board of Studies. The faculty participate in professional development activities; attend conferences, and workshops to keep abreast of the nuances in their domains.

RVCE values feedback from the students, alumni, industry, and employers. Periodic feedbacks are taken to assess the effectiveness of the programs and gather input for further improvement. It enables incorporation of the Industry needs and their integration into the respective curriculum, towards relevant and comprehensive education. Many advanced courses such as Artificial Intelligence, Data Science, Network security, Industrial Internet of Things, Embedded Systems and Product Life Cycle Management are included through specific requests from the stakeholders.

Contemporary Requirement

RVCE has collaboration with international universities in the areas of Robotics and Automation, Smart Manufacturing, High performance clustering cloud and Quantum computing.

File Description	Document
Upload Additional information	View Document

1.2 Academic Flexibility

1.2.1

Percentage of new courses introduced out of the total number of courses across all programmes offered during the last five years

Response: 57.29

1.2.1.1 Number of new courses introduced during the last five years:

Response: 633

1.2.1.2 Consolidated number of courses offered by the institution across all Programmes (without repeat count) during the last five years :

Response: 1105

File Description	Document
Subsequent Academic Council meeting extracts endorsing the decision of BOS	View Document
Minutes of Board of Studies meeting clearly specifying the syllabus approval of new courses	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3 Curriculum Enrichment

1.3.1

Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum

Response:

In the ever-evolving landscape of engineering education, RVCE has proven to be a beacon of progressive pedagogy. It has moved beyond the traditional boundaries of technical instruction by integrating crosscutting issues that are crucial for nurturing well-rounded engineers. This is achieved through a holistic approach in curriculum design that integrates cross-cutting issues such as professional ethics, gender sensitivity, human values, environmental consciousness, and sustainability.

Environment and Sustainability is a mandatory component of programme curricula, which also addresses the Sustainability Development Goals. Specific courses in curricula include Disaster Management, Solid Waste Management, Renewable Energy Sources and Environment Technology. Regular guest lectures, symposia, Hackathons, and cleanliness drives are conducted through NSS and activity points of AICTE. RVCE campus has 40% green cover and has implemented sustainable practices such as sapling plantation drive, rainwater harvesting, solar power generation, Sewage Treatment and e-waste segregation and disposal to certified agencies.

Gender equality and human rights are fundamental principles to ensure equal opportunities for all, thereby creating a fair and inclusive learning environment. Promotion of gender equality is inculcated through mandatory courses such as Universal Human Values (UHV) - I & II and Constitution of India and co-curricular activities such as workshops and seminars. Impact of such initiatives reflects upholding right to education, freedom of expression, and dignity. Embracing these principles not only fosters culture of respect and understanding but also contributes to overall development and well-being of students, preparing them to become responsible global citizens who value diversity and equality.

Absence of human values in education can result in lack of empathy, compassion, and moral integrity leading to materialistic life. Capacity is built through training 300 faculty on UHV. The courses on UHV

and Applied Psychology emphasize development of compassion and moral integrity. During the mandatory induction program for the newly inducted undergraduate students, various activities are organized to keep students grounded on ethics and human values.

Students are expected to uphold values of honesty, respect for others, and academic integrity; which is central to Professional Ethics. The approach of RVCE to inculcate professionalism in students is through courses such as Intellectual Property Rights, Principles of Management and Economics, and Constitution of India & Professional Ethics. Students are encouraged to participate in debates, discussion, case studies to understand and implement ethical behaviour in workplace.

Additionally, students are provided opportunity to explore emerging technologies and multidisciplinary elective courses. Distinct feature of the RVCE curricula is the introduction of Design Thinking Lab (DTL) for undergraduate students as per Stanford methodology of DTL comprising of five phases, namely, Empathise, Define, Ideate, Prototype and Test leading to sustainability and international ranking. This innovative approach instils product development process based on customer demand, fostering creativity and problem-solving skills.

In conclusion, curricula at RVCE is a testament to its commitment to comprehensive education. By embracing crosscutting issues like **ethics, gender sensitivity, human values, environmental concerns, and sustainability**, RVCE equips its students with not only technical prowess but also moral and societal compass needed to excel as engineers and responsible global citizens.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.3.2

Number of certificate/value added courses/Diploma Programmes offered by the institutions and online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms (without repeat count) where the students of the institution have enrolled and successfully completed during the last five years.

Response: 120

File Description	Document
List of students and the attendance sheet for the above mentioned programs	View Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document
Institutional data in the prescribed format (data template)	View Document
Evidence of course completion, like course completion certificate etc	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3.3

Percentage of programmes that have components of field projects / research projects / internships during the last five years.

Response: 100

1.3.3.1 Total Number of programmes that have components of field projects / research projects / internships (without repeat count) during the last five years

Response: 34

1.3.3.2 Total Number of programmes offered (without repeat count) during the last five years

Response: 34

File Description	Document
Sample Internship completion letter provided by host institutions	View Document
Sample Evaluated project report/field work report submitted by the students	View Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Program and course contents having element of field projects / research projects / internships as approved by BOS	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.4 Feedback System

1.4.1

Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc., and Feedback processes of the institution may be classified as follows:

Response: A. Feedback collected, analysed, action taken & communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 96.72

2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2022-23	2021-22	2020-21	2019-20	2018-19
1716	1529	1542	1527	1554

2.1.1.2 Number of sanctioned seats year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1754	1616	1565	1584	1616

File Description

Document

Provide the relevant information in institutional website as part of public disclosure

[View Document](#)

Institutional data in the prescribed format (data template)

[View Document](#)

Final admission list as published by the HEI and endorsed by the competent authority

[View Document](#)

Document relating to sanction of intake as approved by competent authority

[View Document](#)

Provide Links for any other relevant document to support the claim (if any)

[View Document](#)

2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 100

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

2022-23	2021-22	2020-21	2019-20	2018-19
367	274	312	330	438

2.1.2.2 Number of seats earmarked for reserved category as per GoI/State Govt. rule year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
367	274	312	330	438

File Description	Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template)	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of the letter issued by the State govt. or Central Government Indicating the reserved categories(SC, ST, OBC, Divyangjan, etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document
Provide Links for any other relevant document to support the claim (if any	View Document

2.2 Catering to Student Diversity**2.2.1**

The institution assesses the learning levels of the students and organises special Programmes to cater to differential learning needs of the student

Response:

RVCE envisions academic excellence and is committed to ensuring academic growth and success of

students. RVCE strongly emphasises assessment of learning-levels of students to devise additional support system through specially designed programmes, for both advanced and slow learners.

In cognizance of the diverse background of students, acquired levels of knowledge and learning styles, RVCE has implemented a robust system to assess their learning levels through assignments and evaluations, strengths, weaknesses and areas requiring additional support to ensure their academic excellence.

Support to Slow Learners

RVCE organizes targeted intervention programmes for slow learners such as one-to-one tutoring and mentoring by senior faculty. Remedial classes, tutorials, extra laboratory sessions and tests are provided to reinforce learning. Faculty dedicate additional time to counsel slow learners and provide simplified course materials and question banks.

To enhance communication skills specific training programs are included in the curriculum to benefit slow learners and students from rural background. Engaging in societal events and institutional activities foster their overall development. RVCE conducts parent teacher meetings regularly to ensure their continuous involvement and support in their ward's educational journey.

Support to Advanced Learners

RVCE is committed to academic excellence of advanced learners. RVCE has created a conducive academic ambiance for students to excel in cutting edge areas. RVCE has created twenty five centres of excellence / competence in niche areas such as nanotechnology, Hydrogen energy, automotive mechatronics, EV technologies, macro-electronics, High power computing, quantum computing, AI/ML and video analytics in which advanced learners work on creating and developing new technologies and devices.

RVCE has developed strong network with industries for research, consultancy and training, resulting in industry supported laboratories on campus. Advanced learners find opportunities to work in these specialized laboratories. Faculty are engaged in sponsored research projects in which advanced learners work on experimental, computational and simulation modules. They are provided internship opportunities in these centres.

Advanced learners are provided option to register for B.E. (Honors) and B.E. (Minors) for which they have to earn extra credits as per VTU norms. They participate in students innovative projects such as racing cars, all-terrain vehicles, hybrid vehicles, e-satellite, robotics, coding and analytics. The students learn practical aspects of materials, manufacturing, systems, simulation, integration, project and financial management. They participate in national and international events and win competitions. They publish research articles in journals as co-authors. RVCE also provides support system to patent their inventions. All the students take up NPTEL courses which are credited and advanced learners take up MOOC courses to enhance their knowledge.

Students are provided training on personality development, communicative English, aptitude and employability skills as part of the curriculum. Achievers in academics, co-curricular and extra-curricular activities are honored every year on 26 January at RSST.

The faculty employ innovative instructional techniques, such as differentiated instructions, adaptive learning technologies, and experiential learning, to engage students at various levels of learning to accommodate diverse learning styles. By offering comprehensive programs and initiatives, RVCE strives to create an environment in which all students can progress academically and intellectually.

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

2.2.2

Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 17.67

File Description	Document
List showing the number of students in each of the programs for the latest completed academic year across all semesters	View Document
Certified list of full time teachers along with the departmental affiliation in the latest completed academic year.	View Document

2.3 Teaching- Learning Process

2.3.1

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experience and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

Student Centric Methods

RVCE firmly believes in creating an enriching and engaging learning ambiance that focuses on student-centric methodologies of teaching and learning. With advancement in technologies and diverse learning pattern of students, traditional classroom teaching alone are inadequate to foster holistic development and to prepare the students to face real-world challenges. Hence, innovative pedagogical methodologies such as flipped class room, experiential learning, participative learning, project based learning, problem based learning and active learning are adopted and augmented through ICT enabled tools and other online resources.

Experiential Learning

Experiential-learning is included in the programme curricula with 40 % weightage in Continuous Internal Evaluation (CIE). The experiential learning components related to specific courses include projects, survey based projects, educational content development using AR/VR, development of prototypes, experimental, simulation and computational studies, literature review based on journal papers. The students gain knowledge and skills beyond the syllabus, and develop critical thinking and problem solving abilities. Skill labs, IDEA lab (Internet of Things and programming with Raspberry Pie and Arduino Board) and Design Thinking lab are introduced in the curriculum, with different modules spaced throughout the four / three / two years of UG /MCA/PG study.

Participative Learning

Participative learning in engineering refers to an educational approach that actively involves students in the learning process rather than passively receiving information from faculty. Active learning techniques include group discussions, case studies, role-playing, simulation, and hands-on experiments which are introduced in the programme curricula to promote engagement and enhance comprehension. In flipped classroom, students are provided the course material such as handouts, video lectures and presentations beforehand to dedicate the class hour for discussion.

Problem-solving Methodologies

Problem-solving methodologies such as Hackathons, internships and course based projects are included in the programme curricula, to enable the students multidisciplinary knowledge and skills for problem solving, research and innovation. Research-based learning, case studies, challenging assignments and open ended experiments develop higher order critical thinking and creativity in the students.

ICT- enabled tools

RVCE faculty adopt ICT- enabled tools in class rooms / labs such as smart boards including LED projectors with high speed internet for enhanced digital learning. Learning Management Systems like Quiklrn (for teaching and online assessment) and google class rooms are widely used for seamless access to course materials and conduction of on-line assessments and promote collaborative learning. The faculty are trained on ICT tools through workshops organised by RVCE and through IUCEE (Indo Universal Collaboration for Engineering Education). The students receive multiple benefits through online resources such as e-books, e-journals, virtual labs in collaboration with NITK Surathkal, IEEE Software Engineering Body of Knowledge (SWEBOK) and research database. Web-conferencing tools such as Google meet and Cisco Webex are used for conducting virtual classes and internships.

RVCE has integrated SLcM (Students Life Cycle Management) module of SAP ERP, which is used for feedback generation and progress tracking. This comprehensive Feedback-mechanism ensures enhanced teaching learning process.

File Description	Document
Upload any additional information	View Document
Provide Link for Additional Information	View Document

2.3.2

The institution adopts effective Mentor-Mentee Schemes to address academics and student-psychological issues

Response:

RVCE has identified importance of support system to guide students on academic, behavioural, psychological and other matters to ensure their academic success and overall well-being. RVCE has instituted effective mentor-mentee scheme (Students Counselling) as part of student support system. This plays vital role in providing a supportive system for students, ensuring their holistic development.

Students counselling System

Students counselling system aims to build healthy and cordial relationship between faculty and students, enhance their academic performance and attendance, minimize dropout, monitor regularity and discipline and appraise parents on performance of their wards. A batch of 20 to 22 students are assigned to a counsellor who will remain mentor till completion of their UG/PG. There are about 220 faculty counsellors for UG and 26 for PG. Counsellors meet mentees regularly to discuss academic performance and suggest underpinning measures depending on the requirement. Counsellors maintain records of academic performance, certificates of participation in co-curricular and extra-curricular activities and mandatory AICTE activity points. Parent teacher meeting (PTM) is conducted once in a semester in first year at Institutional level and by respective departments at higher semesters.

Academic support

RVCE firmly believes that academic support is a key component of its students counselling system. Faculty counsellors assist students in steering their academic journey by providing guidance on selection of elective courses, diverse methods of study to cope with academic schedules and effective ways of preparing for examinations. Faculty counsellors also help to identify strengths and weaknesses of the students and develop effective career plan. Thus personalized attention and guidance are instrumental to academic progression and overall growth of students.

Emotional support

Students counselling system also addresses psychological aspects of deprived students. RVCE faculty includes exclusive faculty with Ph.D. in Psychology. Faculty counsellors are matured to provide support to the students in their emotional well-being. RVCE provides conducive ambiance for students to freely express their concerns, anxieties, and challenges.

Counsellors serve as interface between RVCE and Parents

Counsellors are the main channel of communication amongst Parents, students and Institution. Recommendation of counsellors is mandatory for various considerations including registration of students to higher semesters, requests for condoning attendance shortages due to medical reasons or representing RVCE in co-curricular activities such as participating in international competitions, NCC/NSS, state / national/ international level sports competitions, request for I-Grade which is a special provision for those who miss the semester end examination due to medical and other reasons.

Counsellors help students to explore their innate skills and interests, identify potential career paths and make informed decisions about their future. Dean Student Affairs conducts regular meetings of counsellors to evolve improvisation measures of Students Counselling system. RVCE organises special session for counsellors to train them on different aspects of counselling in cognisance of curricular reforms, diverse methods of studies in general and adverse conditions such as pandemics. RVCE ensures adequate resources for instituting effective counselling system. The Mentor-Mentee Scheme (Students counselling system) at RVCE is well structured and a proven system for creating a nurturing and supportive environment for students.

File Description	Document
Upload any additional information	View Document
List of Active mentors	View Document

2.3.3

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

Describe the Preparation and adherence to Academic Calendar and Teaching plans by the institution.

Response:

Academic Calendar

Academic programmes (UG/PG) offered by RVCE are conducted in semester scheme with uniformity as it provides flexibility to students and faculty. Each academic year is divided into semesters. Calendar of events, duration of semester and academic activities are planned in advance along with common starting date for odd/even semesters. An academic year comprises of THREE semesters; an odd and even with minimum 90 working days/semester along with Fast-track of eight weeks. Supplementary examinations are introduced in the recent scheme. Calendar of events provides schedule of academic, co-curricular/extra-curricular activities, Continuous Internal Evaluation and Semester End Examinations. Detailed calendar of events helps students plan academic schedules along with internships and remain focussed on earning credits and excelling in their career.

Induction programme as per AICTE guidelines

Three week induction programme is conducted for newly admitted undergraduate students in first and

second semesters. It is aimed at helping students to acclimatise with new ambiance, inculcating in them ethos and culture of institution, helping them to know each other and expose them to sense of larger purpose and self-exploration. It features activities such as visit to Art of Living and motivational lectures by renowned speakers. Normal classes begin after the induction programme.

Registration of Courses

Eligible students shall register for coursework at the beginning of each semester within the three days specified in calendar of events. Permissible course load in terms of credits for first year and number of credits within limits of minimum and maximum as prescribed for higher semesters as per the norms.

