



## Yearly Status Report - 2019-2020

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>		SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, NAGPUR
Name of the head of the Institution		Dr. Rajesh S. Pande
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		0712-2580011
Mobile no.		9822224468
Registered Email		rcoem@rknec.edu
Alternate Email		principal@rknec.edu
Address		Shri Ramdeobaba College of Engineering and Management, Ramdeo Tekdi, Katol Road, Nagpur
City/Town		Nagpur
State/UT		Maharashtra

Pincode	440013																		
<b>2. Institutional Status</b>																			
Autonomous Status (Provide date of Conformant of Autonomous Status)	26-Mar-2011																		
Type of Institution	Co-education																		
Location	Urban																		
Financial Status	Self financed																		
Name of the IQAC co-ordinator/Director	Dr. (Mrs.) Meghana A. Hasamnis																		
Phone no/Alternate Phone no.	07122580011																		
Mobile no.	9373284084																		
Registered Email	iqac@rk nec.edu																		
Alternate Email	hasamnisma@rk nec.edu																		
<b>3. Website Address</b>																			
Web-link of the AQAR: (Previous Academic Year)	<a href="http://www.rk nec.edu/AQAR2018-19.pdf">http://www.rk nec.edu/AQAR2018-19.pdf</a>																		
<b>4. Whether Academic Calendar prepared during the year</b>	Yes																		
if yes,whether it is uploaded in the institutional website: Weblink :	<a href="http://www.rk nec.edu/Imp%20Links/AcademicCalendar.aspx">http://www.rk nec.edu/Imp%20Links/AcademicCalendar.aspx</a>																		
<b>5. Accreditation Details</b>																			
<table border="1"> <thead> <tr> <th rowspan="2">Cycle</th> <th rowspan="2">Grade</th> <th rowspan="2">CGPA</th> <th rowspan="2">Year of Accreditation</th> <th colspan="2">Validity</th> </tr> <tr> <th>Period From</th> <th>Period To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A</td> <td>3.10</td> <td>2014</td> <td>10-Dec-2014</td> <td>09-Dec-2019</td> </tr> </tbody> </table>						Cycle	Grade	CGPA	Year of Accreditation	Validity		Period From	Period To	1	A	3.10	2014	10-Dec-2014	09-Dec-2019
Cycle	Grade	CGPA	Year of Accreditation	Validity															
				Period From	Period To														
1	A	3.10	2014	10-Dec-2014	09-Dec-2019														
<b>6. Date of Establishment of IQAC</b>	14-Aug-2013																		
<b>7. Internal Quality Assurance System</b>																			
Quality initiatives by IQAC during the year for promoting quality culture																			
Item /Title of the quality initiative by	Date & Duration		Number of participants/ beneficiaries																

IQAC		
Expert Talk on How to Write Research Papers Effectively By Dr. Shubhra Dutta, Customer Consultant, Elsevier for Faculty and Students	29-Aug-2019 01	144
Expert Talk on IQAC as a process for Quality Improvement By Dr. Ganesh A. Hegde, Deputy Adviser, NAAC Bangalore for Faculty	13-Nov-2019 01	83
Expert Talk on Improving Emotional Intelligence and Communication Skills in the Faculty By Dr. Rajiv Mohta, Adolescent Specialist & Pediatrician at Mohta Children & ENT Hospital, Nagpur	27-Nov-2019 01	24
Workshop on Simplifying Writing: Functional Grammar for Research and Professional Use for Post Graduate Students and Faculty	15-Feb-2020 01	52
Expert talk on Outcome Based Education by Dr. B. N. Chaudhari, Professor, Department of Electrical Engineering, Government College of Engineering, Amravati for Faculty	27-Feb-2020 01	15
Expert Talk on Women Empowerment for ladies Teaching, Non-Teaching Staff and Girl Students	09-Mar-2020 01	115
Expert Talk on State of the Art Technologies and Appropriate Mix of Fundamentals for Development of Chipset pertaining to 5G Communications By Dr. Kanti Prasad, Professor, UMASS Lowell, USA	03-Jan-2020 01	177
Two Days Awareness Workshop on SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) and NPTEL (National Program on Technology Learning)	19-Jul-2019 02	157

Webinar on POST COVID or CO COVID Challenges and Opportunities for faculty	10-Jun-2020 01	86
Webinar on The Pedagogical Innovations of the 21st Century for faculty	11-Jun-2020 01	72
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**8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Institution	RGSTC-TIFAC-MSME Internship Program	Rajiv Gandhi Science & Technology Commission (RGSTC), Technology Information, Forecasting and Assessment Council (TIFAC)	2015 365	5908507
Management Technology	PRERANA	All India Council for Technical Education (AICTE)	2018 730	650000
Management Technology	Unnatt Bharat Abhiyan	Ministry of Human Resource Development, Govt. of India	2018 365	50000
Institution	PhD Scheme of "Visvesvaraya Ph. D scheme for electronics and IT"	Govt. of India Ministry of Comm and IT, Dept. of Electronics and Information Technology New delhi.	2016 1780	8138400
Institution	FIST Level-0	Department of Science and Technology (DST)	2016 1780	2250000
Institution	ASPIRE: A scheme for promotion of innovation, rural industrialization and entrepreneurship	Ministry of Micro Small & Medium Enterprises, GOI	2017 1095	3925000

Management Technology	Performance Evaluation of Pradhan Mantri MUDRA Yojana (PMMY)-An Empirical Study of Beneficiaries of Nagpur District	Indian Council of Social Science Research	2019 365	525000
Electronics Engineering	Technology Adaptation Project - Creation of Apps and Virtual class room for Non Formal Sanskrit Education	Rashtriya Sanskrit Sansthan	2020 1095	200000
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<b>9. Whether composition of IQAC as per latest NAAC guidelines:</b>	Yes
Upload latest notification of formation of IQAC	<a href="#">View File</a>
<b>10. Number of IQAC meetings held during the year :</b>	4
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	<a href="#">View File</a>
<b>11. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	No
<b>12. Significant contributions made by IQAC during the current year(maximum five bullets)</b>	
Two Under Graduate Programmes got NBA Accreditation for three years a. Computer Science and Engineering b. Electronics and Communication Engineering. Four Under Graduate Programmes got extension of NBA Accreditation for three years a. Civil Engineering b. Mechanical Engineering c. Electronics Engineering d. Electrical Engineering	
External Academic Assessment and Audit conducted for all Departments during 1st February to 29th February 2020.	
Two International Conferences, One National Conference and One National Convention organized.	

Participation in NIRF Ranking 2020. Institute has Ranked 113th in Engineering Category in All India Ranking.

Four Centers of Excellence established. a. Tata Technologies Limited Center for Invention, Innovation, Incubation and Training (CIIIT) b. RCOEM NVIDIA Center of Excellence for Artificial Intelligence, Machine Learning, Deep Learning and Data Analytics c. Center of Excellence for Microsystems d. RCOEM QCFI Center of Human Excellence

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**13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year**

Plan of Action	Achievements/Outcomes
Initiation of space club for students	Space Club for students was initiated on 29th January 2020
Organization of International Conferences	1. Two International Conferences organized: (a) RICESS - 2019: International Conference on Recent Issues in Civil Engineering and its Sustainable Solutions (RICESS - 2019), 27th - 28th December 2019 (b) PEDEPS - 2019: International Conference on Power Electronics, Drives, Energy & Power System (PEDEPS - 2019), 23rd - 24th December 2019 2. National Conference and Expo on 'Advances in Mining and Geotechnical Engineering' organized by Indian Mines Manager Association, Nagpur Chapter in Association with VNIT Mining Association, Nagpur and Shri Ramdeobaba College of Engineering and Management, Nagpur, 14th to 16th October 2019 3. Annual Convention on Quality Circle Forum India (QCFI), 20th October 2019
Improve NIRF Ranking	Institute Participated in National Institutional Ranking Framework (NIRF - 2020) and ranked 113th in all India ranking (Engineering Category)
Compliance of NBA for four UG Programmes	NBA Compliance committee visited and Accredited four UG Programmes for 3 years 1. Civil Engineering 2. Mechanical Engineering 3. Electronics Engineering 4. Electrical Engineering
Accreditation for two UG Programmes	Computer Science and Engineering and Electronics and Communication Engineering Programmes received NBA Accreditation for 3 years
Creation of Center of Excellence in the areas of expertise	Four Centers of Excellence established. 1. Tata Technologies Limited Center for