Dropping of Courses

Students can drop course/s under guidance of counsellor within one month from commencement of semester, with the information and consent of the counsellor, parent and HoD. It shall be communicated to Dean Academics. Dropping of course/s in higher semesters is subject to maintaining minimum credits for courses registered for the semester. Dropping of course is not treated attempt and student must re-register for dropped courses after completion of eighth semester. Dropped courses are also not recorded in Grade Card. This is not applicable for first year courses.

Withdrawal from Courses

Student may opt to withdraw from course/s one month before the semester end. Withdrawal from courses shall be done through application submitted to Dean Academics through counsellor and HoD in consultation with the parent, subject to attainment of minimum attendance in the course withdrawn. The course/s withdrawn are recorded in Grade Card as 'W' grade. Withdrawal of courses has no bearing on minimum number of credits prescribed for that semester and this provision is not available for first year. For W grade courses, students shall reregister for supplementary/fast track semester and shall earn stipulated attendance and CIE. Course/s declared as W Grade are treated as attempt.

File Description	Document
Upload any additional information	View Document

2.4 Teacher Profile and Quality

2.4.1

Average percentage of full time teachers appointed against the number of sanctioned posts year wise during the last five years

Response: 100

2.4.1.1 Number of sanctioned posts year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
320	334	348	356	370

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts).	View Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template merged with 2.4.3 and 2.4.4)	View Document

2.4.2**Percentage of full time teachers with Ph.D./D.Sc. / D.Litt./ L.L.D during the last five years****Response:** 77.03**2.4.2.1 Number of full time teachers with *Ph.D./D.Sc. / D.Litt./ L.L.D* during the last five years**

Response: 285

File Description	Document
List of faculty having Ph.D./D.Sc. / D.Litt./ L.L.D along with particulars of the degree awarding university, subject and the year of award per academic year.	View Document
Institutional data in the prescribed format (data template merged with 3.2.3 and 3.4.2)	View Document
Copies of Ph.D./D.Sc. / D.Litt./ L.L.D awarded by UGC recognized universities	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.3**Average teaching experience of full time teachers (Data to be provided only for the latest completed academic year, in number of years)****Response:** 16.82

2.4.3.1 Total teaching experience of full-time teachers as of latest completed academic year

Response: 5383

File Description**Document**

Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.4)

[View Document](#)**2.4.4****Percentage of full time teachers working in the institution throughout during the last five years**

Response: 79.46

2.4.4.1 Number of full time teachers worked in the institution throughout during the last five years:

Response: 294

File Description**Document**

Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.3)

[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 last date of declaration of results during the last five years**

Response: 7.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
6	6	8	8	8

File Description	Document
Result Sheet with date of publication	View Document
Policy document on Declaration of results (if any)	View Document
Institutional data in the prescribed format (data template)	View Document
Exam timetable released by the Controller of Examination	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5.2

Percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 2.03

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

2022-23	2021-22	2020-21	2019-20	2018-19
129	119	117	114	108

2.5.2.2 Number of students appeared in the examination conducted by the institution year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
5609	5538	5851	5869	6007

File Description	Document
List of students who have applied for re-valuation/re-totaling program wise certified by the Controller of Examinations year-wise for the assessment period.	View Document

2.5.3

IT integration and reforms in the examination procedures and processes including Continuous

Internal Assessment (CIA)/Formative Assessment have brought in considerable improvement in Examination Management System (EMS) of the Institution

Describe the examination reforms with reference to the following within a minimum of 500 words

- **Examination procedures**
- **Processes integrating IT**
- **Continuous internal assessment system**

Response:

Examination procedures

Board of Examiners (BoE) has representation of respective department faculty of all cadres and one or two faculty of other institutions. Chairman BoE shall prepare the list of examiners for each course in consultation with the course handling faculty and the same is uploaded to Students Life Cycle Management (SLcM) module of SAP ERP from time to time. Question paper setting assignment is sent to minimum of three internal faculty and three external faculty members enlisted as examiners in the SAP. As per the schedule provided by CoE, respective BoE scrutinises the question papers for quality of questions and adherence to OBE guidelines. Question paper for SEE shall be selected randomly from the set of selected question papers and the same is proof read before printing and a fool proof system is instituted to avoid malpractice. Remuneration for setting question paper is processed through SAP. Question papers shall be handed over to the Chief Superintendent one hour before the starting of the examination.

The answer scripts are bar coded at the Examination Section of CoE office. The answer scripts are evaluated by the internal examiners as per the scheme and solution and 30 % of the scripts shall be reviewed by the external examiners. Issue of answer scripts for evaluation to examiners, marks entry, and generation of marks sheets are performed through SAP which also generates tabulation sheet for verification before generating the result sheets.

Processes integrating IT

All process starting from entry of examiners list to announcement of the results including billing is done by IT integration through SAP from the academic year 2019-20 using the SLcM. Examination processes integrating IT through SAP has enhanced transparency and improved the efficacy of the examination system. Processes such as on-line examination fee payment, generation of Admission tickets, Grade cards, Provisional Degree Certificates, transcripts, convocation reports, etc. are implemented as part of the IT integration through SAP ERP.

Continuous Internal Evaluation system

Continuous Internal Evaluation (CIE) is spanned over a semester with tests/quiz/formative assessment (experiential learning/self-study/assignment), which is administered by the course handling faculty. The quality of question papers and adherence to OBE guidelines is ensured through department CIE scrutinising committee. Question CIE are mapped to COs and revised Blooms Taxonomy learning levels. Official booklets are provided for answering the CIE tests and quizzes are conducted online through Quiklrn platform. Experiential learning is evaluated through Rubrics. The course handling faculty

discusses the scheme and solution of CIE with the students and any discrepancy in the evaluation is addressed in fair manner.

In 2021-22, RVCE registered under Academic Bank of Credits (ABC) via National Academic Depository (NAD) platform and ID of students are created for uploading the credits earned by the students to ABC. It enables the students to register or commence credit transfer. The final outcomes of credit redemption and issuance of certificates, as well as the compilation of award records, are administered by RVCE via the NAD Platform.

File Description	Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1

The institution has stated learning outcomes (programme and course outcome)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents and the attainment of the same are evaluated by the institution

Response:

RVCE envisions leadership in quality technical education with focus on interdisciplinary research and innovation. RVCE implemented OBE in 2012. Learning outcomes(Course Outcomes(COs) and Programme Outcomes(POs)) are integrated into teaching learning and assessment.

Vision and Mission are defined by all departments. Programme Educational Objectives(PEOs) are defined for each programme. POs defined by NBA are adopted for each UG/PG programme. Programme Specific Outcomes(PSO) are defined for each programme. POs are defined to ensure knowledge, skills and attitude that students should acquire upon completion of the programme.

COs are defined by course co-ordinators ensuring student-centered, measurable, concise, meaningful, achievable and outcome-based attributes. Each question is mapped to CO and revised Bloom's Taxonomy levels which encompasses lower to higher order learning skills. COs defined for each course are reviewed by Academic Advisory Committee and approved by Board of Studies.

CO-PO Mapping

COs are mapped to POs/PSOs by course co-ordinator based on brain storming with high, medium and low levels. CO attainment target is set by course co-ordinator considering previous years' results and complexity of course. CO attainments are computed based on performance of students in quiz, tests, lab, minor/major projects, self-study/experiential learning/assignment, and SEE. Rubrics are developed to measure performance for self-study/experiential learning/assignment/projects/laboratory. CO-PO

mapping ensures that all POs are adequately addressed throughout the curriculum.

CO-PO Attainment:

CO attainment is computed with 60% weightage to CIE and 40% to SEE, which is reduced to 90% and remaining 10 % given to course end survey. CO attainment for the course is calculated by considering mean of all the CO attainments. If final CO attainment is greater than target, COs are said to be attained and target for ensuring batch may be set at higher level. If not, gap analysis is performed and improvisations in teaching learning and assessment recommended for the ensuing batch.

PO/PSO Attainment process

PO/PSO attainment is computed based on direct and indirect assessments, with 80% weightage to the former and 20% to the latter. Direct assessment is based on CIE, CES and SEE performance. Indirect assessment is based on employers feedback, internship feedback, invited talks/seminars, alumni feedback, exit survey and workshops/training. PO/PSO attainment target are set based on average of previous three years PO/PSO attainments. Through direct assessment tools, PO/PSO attainment is calculated based on level of CO to PO/PSO mapping. Overall PO/PSO attainment level is classified as Level 1: 40%–60%, Level 2: 60%–80% and Level 3: 80%–100%. If target is achieved, the same process will be continued for further batches with incremental increase in target. If not, gap analysis is done and action to be taken is recorded for continuous improvement.

Transparency and Publicity

Vision, Mission, PEOs, POs PSOs and COs are widely published in official RVCE website (www.rvce.edu.in), syllabus books, lesson plans, CIE/SEE question papers and laboratories. Programme syllabus books presents course learning objectives, course outcomes, and assessment criteria for each course. RVCE disseminates these through induction programmes and introductory sessions for each course.

File Description	Document
Upload POs and COs for all courses (exemplars from Glossary)	View Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

2.6.2

Pass percentage of students (excluding backlog students) (Data for the latest completed academic year)

Response: 100

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

during the latest completed academic year:

Response: 1396

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Certified report from the COE indicating the pass percentage of students of the final year (final semester) eligible for the degree program-wise / year wise	View Document
Annual report of Controller of Examinations (COE) highlighting the pass percentage of final year students	View Document

2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

Response: 3.3

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 are well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

RVCE envisions leadership in technical education, interdisciplinary research and innovation and is committed to facilitate research in cutting edge technologies. R&D at RVCE drives infrastructure development in advanced areas and implements a well-defined and structured research policy to foster research amongst faculty and students. Dean R&D handles operational aspects of research and consultancy as per the guidelines laid out in the Research Policy Document approved by the Research Advisory Committee and Governing Body.

RVCE recognizes importance of research infrastructure for advancing research and consultancy and adopts mechanism for development of research laboratories. RVCE provides annual budget for UG, PG and research for each programme to develop and maintain research infrastructure. Separate budget is provided to interdisciplinary research centres dedicated to fabrication and characterization of advanced coatings and thin films and other CoE in cutting edge technologies established in the campus. Research infrastructure is also updated through industry sponsored laboratories and centres of excellence/competence.

Research infrastructure is enriched through research projects undertaken by RVCE faculty sponsored by national organisations such as DST, DBT, UGC, AICTE, KSTU, KSTA, NRB, ARB, DRDO, BIRAC, SERB, DSIR, DAE, ISRO, VTU, VGST, DRDO and ICMR for over two decades. RVCE has research centres recognised by VTU in Engineering and Science in which 350 research scholars are pursuing PhD. RVCE guides research scholars on nuances of research through ARAI (Academic Research Accelerator Initiative). RVCE has developed rich infrastructure in the areas of automotive mechatronics, EV, smart antenna, high power computing, smart city technologies, visual computing, vehicle automation, IoT, quantum computing, nanomaterials, integrated circuit design, video analytics, hydraulics and Pneumatics, digital manufacturing and supply chain management.

RVCE conducts regular assessments of research infrastructure to identify areas for improvement and investment. This proactive approach ensures that research facilities remain at forefront of scientific and technological advancements. RVCE provides faculty and students the necessary resources to conduct impactful research.

RVCE has developed a comprehensive and well-structured Research Policy that guides faculty and students on research and consultancy. Research Policy Document is formulated through consultations with members of Research Advisory Committee and other stake holders to ensure effectiveness and motivation for faculty to engage in research and consultancy.

The Research Policy encompasses key aspects such as guidelines for conducting research, collaboration with national and international universities for research, guidelines for publishing research articles,

financial support for quality journal publications through institutional membership for open access journals, proof of concept and prototyping, incentives for faculty engaged in consultancy projects, full financial support for patenting for both students and faculty, Research Assistantship for full time research scholars of INR 25–30K, promotion of RV Journal for Science Technology Engineering Arts and Management (RVJSTEAM) and Research Fellowship (JRF/SRF) in funded research/consultancy projects. The policy aims to create an ambience conducive for effective and ethical research. Availability of Research Policy document in the Institutional Website promotes transparency and inclusivity, enabling stakeholders to make informed decisions and take advantage of the opportunities and support provided. Effective implementation of research policy fosters a research centric culture at RVCE.

File Description	Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

3.1.2

The institution provides seed money to its teachers for research

Response: 89.42

3.1.2.1 Amount of seed money provided by institution to its teachers for research year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
17.75	1.47	0	50.20	20.0

File Description	Document
Sanction letters of seed money to the teachers is mandatory	View Document
List of faculty who have been provided with seed money for research along with the title of the project, duration and amount year-wise	View Document
Institutional data in the prescribed format (data template)	View Document
Audited Income-Expenditure statement highlighting the expenditure towards seed money endorsed by the Finance Officer	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.1.3

Percentage of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the last five years

Response: 3.78

3.1.3.1 Number of teachers who received national/international fellowship /financial support by various agencies, for advanced studies / research; year-wise during the last five years

Response: 14

File Description	Document
List of teachers who have received the awards along with nature of award, the awarding agency etc.	View Document
Institutional data in the prescribed format (data template)	View Document
E-copies of the award letters of the teachers	View Document

3.2 Resource Mobilization for Research

3.2.1

Total Grants research funding received by the institution and its faculties through Government and non-government sources such as industry, corporate houses, international bodies for research project, endowment research chairs during the last five years (INR in Lakhs)

Response: 450.34

File Description	Document
List of Extramural funding received for research, Endowment Research Chairs received during the last five years along with the nature of award, the awarding agency and the amount	View Document
Institutional data in the prescribed format (data template is merged with 3.2.2)	View Document
Copies of the letters of award for research, endowments, Chairs sponsored by non-government sources	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.2

Number of research projects per teacher funded by government, non-government , industry, corporate houses, international bodies during the last five years

Response: 0.14

3.2.2.1 Number of research projects funded by government and non-government agencies during the last five years.

Response: 50

File Description	Document
List of project titles with details of Principal Investigator, amount sanctioned and sanctioning agency etc	View Document
Institutional data in the prescribed format (data template merged with 3.2.1)	View Document
Copies of the grant award letters for research projects sponsored by government agencies	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.3

Percentage of teachers recognised as research guides as in the latest completed academic year

Response: 54.38

3.2.3.1 Number of teachers recognised as research guides as in the latest completed academic year:

Response: 174

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.4.2)	View Document

3.3 Innovation Ecosystem

3.3.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

RVCE has created ecosystem for research that fosters innovation and embraces Indian Knowledge System (IKS). With focus on creating and transferring technology and knowledge, RVCE has implemented several initiatives to support creation of IPR, and provide resources for PoC, Prototyping and device development that reflect Innovation.

RVCE has developed faculty competency to promote IKS through training programmes conducted by IKS division of MoE. This initiative is to promote and preserve indigenous knowledge, traditions, and practices. Mandatory courses on IKS and UHV are introduced in UG curricula. RVCE has vibrant Cultural Activities Team(CAT) through which regional and cross cultural festivals including Yoga are conducted. By recognizing value of indigenous knowledge systems, RVCE demonstrates commitment to embracing and nurturing diverse intellectual traditions that can drive research and innovation.

RVCE recognizes significance of IPR in protecting and promoting innovation. RVCE strongly emphasises creating awareness on IPR through dissemination programmes such as seminars/workshops to educate academic community on importance of IPR and innovation.

RVCE has established IPR coordination cell for strategic handling of IPR to support and facilitate protection of inventions of faculty and students. The cell serves as institutional resource and SPOC for inventors. The cell provides guidance on patentability and assists in driving filing of patents, conducting patent searches and legal aspects of IP through an external agency. The cell provides services related to creation, protection and commercialization of IP to facilitate transfer of knowledge and technology through patent evaluation for ascertaining value of patent. RVCE has IP coordination committee to drive IP related activities. Present status of innovation at RVCE is reflected in 38 granted patents, 21 published patents and 11 submitted applications through institutional funding of INR 85,000 per patent.

Innovation is brought about through students' innovative projects such as Ashwa Racing, Helios, Chimera, Garuda, Solar Car, Jatayu, Antariksh, Frequency Club, Hydra and Coding Club through institutional and industry support. Innovative project teams are engaged in innovations and competing in international/national competitions and have won accolades. RVCE nurtures innovation activities by extending financial support, laboratory and workshop infrastructure along with guidance by faculty.