	Invention, Innovation, Incubation and Training (CIIIT) 2. RCOEM NVIDIA Center of Excellence for Artificial Intelligence, Machine Learning, Deep Learning and Data Analytics 3. Center of Excellence for Microsystems 4. RCOEM QCFI Center of Human Excellence
Conduction of External Academic Audit	External Academic Audit conducted for all the Departments from 1st to 29th February 2020
To focus on Full time PhD admissions	Received the National Doctoral Fellowship (NDF) scheme of AICTE
To encourage faculty for Research	Institute sanctioned the fund for the establishment of Centers of Excellence so that faculty members can carry out research work. Research groups of faculty are formed to promote multidisciplinary research.
To increase Industry Institute Interaction activities	Students are provided more internship opportunities in industries. Industry visits for students are facilitated
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<b>14. Whether AQAR was placed before statutory body ?</b>	Yes
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Name of Statutory Body	Meeting Date
College Development Committee	20-Oct-2020

<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?</b>	No
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<b>16. Whether institutional data submitted to AISHE:</b>	Yes
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Year of Submission	2020
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Date of Submission	10-Aug-2020
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<b>17. Does the Institution have Management Information System ?</b>	Yes
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If yes, give a brief description and a list of modules currently operational (maximum 500 words)	The Management Information System (MIS) Juno Campus is used extensively in the student and employee life cycle management. The list of Modules: Academics: Courses, Subject, Syllabus, Subject allocation, timetable, attendance, evaluation, feedback, Class register, daily monitoring, online
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test. Teaching: Academic calendar, academic planning, scheduling, course file, mentoring, practical's, projects. Admissions: Course configuration, admission process, criteria and seats. Seats categories, eligibility of admission, Entrance test, fees, admission cancellations, applicant profile, document management, online forms, ID cards. Examination: Assessment centers, paper setting, exam scheduling, invigilation, result compilation, revaluation, mark sheets generation, exam log generation. Attendance: Muster attendance entry, loginbased attendance, biometricbased attendance, analytical reports. Course File: Academic calendar, lesson plan, delivery report, assignments, tests, question banks, subject notes, attendance and evaluation. Performance: Goal settings, student feedback, standard academic appraisal, customized appraisal, and analytical reports. Feedback: Academicspecific feedback, customizable evaluation parameters, key process areas, grading, and analytics. Placements: Helps manage campus placement, Jobs posting, walkins, student registration, placement event handling, career guidance, prescreening, testing. Research: Research projects, publications, conferences, journals, patents, copyrights and reports. Profile: Employee and students Profile with personal, educational, work experience, contributions and achievements, research, patents, conferences. Test: Facilitates objective/subjective tests, question banks, question paper generation, evaluation scheme, timebound answering, negative marking. Discussion: Forum, blogs, document sharing, discussion threads, announcements, notices, messages and poll questions. Notes: Notes categorization, texts, videos, audios, file sharing and storage. Announcement: Announcing, uploading attachments, categorization. Communication: Emailing, sending SMS, enotice board, audio video conferencing, attachments, categorization and maintaining history. Committee: Governance through committee, external/internal members, organizing meetings, events, duties allocation, budget making, expenditure.



Apps: Hosting free/paid apps, billing, payments. Project: Helps students display projects, get mentorship, experienced guidance, idea sharing, sell/buy projects. Mentoring: Multilevel mentoring, stakeholder meetups, parent reporting etc. Worksheet: Daily worksheet, on duty reporting, goalmapping, monitoring, effort calculation, reporting and analytics. Scheduler: Personal, academic, financial, placement, event planner, reminders, scheduling, todo lists. Recruitment: Roaster, advertisements, reservations, applications, scrutiny for eligibility, interviews, grade pays, appointment orders, reporting and analytics. Office: Muster roaster, service book, leave accounting, salaries, fees, inward/outward and documentation. Finance: Student fee management, Expense/advance vouchers, ledgers, trial balance, expenditures, incomeexpense statements, balance sheets, budgeting and statistical reporting. Salary: Grade pay, basic, HRA, gross pay, arrears, deductions, tax saving, salary slips and payroll, Staff wise yearly salary statement, Monthly deduction report. Hostel: Room allotment, permanent/temporary allotment, nightout applications, grievance management, billing and accounting. Inventory: Movement of items, procurement management, stock management, distribution, inventory control, reordering, Economic Ordering Quantity. Library: Stocking of books/journals/CDs/DVDs/magazines, membership, catalogue management, Online Public Access Control, transactions, barcodescanning based. Stock: Dead stock maintenance, allocation of dead stock, asset records through barcodes, and reporting. Purchase: Vendor management, letter of intent, quotation, purchase orders, invoicing, delivery challan, bill payments, receipts making and reporting. Event: Event planning, designing, participation, committees, announcements, meetings, budgeting, expenses, resource people, registration, attendance, summaries, feedback, press coverage, media and reporting. Resource Scheduling: Resource availability, requirements,

allocation, utilization and reporting.  
 Asset: Takes care of movable assets like furniture, hardware, software, with tasks like maintenance, allotment, usage, acquisition, reporting and more.

## Part B

### CRITERION I – CURRICULAR ASPECTS

#### 1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision
BE	CEU	Civil Engineering and Civil Engineering Shift II	04/01/2020
BE	ITU	Information Technology	11/01/2020
BE	CSU	Computer Science and Engineering and Computer Science and Engineering Shift II	01/07/2019
BE	EEU	Electrical Engineering	14/05/2020
BE	MEU	Mechanical Engineering	05/05/2020
BE	ENU	Electronics Engineering and Electronics Engineering Shift II	14/12/2019
BE	INU	Insustrial Engineering	21/05/2020
MCA	MCA	Computer Applications	29/02/2020

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1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
BE	List attached	01/07/2019	List attached	01/07/2019
Mtech	List attached	01/07/2019	List attached	01/07/2019
MCA	List attached	01/07/2019	List attached	01/07/2019
MBA	List attached	01/07/2019	List attached	01/07/2019

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#### 1.2 – Academic Flexibility

### 1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
MCA	Nil	01/07/2019
MBA	Nil	01/07/2019
BE	Nil	01/07/2019
Mtech	Nil	01/07/2019
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### 1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	CBCS / Elective Course System is already implemented for all Programme Specializations	01/07/2019
MBA	CBCS / Elective Course System is already implemented for all Programme Specializations	01/07/2019
MCA	CBCS / Elective Course System is already implemented for all Programme Specializations	01/07/2019
Mtech	CBCS / Elective Course System is already implemented for all Programme Specializations	01/07/2019

### 1.3 – Curriculum Enrichment

#### 1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Modelling using Verilog HDL	22/06/2019	12
Progammig for Advanced Computing	01/07/2019	70
Data Structures Algorithms	01/07/2019	109
Programming for Advanced Computing	01/07/2019	70
Education, Technology and Society	04/01/2020	130
API Development using Spring Data Mongo	25/04/2019	104
Indian Traditional Knowledge	01/07/2020	80
Non conventional Energy Sources	01/01/2020	89

Digital Manufacturing	01/01/2020	23
Automobile Engineering	01/01/2020	29
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### 1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BE	Civil Engineering, Computer Science and Engineering, Electronics and Communication, Electronics Design Technology, Electrical Engineering, Electronics Engineering, Mechanical Engineering, Industrial Engineering, Information Technology	574
Mtech	Structural Engineering, GeoTechnical Engineering, Computer Science & Engineering, Power Electronics & Power Systems, VLSI Design, Heat Power Engineering, Industrial Engineering	69
MBA	Management	239
MCA	Computer Application	123
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### 1.4 – Feedback System

#### 1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

#### 1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained
Institute conducts Students' online feedback in MIS. The questionnaire is prepared which obtains feedback from students on three major sets of parameters including teaching learning process (Theory and Practical), facilities and infrastructure of the department and the Institute on a five point scale from 1 to 5 with level 1 as not satisfactory and level 5 as excellent. Feedback is taken from the students twice in a semester. The Head of the department critically analyzes the feedback of every faculty member and department facilities. One to one discussion with faculty is held and corrective measures are suggested wherever necessary. Action taken report is prepared by Head of the department and then it is discussed with the Principal in the presence of Member Secretary, IQAC, Head of the department and concerned faculty. Such

discussions help to evolve necessary corrective measures that can help the faculty to improve their performance. Alumni, Employer, Parent, Teacher and Student feedbacks are conducted. The feedback collected is analyzed statistically and data is compiled either at Departmental level or at Institutional level. The questionnaire is prepared on five point scale from 1 to 5 with level 1 as not satisfactory and level 5 as excellent. The alumni feedback is carried out throughout the year. This feedback is taken from the alumni when they visit the Institution during the annual alumni meet or for any other purpose. The feedback is also taken electronically from the wide network of institute alumni. The analysis of the alumni feedback helps in curriculum design and development and organization of various career guidance training programmes for the students. Employer feedback is collected either during the campus placement drives or electronically from the employers all round the year. Employers give feedback on the curriculum design and development and also on their overall impression of the institute and its students. The analysis of this feedback helps institute in reframing the course content and organization of various skill development training programmes. It also helps in determining overall employability of students at various levels. Parents give their feedback during the Parents-Teacher Meet, which is held once in every semester. Parents Feedback is based on the teaching learning process and their over-all impression of the institute. This feedback form is made available in Hindi and English languages. The feedback from the Parents helps the Institute immensely reorienting the academic, administrative, general ambience, skill development, suitability of the courses for career growth of the ward, and overall development in the personality of the ward. Teacher's feedback is collected once every year. The feedback is based on teaching and learning processes of the institute, curriculum design and development, academic and administrative policies of the institute, library facilities and others. The feedback from teachers helps the Institute in reorienting the academic and administrative policies and overall development of the institute. The feedback regarding the curriculum is taken from final year students which are analyzed at departmental level. On the basis of their suggestions, curriculum design and delivery is improved.

## CRITERION II – TEACHING- LEARNING AND EVALUATION

### 2.1 – Student Enrolment and Profile

#### 2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
Nill	Please see the Excel Sheet Attached	Nill	Nill	Nill
BE	Civil Engineering, Computer Science and Engineering, Electronics and Communication, Electronics Design Technology, Electrical Engineering, Electronics Engineering,	810	Nill	847

	Mechanical Engineering, Industrial Engineering, Information Technology			
MBA	MBA	120	Nil	120
MCA	MCA	120	Nil	55
Mtech	Structural Engineering, GeoTechnical Engineering, Computer Science & Engineering, Power Electronics & Power Systems, VLSI Design, Heat Power Engineering, Industrial Engineering	141	Nil	70
MBA	MBA Integrated	60	Nil	60
<a href="#">View File</a>				

## 2.2 – Catering to Student Diversity

### 2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019	3703	921	207	67	109

## 2.3 – Teaching - Learning Process

### 2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Number of smart classrooms	E-resources and techniques used
274	274	5	66	24	12

[View File of ICT Tools and resources](#)

[View File of E-resources and techniques used](#)

### 2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Institute provides mentoring to newly admitted Under Graduate students and Mentor Mentee scheme exits for higher semester students. Institute admits students from various socio economical backgrounds, students from rural, urban and metropolitan regions, and from various states of the country. The main purpose of the mentoring system is to address the needs of the students to have a friend, a counselor and a confidante on the campus. A

counselor is appointed by the institute for solving student's academic / personal / psychological problems. The counselor conducts problem specific seminars / workshops for students. One week induction programme is organized for newly admitted students. Induction programme helps the students to get acclimatize with the new surroundings, develop bond with fellow students and teachers, to develop sensitivity towards various issues of social relevance and inculcate human values so as to become responsible citizens. On the very first day Principal of the institute addresses fresh students giving them the basic information about the Institute, various courses conducted in the institute and various career opportunities available after the completion of graduation. In the same session Deans and Head of the departments also brief to the fresh students about their individual department courses, laboratories, research facilities and the opportunities for the students of the department. Different activities are carried out for the students. Motivational talks are organized. Language proficiency and basic mathematics test are also conducted during Induction Program. Physical health related activities like football, basketball, volley ball and yoga is performed during induction program by First Year Students. Different extracurricular activities are conducted by dance club, music club, drama club, literary club where students groups participate. Students are also familiarized with central facilities, such as Administrative block, Library and different Departments/Branches. For higher semester students Mentor Mentee scheme is available at the departmental level, where a small group of students are allocated to the teacher who at regular interval interacts with the students and grievances if any, resolves them and guides them.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
4624	274	1:16.8

## 2.4 – Teacher Profile and Quality

### 2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
256	274	Nil	49	136

### 2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Dr. V. H. Asudani	Associate Professor	Ideal Professor Award, The National Association for the blind, Maharashtra Unit, Nashik
2020	Dr. Rajesh Vaidya	Assistant Professor	Life time achievement award for Research , In the 10th International Scientist Awards on Engineering, Science and Medicine, held on 26 27-Sep-2020,
2020	Dr. A. V. Bharati	Associate Professor	Certificate of honour in recognition of National/ International Professional Excellence, High

			Impact contribution Technical Oration by Indian Society of Analytical Scientists
2020	Prof. Mangesh Joshi	Assistant Professor	Certificate of appreciation in Teachers Innovation Award under Zero Investment Innovation for Education Initiatives for implementation of idea entitled Systematic creative improvements in various activities of school in two schools of Nagpur
2020	Prof. Himanshu Shukla	Assistant Professor	Certificate of appreciation in Teachers Innovation Award under Zero Investment Innovation for Education Initiatives for implementation of idea entitled Systematic creative improvements in various activities of school in two schools of Nagpur
2020	Dr. Parihar Suresh Dahake	Assistant Professor	Research Excellence Award
2019	Dr. Rashmi Shahu	Associate Professor	Certificate of reviewing in recognition of the review contributed to the International Journal of Industrial Ergonomics, Elsevier.
2019	Dr. Suresh Balpande	Assistant Professor	NPTEL Course on "Sensors and Actuators" Got All India 3rd Rank (81)-Silver with Elite certification , Top 1 certified candidate among Total Enrollment of



			6809 candidates/652 eligible candidates.
2019	Dr. M. V. Palandurkar	Assistant Professor	Elite Gold certificate for NPTEL- 8 week on-line course with title "Accreditation and outcome based Education
2019	Prof. Sachin Pund	Assistant Professor	Best paper award- Research Paper- (International conference on Innovation in engineering sciences, Management and Technology 2019 organized by SBJITMR, Nagpur)
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## 2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
Nil	Detailed List Attached	Nil	Nil	Nil
BE	CSU, ITU, ECU, EEU, INU, MEU, ENU, EDU, CEU	3, 5, 7	25/11/2019	28/11/2019
BE	CSU, ITU, ECU, EEU, INU, MEU, ENU, EDU, CEU	8	28/09/2020	03/10/2020
MCA	MCA	6	10/09/2020	22/09/2020
MCA	MCA	1, 3, 5	10/12/2019	16/12/2019
MBA	MBA	4	20/09/2020	28/09/2020
MBA	MBA	1, 3	18/12/2019	21/12/2019
Mtech	CEG, CSE, HPE, I ND, EEP, CES, ENV	4	28/09/2020	28/09/2020
Mtech	CEG, CSE, HPE, I ND, EEP, CES, ENV	1	10/12/2019	11/12/2019
BE	First year	1	14/12/2019	19/12/2019

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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
11	5909	0.18

## 2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

<http://www.rk nec.edu/Academics/syllabus.aspx>

### 2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
MBA	MBA	MBA Integrated	20	16	80.00
MTech	Mtech	Geotech, Structural Engineering, Industrial Engineering, VLSI (Design), Computer Science & Engineering, Heat Power Engineering, Power Electronics and Power system	73	68	93.15
MCA	MCA	Computer Application	123	122	99.18
MBA	MBA	MBA	111	107	96.40
BE	BE	Civil Engineering, Industrial Engineering, Electrical Engineering, Electronics Engineering, Electronics & Communication Engineering, Electronics Design Technology, Information Technology, Computer	933	931	99.79

Science &  
Engineering,  
Mechanical  
Engineering

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## 2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

<http://www.rknec.edu/Imp%20Links/Docs/Student%20Satisfaction%20Survey%202019-20.pdf>

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 – Promotion of Research and Facilities

3.1.1 – The institution provides seed money to its teachers for research

Yes

Name of the teacher getting seed money

Dr. G . R. Nikhade

[View File](#)

3.1.2 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
National	Nil	Nil	01/07/2019	Nil
International	Nil	Nil	30/06/2020	Nil
No file uploaded.				

### 3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	1095	Rashtriya Sanskrit Sansthan	200000	Nil
Major Projects	730	All India Council for Technical Education (AICTE)	871000	Nil
Major Projects	730	All India Council for Technical Education (AICTE)	1106000	Nil

Major Projects	1825	Department of Science and Technology (DST)	2250000	Nil
Major Projects	1825	Ministry of Micro Small Medium Enterprises, GOI	3925000	1161446
Minor Projects	14	Indian Institute of Information Technology Design Manufacturing Jabalpur	210992	210992
Major Projects	365	Rajiv Gandhi Science Technology Commission (RGSTC) Technology Information, Forecasting and Assessment Council (TIFAC)	1197300	1197300
Minor Projects	365	Indian Council of Social Science Research	525000	200000
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3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

14
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### 3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
One Week Online Faculty Development Program on Arduino	Electronics Engineering	20/05/2020
One Week Online Faculty Development Program on PERL	Electronics Engineering	23/05/2020
One Week Online Faculty Development Program on PHP and MySQL	Electronics Engineering	26/05/2020
Webinar Series on Modern Antennas for Wireless System	Electronics Engineering	22/05/2020