RVCE has set up incubation centre to facilitate transformation of innovative ideas into practical applications. RVCE provided space, laboratory infrastructure and mentorship for the incubatees to develop products. The incubation centre has supported five incubatees leading to start-up in different domains. Several prototypes are developed in health care, such as Fingertip BP monitoring device. The technology transferred to infodoc.com for developing commercial product. Prototype of innovative fall detection system is developed, whose USP lies in use of biocompatible material. The device is useful for patients with neurological disorders. Prototype of Osteoporosis estimation device is developed through DSIR sponsored individual innovator project. Osteoporosis is estimated based on drop in frequencies at two locations on tibia, captured through vibration sensors. RVCE is developing HRV device sponsored by DST-Nidhiprayas. Many other granted patents on materials, chemical processes and BT are explored for product development and adoption by industries.

File Description	Document
Upload any additional information	View Document
Link for Any other additional information	View Document

3.4 Research Publications and Awards

3.4.1

The Institution ensures implementation of its stated Code of Ethics for research.

The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following:

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of institutional Ethics committee (Animal, Chemical, Bio-ethics etc.)**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Response: A. All of the above

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Copy of the syllabus of the research methodology course work to indicate if research ethics is included	View Document
Constitution of the ethics committee and its proceedings as approved by the appropriate body	View Document
Constitution of research advisory committee and its proceedings as approved by the appropriate body.	View Document
Bills of purchase of licensed plagiarism check software in the name of the HEI	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.2

Number of candidates registered for Ph.D per teacher during the last five years

Response: 2.53

3.4.2.1 Number of candidates registered for Ph.D during the last 5 years:

Response: 441

File Description	Document
Ph.D. registration letters/Joining reports of candidates.	View Document
Letter from the university indicating name of the Ph.D. student with title of the doctoral study and the name of the guide.	View Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.2.3)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.3

Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years

Response: 0.11**3.4.3.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

Response: 41

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link to the uploaded papers, the first page/full paper (with author and affiliation details) on the institutional website	View Document
Links to the paper published in journals listed in UGC CARE list	View Document
Link re-directing to journal source-cite website in case of digital journals	View Document

3.4.4**Number of books and chapters in edited volumes published per teacher during the last five years****Response:** 0.49**3.4.4.1 Total Number of books and chapters in edited volumes published during the last five years**

Response: 180

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	View Document

3.4.5**Bibliometrics of the publications during the last five years based on average Citation index in Scopus/ Web of Science**

Response: 0

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

3.4.6

Bibliometrics of the publications during the last five years based on Scopus/ Web of Science – h-index of the Institution

Response: 0

File Description	Document
Bibliometrics 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

Response: 962.98

3.5.1.1 Total Amount generated from consultancy and corporate training year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
148.0	125.57	484.59	117.70	87.12

File Description	Document
Letter from the corporate to whom training was imparted along with the fee paid.	View Document
Letter from the beneficiary of the consultancy along with details of the consultancy fee	View Document
Institutional data in the prescribed format (data template)	View Document
CA certified copy of statement of accounts as attested by head of the institution	View Document
Audited statements of accounts indicating the revenue generated through corporate training/consultancy.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.6 Extension Activities

3.6.1

Outcomes of extension activities in the neighbourhood community in terms of impact and sensitizing the students to social issues and holistic development, and awards received if any during the last five years (Showcase at least four case studies to the peer team)

Describe the impact of extension activities in sensitising students to social issues and holistic development with four case studies within a maximum of 500 words

Response:

RVCE is committed to holistic development of students emphasising social sensitivity. RVCE has developed network with NGO/Government and undertakes extension activities through NSS/NCC/Raag/Rotract to inculcate sense of empathy and compassion towards society.

NSS-RVCE with over 100 volunteers conducts 50 events/year. Volunteers actively participate in Republic day parade and National Integration camps. NSS collaborates with NGOs such as Adanya Chetana for plantation drives, Campus to Community and Pranav Foundation for environment preservation and community development.

NCC-RVCE started in 2010 with 80 cadets and 30-35 cadets obtain C-Certification every year. Since inception 17 cadets participated in Republic Day camp, 15 cadets participated in All India Thal Sainik camp, eight cadets represented India as student Ambassadors, six cadets won medals at National camps, eight cadets joined Indian Armed forces, two cadets completed Basic and Advance Mountaineering courses, five cadets are IAS/IPS officers. NCC is adjudged BEST Institution of Karnataka and Goa Directorate five times. Four case studies are presented below:

Blood Donation Camp

NCC/NSS along with Rotaract Club organise Blood Donation Camps every year. Blood Donation camp in 2022-23 was overwhelmingly responded by cadets, students, faculty, and neighbourhood community. Across Bangalore 13 Blood Banks, including Lions Club, NIMHANS, and Indian Red Cross Society participated. Over 800 units of blood were collected.

Science Education to School Students

NSS/NCC volunteers participated in development of scientific attitude in school students. “Chhote Scientists” is one of the initiatives started with Youth For Seva to promote understanding science through enquiry through experiments. Youth for Seva trained RVCE students on Enquiry based Science Education and RVCE volunteers conducted sessions of 420 minutes to rural high school students.

Environment Awareness

Air We Share was organized by NSS on ‘International Day of Clean Air for Blue Skies’, to build awareness on combating air pollution by increased usage of Public Transport. Online Ambient Air Quality Monitoring Station funded by KSPCB was installed in RVCE, to monitor Air pollutants in and around RVCE. NSS-RVCE conducted **Environment Awareness** drive at schools, colleges, public places and communities to promote Environmental consciousness and engaged them on plantation of native species. The planted trees also had the potential to mitigate climate change by sequestering carbon dioxide. By combining tree plantation with educational awareness and street play, NSS created a holistic environment program.

COVID-19 Vaccination Drive

NSS and NCC volunteers involved in the vaccination drive against COVID 19 on 11 Aug 2022 in RVCE campus, to join hands with National COVID Vaccination Program of Government of India. It was conducted in collaboration with Primary Health Centre, Kengeri. The beneficiaries of the programme included faculty, students, staff, and local community. With COVID cases spiking in 2020, vaccination was made mandatory by the Government to resume work. The drive was conducted in four rounds and over 1000 people were vaccinated.

RVCE has exemplified its commitment to civic engagement and holistic development. RVCE strives to create long lasting impact on the neighbourhood community and empower students become change-makers in society true to Tagline of RVCE ‘Go Change the World’.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

3.6.2

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years

Response: 105

3.6.2.1 Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years.

2022-23	2021-22	2020-21	2019-20	2018-19
28	37	17	12	11

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format (data template)	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.7 Collaboration

3.7.1

Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years

Response: 78

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc	View Document
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for

- 1. teaching – learning, viz., classrooms, laboratories, computing equipment etc**
- 2. ICT – enabled facilities such as smart class, LMS etc.**
- 3. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.**

Response:

RVCE is committed to provide the-state-of-the-art infrastructure for academic excellence and holistic development of students aligning with technological advances and digital transformation in technical education.

Teaching-Learning Facilities

RVCE has architecturally designed; spacious, well ventilated classrooms with large ceiling height with ICT enabled facilities. Classrooms and laboratories provide comfort and visibility. RVCE is planning to build integrated classrooms for better knowledge and skill transformation.

Classrooms

Class rooms are designed as per AICTE norms with respect to carpet and amenities area, lighting, ventilation and furniture for conducive and barrier free environment. RVCE has 122 class rooms (95 smart boards, 27 LED projectors) and Wi-Fi facility. RVCE has 14 seminar halls and one auditorium of 350 seating capacity, with state-of-the-art infrastructure, for conducting seminars/workshops/conferences.

Laboratories

RVCE has 155 laboratories with the-state-of-the-art equipment, apparatus, instruments and systems for practical and experiential learning. Laboratories are provided with necessary safety systems.

Laboratories/workshops are designed and maintained as per AICTE norms and equipped with adequate number of experimental set-up, computers and peripherals. Qualified staff (many with B.E & M.Tech) are assigned for all the labs. Open ended experiments are conducted by students for experiential learning and assignment. CoE/CoC are set up in advanced technologies with industries collaboration and institutional budget. Interdisciplinary Research Centre is set-up for carrying out projects and consultancy for academics and research.

Computing / ICT enabled facility

RVCE has implemented ICT- enabled facilities such as 136 ICT enabled classrooms and 95 Smart classrooms with Digital LED Boards. RVCE has deployed Learning Management System (LMS-Quiklrn) as Online- platform for first two years of engineering.

RVCE has Data Centre with 11 servers and one high performance computing server. There are over 2499 desktops, 73 computer labs with computer student ratio of 1:2, 55 laptops, 139 printers/scanners, ten workstations. UPS along with two generators of capacity 980 KVA are available. It is planned to add three more generators with capacity 750 KVA each for power back-up.

RVCE provides internet connectivity of bandwidth 1000 Mbps (1:1) with redundancy and Wi-Fi facility with 140 access points all over the campus.

Language Laboratory

RVCE has Language laboratory in all the departments for two credit Professional English as Practical for first year students taught through modules developed by Hindu Group. Central Computing Hub and Department labs are used for practical classes.

Cultural and Sports facilities

Yoga centre: Yoga centre is set up in Civil Department for yoga and meditation classes for one credit in first year engineering.

Sports facilities: RVCE provides Indoor and Outdoor Recreation facilities, such as chess, table tennis, badminton, carom, Multi Gym, Basketball, Volleyball, Cricket, Football, Kho-Kho and Athletics. Students have won University/Regional/International accolades.

Auditorium: RVCE has state-of-art 330-Seater Auditorium for conducting academic and cultural activities. RVCE is building 2800 capacity auditorium with indoor sports facilities.

RVCE ensures that classrooms, laboratories, ICT-enabled facilities, cultural and recreational facilities, yoga centre, and auditorium meet high standards. Infrastructure provides conducive environment for academic growth, holistic development, and well-being of students.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.1.2

Percentage of expenditure excluding salary, for infrastructure development and augmentation year wise during the last five years**Response:** 45.14**4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
1019.76	1412.25	833.48	1826.63	1862.58

File Description	Document
Institutional data in the prescribed format (data template is merged with 4.2.2 and 4.4.1)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.2 Library as a Learning Resource**4.2.1**

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Response:

Library and Information Centre is an independent department in RVCE with a built-in area of 2254 sq.mt and a seating capacity of 350. It has stack section in ground floor, mezzanine floor for journals and magazines and second floor for PG books.

The library subscribes to 158 technical journals, 23 technical magazines, and 15 newspapers. The library has subscribed to Wiley, Pearson e-Books. Turnitin anti-plagiarism software and Institutional subscription for publishing OA journals of IEEE and Taylor & Francis are subscribed. E-journals are subscribed through VTU e-Resource Consortium. Library has a collection of 7693 e-journals, 44320 e-books, 190 e-journals and conference proceedings with a collection volume of 185500. Resources are IP based and accessible on-campus through Digital library and outside through remote access.

Library procures over 2500 books every year. Over 400 students use library every day. Digital library has 20 desktops and server. Book bank for SC/ST students is maintained. RFID is implemented for all books. RVCE is a member of VTU e-consortium and National Digital Library of India (NDLI).

Library is automated with integrated library management system (ILMS). Procurement and renewal of journals and software are carried out through SAP Material Management Module. New subscriptions are carried out through SAP Service Module.

Library collections are maintained in Stack Area, Reference, Technical/Print Journal, PG and Book Bank Sections. Books are issued for 15 days and are arranged as per call number, subject name and class number. Maximum of two renewals of books is permitted. Library provides inter-library loan facility through DELNET, open source access through DSPACE, facilitating access to open literature through IRINS, web based research information management portal.

E-Resources from VTU Consortium include e-journals/e-books: IEEE Conference Proceedings, Springer Nature e-Journals/e-Books published by Elsevier Science (Engg + CSE), Taylor and Francis, ProQuest (Architecture and all Engineering and its Allied Branches Database) and others.

Library provides **Knimbus remote access**. IEEE Journals, Pearson e-Books, and Wiley e-Books are Institutional subscribed resources. Library provides access to National Print Journals through which 158 print journals can be accessed. Library has implemented open source Software **DSPACE** which is an intranet service. RVCE provides access to IRINS which is integrated with academic identities such as ORCID ID, ScopusID, Research ID, Microsoft Academic ID, and Google Scholar ID for ingesting scholarly publications from various sources. Library has initiated a COURSEPACK service for additional reading and reference for the readers, through which e-books, e-Journals, and NPTEL materials can be browsed.

Library operates from 9.00 a.m. to 9.00 p.m. on weekdays and 9.00 a.m. to 1.30 p.m. on Sundays

RVCE conducts library stock verification at the end of every year and books to be weeded out due to obsolescence in syllabus or physical damage are identified. New books are added in sufficient numbers regularly. Since the subscriptions to e-resources are through the VTU and NDLI, the e-contents are assured to be relevant to the concerned programs, ensuring availability of up-to-date learning resources. RVCE has a Library committee with senior faculty as members responsible for the development of library infrastructure.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.2.2

Percentage of expenditure for purchase of books/ e-books and subscription to journals/e-journals year wise during the last five years

Response: 1.73**4.2.2.1 Expenditure for purchase of books / e-books and subscription to journals/e-journals year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
102.72	47.98	32.43	52.69	30.78

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.4.1)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for purchase of books/ e-books and subscription to journals/e-journals should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3 IT Infrastructure**4.3.1**

Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

Response:**RVCE IT Policy**

RVCE is committed to No-piracy Software Policy and ensures usage of legal and ethical software. Utilisation of licensed software such as Microsoft Windows, Mathworks, Cadence, and Adobe products reflects IPR compliance.

RVCE has comprehensive IT Policy under which IT Planning and Monitoring Committee [IPMG] with Principal, Dean-Academics, Registrar, faculty, Network Administrator and System Analysts is constituted. IT Policy provides guidelines for Network installations, usage by faculty and students, software usage, internet bandwidth and email and IT inventory, IT infrastructure management and upgradation. During last five years(2018-23), Non-Recurring expenses INR 544.91 lakh and recurring

expenses INR 665.79 lakh are incurred towards IT infrastructure upgradation.

Network Architecture

During 2018-22 Network Architecture (one Gig Fiber Backbone, two layer architecture core and access layer) was deployed. VLAN segmentation was used for network for security and manageability. In 2022-23 campus network backbone was upgraded from **1 Gig to 10 Gig** using OFC with two path redundancy. Three-tier Architecture (Core, Distribution and Access) was installed at INR 8.5 crore.

Voice Network

During 2018-20 RVCE's self-contained Voice Network supported by SIP Trunk lines and on-premises EPABX System (300 lines) with TATA Centrix facilitated seamless communication across the campus.

In 2020 Voice infrastructure was upgraded to **NEC Make EPABX System** with 500 lines.

Data Centre Infrastructure

RVCE has **24/7 operational Data Center** with state-of-the-art servers, storage systems, backup solutions and 2499 desktops. Fire suppression systems, precision A/c, biometric access controls, and 240 CCTV cameras are integrated.

During 2018-22 Data Centre had six servers (178 core CPU, 1.1 TB RAM, 42 TB SAN), which was upgraded in 2022-23 with Hyper-Converged Infrastructure with seven servers (272 cores CPU, 1.7 TB RAM and 92 TB storage). Integration of HCI bolsters computing capabilities, and implementation of Aruba ClearPass solution for network monitoring strengthens wireless authentication. Hardware specifications include Dual ROME AMD processor (128 CPU cores, min. 2.25 GHz, with 8 x Nvidia A100 GPU Accelerators with min. 160 Tflops peak performance double precision). Pre-installed AI frameworks along with Deep learning GPU Training System support AI applications.

Wi-Fi Infrastructure

Wi-Fi infrastructure provides advanced connectivity as per 802.11ax standard. In 2018, total of 290 access points (Aruba 240 and Ruijie 50) were deployed. In 2022-23, Wi-Fi infrastructure was upgraded with 425 Aruba Access points with clearpass network management software.