Webinar on How to prepare for IoT domain jobs	Electronics Engineering	30/05/2020
Webinar on Preparation for Core Companies	Electronics Engineering	30/05/2020
Webinar on Challenges in MEMS Design and Development	Electronics Engineering	28/05/2020
Webinar on Industrial IoT - Current Scenario and Future Ahead	Electronics Engineering	09/05/2020
Webinar on Scope and opportunities in VLSI Design post COVID-19	Electronics Engineering	18/05/2020
Webinar on Solve any problems of aptitude in seconds	Electronics Engineering	27/05/2020
Webinar on Entry to the corporate world	Electronics Engineering	23/05/2020
Webinar on Post COVID-19 challenges and opportunities	Electronics Engineering	02/05/2020
Webinar on Career options and opportunities for B.E/M.Tech EN, EC, EDT graduates	Electronics Engineering	28/05/2020
Webinar on How to prepare for future of augmented reality (AR)/virtual reality (VR)	Electronics Engineering	27/05/2020
Webinar on Cloud Computing	Electronics Engineering	17/06/2020
Webinar on COVID and YOUTH	Electronics Engineering	14/06/2020
Webinar on Challenges and opportunities in software testing	Electronics Engineering	19/06/2020
Topics in Wireless Communication	Electronics and Communication Engineering	30/01/2020
Required Skill sets and Industry expectation from EDT Engineers	Electronics Design Technology	13/08/2019
Optical Communication	Electronics Design Technology	29/08/2019
Preparing for Campus Interviews	Electronics Design Technology	19/08/2019
Basics of Digital Signal Processing and Applications	Electronics Design Technology	02/12/2019
Machine Learning-	Electronics Design	10/05/2020

Supervised and Unsupervised Algorithms	Technology	
Webinar on, Internet of Things: Space IoT and future trends	Electronics Design Technology	29/05/2020
Career Opportunities and Challenges for Engineers Post Covid-19	Electronics Design Technology	16/06/2020
Opportunities for Engineers in the field of Biomedical Engineering	Electronics Design Technology	16/06/2020
Preparation for core Industries	Electronics Design Technology	16/08/2019
Preparation for Software Industries	Electronics Design Technology	08/02/2019
Energy Conservation and Management	Electrical Engineering	27/07/2019
Entrepreneurship Opportunities in Solar Photovoltaic System	Electrical Engineering	10/08/2019
Entrepreneurship Opportunities in renewable energy sector	Electrical Engineering	19/08/2019
Lighting design aspects	Electrical Engineering	26/09/2019
Industrial Robotics and Automation	Electrical Engineering	27/09/2019
Artificial Intelligence In Power System	Electrical Engineering	24/01/2020
Electrical Energy Conservation, Maintenance of Electrical system, Safety Culture in Industries	Electrical Engineering	25/01/2020
Guest Lecture organised on Insight of Electrical Machines	Electrical Engineering	26/02/2020
Two week AICTE sponsored FDP on Computational Linguistics: Techniques and Applications	Information Technology	02/12/2019
Workshop on Linux Operating System	Information Technology	23/05/2020
Coping up with anxiety during lockdown	Industrial Engineering	07/06/2020
Engineering Applications in Inter-Disciplinary Fields	Industrial Engineering	23/05/2020
Industry 4.0 Opportunities and	Industrial Engineering	20/05/2020

Challenges		
Business Process Reengineering	Industrial Engineering	25/05/2020
Role of 5G in Industrial Automation	Industrial Engineering	12/06/2020
MDP on Leadership and WLB	Department of Management Technology	13/11/2019
Data Analysis and Presentation: Using Spreadsheet (Excel)	Department of Management Technology	06/12/2019
Gyansarovar 12.0 ( Gearing up for Industry 4.0)	Department of Management Technology	06/03/2020
Samvaad 2020	Department of Management Technology	29/02/2020
Seminar on Physical IC Design	Electronics Engineering	07/10/2019
Partial delivery of course contents for the course Designing the Internet of Things	Electronics Engineering	31/07/2019
Partial delivery of course contents for the course Wireless Communication	Electronics Engineering	09/10/2019
FDP on VLSI Chip Design Hands on using Open Source EDA	Electronics Engineering	16/12/2019
2 Day Training program on MEMS CAD/CAE Tool Intellisuite	Electronics Engineering	28/01/2020
Seminar on Entrepreneurship Development	Electronics Engineering	23/01/2020
Seminar on Entrepreneurship Development	Electronics Engineering	04/09/2019
Seminar on Entrepreneur Development: The steps involved in Electronic Manufacturing	Electronics Engineering	20/09/2019
Seminar on Entrepreneurship Development	Electronics Engineering	27/09/2019
Seminar on Entrepreneurship Development	Electronics Engineering	02/02/2020
Guest Lecture organised on Future Scope of Electrical Engineering	Electrical Engineering	26/02/2020

Guest Lecture organised on Industrial Automation (PLC- SCADA)	Electrical Engineering	06/03/2020
Webinar on KVAH Billing and Power Factor Improvement	Electrical Engineering	10/05/2020
Webinar on An Introduction to Electric Vehicle Landscape in India	Electrical Engineering	12/05/2020
Webinar on Basics of Indian Power Sector and Power Markets	Electrical Engineering	17/05/2020
Webinar on First Aid in Electrical Mishaps (This could save somebody's life)	Electrical Engineering	19/05/2020
Conclave: Future of Work	Department of Computer Application	11/01/2020
Webinar on IOT, The Beginning of new Era	Department of Computer Application	15/05/2020
Webinar on IOT and OPC UA Overview	Department of Computer Application	15/05/2020
Opportunities in Deep Learning and Machine Learning	Electronics and Communication Engineering	19/12/2019
Wireless Communication (Industry Co-teaching course)	Electronics and Communication Engineering	03/02/2020
Waves and Radiating Systems	Electronics and Communication Engineering	02/03/2020
Microwave Engineering	Electronics and Communication Engineering	29/02/2020
RF Circuit Design	Electronics and Communication Engineering	09/03/2020
Relevance and Significance of Industrial Engineering Tools Post COVID-19 in Manufacturing and Supply Chain	Industrial Engineering	30/05/2020
Machine Learning Techniques for Condition Monitoring	Industrial Engineering	13/06/2020
Post Covid -The Supply Chain Resiliency a Compelling Need	Industrial Engineering	19/05/2020
Insight to Operation Research	Industrial Engineering	15/06/2020
5 days training	Industrial Engineering	01/07/2019



lectures series		
Planning and Design of Irrigation Water Networks	Civil Engineering	26/08/2019
15 Days Workshop on Autocad Training	Civil Engineering	14/07/2019
Concrete Mix Design	Civil Engineering	10/07/2019
Advances in Pile Foundation Construction and Design	Civil Engineering	08/06/2020
Online Technical E-poster Competition	Civil Engineering	20/05/2020
Two week FDP on Current Trends in Deep Learning and Its Applications	Computer Science and Engineering	09/12/2019
Workshop on Internet of Things	Computer Science and Engineering	21/12/2019
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### 3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
HackWithInfy 2019	Student: Sushant Kumar Faculty: Prof. D. A. Borikar	Inofsys Pune DC	19/08/2019	HackWithInfy 2019
Primary health care in remote areas using cloud medicine and diagnostic	Faculty: Dr. M. B. Chandak, Prof. S. G. Mundada Student: Atharva Udapure, Gaurav Sharma, Nikhil Sahu, Ashlesh Mahule, Jigyasu Prakash , Manasi Namjoshi	Government of Uttarakhand	05/08/2020	Primary health care in remote areas using cloud medicine and diagnostic
ACM ICPC 2019 ASIA WEST REGIONAL CONTEST - KHARAGPUR SITE	Student: Shrey Agrawal Pranav Manbhekar Punit Gandecha Vaibhav Kalbhore Faculty: Prof. D. A. Borikar	ACM CodeChef	08/12/2019	ACM ICPC 2019 ASIA WEST REGIONAL CONTEST - KHARAGPUR SITE
Detection of chromium in water using colorimetric method-android application development	Student: Vishal Kshetry, Siddharth Bisan i, Yogeshwari Abhyankar	ENNOVATE'20 organized by RCOEM, Nagpur	07/03/2020	Detection of chromium in water using colorimetric method-android application development

Data Analytics of Scoail Networking sites using Game theory Model	Faculty: Dr. Satyajit S Uparkar	Uttarachal University, Dehradun, Uttarakhand	10/08/2019	Data Analytics of Scoail Networking sites using Game theory Model
Data Analytics of Scoail Networking sites using Game theory Model	Student: Prachi Sahare	Uttarachal University, Dehradun, Uttarakhand	10/08/2019	Data Analytics of Scoail Networking sites using Game theory Model
Certificate of reviewing	Faculty: Dr. Rashmi Shahu	International Journal of Industrial Ergonomics, Elsevier	01/08/2019	Certificate of reviewing
Best Paper Award	Faculty: Prof. Sachin Pund	International conference on Innovation in engineering sciences, Management and Technology 2019 organized by SBJITMR, Nagpur	01/12/2019	Best Paper Award
Development of Micro Phasor Measurement unit ( $\mu$ -PMU) to facilitate Synchrophasor	Student: Saurabh Chaurasia, Vikram Chandora, Abhishek Tripathi, Faculty: Dr.U.B .Mujumdar, Prof.J. S. Joshi	Department of Electrical Engineering, Shri Ramdeobaba College of Engineering and Management	24/12/2019	Development of Micro Phasor Measurement unit ( $\mu$ -PMU) to facilitate Synchrophasor
<a href="#">View File</a>				

### 3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
1) Technology Incubation Centre 2) RCOEM ASPIRE 3) RCOEM-CIIIT	1) RCOEM Technology Business Incubators (TBI) Foundation 2) RCOEM ASPIRE Innovation Center 3) Center for Invention,	1) RCOEM 2) Ministry of MSME, Govt. of India 3) TATA Technologies	MEMEBOOK (Innovistic Tech Pvt. Ltd.) CIN:U7 2900MH2019PT C334575	Image and Video editing entertainment Social Media Platform.	23/08/2019

	Innovation, Incubation Training				
1) Technology Incubation Centre 2) RCOEM ASPIRE 3) RCOEM-CIIIT	1) RCOEM Technology Business Incubators (TBI) Foundation 2) RCOEM ASPIRE Innovation Center 3) Center for Invention, Innovation, Incubation Training	1) RCOEM 2) Ministry of MSME, Govt. of India 3) TATA Technologies	Fameximpex Technologies Pvt. Ltd. CIN - U74999 MH2018PTC314 890	Bio-Diesel Processing Plant, Biodiesel Manufacturing Plant.	28/01/2020
1) Technology Incubation Centre 2) RCOEM ASPIRE 3) RCOEM-CIIIT	1) RCOEM Technology Business Incubators (TBI) Foundation 2) RCOEM ASPIRE Innovation Center 3) Center for Invention, Innovation, Incubation Training	1) RCOEM 2) Ministry of MSME, Govt. of India 3) TATA Technologies	Uniformwala	On line, on demand school uniforms and accessories provider.	14/11/2019
1) Technology Incubation Centre 2) RCOEM ASPIRE 3) RCOEM-CIIIT	1) RCOEM Technology Business Incubators (TBI) Foundation 2) RCOEM ASPIRE Innovation Center 3) Center for Invention, Innovation, Incubation Training	1) RCOEM 2) Ministry of MSME, Govt. of India 3) TATA Technologies	Rainbow Salad	Monthly Salad Subscription.	01/01/2020
1) Technology Incubation Centre 2) RCOEM ASPIRE 3) RCOEM-CIIIT	1) RCOEM Technology Business Incubators (TBI) Foundation 2) RCOEM ASPIRE Innovation Center 3) Center for Invention, Innovation, Incubation Training	1) RCOEM 2) Ministry of MSME, Govt. of India 3) TATA Technologies	A7 Cart	Farmer to Retailers B2B platform.	01/01/2020

Innovation  
Center 3)  
Center for  
Invention,  
Innovation,  
Incubation  
Training

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### 3.4 – Research Publications and Awards

#### 3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Chemistry	2
Civil Engineering	1
Electrical Engineering	1
Electronics Engineering	2
Physics	1

#### 3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Chemistry Department	2	3.86
International	Civil Engineering	57	4.65
International	Computer Science and Engineering	54	4.92
International	Department of Management Technology	39	6.69
International	Electronics and Communication Engineering	7	1.61
International	Electrical Engineering	31	3.15
International	Electronics Engineering	15	5.07
International	Department of Computer Application	5	1.50
International	Mechanical Engineering	2	1.66
International	Physics Department	7	2.77

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#### 3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Department of Computer Application	7

Electrical Engineering	4
Computer Science and Engineering	5
Civil Engineering	47
Chemistry	7
Mechanical Engineering	20
Industrial Engineering	10
Humanities	4
Electronics Engineering	4
Electronics and Communication Engineering	3
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#### 3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
MEMS based Vibration Sensor for low frequencies	Published	201821010193	27/09/2019
Arrangement of heating element in 3D printers liquefiers for improved filament liquefaction	Published	201821015959	11/01/2019
Voice Controlled IoT based plug and play split smart holder	Published	201821006225	23/08/2019
Empirical Formula for Determination of Tension and Compression Steel in Flexural Member	Published	201921023282	06/12/2019
Battery Operated Insitu Spinach Cutting, Weighing and Packaging Machine for Indian Senario	Published	201921029124	27/09/2019
System and Method of Inductor-Less Maximum Charge Extraction and Transfer In Piezoelectric Energy Harvesting Based on Gyrator Induced Voltage Flip Technique (GIVFT)	Published	201921029168	27/09/2019
Productivity	Published	201821022333	20/12/2019

enhancement of conventional solar still using convex lenses			
A system to remotely monitor energy meters	Published	339381	25/06/2020
Design of Module for Automatic Component Selector System	Published	201921023261	27/09/2019
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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
List Attached	List Attached	List Attached	2019	Null	Shri Ramdeobaba College of Engineering and Management	Null
List Attached	List Attached	List Attached	2020	Null	Shri Ramdeobaba College of Engineering and Management	Null
<a href="#">View File</a>						

3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Cyan emitting Ca <sub>3</sub> Sc <sub>2</sub> Si <sub>1.5</sub> Gel <sub>1.5</sub> O <sub>12</sub> :Ce <sub>3</sub> phosphor with 10.4 ns lifetime	P. P. Lohe, D. V. Nandanwar, P. D. Belsare, S. V. Moharil	Journal of Luminescence	2019	110	Null	Shri Ramdeobaba College of Engineering and Management
Crime Data Analysis Using Data Mining	Apurva Kher, Ashwini Zadgaonkar	International Journal of Control and Automation	2019	5	Null	Shri Ramdeobaba College of Engineering and Management
Abnormal		Internat	2020	11	4	Shri

X Ray Detection System using Convolutional Neural Network	Shubhangi Tirpude, Naman Vidyabhanu	International Journal of Advanced Trends in Computer Science and Engineering				Ramdeobaba College of Engineering and Management
Design of Traffic Volume Forecasting based on Genetic Algorithm	Archana Potnurwar, Shailendra S. Aote, Vrushali Bongirwar	International Journal of Recent Technology and Engineering (IJRTE)	2019	17	Nil	Shri Ramdeobaba College of Engineering and Management
A systematic review of comparative studies on ergonomic assessment techniques	Mangesh Joshi, Vishwas Deshpande	International Journal of Industrial Ergonomics Volume74, November 2019, 102865	2019	2	7	Shri Ramdeobaba College of Engineering and Management
Multilevel Voter Identity Protocol for Secure Online Voting	Rina Damdo, Kanak Kalyani	International Journal of Advanced Trends in Computer Science and Engineering	2020	11	Nil	Shri Ramdeobaba College of Engineering and Management
NIR emission and energy transfer phenomena in Bi <sub>2</sub> (M <sub>0</sub> O <sub>4</sub> ) <sub>3</sub> doped with Nd <sub>3</sub> and/or Yb <sub>3</sub>	Priya V. Tumram, Pranay R. Kautkar, S.P. Wankhede, P. D. Belsare, S. V. Moharil	AIP (American Institute of Physics) Advances 9,105113 (2019) AIP Publishing	2019	50	2	Shri Ramdeobaba College of Engineering and Management
Investigation of machine learning techniques on proteomics: A comprehensive survey	Pravinkumar M. Sonsare, C. Gunavathi	Progress in Biophysics and Molecular Biology	2019	103	2	Shri Ramdeobaba College of Engineering and Management
Automated Negotiation	S. R. Vij, D. Mukhopadhyay	Computers, Materials	2019	33	Nil	Shri Ramdeobaba College of

n in E Commerce: Protocol relevance and Improv ement Techniques	, A. J. Agralwal	Continua CMC				Engineerin g and Management
Fiber optic detection of kerosene a dulteratio n in petrol	Shilpa Kulkarni , Sujata Patrikar	AIP Journal of Conference Proceeding s (Journal)	2019	64	2	Shri Ramdeobaba College of Engineerin g and Management

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### 3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Semi nars/Workshops	137	536	13	19
Resource persons	Nill	128	Nill	Nill
Presented papers	218	36	Nill	Nill

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### 3.5 – Consultancy

#### 3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Civil Engineering	Primary geotech Investigation of OCF JIG Section, Balaghat mines	MOIL Limited, Balaghat mines, Balaghat, MP	112000
Civil Engineering	Gradation of OBD sample by wet and dry sieve analysis	WCL, Chandrapur Area, Chandrapur	184434
Civil Engineering	Soil Investigation of Police Land. Maharashtra State Police Housing and Welfare Corporation Limited at different locations in Maharashtra State	M/s Ashfaque Ahmed Consultancy Services Pvt. Ltd. Nagpur	326587
Electrical Engineering	Modbus Compliant Controller and monitor for conveyor line motors	Anix Electronics	75000