Internet connectivity

In 2018 campus had dedicated internet bandwidth of 600 Mbps (Railtel – 300 Mbps and Cityonline – 300 Mbps) catering to the needs of all users. In 2021-22 it was enhanced to **1000 Mbps** (Railtel – 500 Mbps and Seans media - 500 Mbps). Same bandwidth was maintained in 2022-23 with change in service providers for seamless connectivity (Railtel – 500 Mbps and Infynix - 500 Mbps).

Surveillance Systems and Biometrics

RVCE has 240 CCTV cameras and 17 network video recorders. Integration of attendance through IP-based face recognition linked to SAP ERP streamlines attendance management of faculty and staff which is linked to SAP HR module for salary.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.3.2

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

Response: 2.8

4.3.2.1 Number of computers available for students' usage during the latest completed academic year:

Response: 2017

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3.3

Institution has dedicated audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development

Response:

Technological growth in Industrial Revolution 4.0 has penetrated Higher Education. Digital learning is part of RVCE ecosystem and hence the Institution has initiated steps to develop infrastructure for digital learning.

1. Digital Media Centre infrastructure

Digital Media Centre was established in 2009 with multimedia infrastructure which provides workspace and equipment for audio recording/editing/mixing in sound proof ambiance. The centre has:

HP XW4600 workstation with Intel X38 Express performance chipset and Dual and Quad-Core Intel processors

Sony Camcorder with Control unit, Sony 3CCD Mini DV Handycam Camcorder, SONY recorder, Sennheiser wireless Microphone and TRIPODS

YAMAHA 01V96 Audio mixer with 16 Analogue channel inputs, 12 with high-performance microphone head amplifiers and eight digital channel inputs via built-in ADAT optical interface.

ODYSSEY 2B Video Mixer

Avid Media Composer for dealing with high volumes disparate file based media and delivers accelerated high resolution and HD workflows, real time collaboration, and powerful media management.

1. Centre for Education and Digital Learning Research (CEDLR)

RVCE has developed CEDLR dedicated to develop education modules for digital learning. It has Reconfigurable seating arrangements, Smart Boards, Camera for live telecast and High speed internet connection. Content creation is enabled using Quiklrn Adaptive Learning Platform with integrated AI based learning services for personalised learning experience.

1. Media Communication Cell

The cell is dedicated to digitising materials for workshops/seminars/conferences/skill labs/ internships and other activities through CoE/CoC and publicising through print and electronic media. The cell makes use of Photography and Videography tools from Adobe licensed versions.

Cell is equipped with Apple iMac M1 (2 units), Intel i5 12 Gen (1 unit), Sony Alpha 7 IV Camera, Sony 28-70 f/5.6 Lens, Sony 70-300 f/5.6 Lens, Sigma 35mm f/1.4 Lens, Tripod E Image -7010A and Simpex 621RX TTL Flash.

1. Extended Reality Centre for Education and Research

The centre is dedicated to facilitate experiential learning through Extended Reality. The centre is set-up with sponsored project from VGST (INR 30 Lakh) and Institutional support of INR 42 Lakh for hardware and software.

The centre is equipped with Hardware and Software:

1. Hardware

25 systems of Lenovo ThinkCentre (Core i7-12 Gen, 16 GB RAM, 512 SSD, Intel(R) UHD Graphics 770)

AR Device - Samsung Tablet S7 FE Tablet LTE)

VR Devices - Oculus Quest 2 and Oculus Meta Pro (All in One Device for content creation and collaboration)

Microsoft HoloLens - MR Device with Standard Suite.

Dell Latitude 3440 Laptop

Dell Mobile Precision Workstation 3581- Intel core i9-13900H, 14 cores, 20 threads, 2.6-5.4 GHz Turbo, 45W), NVIDIA RTX 2000 Ada Generation, GDDR6

1. **Software bundle for Metaverse Technologies (AR/VR/MR)** is procured at INR 35 lakh. The bundle includes unity software; Instructor led training, Curriculum framework for AR/VR/MR/Gaming along with Unity certifications.

RVCE has 83 legal software tools for simulations used for academics / experiential learning/ projects / Internship. Important software includes, CADENCE, MATLAB, CATIA, 3D experience and Adobe. RVCE plans to develop digital solutions for immersive learning for different courses and contribute to open educational resources by making use of Software bundle, Metaverse Technologies.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1

Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years

Response: 36.26

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities of DDE and total expenditure excluding salary, year - wise, over the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
1244.82	1107.97	955.20	1131.33	1147.18

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.2.2)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for maintenance of physical facilities and academic support facilities should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.4.2

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

Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities within a maximum of 500 words

Response:

RVCE has established comprehensive systems and procedures for maintenance and utilization of physical, academic and support facilities. RVCE ensures infrastructure related to classrooms, laboratories, library, ICT, Hostel, campus and other support facilities are adequately maintained.

Maintenance of Facilities

RVCE has Maintenance Department headed by Senior Facilities Manager and five staff. The Department does preventive and breakdown maintenance of campus infrastructure and coordinates for Sustainability Audits by external agencies. Maintenance department monitors housekeeping, security and transport services which are outsourced.

Maintenance Department follows SOP for efficient maintenance of campus infrastructure, including security, Housekeeping, Stores, Electrical systems, campus, STP and Solar systems. IT infrastructure is maintained by IT Infrastructure Planning and Monitoring Group (IPMG).

Utilization of Academic Facilities

Classrooms/laboratories are optimally utilized by centralized planning by institutional CTTO and department TTOs. RVCE has Auditorium (570 sq. m, 330 capacity) which is used for workshops/seminars. Maintenance department is responsible for allocation of seminar halls, auditorium

and transport facilities through prior booking. RVCE has installed four RO water purifiers for drinking water, STP and rainwater harvesting.

Sports facilities

RVCE has Department of Physical Education and Sports headed by Director and supported by Assistant Director and three staff and ensures efficient utilization of indoor/outdoor sports and recreation facilities. Department conducts sports events at Intra and inter institutional, University and State levels. Several sports events are sponsored by RSST, Government, University, philanthropists and other agencies. Sports inventory is maintained and upgraded periodically. Safety protocols are implemented during daily routines and events. Department conducts Annual Sports Day for faculty and students. Sports Budget and Accounts are maintained. RVCE is constructing Gymnasium for indoor sports and boxing with 2800 capacity auditorium.

Annual Maintenance Policy

Maintenance department monitors maintenance of A/c, servers, desktops, UPS, lab equipment, generators, solar, STP and other facilities through AMC. RVCE has nine lifts (Johnson Electric) of 8-15 persons capacity maintained through AMC.

Library Maintenance

Library and Information Department has well defined policy and SOP for maintenance and utilization of the library resources. Library maintains updated catalogue of books, journals, e-books, and educational materials. Library updation and maintenance is accomplished through annual budget.

Hostel and Guest House facility

RVCE has three Boys Hostels(1185 rooms, 38659.11 sq. m, 1450 capacity) with two dining halls. RVCE has on-campus Girls Hostel (95 rooms, 285 capacity) and off-campus Girls Hostel (66 rooms, 132 capacity). Recreation facilities such as Sports Hall and TV are provided in hostels. RVCE has VIP Guest House with eight well-furnished double rooms for delegates/parents. RVCE is developing one international hostel for foreign students.

ICT Facilities Maintenance

IT infrastructure is maintained by IPMG. Service requests related to IT facilities are logged through an internal portal and are assigned to technicians. IPMG undertakes IT maintenance and IT coordinators of departments undertake maintenance of software labs. Hardware maintenance of Servers is outsourced. Software renewals are undertaken through annual budget.

RVCE has well-defined policies and procedures for maintaining and utilizing physical, academic, and support facilities. RVCE emphasizes upkeep of facilities to ensure that they are in usable condition.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 29.33

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
2201	1756	850	1829	1549

File Description

Document

Year-wise list of beneficiary students in each scheme duly signed by the competent authority.

[View Document](#)

Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).

[View Document](#)

Upload policy document of the HEI for award of scholarship and freeships.

[View Document](#)

Institutional data in the prescribed format (data template)

[View Document](#)

5.1.2

Efforts taken by the institution to provide career counselling including e-counselling and guidance for competitive examinations during the last five years

Response:

Career counselling is instrumental in guiding students towards fulfilling career. It offers invaluable insights into different professions, emerging industries, job market trends, and educational pathways. RVCE is fully committed to providing career counselling and guidance for competitive examinations and higher studies based on their innate strengths and interests.

Career Counselling

Career Counselling at RVCE is provided through Department of Placement and Training that envisions 'Sustained Excellence in Training, Placement and Career Guidance'. Its Mission is to develop the Department as a single window for Career Counselling and Higher Learning in Engineering and to provide extended training and Career Counselling through external agencies. Soft skills training and career counselling is provided to students in second and third year of UG, through custom designed modules of 72 hours through external agencies. The department provides Pre-Placement Training for pre-final year students by industrial professionals from diverse sectors. Professionals from Defense, ISRO, Research organisations, Public Sectors address students on career options to enable decision making based on strengths and interests apart from preplacement talks. The department regularly organises sessions on career options in foreign universities, prerequisites (CAT, GMAT,..) and assistantship possibilities. Engineering departments also invite industry professionals, alumni, and successful individuals from various fields to share their experiences and insights. These interactions provide students with first-hand knowledge of career paths, industry expectations, and opportunities.

E-Counselling

RVCE provided career guidance in virtual mode during COVID through video conference platforms. It included soft skill training and career counselling sessions through webinars.

Guidance for Competitive Examinations

Engineering Departments conduct coaching classes from second year of engineering on GATE, CAT, GMAT and UPSC examinations. Faculty with expertise volunteer to provide coaching in structured manner after class hours. This has led to increase in enrolment for competitive examinations for higher studies. Significant number of students have successfully completed GATE, CAT, etc. and secured admission in Institutions of Excellence in India and reputed universities abroad. Over 25 students have cleared UPSC examinations over the last five years.

360 Degree Approach

Extended efforts for career development is accomplished through Centres of Excellence/ Competence with industrial collaboration and Special Skill Labs on advanced technologies. It has resulted in significant enhancement in placement, higher studies and entrepreneurship. RVCE organises E-Summit through Entrepreneurship Cell in which students interact with successful entrepreneurs, Alumni and potential employers and explore internship and job opportunities. It serves as platform for students to network and gain awareness on career avenues. RVCE has developed effective alumni network, which plays vital role in career counselling. Illustrious Alumni provide guidance, share industry-specific insights, and offer internship and job opportunities. RVCE regularly organizes workshops and seminars on entrepreneurship and skill development, empowering students to consider entrepreneurial ventures and develop essential skills for their careers.

Success of career counselling is reflected in number of organisations visiting for placement, high placement record with median salary, higher studies, number of students clearing UPSC examinations and occupying administrative positions in public service, higher positions in companies and number of Alumni entrepreneurs.

File Description	Document
Upload any additional information	View Document

5.1.3

Following capacity development and skills enhancement activities are organised for improving students' capability

- 1.Soft skills**
- 2.Language and communication skills**
- 3.Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)**
- 4.Awareness of trends in technology**

Response: A. All of the above

File Description	Document
Report with photographs on programmes conducted for awareness of trends in technology	View Document
Report with photographs on programmes/activities conducted to enhance soft skills, Language & communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Institutional data in the prescribed format (data template)	View Document

5.1.4

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
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document
Proof related to Mechanisms for submission of online/offline students' grievances	View Document
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document
Annual report of the committee monitoring the activities and number of grievances	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2 Student Progression

5.2.1

Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 83

5.2.1.1 Number of outgoing students placed and progressed to higher education during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1115	1314	1165	1195	1130

File Description

Document

Institutional data in the prescribed format (data template)

[View Document](#)

Provide Links for any other relevant document to support the claim (if any)

[View Document](#)

5.2.2

Percentage of students qualifying in state/ national/ international level examinations out of the

graduated students during the last five years

(eg: NET/SLET/ Civil Services/State government examinations etc.)

Response: 2.23**5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/Civil Services/State government examinations etc.) year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
22	32	27	29	49

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.3 Student Participation and Activities**5.3.1****Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events during the last five years****Response:** 65**5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at University / state / national / international level events (award for a team event should be counted as one) year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
19	16	01	15	14

File Description	Document
list and links to e-copies of award letters and certificates	View Document
Institutional data in the prescribed format (data template)	View Document

5.3.2**Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution.****Describe the Student Council activity and students' role in academic & administrative bodies within a maximum of 500 words****Response:**

RVCE emphasises representation of students in academic and administrative committees for effective and student oriented decision making. This ensures importance of opinion of students, helps in shaping policies and practices, promote transparency, accountability and fosters belongingness.

Governing Body (GB) of RVCE has student representatives. At GB meetings, students present suggestions for improvements in academics and administration. Final year students are selected by respective HoD to suggest curricular reforms which are presented before the BoS for approval.

Students as members of Anti-ragging committee, address juniors on consequences of ragging and ensure ragging free campus. Two final year students of UG and one PG student are BoS members of respective department. They collect suggestions of classmates and present collective opinion at BoS. RVCE provides hostel accommodation for boys and girls. For ensuring effective services in terms of food and accommodation, committee of ten students of second to fourth year is constituted. Hostel committee suggests menu considering food habits of inmates, monitors food quality and services of hostel staff.

RVCE has a vibrant Cultural Activities Team (CAT) with over fifty student members, headed by Associate Dean. Through CAT a number of activities such as regional and national fests and Yoga are regularly conducted. Students are vibrantly engaged in NSS, NCC and Rotaract activities. Students work on areas prescribed by AICTE related to community development such as Swachh Bharath, enhancing income of villagers and lake rejuvenation.

As members of Professional Society Chapters, like IEEE, ACM, ASME, ISHRE, ASM, etc., students take leadership in organising a number of co-curricular activities.

One or two students (day scholar and hostallite) from each department are nominated as department student placement coordinator/s who work in tandem with department faculty placement coordinator. Together they act as effective interface between students and placement department. They coordinate with placement department in activities such as scheduling of pre-placement training and career counselling. The coordinators ensure registration and participation of students in campus interviews. They monitor the placement and higher studies of the students of the respective department.

RVCE has a number of student forums/clubs to provide opportunity to students to participate in wide range of research, innovative, co-curricular, extra-curricular, and social / community development activities. The innovative research and innovation clubs of RVCE include Ashwa Racing dedicated to build racing cars, Chimera – the India's premier student formula hybrid and electric team, Garuda dedicated to build urban super mileage cars, Helios – All terrain vehicle team, Solar car team, Jatayu – Unmanned aerial vehicle team, Astra Robotics, Team Krushi, Team Antariksh – a Research team

dedicated to build a Nanosatellite – RVSAT -1, Frequency Club aimed at AI / ML integration with modern technologies, Team Hydra – Automated underwater vehicle team, Entrepreneurship Development Cell and Coding club. Other student forums include Science Forum, Quiz corp, RVCE Debsoc, Kannada Sangha and 8th Mile, which are totally managed by students with faculty mentorship.

Overall, representation of students in academic and administrative bodies /committees enabled RVCE in creating a student-centric ambience that values inclusivity, collaboration, and shared governance.

File Description	Document
Upload any additional information	View Document

5.3.3

The institution conducts / organizes following activities:

- 1.Sports competitions/events**
- 2.Cultural competitions/events**
- 3.Technical fest/Academic fest**
- 4.Any other events through Active clubs and forums**

Response: A. All four of the above

File Description	Document
Report on Sports, Cultural competitions/events, Technical/academic fests, Any other events through active clubs and forums along with photographs appropriately dated and captioned (whichever is applicable)	View Document
List of students participated in different events year wise signed by the head of the Institution	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of circular/brochure indicating such kind of activities.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.4 Alumni Engagement

5.4.1

Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution through registered Alumni association:

Response: 44.28

5.4.1.1 Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution year wise through registered Alumni association:

2022-23	2021-22	2020-21	2019-20	2018-19
8.29	8.22	11.83	9.83	6.11

File Description	Document
List of alumnus/alumni with the amount contributed year-wise	View Document
Annual audited statements of accounts of the HEI highlighting the Alumni contribution duly certified by the Chartered Accountant/Finance Officer	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.4.2

Alumni contributes and engages significantly to the development of institution through academic and other support system

Describe the alumni contributions and engagements within a maximum of 500 words

Response:

RVCE recognises its Alumni as brand ambassadors and hence places high value to their engagement in Institutional transformation. Alumni Association of RVCE(AARVCE) was registered under the Society Act in 1982 with Registration number 405/2003-2004 and has been corner stone of support and connectivity. AARVCE has around 47,000 registered members spread across the globe occupying top positions in industries, research organisations, government sector and entrepreneurs.