Industrial Engineering	Time and Motion Study of Semi Sleeper MS Bus	MSRTC, Pune	409872
Electronics Engineering	Design and Development and installation of Smart Secondary Packaging Machine for Spices	Waghmare Food Products Pvt. Ltd. Nagpur	16949
Department of Computer Application	Data Analytic MANAREGA	SDSS Career Solution, Nagpur	57000
Department of Management Technology	Data Analysis and Presentation using Spreadsheet	MOIL Ltd.	60000
Department of Management Technology	MDP for employees of MEPL, Nagpur	Maharashtra Enviro Power Limited, Nagpur	22200
Remaining List Attached	Remaining List Attached	Remaining List Attached	Nil
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### 3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Department of Management Technology	How to say it at work: Skills to communicate with superiors and colleagues	Power Grid Corporation of India	48600	15
Department of Management Technology	Data Analysis and Presentation using Spreadsheet	MOIL Ltd.	64800	20
Department of Management Technology	Work Life balance and leadership development	MOIL Ltd.	13720	15
Department of Management Technology	Lessons from Screen	MOIL Ltd.	5000	15
Department of Management Technology	Training Program for MPSC probationers	Vasantao Naik State Agriculture Extension Management Training Institute	86730	40
Department of Management	MDP for Employees of	Maharashtra Enviro Power	4956	10

Technology	MEPL, Nagpur	Limited, Nagpur		
Department of Management Technology	MDP for Employees of MEPL, Nagpur	Maharashtra Enviro Power Limited, Nagpur	5310	10
Department of Management Technology	MDP for Employees of MEPL, Nagpur	Maharashtra Enviro Power Limited, Nagpur	5310	10
Department of Management Technology	Art of connecting with people and building relationships	Power Grid Corporation of India	35400	10
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### 3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Anandwan Visit	Baba Amte Foundatuion ANANDWAN	4	150
Mega Blood Donation drive	Dr. Hedgewar Blood Bank	3	65
Health Check Up Camp in Village	Advance Dental Care , Vision Eye Care Hospital	3	40
Health Check Up Camps in Campus	Alexix Hospital, Advance Dental Care , Vision Eye Care Hospital	3	31
Gramin Sampark and Different Activities	Sonkhamb Village, Gram-Panchayat	3	130
Reflection	NSS UNIT	2	26
Junoon-Event	SVM Shikshan Sanstha, Nandanwan Mansik Durbal Mulanchi shala etc.	3	34
PRYAS	TBI Foundation RCOEM	5	18
Tree Plantation Drive	College Campus	3	55
Stationary Collection And Donation Drive	Shri Nath Vanvasi Kanya Chatravaas, Anjangao, Surji	4	62
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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
National Cadet Corps (NCC)	A Grade	C Certificate Exam conducted by NCC	1
National Cadet Corps (NCC)	A Grade	B Certificate Exam conducted by NCC	1
National Cadet Corps (NCC)	B Grade	B Certificate Exam conducted by NCC	2
Laasya 2019 National Inter collegiate Dance Competition	Secured 1st position in group category	Sadabai Raisoani Womans College, Nagpur	11
Inter-Collegiate General Knowledge Quiz Competition	Won 1st prize	Lady Amritbai Daga College, Nagpur	2
Yono Quiz Competition (SBI)	Received Scholarship of Rs. 50,000/- each	Kavivarya Suresh Bhatt Sabahgruha, Nagpur	3
Remaining List Attached	Remaining List Attached	Remaining List Attached	Nil
NSS	Due to the excellent work during Covid-19 pandemic, NSS Secretary MR. VARUN TIWARI is appointed as the Special Police Officer (SPO) by the SP Police-Buldhana District GulabaroWagh	SP Police-Buldhana District GulabaroWagh	1
Late P P Dr. P. R. Dharmadhikari Debate Competition, Rotary Nagpur West	Won 2nd prize in Debate Competition In Group Category. Best Speaker Award Rs. 3000	Kurveys New Model High School S.A.Road, Nagpur	2
Inter Collegiate Quiz Competition (RTMNU)	Won Second prize	RTMNU Nagpur	2
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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Sukhadinitiave	Hamari Pahachan	Volunteered for NGO in	Nil	2

	NGO, New Delhi	their Sukhadinitiaive for the unpriveleged women and promoting underpriveleges made in india umbrellas		
Encourage the Courage, Nagpur	Sakonsa welfare foundation	Encourage the Courage, Nagpur	Nil	1
COVID-19 Awareness	Dr. Sajal Bansal, Ex. Medical officer at MAYO, Junior Doctor Network, IMA, Nagpur	An online webinar for creating awareness amongst youth about COVID-19 was organized under Electrolitz students' society	2	125
E-Waste Management	Ms. Mahima Suri, Director of Marketing and Business Development at Suritex Pvt. Ltd	Guest lecture on creating awareness on E-Waste Management	2	80
AIDS Awareness Program	Govt. of India and NSS	Awareness Program, Seminar	3	150
Swachh Bharat Summer Internship Program (SBSI)	Govt. of India	Water Management, Cleanes Drive, Vermi Compost, Soak Pit, Awareness Program etc.	2	26
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### 3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
International Student Exchange	Bhakti Tiwari, II sem MBA	Tuition Fees Waiver at UNF	35
International Student Exchange	Kaustubh Kshetrapal, II sem MBA	Tuition Fees Waiver at UNF	35
International Student Exchange	Akshata Jaiswal, IV sem MBA	Tuition Fees Waiver at UNF	120
Research Paper	Sumit S. Geete ,	Technical and	365

	Hemant K. Singh , Manoj S. Tiwari , Vaishali J. Rajurkar	Financial Support	
Research Project	Abhishek Paliwal, Anurag Tiwari, Prof. S. V. Admane	Technical and Financial Support	60
Research Project	Navdeep Mor, Aakash Dhote, Dr. G. N. Goyal	Technical and Financial Support Rajiv Gandhi Science and Technology Commission (RGSTC)	180
Research Project	Manoj Chandak	Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ)	180
Remaining List Attached	Remaining List Attached	Remaining List Attached	Nil
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3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Remaining List Attached	Remaining List Attached	Remaining List Attached	Nil	Nil	Remaining List Attached
Student Internship	Industry Internship	Tech Mahindra, Nagpur	06/01/2020	30/06/2020	Vaishnavi K. Gabhane
Student Internship	Industry Internship	Principal Global, Pune	13/01/2020	08/05/2020	Radhika Ravindra Dongre
Student Internship	Industry Internship	Research Internship at EC, SGGSET, Nanded.	01/02/2020	17/05/2020	Sanjana Malani
Student Internship	Industry Internship	Turquoise Automation, Nagpur	06/01/2020	06/04/2020	Abhishek Tiwari
Student Internship	Industry Internship	QLogic (India) Pvt. Ltd, Pune	03/02/2020	09/08/2020	Adarsh Kumar Jha
Student	Industry	Turquoise	06/01/2020	06/04/2020	Atharva

Internship	Internship	Automation, Nagpur			Kothekar
Student Internship	Industry Internship	C V Hydro, Bengaluru	08/01/2020	10/04/2020	Nikhil Marathe
Student Internship	Industry Internship	Siemens, Pune	14/01/2020	15/06/2020	Manmeet Singh Gandhi
Student Internship	Industry Internship	Persistent, Nagpur	14/01/2020	15/06/2020	Poonam Ashok Agrawal
<a href="#">View File</a>					

3.7.3 – MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
N Plus I Engineering Institutes, France	23/01/2019	Faculty and students collaborations	42
Maharashtra Center for Entrepreneurship Development (MCED)	04/10/2019	Students Entrepreneurship and Training	Nil
Tata Consultancy Services Ltd.	18/10/2019	Consultancy, Students Projects, Seminars	Nil
TATA Technologies Ltd.	24/10/2019	Entrepreneurship and Innovation	Nil
Budhwanti Education and Research Foundation	12/11/2019	Job Oriented Training Programme	Nil
Quality Circle Forum of India, Nagpur	13/01/2020	MDP, Technical Training and Consultancy	77
Kratin software solutions pvt. Ltd	10/02/2020	Students Projects, Seminars	35
Kingsway Hospital, Nagpur	08/07/2020	Live Projects, Internship	Nil
Vasantrao Naik State Agriculture Extension Management and Training Institute, Nagpur	01/10/2020	Training	15
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## CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
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60160000

62326466

## 4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Seminar halls with ICT facilities	Existing
Classrooms with LCD facilities	Existing
Seminar Halls	Existing
Laboratories	Existing
Class rooms	Existing
Campus Area	Newly Added
No file uploaded.	

## 4.2 – Library as a Learning Resource

## 4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
JUNO CAMPUS	Fully	Deployed version is GEMS_52208	2014

## 4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	90604	2795916	2675	1915923	93279	4711839
Reference Books	3742	2799629	253	174653	3995	2974282
e-Books	6039	68171	6039	67586	12078	135757
Journals	219	9608254	121	386780	340	9995034
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## 4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives &amp; institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Nil	Nil	Nil	Nil
No file uploaded.			