AARVCE serves as reservoir of professional contacts, offering support and opportunities to students. Their mentorship, guidance and support are vital to future generation. Saarthaka Trust an Alumni Association of Civil Department of RVCE formed in 2005 contributes towards supporting meritorious students of all programmes through scholarships. Saarthaka Trust provides full freeship to wards of D-Class employees of RVCE.

RVCE maintains regular communication with Alumni through Social Media, and Alumni meets conducted at RVCE annually at department and institutional levels. It is planned to conduct Alumni

meets in other places including US. RVCE seeks feedback from Alumni on strategic planning of RVCE.

AARVCE sponsors Silver Medal amounting to INR 1.5 lakh to the second rank holders. RVCE Alumni are also members of BoS of respective departments. They contribute to knowledge and skills enhancement through expert lectures, workshops, industry visits, skill development programs and placement.

To foster greater connectivity and dissemination of information, AARVCE maintains active online presence through <http://rvcealumni.org>. RVCE alumni stay updated on upcoming events, celebrate achievements and explore promising career opportunities. This digital platform serves as vibrant hub for collaboration, mentorship, and professional advancement, embodying the spirit of camaraderie and lifelong learning that defines the RVCE alumni network. They are also connected through social media such as Twitter, Facebook and Almaconnect. AARVCE boasts a substantial following on (<https://www.linkedin.com/school/rvcengineering/>) with over 36,000 alumni.

RVCE envisions leadership in technical education, interdisciplinary research and innovation through strong industry institute interaction. The rich alumni base of RVCE serves as interface between industry and RVCE. Their regular visits and interactions help students getting project works and internships along with consultancy projects for faculty.

At Individual level Alumni contribute in terms of scholarships to poor and needy students. Alumni contribute to RVCE and promote RVCE in terms of admissions and two to three generations of Alumni wards are studying in RVCE at present evidencing the quality of education. Many RVCE Alumni holding top positions at national and international organisations help the Institution in brand building. Notable Alumni include Anil Kumble, Chetan Baboor(Table Tennis Player), Divya Gokulnath(co-founder of Mother), Asha Bhat(Actress and Model), Sunder Madakshira (Business professional), Vidyuth Mohan (Entrepreneur), Nanditha (playback singer) and Kaushik Mudda(Entrepreneur). Many of RVCE Alumni are civil servants holding positions as KAS, IAS, IPS, IRS officers serving the Nation in different capacities.

In essence, the Alumni Association of RV College of Engineering, along with Saarthaka Trust, epitomizes the ethos of giving back and nurturing future generations. Through their collective efforts, they continue to enrich the educational experience, empower students, and uphold the legacy of excellence that defines the institution.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

Response:

RVCE was established in 1963 as Self-financing Engineering College. RVCE was granted autonomy for UG and PG in 2007 and 2016 respectively by VTU. RVCE offers 15 UG/14 PG and doctoral programmes. RVCE provides conducive teaching and learning ambience and is ranked 96 in Engineering Category by NIRF India Rankings-2023. RVCE programmes are accredited by NBA multiple times. Recently five UG and MCA programmes are accredited for six and five years respectively.

RVCE envisions Leadership in Quality Technical Education, Interdisciplinary Research and Innovation, with focus on Sustainable and Inclusive Technology and plans to attain its vision through OBE by creating the-state-of-the-art infrastructure and ambience conducive for teaching, learning and innovation.

Governing Body(GB) defines role and mission of RVCE and provides strategic directions. GB comprises of members of RSST, faculty members, educationist/industrialist and VTU/UGC nominees. GB meets at least twice a year to evolve policies related to admission, starting of new programmes, infrastructure development, teaching-learning, research and innovation.

Senior faculty occupy administrative positions, head statutory/functional committees. Academic, Examination and administration audits are periodically conducted. Training programmes are conducted to build leadership skills in faculty. RSST launched an innovative GROW programme in which ten faculty were trained on leadership during 2022-23.

Democratic, inclusive and transparent decision making is the hallmark of RVCE. Faculty of all cadres participate in effective functioning of RVCE. Heads of the departments and Deans as members of Academic Council are responsible for framing academic policies and approval of curricula. Board of Appointments with external expert and VTU nominee ensure induction of quality personnel. Finance committee with VTU nominee is responsible for financial approvals. Budget committee scrutinises proposals based on utilisation and justifications. Principal is authorised to approve proposals up to INR 25 K and non-recurring up to INR 2.0 lakh. Heads of the departments are given imprest amount of INR 10 K.

NEP Implementation

RVCE implemented NEP–2020 in 2021-22 and reformed curricula by incorporating Choice Based Credit System(CBCS) emphasising experiential learning along with introduction of UHV-1 & 2, integrated

courses and Ability Enhancement Courses such as Cultural, Physical Education, Yoga, NSS and NCC. Multiple Entry Multiple Exit(MEME) provision is implemented as per VTU. In 2021-22, RVCE registered under Academic Bank of Credits (ABC) via National Academic Depository (NAD) as per NEP. Outcomes of credit redemption and issuance of certificates, as well as compilation of award records are administered by RVCE via NAD.

Sustained growth of RVCE is reflected in implementation of OBE and NEP-2020, starting of new UG programmes, increase in number of faculty with Ph.D., faculty publications, establishment of CoE/CoC, industry and foreign University collaboration, sponsored projects and consultancy, infrastructure development, industry sponsored labs, placement/Higher studies and MoU for studies and research.

Transparency in administration is reflected in publishing Organogram, roles and responsibilities of committees in RVCE website. RVCE has instituted governance and leadership structures and practices that are not only aligned with the institutional goals but also visible in various aspects of its operations. This alignment has led to effective and purpose-driven institutional management.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.2 Strategy Development and Deployment

6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies are effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

Response:

RVCE has implemented Institutional Strategic Development Plan (ISDP) developed based on SWOC analysis. ISDP serves as Roadmap for overall growth and development of RVCE. ISDP outlines Strategic Goals, Objectives, and Action Plans that align with the Institutional Vision and Mission. ISDP is systematically evolved involving all the stakeholders such as statutory committees, Administrators, Alumni, Faculty, Staff and Students through collaborative approach, aligning with vision and mission of RVCE. Organogram is developed through consultative mode with third party involvement.

Functioning of Institutional Bodies

Institutional Statutory Bodies/Committees include Governing Body, Academic Council, Board of Studies, Board of Examiners, Board of Appointments, Finance Committee, IQAC, Internal Complaints Committee, Grievance Redressed Committee, Anti Ragging and Anti Sexual Harassment Committee. Functional committees essential for administration and growth of the RVCE include Research Advisory Committee, Infrastructure and Maintenance Committee, Library Committee, Committees for Academic

Planning and Examination and other student related committees. RVCE ensures that these committees meet periodically and Minutes of the Meetings reflect commitment, transparency, collaboration, and shared vision. Functioning of the bodies demonstrate collective ownership and decentralisation in decision making.

Effective Policy Framework and Administrative set-up

RVCE has structured Regulations and Policies that guide faculty and students towards academic and research excellence and reflect fairness and transparency. These Regulations and Policies govern institutional operations related to Academics, Research, Administration, Finance, Human Resources, Student Affairs, and Quality Assurance. These Policies provide clear guidelines for decision-making, ensure consistency in practices, and promote accountability. Regular updates of the Policies demonstrate the adaptability of the institution to changing needs and establish best practices. E-governance is enabled through SAP-ERP modules such as Finance and Controlling (FICO), HR (Success factors), Students Life Cycle Management (SLCM) and Materials Management (MM).

Organogram of RVCE clearly defines hierarchy, establishes roles and responsibilities. It reflects participative and inclusive governance with decentralised decision making.

Recruitments and Service Rules

Faculty and staff are recruited based on transparent two tier process, first at department level by department committee with external expert and second at Institution level through Board of Appointments consisting of central administration and VTU nominee. The Institution strictly established norms, guidelines and regulations for the recruitment process as per statutory recruitment and norms. Merit-based Selection Procedures ensure that individuals with the necessary qualifications, expertise, and experience are appointed to various roles. Transparent appraisal system for annual increments and selection to higher positions ensure career progression with due consideration for merit of the faculty and staff.

RVCE has clearly defined Service Rules that cover various aspects of conduct, performance appraisal, promotion and grievance redressal. The service rules fosters a motivating work environment. The average experience of the faculty in RVCE reflects employee retention with very low attrition.

The Institutional Strategic Development Plan (ISDP), list of statutory and non- statutory committees, minutes of the Governing Body, Academic Council, Audited financial statements, Employee Service rules and other mandatory disclosures published in RVCE website, reflects transparency in Governance, leadership and their effective deployment.

File Description	Document
Institutional perspective Plan and deployment documents on the website	View Document
Provide the link for additional information	View Document

6.2.2

Institution implements e-governance in its operations. e-governance is implemented covering the following areas of operations:

- 1. Administration including complaint management**
- 2. Finance and Accounts**
- 3. Student Admission and Support**
- 4. Examinations**

Response: A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3 Faculty Empowerment Strategies**6.3.1**

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

RVCE is committed to faculty development with established policies for performance appraisal, effective welfare measures for both faculty and staff and avenues for career development

Performance Appraisal System

RVCE has instituted performance appraisal system to ensure institutional and self-development of employees, using SAP ERP Success factors. Performance Appraisal is uniquely designed for different cadres considering achievements in academics, administration and management, external connect, finance, research and publications, stakeholder connect and self-development. Employees set their goals in the beginning, performance is reviewed in mid-year and final assessment is done on 0-5 scale, which

is converted to summative assessment. Performance assessment is reviewed by committee and final ratings are awarded. Performance is classified as not met expectations (< 3.0), met expectation (3.0 – 3.5), exceeded expectation (4.0 – 4.5), substantially exceeded expectation (4.51 – 5.0). Employees securing 4.51–5 rating are recognised by the management by awarding a certificate of excellence and cash award of INR 10,000. Feedback on performance appraisal is communicated to all employees individually in writing by management.

Effective welfare measures

Welfare measures for faculty include sponsoring for higher studies, financial support for attending and publishing papers in national / international conferences, financial support for abroad visits on actuals, seed money for research and innovation, patenting, publishing in IEEE /Taylor & Francis journals through Institutional OA subscription, transport facility, sponsorship for sabbatical to premier institutions/industries, fee concession for wards of faculty and staff, admission to wards of employees in RVCE and sister institutions, EL encashment, Gratuity, Maternity Leave, Medical Insurance, ESI, EDLI & GSLI for employees, Accident Insurance for students and one earning parent, on-campus health centre, incentives for training and consultancy (60 % revenue generated). On-campus quarters for class 4 employees and uniform & allowances for support staff are provided.

Career Development / Progression

Faculty are deputed to premier institutions for doctoral and postdoctoral studies with full salary during study period. RVCE provides opportunities for faculty and staff to undergo sabbatical in premier institutions and industries for training/studies in advanced areas of science and technology.

RVCE initiated Leadership Development program ‘GROW’ (Get Ready for Opportunities at Work) for faculty under the umbrella of RV Educational Excellence (RVEE)- Nurture Future Leaders. Ten Professors/Associate Professors were trained for one year. On successful completion, certificate and cash award of INR 25,000 was presented. Faculty are deputed to participate in FDP and training programmes in contemporary areas. Technical staff are deputed for technical/soft skills development programmes. Faculty and staff are sponsored for team outbound programmes for improving interpersonal skills. Through ISTE, faculty are recognised with Best Teacher, Young Teacher, Best Researcher and Young Researcher awards. Based on merit, faculty are recognised by providing posts such as Deans and Associate Deans for academics, research, student affairs, placement and training, and extracurricular activities.

RVCE demonstrates strong commitment towards professional growth and welfare of employees. With structured performance appraisal system, effective welfare measures and avenues for career development, RVCE ensures supportive and conducive ambiance for institutional and individual growth, which is reflected in high retention of faculty.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.3.2**Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years****Response:** 17.53**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**

2022-23	2021-22	2020-21	2019-20	2018-19
26	166	08	32	71

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	View Document
Audited statement of account highlighting the financial support to teachers to attend conferences/workshops and towards membership fee for professional bodies	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3.3**Percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDPs)/ Management Development Programmes (MDPs) during the last five years****Response:** 78.36

6.3.3.1 Total number of teachers who have undergone online/ face-to-face Faculty Development Programmes (FDP)/ Management Development Programs (MDP) during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
169	523	333	242	87

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of the certificates of the program attended by teachers.	View Document
Annual reports highlighting the programmes undertaken by the teachers	View Document

6.4 Financial Management and Resource Mobilization

6.4.1

Institutional strategies for mobilisation of funds other than salary and fees and the optimal utilisation of resources

Describe the resource mobilisation policy and procedures of the Institution within a maximum of 500 words

Response:

RVCE follows well-defined Resource Mobilization Policy and procedures to ensure resource mobilisation other than tuition fees and optimal utilization. RVCE has created avenues for resource mobilisation by creating sustainability funds through FD to support faculty development, continuing education, creating IP, seed money for research, supporting publications, Institutional research journal (RVJSTEAM), and sponsorship for conferences/seminars. Finance mobilisation is supplemented through building of laboratory assets by industries.

Resource Mobilization

Resource Mobilization is primarily achieved by establishing collaboration with industries, research organisations, Government Departments and NGO for joint research, consultancy and product development, establishment of infrastructure in emerging areas for internship, certificate courses and advanced diploma courses. Resource mobilisation is accomplished through sponsored research projects

of DST/DBT/ UGC/AICTE/ KSTU/ KSTA/ NRB/ ARB/DRDO/BIRAC/SERB/DSIR/DAE/ISRO/VTU/VGST/DRDO/ICMR and industrial consultancy.

Students seeking admission to engineering in German universities shall complete 13 years of schooling and Indian students fall short of one year which is made up through certification course at RVCE (course fee INR 3.0 lakh), through MoU with University of Applied Sciences Würzburg-Schweinfurt (FHWS). The programme has been successfully conducted for nine years with overwhelming enrolment.

RVCE conducts Advanced Diploma in Automotive Mechatronics of one year duration in collaboration with MB and Certification course on EV with MG and is generating significant funds. Other avenues of resource mobilisation include testing and characterisation, internships in CoE/CoC, custom designed training programmes for industrial professionals, Public Sector and other institutions, and development of training kits for IoT, PLC and Automation. Resource mobilisation is also achieved through scholarships instituted by RV Alumni Association, Saarthaka Trust, private industries, NGOs and government departments, collection of fees from research scholars through which fellowships are awarded to full time research scholars.

Optimal Utilization of Resources

RVCE has established robust, transparent and multi-tier Financial Management System to ensure optimal utilisation of resources. RVCE follows systematic budget planning, monitoring and periodic review. Internal and external financial audits are conducted as per Regulatory guidelines and reporting standards.

RVCE prepares institutional budget considering construction and maintenance of buildings, modernisation and maintenance of laboratories, Research and innovation, sponsoring faculty for seminars/workshops/conferences, purchase of books and subscribing for journals, Internet and Wi-Fi connectivity and conduction of events.

Expenses are estimated based on proposals by departments and section heads. Budget is categorised under UG/PG/R&D heads, identifying Recurring and non-recurring expenses based on curricular, co-curricular, administration, research and innovation requirements.

Review, Approval and monitoring of budgets along with utilisation is undertaken by Finance Committee and GB. Finance Committee is responsible for ensuring financial sustainability depending on external funds generated, IRG and anticipated funding.

Technical Purchase Committee (TPC) scrutinises adherence to purchase procedure, reviews quotations, comparative statements and justification of purchases exceeding INR 2.0 lakh. Approval of TPC for placing orders is mandatory.

Accounts Committee (AC) guides departments to prepare procurement files as per Standardised purchase procedures before submission to TPC. Financial monitoring and control is enabled through E-governance using SAP ERP(FICO).

RVCE strives to mobilise funds other than tuition fee and optimal utilisation along with conscious efforts to ensure sustainability and reduce obsolescence.

File Description	Document
Upload any additional information	View Document

6.4.2

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

Response: 249.1

6.4.2.1 Total Grants received from government/non-government bodies, philanthropists year wise during last five years (not covered in Criterion III and V) (INR in Lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
30.10	56.75	44.65	62.71	54.89

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Copy of the sanction letters received from government/ non government bodies and philanthropists	View Document
Annual audited statements of accounts highlighting the grants received	View Document

6.4.3

Institution regularly conducts internal and external financial audits regularly

Enumerate the various internal and external financial audits carried out during the last five years with the mechanism for settling audit objections within a maximum of 500 words

Response:

Transparency and Accountability is the hallmark of financial management in RVCE. RVCE has instituted comprehensive internal and external financial audit procedures and practices to ensure compliance to statutory regulations and standard accounting practices.

Internal Audit

Internal audit is a continuous process to verify and certify all the financial transactions (income and

expenses) of RVCE every month, for compliance to Standard Operating Procedures. Internal audit is conducted by M/s.Ashok Shivaji Rao & Co, No.1127, 1st floor, 5th Main Road, A Block, Subramanya Nagara, II Phase, Rajaji Nagar, Bengaluru -10, Membership No.201736 appointed by the management as Internal Auditor for RVCE.

Monthly audits are carried out by the team of Internal Auditors, who verify all the payments, receipts, vouchers of the transactions, ledgers, results of operations and cash flows of RVCE in accordance with the accounting principles generally accepted in India. The audit objections raised during the internal audit are rectified and recommendations for process improvement are implemented from time to time based on changes in statutory policies.

External Audit

External audit is conducted by an independent external auditing firm. Management has appointed Statutory Auditor, S Basavaraj / CA. Sachin Siva, Santhappa & Co., Chartered Accountants, # 201, 2nd Floor, House of Lords, St. Marks Road, Bangalore - 1, Mobile No. : +91 99720 33765, Office Landline: (080) 22210717 / 41226565, Membership No. 018133. The external auditor reviews financial transactions, verifies payments and expenditures and examines the overall Financial Statements of the Institution. The financial records are audited by External Auditor at the end of each financial year. The financial records such as income and expenditures, balance sheet and prepared notes to accounts are certified. Funded projects are also audited by the external auditors. Accounts of RVCE hostels are maintained and are audited separately.

RVCE has maintained highest level of transparency in all the financial transactions. RVCE follows the mercantile system of accounting and complies with the guidelines and Standards on accounting recommended by the Institute of Chartered Accountants of India (ICAI). RVCE ensure strict adherence to GST norms prescribed by Government of India.

The Audit Report, highlighting any queries or issues, is submitted to the Management for review. Any discrepancy is promptly addressed, with supporting vouchers and documents provided within prescribed timelines. RVCE publishes audited Financial Statements such as Balance Sheet, Income & Expenditure A/c, in RVCE website for public information.

Internal and External Audit mechanisms instituted in RVCE certifies financial discipline in terms of Accountability, traceability and transparency. In instances of minor errors of omission and commission identified by the auditors, corrective measures are taken and proactive measures are taken to prevent recurrence of such errors.

File Description	Document
Upload any additional information	View Document

6.5 Internal Quality Assurance System

6.5.1

Internal Quality Assurance Cell (IQAC)/ Internal Quality Assurance System (IQAS) has contributed significantly for institutionalizing the quality assurance strategies and processes, by constantly reviewing the teaching-learning process, structures & methodologies of operations and learning outcomes, at periodic intervals

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)**

Describe two practices institutionalized as a result of IQAC initiatives within a maximum of 500 words

Response:

RVCE envisions leadership in Quality Technical Education with focus on interdisciplinary research and innovation and is committed to continuous quality improvement. RVCE established Internal Quality Assurance Cell (IQAC) with internal and external members to institutionalise Quality Assurance strategies. It is responsible for evolving reforms in teaching-learning, assessment and administration by identifying quality gaps through periodic reviews. IQAC facilitates Academic Audits at Departments and Examination Audits at CoE office.

Two major practices institutionalized due to IQAC initiatives

Academic and Examination Audits

Academic audit is conducted twice a year. Self-evaluation report is prepared by departments as per IQAC guidelines. It includes curriculum development, Academic Monitoring, Placement & Higher Studies, students feedback & action taken and quality of major projects.

Parameters audited under curriculum development include comparative study of different schemes and syllabi, determination of equivalent courses and Minutes of BoS meetings. Academic monitoring audit involves scrutiny of lesson Plans, syllabus coverage, quality of Continuous Internal Evaluation question papers, attendance records, course files, scheme of evaluation, assignments and experiential learning, usage of ICT tools, design of lab exercises, tutorials and analysis of results.

Examination is a vital component of Autonomous Institutions. RVCE has instituted Examination Audit by external experts from reputed Institutions to verify quality of Semester End Examination question papers. Check sheet for each course with 1-10 scale rating prepared by CoE and IQAC is provided to auditors to rate quality of question papers and evaluation process. Question papers are audited for syllabus coverage, Blooms Taxonomy levels and CO mapping for questions and marks assigned and

awarded as per scheme of evaluation. Proportion of internal and external evaluators are audited. Audit reports with observations submitted to CoE are circulated to departments and IQAC to initiate action plan for quality improvement.

Usage of Learning Management System (LMS) and ICT tools

IQAC institutionalised integration of ICT tools with teaching and learning aligning with advances in Digital technologies. Faculty adopt ICT- enabled tools in class rooms/labs, such as smart boards including LED projectors with high speed internet for enhanced digital learning. Learning Management Systems like Quiklrn (for teaching and online assessment for first and second year) and google class rooms are widely used for seamless access to course materials and conduction of on-line assessments and promote collaborative learning. Faculty are trained on ICT tools through workshops organised by RVCE and through IUCEE (Indo Universal Collaboration for Engineering Education). Students are benefited by online resources such as e-books, e-journals, virtual labs in collaboration with NITK Surathkal, IEEE Software Engineering Body of Knowledge (SWEBOK) and research database. Web-conferencing tools such as Google meet and Cisco Webex are used for conducting virtual classes and internships. E-governance through SAR ERP with Students Life Cycle Management which enables students data from admission to grade card generation is implemented. Data Centre with Nvidia and High Performance Computing Centre and Graphocore IPU M2000 machine with POD4 capacity to handle high-end AI workloads without dependency on cloud infrastructure is set-up in collaboration with Boston UK.

File Description	Document
Upload any additional information	View Document
Provide the 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

Describe any two examples of institutional reviews and implementation of teaching learning reforms facilitated by the IQAC within a maximum of 500 words each.

Response:

IQAC periodically reviews Teaching-Learning process from curriculum design and planning to implementation. Curricular reforms are performed by intensive brainstorming at department and institution levels involving all concerned. Reforms are discussed at department and joint BoS before submission to Academic Council. Two examples of institutional reviews and implementation of Teaching-Learning reforms facilitated by IQAC are highlighted:

Curricular Planning and Design

RVCE systematically adopts programme curricula as per the guidelines of Statutory Authorities, namely, Learning Outcome Curricular Framework of UGC and Model curriculum of AICTE and VTU. This ensures that curricula remain in harmony with national and global needs. Programme curricula are scrutinised and approved by Departmental Academic Advisory Committee, BoS, and finally Academic Council. RVCE periodically reviews curricula, Teaching-Learning effectiveness and assessment to ensure balanced integration of fundamental, core, discipline specific and interdisciplinary electives, Ability Enhancement and skilling.

NEP 2020 was implemented for first year batch of 2021-22. Based on recommendations of VTU, RVCE adopted choice based curriculum by forming four clusters, namely, Mechanical, Electronics, Computer Science and others. First year courses are categorised under Applied Science, Professional core, Engineering Science, Emerging Technology, Programming language lab and Humanities & Social Science. IDEA lab is introduced for all programmes in first year. For second year common courses within cluster programmes, ability enhancement courses (NSS/NCC/Physical Education/ Liberal Arts), Design Thinking Lab, Universal Human Values, Yoga for all programmes were introduced. For third year common courses within cluster programmes, cluster based electives, interdisciplinary electives were introduced. Industry / Research based internships and projects in the Centres of Excellence / Competence were introduced.

Under the aegis of Indo Universal Collaboration for Engineering Education Student Chapter (IUCEE_xRVCE), Study Through Projects and Activity for Renewing Knowledge (SPARK) was introduced for first year engineering in 2021-22. A group of 100-120 students named SPARK were selected for learning beyond the curriculum like mini courses and activities related to SDG. SPARK was aimed at enhancing critical thinking, innovativeness, team work and interpersonal skills. Competitive spirit was imbibed by awarding best performers. Based on outcome of pilot study of introducing SPARK to a few sections of first year, it is planned to extend SPARK to all the first year students. These newer ways of Teaching-Learning have led to improving the learning ability of students.

Skill Labs Planning and implementation

Technology is growing and expanding at rapid pace. It is essential for students to learn advanced technologies and acquire necessary skills for industry readiness. RVCE introduced Special Skills lab in 2021-22 for all programmes cluster wise. Foundation Skills in first year, Domain Skills in second year and Research Skills Skill in third year are imparted under Special Skills lab. Design of skill labs is aligned with Multiple Entry Multiple Exit provision of NEP-2020. Budgetary support is provided to the departments to cover recurring and non-recurring expenses for implementing Special skills lab.

IQAC ensures sustained quality in teaching learning through systematic reviews, curricular reforms aligning with advances in technology and their implementation.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.5.3

Institution has adopted the following for Quality assurance:

- 1. Academic and Administrative Audit (AAA) and follow up action taken**
- 2. Conferences, Seminars, Workshops on quality conducted**
- 3. Collaborative quality initiatives with other institution(s)**
- 4. Orientation programme on quality issues for teachers and students**
- 5. Participation in NIRF and other recognized ranking like Shanghai Ranking, QS Ranking Times Ranking etc**
- 6. Any other quality audit recognized by state, national or international agencies**

Response: A. Any 5 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period	View Document
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

RVCE is committed to **Quality Policy** 'Achieving Excellence in Technical Education, Research and Consulting through Continuous Improvement and Innovation by **Benchmarking** against **Global Best Practices**, upholding its **Core Values** 'Professionalism, Commitment, Integrity, Team Work and Innovation.'

RVCE conducts Gender Audit to evolve strategies for '**Equal-opportunity for all**' in curricular and co-curricular activities. Necessary support system is instituted to create safe ambiance for Women in Campus. RVCE ensures Equal Opportunity for Women Employees at all levels including institutional governance.

Fostering Gender Equity

There are 26% girl students, 44% women faculty, 18% women technical staff, 25% women support staff, and over 35% women in administration(VP, Deans and HODs). Exclusive centres for Women in campus include **Women Empowerment and Skills Training (WEST)** through which several sponsored projects of AICTE, DST, GoK on skill development for deprived women are undertaken. RVCE has established a CoE '**Women in Cloud**', through which events that highlight the achievements of women in science, technology, engineering, and IT domains are organised.

Gender Equity in Curricular Activities

RVCE promotes gender equity by encouraging boys and girls to work together in laboratory batches, projects, internships, experiential learning, Workshops, presentations and in all activities of peer learning.

Co-Curricular / Extra-Curricular Activities

There are 17 students innovative clubs in which boys and girls work together to develop technologies and participate in national/international events. Student clubs of RVCE: Raag, Rotaract, CARV Debating Society, Alaap, foot Print, Art Club, etc., organize Street Plays, Workshops, and Awareness-campaigns on Gender-Equity. RVCE started IUCEE student chapter SPARK (Study Through Projects and Activities for Renewing Knowledge) in which boys and girls of first/second year learn beyond curriculum and network with other SPARK chapters. Boys and girls participate in 30 Professional Society Chapters(IEEE student chapters). Girls participate in Sports/NCC/NSS and have won several awards.

Gender Sensitization Workshops

RVCE organises seminars, orientation programmes (induction programmes) and training to foster gender sensitisation and promote gender equity.

Creating Safe Spaces

RVCE has created Common Room located in Chemical Engineering Block, for women faculty, staff and students with CCTV facility.

Anti-Harassment / Anti-sexual Harassment Policy

RVCE has constituted a statutory College Internal Compliance Committee (CICC) as per the guidelines of UGC and VTU to prevent and address any form of gender-based harassment, discrimination, or misconduct. CICC conducts awareness campaigns on gender related issues.

Scholarships / Awards

Several industries have instituted scholarships exclusively for girl students studying Engineering, Advanced Diploma in Mechatronics (ADAM). Women achievers in sports, academics, research, etc., are recognised in addition to Government scholarships.

Promotion of Women in Cloud

RVCE conducts networking and mentorship through **Women in Cloud** that pairs female students with experienced mentors to provide career guidance.

International Women's Day

RVCE celebrates International Women's Day by conducting get-together of women faculty and staff in which successful women professionals address the participants. The activities are organised by Women in Engineering (WIE) a professional affinity group of RVCE-IEEE.

Integrating Gender-sensitization into Curricular and Co-curricular activities, providing dedicated facilities for women, and establishing a robust Grievance-redressal mechanism, RVCE strives to ensure gender equity.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

7.1.2

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

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment
6. Wind mill or any other clean green energy

Response: A. Any 4 or more of the above

File Description	Document
Permission document for connecting to the grid from the Government/ Electricity authority	View Document
Geo-tagged photographs of the facilities.	View Document
Bills for the purchase of equipment's for the facilities created under this metric	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:

RVCE has implemented Waste Management System to effectively manage various types of waste generated on campus, viz., solid waste, liquid waste, biomedical waste, e-waste and hazardous chemicals. RVCE is committed to environmental sustainability and follows proper protocols and regulations to ensure responsible and efficient waste disposal.

Solid Waste Management

RVCE has identified Solid Waste Segregation Points across the campus, to facilitate segregation of solid waste at the source by maintaining separate bins for solid and organic wastes. Segregation at the source is performed by the housekeeping staff and its disposal is carried out by BBMP approved vendors (Kruthik Enterprises and Lucky Enterprises). Organic waste from food court, canteens and hostel mess is segregated at the source and transported to piggeries. Dry leaves across the campus are reused as manure. Blank sheets of record note books and answer books are extracted and distributed as writing materials to children of government schools by NSS volunteers. Used paper materials are sold and the proceeds are donated to school children. Academic records such as answer booklets and question paper are handed over to paper manufacturers for recycling.

Liquid Waste Management

RVCE has installed STP with a capacity of 2.5 lakh litres per day. The STP utilizes advanced treatment processes to remove contaminants and ensure the quality of treated water before it is released into the environment.

In STP, Screening, Aeration, Sedimentation, Filtration, and chlorination are performed. Sewage from hostel and departments is collected in wet wells and pumped to the STP for treatment. The treated water is utilized for campus gardening and hostel toilet flushing, contributing to sustainable water usage practices at RVCE. Regular Maintenance and Monitoring of the STP are carried out to ensure its efficient and optimal functioning.

Bio-medical waste management

Bio-medical waste generated at RVCE Health Centre is segregated at the source and sent to Aster Clinic located at JP Nagar, Bangalore for safe disposal. Needle Cutters are installed at the Health Centre for proper disposal of syringes. Biomedical waste is disposed as per Bio-Medical waste management norms.

e-Waste management

As part of sustainability practices computers and instruments in working condition are donated to schools. E-waste is disposed through recyclers approved by KSPCB in compliance with e-waste management norms.

Waste recycling system

Dedicated bins are installed to collect PET bottles, which are sent to external agencies (Ganesh Enterprises) for recycling. Iron scrap generated from workshops is reused for making specimens for Laboratory experiments (Mechanical Workshops and labs). Construction and Demolition waste undergoes crushing using a Jaw crusher in Concrete laboratory of Civil Department. They are converted to innovative building materials.