## 4.3 – IT Infrastructure

## 4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth	Others
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								h (MBPS/ GBPS)	
Existing	1833	12	300	12	93	180	1560	300	0
Added	274	0	0	0	0	10	264	0	0
Total	2107	12	300	12	93	190	1824	300	0

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

300 MBPS/ GBPS
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4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
RCOEM Media Center	<a href="http://rknec.edu/Imp%20Links/MediaCenter.aspx">http://rknec.edu/Imp%20Links/MediaCenter.aspx</a>

#### 4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
17998000	9915449	65141000	71895772

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website)

The Administrative Officer and Chief Maintenance Officer of the Institution are responsible for the maintenance of the physical, academic and support facilities. The Institute has an in-house team for undertaking routine electrical, civil, computer, website, MIS maintenance activities. The Institute has outsourced the cleaning of entire campus including all academic and sports facilities to private agency 'Dust Blower' through AMC. Electrical Maintenance: The Institute ensures uninterrupted power supply through 320 KVA sub-station, maintenance of generator set, lighting, power distribution system, solar panel etc. are undertaken as per the requirement. The solar panels are cleaned every eight days by the maintenance team. The maintenance of generator set is carried out once in two months through AMC. Electrical Maintenance In-charge and their team take care of the requests for electrical maintenance work put online through MIS. Civil Maintenance: Construction Maintenance In-charge and the team look after the civil maintenance. The maintenance and repair of water supply systems, buildings, Sewage Treatment Plant (STP), rain water harvesting structures, etc. are carried periodically. STP is operated and maintained under the guidance of SMS Envicare Ltd. Workshops: The workshop in-charge is responsible for the repair, maintenance, upkeep and usage of the workshop. Maintenance of the equipment's is done periodically through MIS. Usage of workshop is monitored through log books. Library: The Librarian manages the working of the central library. Departments have their own libraries which are managed by the department library in-charge. In the central library the librarian is assisted by assistant librarian, clerical and other support staff. A fully automated air-conditioned library and its digital section is maintained by Computer Network Centre. Separate acquisition and technical processing section ensures effective management of the library. Laboratory: The laboratory in-charge manages the affairs of laboratories along with the technical /



laboratory assistant. Yearly stock verification is done by the administrative officer and equipment / instruments are identified for repair / write-off purpose along with laboratory in-charge. The log books are maintained by the lab assistant to monitor the usage of the lab. The modern and expensive equipments are maintained through the AMC. Sports: The Head of Physical education department manages the sports section of the Institute along with the assistant professors and support staff. Dedicated staff maintains open play ground and boys and girls' gymnasiums. The students are supported by trainers. Computers section: The overall management of computer facilities on the campus are managed by central networking and computing (CNC) department. The central computer laboratory and departmental computer laboratories have their own faculty in-charges. The repairing and maintenance of all the computers is done by CNC following standard procedures. Classrooms / Other academic facility: All classrooms are cleaned daily by the outsourced agency 'Dust Blower' through AMC. The building supervisor and construction department is responsible for the maintenance of the buildings and physical facilities including washrooms. Weekly reports about the required repairs are prepared and the compliance is carried out accordingly. Allocation, utilization and maintenance of other academic infrastructure facilities are managed by Administrative Officer.

[http://www.rknec.edu/lmp%20Links/docs/STANDARD%20OPERATING%20PROCEDURES%20\(SOP\)%20MANUAL.pdf](http://www.rknec.edu/lmp%20Links/docs/STANDARD%20OPERATING%20PROCEDURES%20(SOP)%20MANUAL.pdf)

## CRITERION V – STUDENT SUPPORT AND PROGRESSION

### 5.1 – Student Support

#### 5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	NIL	0	0
Financial Support from Other Sources			
a) National	Social Justice and special Assistance Department, OBC, SEBC, VJNT and SBC welfare Department, Directorate of Technical Education, Tribal Development Department	1926	114499822
b) International	NIL	Nil	0

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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Bridge Course	07/12/2019	41	Mr. Kushal Lkhani, RCOEM Alumni
Bridge Course	05/09/2019	37	Prof Nisha Raote, Assistant Professor

			MCA Dept, RCOEM
Remedial Coaching	05/11/2019	40	Prof R.A.Nafdey, Prof A.D.Deshpande, Prof. R.U.Tiwari (Physics Department) and Class Teacher
Guidance for competitive examinations	01/07/2019	152	Computer Science and Engg. Department
Career Counselling	17/01/2020	134	Training Placement Cell , DMT
Yoga and Meditation	24/10/2019	120	Yog Abhayasi Mandal, Nagpur
Personal Counselling	18/10/2019	1	Dr. Sagar Chiddarwar, Psychiatrist (Mobile number: 9890042350)
Soft skill Development	23/12/2019	59	IT Department, RCOEM. Speaker: Mr. Sarang Dewaikar, Head Financial Services, Tieto, Pune
Mental Health Awareness Program	18/06/2020	291	Information Technology Dept. Speaker: Dr. Pragya Mathur Kumar, Freelance Trainer, Counsellor and Sports Psychologist
Mentoring	31/07/2019	632	Electronics Engineering Department, RCOEM.
<a href="#">View File</a>			

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	Guidance for competitive examinations and Career counselling	402	2036	143	702

[View File](#)

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
2	2	1

## 5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
Name of organizations listed in Excel sheet	1227	824	Name of organizations listed in Excel sheet	32	32

[View File](#)

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2020	1	BE Computer Science and Engineering	Computer Science and Engineering	University of Warwick for Engineering	Engineering Business Management
2020	1	BE Electronics Engineering	Electronics Engineering	San Jose State University, California	MS in Computer Engineering
2020	1	BE Electronics Design Technology	Electronics Design Technology	IIM, Bodhgaya	MBA
2020	1	B.E. Electronics and Communication Engineering	Electronics and Communication Engineering	The University of Maryland USA	Master in Science
2020	1	B.E. Industrial Engineering	Industrial Engineering	University of Ottawa, Canada	Master of Systems Science
2020	1	BE Civil Engineering	Civil Engineering	NICMAR	Construction Management
2020	1	BE Mechanical Engineering	Mechanical Engineering	North Carolina State University,	MS

				USA	
2020	39	List Attached	List Attached	List Attached	List Attached
<a href="#">View File</a>					

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
Any Other	27
NET	3
GATE	46
CAT	40
GRE	23
TOFEL	5
Civil Services	1
<a href="#">View File</a>	

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Branch Cup 1	Institute Level	405
Aaruni 1	Institute Level	750
Pratishruti 1	Institute Level	1800
Extra- Mural Activities 1	Inter Collegiate (RTMNU)	441
Intra- mural Activities AAGAZ(On National Sports Day) 1	Inter- Branch	200
Intra-Mural Sports Activities(Sports Branch Cup) 1	Inter- Branch	1387
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### 5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	Secured silver medal in NCC, Inter group competition, Pune	National	1	Nil	18ECU2024ECU2	Siddhi Dubey
2019	2nd position, 100 m	National	1	Nil	VII sem A-62	Hardik Sharma

	freestyle relay swimming					
2019	Third Winner in Folk Orchestra at Inter university zonal youth festival organized at Jiwaji University , Gwalior	National	Nil	1	18ENU1056ENU1	Shreshtha Gole
2019	One act play "Parcham" Nominated for Mood Indigo, Mumbai	National	Nil	1	16ENU127ENU1	Ashwin Shukla
2019	Nominated as Author of the year in Storymirror writing online Competition	National	Nil	1	16ENU16ENU1	Priyanka Buty
2019	Winner All India 4th National Dance contest and festival , Nagpur	National	Nil	1	17ENU1127ENU1	Pooja Niwalkar
2019	Got 1st prize in Indian Group song category in Yuvarang ( Inter-collegiate Youth Festival)	National	Nil	1	18ECU1022ECU1	Radha Padhye
2019	Best delegate Sandipani Model	National	Nil	1	17ECU1055ECU1	Shubham Roshan Kukreti

	United Nations Debate					
2020	One act play,mime, skit at 35 th Central Zone youth festival organized by Jiwaji university Gwalior	National	Nil	1	18INU107 9INU1 -V Sem	Mukesh Thakur
2019	1st Female Cricketer from RCOEM who represented Rashtrasant Tukdoji Maharaj Nagpur University, West Zone Inter University Women's Cricket Tournament, Bhopal	National	1	Nil	16ENU195 ENU1	Shruti Daharwal
<a href="#">View File</a>						

5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

**Gyanodaya:** It is an induction program organised for the first year students to sensitize them towards exploring their academic interests, inculcate in them the ethos and culture of the Institution and inform them about academic and administrative functioning of the Institute. Also a broader view of different committees, clubs etc. and their activities is presented during the program.