Hazardous chemicals and radioactive waste management

RVCE does not have any Radioactive Waste. Laboratory-generated hazardous chemicals are responsibly disposed as per MSDS guidelines. Liquid chemicals from Chemistry and Environmental Engineering Labs are neutralised and disposed as per MSDS norms by KSPCB.

RVCE practices Waste Management as an integral part of its Sustainability Efforts. RVCE aims to minimize environmental impact of its operations and promotes responsible waste disposal practices

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geo-tagged 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 more of the above

File Description	Document
Green audit reports on water conservation by recognised bodies	View Document
Geo-tagged photographs of the facilities	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document

7.1.5

Green campus initiatives include

Describe the Green campus initiative of the institution including Restricted entry of automobiles, Use of Bicycles/ Battery powered vehicles , Pedestrian Friendly pathways , Ban on use of Plastic, landscaping with trees and plants etc in 500 words

Response:

Green Campus initiative at RVCE embodies a multifaceted approach towards sustainability, encompassing various measures to minimize environmental impact and promote eco-friendly practices. RVCE has well written policy document on Green Campus.

Impact Rankings-2023 of Times Higher Education–Sustainability Development Goals

RVCE participates in Impact Rankings that assess Institutions against the UN Sustainability Development Goals (SDGs), in Education, Water and Energy goals and is ranked 1000+ in Impact Rankings 2023.

Restricted Entry of Automobiles:

RVCE provides parking spaces for students and faculty, clearly marking the pathway towards parking spaces. Hostellites are not permitted to use vehicles in the campus. RVCE provides transport facilities (seven buses) to faculty and students. RVCE has good Metro connectivity with metro station at doorstep. Around 50% of students use the Metro which significantly reduces vehicular traffic on campus. Security checks are instituted to restrict the entry of automobiles.

Use of Bicycles/Battery-powered Vehicles

RVCE has a battery powered a Six-Seater Buggy for the guests, aged and disabled to travel inside the campus. Some faculty, staff and students use bicycles. Many faculty and students use Electric Vehicles (two-wheeler and four-wheeler) for commuting. Facilities of RVCE are within walkable distance.

Pedestrian Friendly pathways

Roads in campus are 30 feet and road at entrance is 60 feet wide. On either side of the roads 10 feet pathway for pedestrians is provided. Security is posted at critical locations for safe movement of vehicles and pedestrians. Speed bumps at designated points, solar powered streetlights and closed drainage systems are in place to ensure road safety. Antiskid tiles are laid in pavements.

Ban on use of Plastic

RVCE restricts the use of plastics in the entire campus including Food Court and Hostel Mess. Awareness is created through orientation programmes conducted by NSS, Rotaract, etc. 'No Use of Plastics' are displayed in prominent places.

Landscaping with trees and plants

RVCE is adorned with extensive green spaces, featuring a variety of species of trees, plants, and gardens. RVCE practices landscaping with native and drought-resistant plant species. The lush greenery enhances the aesthetic appeal and enables air purification, temperature regulation, and biodiversity conservation. The campus has over 2000 trees / plants with Gardens and lawns. Plantations drives are organised to commemorate World Environmental Day on (6 June) and Earth Day (22 April). RVCE has an in-house

nursery to nurture lawns / gardens and produce saplings. Dry leaves / flowers are converted to compost using a shredding machine. Aquaponics is installed in the campus for green vegetation. Gardening and campus landscaping is managed by the Maintenance Department through outsourcing.

Curricular Initiatives on Sustainability

Design Thinking Lab is introduced for all UG Programmes as part of Sustainability initiatives. Students work in teams and develop concepts as solutions to problems related to water, energy, and education. Several courses such as Environment Technology and Renewable Energy are introduced in the curriculum.

By encouraging sustainable transportation, reducing plastic usage, promoting green landscaping, and implementing energy and water conservation measures, RVCE contributes to green campus and portrays sense of environmental responsibility.

File Description	Document
Policy document on the green campus/plastic free campus	View Document
Geo-tagged photographs/videos of the facilities	View Document
Circulars and report of activities for the implementation of the initiatives document	View Document

7.1.6

Quality audits on environment and energy are regularly undertaken by the institution

The institutional environment and energy initiatives are confirmed through the following

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

Response: A. All of the above

File Description	Document
Report on environmental promotion and sustainability activities conducted beyond the campus with geo-tagged photographs with caption and date.	View Document
Policy document on environment and energy usage Certificate from the auditing agency	View Document
Green audit/environmental audit report from recognized bodies	View Document
Certificates of the awards received from recognized agency (if any).	View Document

7.1.7

The Institution has Differently-abled (Divyangjan) friendly, barrier free environment

Write description covering the various components of barrier free environment in your institution in maximum of 500 words

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

Response:

RVCE is committed to creating barrier-free and inclusive environment for the differently abled (Divyangjan). RVCE has taken measures to ensure easy access, convenience, and equal opportunities for all. Infrastructure framework of RVCE feature several components to create Divyangjan-Friendly Environment in compliance with Rights of Persons with Disabilities Act-2016.

Built environment with Ramps/lifts for easy access to classrooms

RVCE has installed ramps in each building and lifts in most of the departments and accessible toilets/bathrooms in departments and hostel across campus to ensure ease of movement for all. Ramps are constructed with appropriate slopes and provided with handrails to ensure smooth and safe movement for individuals with mobility challenges. Lifts are installed in multi-storied buildings to enable ease of vertical movement for individuals with mobility impairment.

Divyagnan friendly Washrooms

RVCE has constructed dedicated Washrooms that are designed to cater to needs of the differently-abled. Washrooms are spacious and equipped with features such as grab bars, lower-height fixtures, and wider doorways to ensure accessibility and ease of use.

Signage including tactile path, lights, display boards and signposts

RVCE campus is equipped with comprehensive Signage systems to assist the visually impaired and other disabilities. Tactile Paths with textured surfaces and colour contrast are provided to guide the visually-impaired. Signage Boards with clear, large font and Braille inscriptions are placed at Strategic locations to provide directions and identification of facilities. Adequate lighting is ensured to aid visibility and create safe environment.

Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment

RVCE has talking software for Using Computers for the visually impaired. The software converts normal PC into talking PC to enable visually impaired to operate PC independently. The software feature multi-lingual edition, inbuilt tutorials for self-learning computers and support for e-learning with multiple features for the visually impaired in education and employment.

Software available in RVCE library and Information Centre are Non-Visual desktop access (open access), Narrator (Windows accessible), JAWS Pro for Windows Talking Software, Talking Typing Software and Dolphin Supernova Access Suite. These Technologies and Facilities enable Divyangjan students to access Educational Materials and also to engage in Online Learning Activities.

Provision for Enquiry and Information

RVCE ensures that Individuals with disabilities have access to necessary assistance and information. Faculty and staff provide human assistance and guide the disabled. Reader and Scribe-support and extra time is provided during examinations and assessment depending on the requirement. Soft copies of Reading Materials, wherever feasible, are made available to individuals who may benefit from Assistive Technology such as Screen-readers. Font enlargement options are provided in Digital Resources to aid individuals with visual impairment.

RVCE is committed to create Divyangjan-friendly environment beyond physical accessibility. RVCE responds to diverse needs of differently-abled individuals and strives to provide supportive and inclusive ecosystem. By incorporating various components of barrier free environment, RVCE demonstrates responsibility to ensure participation of disabled in Teaching-Learning, access of information, and navigation in the campus with ease. These initiatives foster inclusivity, empowerment, and equal opportunities for all.

File Description	Document
Upload any additional information	View Document

7.1.8

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

Response:

RVCE fosters inclusive environment which is ingrained in its efforts and initiatives. RVCE has initiated measures towards cultural, regional, linguistic and socio-economic diversities to ensure that every individual is respected. RVCE strives to uphold Unity in Diversity through student clubs: KANNADA SANGHA, CARV(Circle of Acting at RV), ALAAP (Music Club), FOOTPRINTS (Dance Club), RAAG(Youth club of RVCE), ROTARACT RVCE, EVOKE(Fashion Club of RVCE) and SATTVA (The Art Club) in which boys and girls from different states participate.

Cultural and Diversity Programs

RVCE organizes cultural and diversity-themed programmes to uphold Unity in Diversity by providing platforms to showcase cultural heritage, traditions, languages and art forms.

RVCE annually organizes **Ethnic Day** (cultural events, rallies, street plays, flash mobs, folk fair, 8th Mile) that celebrate rich tapestry of Indian cultures and traditions, which are supported through annual budget.

Language and Regional Integration

Language and regional diversity is cherished by conducting regular programmes. **Mathrubhasha Divas** is celebrated, in which culture, language and traditions of India are displayed.

Kannada Habba has been celebrated since 50 years to uphold rich culture, ethos, heritage and history of Karnataka. It provides exposure to Karnataka's Heritage and Language. RVCE promotes language and regional integration **Circle of Acting at RV (CARV)**. CARV is divided into three strands: CARV English, CARV Hindi and CARV Kannada. Plays and dramas scripted and enacted through CARV have received awards and accolades from esteemed theatres and renowned platforms across India.

RVCE upholds Unity in Diversity through **ALAAP** a Music club of RVCE. With about 60 musicians well versed with different genres like Carnatic, Hindustani and Western classical music, Jazz, Pop, Rock and some metal.

RVCE promotes integration of diverse cultures through **FOOTPRINTS**, a dance club which is a community of dancers with versatile dance culture and background. It has three divisions: Western (Enigma), Eastern (Dhritarang) and Classical Associations.

Youth Club of RVCE – RAAG conducts programmes inculcating social awareness amongst students. It also conducts skill development and literature programmes. Flood light cricket is an annual event organised by the club.

SATTVA – The Art Club of RVCE promotes fine arts and crafts of different diversity.

ROTARACT club of RVCE has an annual 1000 + registrations to be the biggest Students Rotaract Club in South East Asia and one of the largest in the world. The club conducts community services to promote harmony amongst diverse populace.

NCC and NSS wings promote integration of diverse groups and strives to help the youth from different states and regions to groom them into dynamic and nation loving individuals. NCC cadets represent RVCE in Republic Day Parades as part of the Karnataka and Goa Directorate Contingent. NSS, NCC and Rotaract conduct programmes to promote integration of diverse cultures.

These initiatives create an inclusive environment that embraces and celebrates diversity. By organizing cultural celebrations, supporting student clubs, promoting language programs, raising awareness through sensitization programs, establishing support mechanisms, RVCE fosters tolerance, harmony, and mutual respect amongst its diverse community members. These initiatives contribute to the overall development and well-being of students.

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

7.1.9

Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

Describe the various activities in the Institution for inculcating values for being responsible citizens as reflected in the Constitution of India within 500 words.

Response:

RVCE emphasises values that foster responsible citizenship, aligning with the principles enshrined in the Constitution of India. RVCE believes that shaping responsible citizens goes beyond academic excellence and nurturing individuals for contributing to the society through diverse activities and initiatives.

Curricular Integration

Integration of constitutional values and responsibilities into curriculum serves as a foundational pillar. In 2018-19 'Constitution of India and Professional Ethics was introduced as mandatory course in seventh semester. In 2022-23 Fundamentals of Indian Constitution was introduced as mandatory course in first year UG. These courses are taught by faculty with doctoral degree in Law. Universal Human Values (UHV-I and II) and Indian Knowledge System was introduced as mandatory courses in 2021-22 for

second year. UHV–III is introduced as Institutional Elective for third year. More than 80 % of faculty and 15 % Administrative, technical and support staff have been trained on UHV through FDP. Two faculty are trained through two-week Workshop on IKS conducted by Ministry of Higher Education, GoI. These initiatives help students and faculty understand importance of value system.

Orientation Programs

RVCE conducts three week Induction programme for fresh UG students to facilitate smooth transition from their school to University environment. It helps students to become familiar with ethos and culture of the Institution. RVCE organises lectures by eminent and successful individuals in Arts, Science, Law, Spirituality, Health, Self-management and Sports to provide a holistic learning experience.

Civic Awareness Campaigns

RVCE conducts awareness campaigns on Voter Education, Environmental conservation, Gender Equality and Value System through Electoral Club of RVCE, AICTE Activity Points, NSS/NCC/Rotaract RVCE. This helps students, faculty and neighbourhood community to actively participate in societal and democratic processes. Every year visit to Vidhana Souda and State Government Secretariat is organised for students to understand state assembly / council operations.

Ethics and Citizenship Clubs

RVCE has student clubs such as Quizcrop and Debsoc which provide a platform for students to engage in Parliamentary debates and discussions centred around constitutional values and responsibilities.

National / International Day Celebrations

RVCE celebrates Independence Day, Republic Day, Gandhi Jayathi, International Yoga Day, International Womens' Day and International Day against Drug Abuse and Illicit Trafficking to create awareness in students and faculty on Constitutional obligations.

Centre for Gandhian Studies

The Centre conducts essay competitions to promote Gandhi's vision of Swadeshi and self-reliance, on Role of Youth in meeting the Goal of Athmanirbhar Bharat, Digital Transformation and its impact, Plastic a Boon or Bane. The centre conducts seminars Gandhian ideals, as part of an initiative under SAMBHAV a National level awareness camp (NLAP), Ministry of MSME, GoI.

The centre organises Exhibition-cum-sale Khadi and Gandhian Literature, in association with Karnataka Sarvodaya Sangha and Khadi Welfare and Development Association. The centre organises one day visit to Karnataka Gandhi Smaraka Nidhi, Bangalore and camp at Kasturabha Gandhi National Memorial Trust. The centre organised workshop on Spinning Wheel to Android for Government School students.

Through these activities and initiatives, RVCE fosters a culture of responsible citizenship and constitutional values among its students and employees.

File Description	Document
Details of activities that inculcate values necessary to nurture students to become responsible citizens	View Document
Any other relevant information	View Document

7.1.10

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

- 1. The institutional Code of Conduct principles are displayed on the website**
- 2. There is a committee to monitor adherence to the institutional Code of Conduct principles**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

File Description	Document
Report on the student attributes facilitated by the Institution	View Document
Policy document on code of ethics.	View Document
Handbooks, manuals and brochures on human values and professional ethics	View Document
Document showing the Code of Conduct for students, teachers, governing body and administration as approved by the competent authority.	View Document
Constitution and proceedings of the monitoring committee.	View Document
Circulars and geo-tagged photographs with date and caption of the activities organized under this metric for teachers, students, administrators and other staff	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.2 Best Practices

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Response:

Title: *Fostering Innovation through Inter-disciplinary Student Innovative Teams*

Objectives

To expose Students to Design of Systems incorporating interdisciplinary and sustainable technologies as per International Standards

To build Design, Manufacturing, Finance and Project Management skills as per industrial practices.

To enable students exhibit skills at National/International platforms/companies/competitions

Principles

Interdisciplinary approach provides knowledge to address technological challenges. With interdisciplinary skills, students are prepared for career and role as informed adaptable and innovative members.

Context

First students' innovative team ASHWA RACING was formed in 2003 for designing Formula-Style Race Cars. Success of ASHWA led to formation of 14 more teams in diverse areas.

Internal Challenges

Identifying domain, team composition, faculty supervisor, space/infrastructure and resource mobilisation

Effectively managing team with different levels of skill sets.

Communication, collaboration, and conflict resolution

Securing funds for competition fees/travel/material

Balancing co-curricular and academic activities

External Challenges

Competition rules/regulations change periodically, demanding adaptation to design

Organizing logistics like transportation/accommodation/workshop/Accessing high-quality materials and resources by sponsorship

Practice

21st Century skills expects engineers to solve local/global problems which needs Communication, Collaboration, Critical Thinking and Creative Thinking. Innovative teams promote innovation culture. .

For interdepartmental team(50-100 members), relational structure is formed with faculty supervisor, captain/vice-captain, manufacturing lead, project manager, sponsorship/Media lead, heads for sub-domains and members. Initially students from first and third semesters are inducted based on aptitude, technical and management tests, followed by interviews and segregation of members based on abilities and technical expertise.

Constraints

Ensuring Safety and Reliability of systems is critical which involves comprehensive safety measures and fail-safe mechanisms. Teams must conduct thorough testing to mitigate technical risks.

Weather conditions and unforeseen circumstances during testing can affect project timelines.

Establishing relationships with industries is vital.

Effective marketing, outreach, and sponsorship engagement are necessary to build network and secure resources.

Evidence of Success

Success indicators– Winning National/International events, analytical ability enhancement, and visibility of RVCE.

ASHWA has built 15 versions and won prizes in FSAE Competitions.

ANTHARIKSH built ReSOLV-1 Amateur sounding rocket and RVSAT-1 Microbiological Payload for ISRO's PS4 and won first prize in Nanosatellite competition-2019.

CHIMERA developed formula electric prototypes and won prizes in Formula Bharat and Formula Green Competitions(2018-20).

GARUDA developed super mileage cars and won prizes.

HAM Club built three YAGI UDA three element antennas, feed given to Dipole antenna

Helios Racing, leading BAJA SAE team won prizes in SAE competitions

Dhruva designed three sophisticated instruments: solar radio, refractive and reflective telescopes. Solar radio telescope detects 12GHz signals from the Sun.

VYOMA secured first place in SAE event and emerged finalists in IIT Boeing Aeromodelling competitions. Mrinal Pai started Skylark Drones for design and fabrication. Many Ex-VYOMA members are pursuing research in IISc/IIT.

JATAYU developed UAV capable of aviation and control, long distance data transmission, was placed

fourth in Aerohelix (2023), IIT Roorkee, won first and second prizes in Air crash investigation, Technical Connexions and Flight Simulator.

ASTRA ROBOTICS developed Mars rover for University Rover Challenge-USA, developed next generation robotic prosthetic hand controllable by listening to muscles and got second place for LEGGED ROBOT.

Problems Encountered

Logistics and customs clearance for participating in international events

Testing and Validation for actual weather conditions.

Title: *Establishment of Centres of Competence(CoC) and imparting advanced skills*

Objectives

To Empower students with domain-general, domain-specific, domain-advanced and interdisciplinary skills by establishing CoC and Special Skills Lab

To build capacity in Faculty to conduct training for students/industrial personnel/public sector/Urban Government Bodies

Underlying principles

Technologies are rapidly advancing and hence project based/skill based learning needs more emphasis. CoC with Industry collaboration in emerging technologies provide infrastructure for skill based training

Special Skill modules need to be aligned with MEME to ensure award of certificate, diploma and degree at the end of first, second and third year of graduation(NEP-2020).

Context

Engineers must acquire multiple skills-Technical/Analytical/Experimental/Software/Soft Skills. NEP-2020 advocates multidisciplinary education for students and professional development of faculty. Multiple Entry and Multiple Exit (MEME) is a major reform by NEP-2020 which allows exiting programme any time with relevant certificate, diploma or degree.

Accreditation bodies suggested POs for Engineers which include domain specific technical/software/Experimental/Communication skills.

Practice

RVCE established seven interdisciplinary CoC with industry collaboration: Automation Technologies(Bosch Rexroth), Automotive Mechatronics(MB), Automation and Robotics(Fanuc India), EV Technologies(MG), EV Technologies Lab(Decibels), 5G and Emerging Wireless Technologies(German Academy for Digital Education) and Process Lab(Volvo), EV(Greaves Cotton), Lapp Cables(Lapp India) and Boston AI and Business Solutions(Boston Ltd). These provide skill based

training, Industry certified internship and projects, certificate courses. Industry established Laboratories include Tejas Networks lab(Tejas Networks at ETE), Recombinant DNA Technology lab(Hi Media Industries at BT), NVIDIA GPU Research Centre(NVIDIA at CSE), Optical Research lab(Tejas at ISE). These are equipped with advanced testing facilities for skill development.

Skill Labs-Planning and implementation

RVCE introduced Special Skills lab in 2021-22 cluster wise for all programmes. Special Skill labs are established from Institutional budget to impart Foundation, Domain and Research Skills in first, second and third year.

Budgetary support is provided to departments for non-recurring and recurring expenses

Foundation Skill Modules for seven clusters of first year -Data Visualisation tools(AI/ML), Basic fabrication and Service(AS/IM/ME), water testing(BT), Basic Engineering Skills(CH/CV), IT essentials(IS/CS), Basic Hardware Service(EC/EE/EI/ ET).

Domain Specific and Advanced Skill Modules for second and third year- Networking & UX Design, Aerospace Design & Modelling, Industrial Biotechnology, Sewage Treatment, Networking Essentials, Building information modeling, PCB, Electrical Circuits & Machines, Multicore processors, Automotive Mechatronics, Automation & Robotics, EV Technology, 3D Experience and Laser & 3D printing and Research Skills for final year Engineering.

Evidence of Success

Over 120 graduates have undergone Advanced Diploma in Automotive Mechatronics (MB Centre) and secured placement in India and abroad, 20 graduates undergone certificate course in EV(MG Centre), 33 students trained on Volvo Process lab, 250 industry professionals undergone certification course on Battery Technologies(Decibles), 3000 students of RVCE and other Institutions undergone industry-certified internship, training programmes conducted for industry professionals. 3000 students trained in Special Skills labs.

Problems Encountered

Identifying area of mutual interest and gaining confidence of industries to invest on CoC and labs

Building interdisciplinary culture and capacity building

Design of teaching-learning industry relevant modules beyond syllabus

Attracting beneficiaries

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:

RVCE's Commitment to Industry Collaboration

RVCE envisions Leadership in Quality Technical Education Interdisciplinary Research and Innovation with focus on Sustainable and Inclusive Technologies. RVCE undertakes to achieve its vision by delivering Outcome Based Education by developing the-state-of-the-art-infrastructure and strong industry collaboration.

RVCE has legacy of industry collaboration that has significantly contributed to reputation as a premier engineering institution in India. RVCE has over 120 MoU with industries in Chemical Processes, Healthcare, Bioprocesses, Pharmaceuticals, Construction, Manufacturing, Nanomaterials, Automotive Mechatronics, Electric Vehicles, Automation & Robotics, Consultancy, Business Analytics and Supply Chain Management, E-commerce and Retail Business, Global finance and Banking Services, R&D, Information Technology and Aerospace. Collaborative initiatives encompass curricular enrichment, Centres of competence for skill development, Centres of excellence for research and innovation, support system for overall development of students and faculty.

Curricular Enrichment through industry collaboration

Industry professionals contribute to curricular enrichment as members of BoS, provide feedback on curricula, course delivery as Visiting Professors, AICTE-INSIA Distinguished Professors, industry designed electives, as evaluators for Design Thinking Lab and Major Projects.

Industry Collaborated Centres of Competence

RVCE has established seven CoE in collaboration with industries: Automation Technologies (Bosch Rexroth), Automotive Mechatronics (Mercedes Benz), Automation and Robotics (Fanuc India), Electrical Vehicle Technologies (Morris Gaurage), EV Technologies Lab (Decibels), 5G and Emerging Wireless Technologies (German Academy for Digital Education) and Process Lab (Volvo India). The centres provide skill based training, Industry certified internship and projects, conduct certificate courses, provide space and infrastructure for experiential learning.

Industry Collaborated Centres of Excellence

RVCE has established eighteen Centres of Excellence in collaboration with industries: Interdisciplinary Research Lab for Macroelectronics (Hind High Vacuum with TEQIP II grants), IoT (Cisco Systems), Computational Genomics (Intergene), Smart Antenna System & Measurement (Rohde & Schwarz India), Connected Vehicles (Wipro Ltd), e-Mobility (Greaves Cotton), Hydrogen and Green Technology (KREDL & IWPA Instruments), Logistic & Supply Chain Management(Secure Meters), Visual Computing(Bhargawa Info Tech Solution), AI Research and Business Solutions (Boston Consulting, UK), Cognitive Intelligent Systems for Sustainable Solutions(HPCC Systems and Lexis Nexis Solutions) and Women in Cloud (WIC, USA) and RVCE-LAPP India Lab(LAPP India at EEE). These provide space and infrastructure for academic and sponsored research, innovation, industrial consultancy, sponsored projects, internships leading to prototypes, publications and patents.

Laboratories Established by Industries

RVCE has invested on laboratories in advanced technologies established by industries: Tejas Networks lab (Tejas Networks Pvt Ltd at ETE), Advanced RF and Wireless Communication lab(Keysight Technologies at ETE), ABB Power and Automation Technologies Lab (ABB at EEE), Recombinant DNA Technology lab (Hi Media Industries at BT), NVIDIA GPU Research Centre (NVIDIA India at CSE), Software Excellence lab (IBM at CSE), Optical Research lab (Tejas at ISE). Laboratories are equipped with advanced testing facilities for laboratory sessions along with skill development, projects and certification courses.

Support system for Students

Internship /Projects / placement

Internship and projects are mandatory courses for UG/PG programmes and over 50 % UG/PG students undergo internships and projects in MNCs, Public Sectors and MSME with monthly stipend INR 25K to 1.0 L through MoU which include Microsoft, JP Margan, Walmart, Margan Stanley, Goldman Sachs, Samsung, Wipro, Cisco, Airbus, Volvo and Mercedes Benz. Industry collaboration has benefitted placement (over 70 % in many Pogrammes).

Scholarships and Sponsorship

Industries / NGOs support students through merit-cum-means scholarships and annually 180-200 students are provided freship/scholarships. A few companies support girl students studying Mechanical/IEM programmes.

With Industry Collaboration, RVCE's legacy of Students Innovative projects started in 2003 with ASHWA RACING CAR and presently there are 16 Innovative teams (50–100 students/team) in interdisciplinary areas. Industries support in terms of grants for design, development, fabrication, providing components, facilitating fabrication/testing at their works, sponsoring travel grants for participating National/international competitions. Students gain knowledge/skills in cutting edge technologies significantly enhancing employability.

Support for Co-curricular activities and Faculty Development

RVCE has over 15 Professional Society Student Chapters (IEEE/ASM/ISHRAE/ASME/CSA/ASCE/ISQ, etc.). Industry experts sponsor activities and extend direct support as Resource Persons in workshops/Seminars. It helps students and faculty update their knowledge and skills. RVCE in collaboration with Merck conducts certification programmes in pharmaceutical and Biotechnology to attract engineering aspirants to pursue Biotechnology.

Cognizant Technologies instituted in 2008 Best Faculty Awards in Research and Academics and faculty are recognised on Teachers Day under ISTE chapter. E-summit as a flagship programme is a perfect opportunity for aspiring entrepreneurs to showcase innovative concepts / solutions for real world challenges and seek joint ventures, mentorship platforms and funding opportunities.

Head of the Institution represents RVCE as mentor for Industry-Academia interaction in Bangalore Chamber of Industries and Commerce (BCIC), which represents around 850 large and medium industry

associations in Karnataka. RVCE is Knowledge partner for 'Women Leadership Award' to recognise contributions of women to MSME. RVCE is recognised as MSME Host Institute Business Incubator. Proposals submitted to MSME for funding are scrutinised at RVCE. MSME has granted INR 34.85 lakh for three ideas to convert them into business models.

Industrial Collaboration leading to Industrial Consultancy

Industrial collaboration has helped RVCE faculty to take up industrial consultancy of companies located in and around Bangalore and other states. Consultancy projects include new product development, integration of IoT to the existing products, automation of manufacturing and testing set-up and indigenisation of products. Students of UG/PG work with the faculty, get exposure to new technologies and real world problems along with earning academic credits. Industrial consultancy directly impacts capacity development and institutional growth. RVCE has generated over Rs 9.0 Crore through industrial consultancy in the last five years.

Support for Extra-curricular activities and Holistic Development

Many of the students extra-curricular activities such as Sports, cultural events organised through Cultural Activities Team of RVCE are partially / fully sponsored by industries. Many of the community development activities are sponsored by industries as part of CSR.

The Distinctiveness of RVCE is its legacy of industry collaboration which has a transformative impact on the Institution's academic programs, research & consultancy, and student outcomes. By nurturing strong partnerships with industry stakeholders, RVCE continues to prepare graduates who are well-equipped to meet the evolving global challenges.

File Description	Document
Appropriate webpage in the Institutional website	View Document
Any other relevant information	View Document

5. CONCLUSION

Additional Information :

RVCE has won several awards and accolades. The institution consistently ranked within 100 in the NIRF Ranking since its inception in 2016.

Recent awards and achievements include - Ranked 96th in the Country by National Institutional Ranking Framework (NIRF: 2021-22), QS-IGUAGE -Diamond University Rating (2021-2024), “Engineering College of the Year-2023” by the Higher Education Review Magazine, Ranked 10th in the country & 2nd in Karnataka - IIRF Ranking (2023), Ranked 6th among the top 10 of 100 Pvt. Engg. Colleges in the Country by Education World Magazine-2023. Ranked 1501+ in Times Higher Education World University Rankings-2024. Ranked 801+ in Computer Science and 1001+ Rank in Engineering category in THE World University Rankings-2024, Ranked 1001+ in Impact Ranking in THE World University Rankings-2023, Ranking 601+ in Times Higher Education Asia University Rankings-2024 and NPTEL (Local Chapter) “AAA” Rating.

The institution has established 27 Centres of Excellence and Competencies in niche areas of science and technology, in collaboration with Industries and premier institutions. The Centres includes Macroelectronics, IoT, E-Mobility, Smart Antenna Systems & Measurements, Automotive Mechatronics, Robotics & Automation, CCTV Research, Computational Genomics, AI Research & Business Solutions, Cognitive Intelligent Systems for Sustainable Solutions, Quantum Computing, Hydrogen & Green Technology, Nano Materials & Devices, Autonomous Vehicles, Logistics & Supply Chain Management, Visual Computing, Women in Cloud, Advanced Automotive Systems, 5G and Emerging Technologies, Automotive Engineering, Sensors and Sensor Applications, Integrated Circuit System, Safety and Sustainability and Smart Infrastructure, EV Technologies. Focus of these centers are publication of technical papers in refereed national and international journals, executing funded research projects and consultancy works from industries.

Placement opportunities of students have increased over a period with more than 250 companies visiting the campus. Median Salary is Rs. 10.50 Lakhs and highest salary being Rs.92.50 Lakhs is offered for 2024 batch. Internship conversion to full time placement is on the rise every year, for UG and PG students.

Concluding Remarks :

RV College of Engineering is a premier self-financing Engineering College in Karnataka with over sixty years of standing and is a beacon of academic excellence and holistic development of students in India’s engineering education landscape. Established in 1963, RVCE has significantly grown as an Institution of first preference by engineering aspirants for more than two decades. RVCE was granted autonomy in 2007 for UG and in 2016 for PG programmes. Presently RVCE offers 15 UG and 14 PG programmes with student strength of over 5500. RVCE has effectively utilised the academic autonomy and evolved curricular reforms involving all the stakeholders.

RVCE’s NBA accreditation journey started in 2000. Most of the programmes are accredited by NBA under Tier – I and Tier– II multiple times. Presently, five UG programmes are NBA accredited for six years and one PG programme (MCA) is accredited for five years. RVCE is ranked one in 100 in Engineering Category of NIRF Rankings since inception. RVCE is well prepared for the second cycle of NAAC.

RVCE has created the-state-of-the-art infrastructure and conducive ambiance for Teaching-Learning, Research and Innovation, training and overall development of students and faculty. Centres of Excellence, Centres of Competence, Industry established laboratories, Skill labs are established with institutional budget and industry collaboration for exploring the innate talents of cream of the students populace who seek admission in RVCE. Placement has been consistent and most of the programmes have over 80 % placement with median of salary of INR 10.5 lakh for UG and INR 7.0 L for PG for the academic year 2022-23.

Most of the departments have research centres recognised by VTU for M.Sc. (Engg) and Ph.D. studies. RVCE has faculty strength of over 350 with over 70 % with Ph.D. RVCE is committed to promote research and innovation. Every year faculty are provided seed money for research and innovation, sponsored research grants and industrial consultancy, evidencing the faculty involvement.

In essence, RVCE's journey reflects a harmonious blend of academic rigour, industry collaboration, and a student-centric approach, positioning RVCE with distinction in the realm of engineering education.