**Aaruni:** It is a fresher's event organised specifically for the first year students which includes sports and cultural events to mark the Fresher's day.

**Pratishruti:** It is a three day annual cultural event of the Institute and has earned the distinction of being the largest inter collegiate cultural fest in entire central India which is exclusively organized and administered by the students under the guidance of the faculty.

**Student representation on Academic bodies:** Internal Quality Assurance Cell (IQAC): Two undergraduate students and one post graduate student are nominated on IQAC .They participates in the decisions regarding the quality initiatives of the institute. Board of Studies (BOS): One student representative from each programme is nominated on respective BOS to incorporate their inputs in the process of design and development of curricula, teaching learning practices etc. Unfair means Committee: This committee has one student member nominated by SRC. Student representation on Administrative committees: College Development Committee (CDC): The Cultural Secretary of the SRC is member of CDC. Mess Committee: The mess of the Institute runs with the active participation of the student representatives from all years. Students' mess In-charge decides the menu in

consultation with other student members of the committee. The quality and hygiene of the canteen is monitored by student representatives along with the other nominated faculty members. Women Empowerment Cell (WEC): One girl student representative is nominated on WEC. Anti ragging committee: Two students representative (one girl and one boy) are nominated on Anti ragging committee. Internal Complaint Committee (ICC): One student each from undergraduate, postgraduate and Ph.D. programme nominated as members of ICC. Equal Opportunity Cell: Secretary Student council is nominated as the member of this cell. Student representation on department/professional societies/Training Placement: Every department forms students' society and these students are actively involved in organising different co-curricular and extracurricular activities leading to their overall personality development. Students are also encouraged to form professional society student's forum like IEEE, CSI etc. so as to promote professional networking and development. Students TP team are actively involved in the process of conduction of all activities related to placements.

#### 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

The Alumni Association of Ramdeobaba College of Engineering and Management (RCOEM) Nagpur has been formally named as Ramdeobaba Alumni Connect Association, with CIN No:U80100MH2020NPL335890. The Association is incorporated as a 'not for profit' Company under Section 08 of the Companies Act, 1956, The mission of Ramdeobaba Alumni Connect Association (RACA) is to Locate, Connect, Associate and collaborate amongst all the Alumni of all Branches, to foster a strong bond between the alumni and the Institute (RCOEM), to achieve the ultimate aim which is to elevate the glory of the ALMA MATER to a new level in the eyes of the World. Alumni contribute generously to many activities like Mentoring and guiding the students for their academic and career development, Providing opportunities for placement, internships, site and industry visits. The entrepreneur alumni of the Institute in collaboration with Technology Business Incubation center (TBI), mentor and guide the budding entrepreneurs, Organization and delivery of guest lectures on emerging topics and technologies, career guidance and awareness regarding higher education in India and abroad. Conduction of counseling session for parents who wish to admit their wards to engineering programmes. Providing quality inputs for overall development of the Institute through IQAC (Internal Quality Assurance Cell), College Development Committee (CDC). Prominent alumni are also nominated on various committees such as IQAC College Development Committee. Every Department has taken alumni representation on its Board of Studies. Alumni provided assistance in placements in companies like Misyss, Softronics, Nice Software, Reliance Jio, Amdocs, Techtur Structures, Novatech, DRA Consultants, Five Tran, Cap Gemini, Ideas 91. Base4 International, Imagis Engineering solutions pvt Ltd, Kizora software pvt ltd. Siemens technology and services pvt ltd, VISA steel Ltd, India mart, Cloud data, Master soft. The Institute observes annual Alumni Day 'Conclave' to reinforce the connection with its alumni. The departments also organize alumni meet to foster relationship between present students and alumni. The Institute has started the tradition of inviting distinguished alumni as chief guest on the occasion of annual social gathering. Annual Alumni Newsletter 'Reminiscence' is published to highlight the contributions and activities of Alumni in various fields. Realizing the significance of alumni contribution to overall growth of the college, a dedicated alumni website [www.rknealumni.org](http://www.rknealumni.org) has been created by the institute.

5.4.2 – No. of registered Alumni:

15500

5.4.3 – Alumni contribution during the year (in Rupees) :

500000

5.4.4 – Meetings/activities organized by Alumni Association :

Total Meetings/activities: 21. Few are mentioned below: 1.The Department of Management Technology, RCOEM, had organized a grand reunion of the 2008-10 Batch on completion of 10 years of the batch on 25th January 2020 in the auditorium of DMT. 2.Pune chapter organized Alumni meet on 11th Oct 2019. The following Alumni were prominently present for the same. Aishwarya, Sumona, Jayant Borkar, Tejaunsh Nyati, Abhisek Bhatara, Kuldeep Singh Vij. 3.Alumni of 2001 batch reunite on 24th Jan 2020. 4.Alumni Association of Shri Ramdeobaba College of Engineering Management (RCOEM) celebrated the Annual Alumni Meet - "Conclave 2019" a Silver Jubilee celebration of 1994 Batch on 21st December 2019 at RCOEM campus, Nagpur. 5.Alumni Mr. Vivek Thakre from 1998 Batch Minning, and Mr. Kaushik Sarkar from 2003 Batch Minning visited on 13th Jan 2020 for recruiting the students of RCOEM. Mr. Vivek Thakre is Business Line Manager at Epiroc Mining India Ltd, Pune, and Mr. Kaushik Sarkar is Marketing Manager Drilling Solutions at Epiroc Mining India Ltd, Pune. 6.Mr. Vishal Agrawal Alumnus of Industrial Engineering 1996 Batch, RCOEM was invited as Chief Guest for the Pratishruti Valedictory Function on 7th Feb 2020. He is Director of R C Plasto Tanks Pipes Pvt Ltd, Nagpur 7.Mr. Manish Verma, Alumnus of 1994 Civil branch was invited on 5th Feb 2020 as chief guest for the Pratishruti gathering function. He is Head of Technology, SonyLIV with Sony Pictures India Limited a subsidiary of Sony corporation, where he is responsible for building global OTT platform. 8.Board of Meeting of Alumni Association Was held on 1st Feb 2020 at 1.00 Pm at RCOEM, Conference Hall, six members were present for the same. 9.Alumnus of RCOEM , Mr. Prasad Kulkarni, from 1993 (Industrial Engineering) Vice President of Virtusa systems, CITI Bank corporate, Visited on 9th July 2019 along with his Family members for reconnect with his Alma-mater. 10.Alumni, Mr. Gopal Sharma from 2013 batch Industrial Engineering is working with simulation modeling tool in PMI, He was invited on 29th July 2019 to conduct one day workshop on simulation tools for the students of Industrial Engineering. 11.Alumni Mr. Vikram Deshpande, [EN alumni 1993] , ( Vice President) Bharti Airtel Ltd , visited to our college on Saturday 20/07/2019 for mentoring our startups. 12.Alumni Mr. Gorakh Sisikar, 2003, Industrial Engineering visited RCOEM. He is a Vice President (Strategy Business Development) of The Nickelwala Group. He was invited as Chief guest on 30th August 2019 for the installation program of Industrial Engineering Department .

**CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT**

**6.1 – Institutional Vision and Leadership**

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The institute practices decentralization and participative management to ensure effective administration involving all the stakeholders in decision making process. Below given are sample cases. 1. Process of Curriculum and Programme Review: Curriculum is periodically reviewed to meet the current industry trends and change in technology in the Board of Studies (BOS) with active participation of faculty, subject experts, students and other stakeholders. Each department has constituted Programme Assessment and Quality Improvement Committee (PAQIC) that proposes modification in curriculum to BOS. After due deliberation, in the BOS meetings, the recommendations are further discussed in Academic Council which includes department heads, deans, industry representative, alumni and University representatives as its members. Thus the recommendations from every Stakeholder gets due consideration in the framing of the curriculum. 2. Participation in Financial Decision Making: The head of the



department (HOD) in consultation with the faculty members proposes annual budget covering various heads of expenses including purchase of lab equipments, consumables, research and development etc. The proposed budget is discussed with the Principal and is then approved by the Finance committee with faculty as one of its member. Based on the provisions in the budget, the departments are empowered to make minor purchases. The major purchases are referred to the Steering Committee. The Steering Committee in its weekly meetings, reviews the recommendations of the departments in consultation with the HOD. After due deliberation, purchases are initiated. Similarly purchases/incentives/scholarships are proposed by various deans and functional heads from time to time. The process for the approval and disbursement of fund follows the above mentioned procedure. Thus financial decisions involve collective decision making. 3. Continuous Assessment and Gradation: The mode of continuous assessment, calculation and moderation of grades that are assigned to the students is decided by the respective course teacher in consultation with the HOD. 4. Decentralization of M. Tech. Examination: For effective conduction of examination and speedy declaration of results, all M. Tech. Programme post examination processes are decentralized and answer sheets are evaluated at the department level.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

## 6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Admission of Students	Shri Ramdeobaba College of Engineering and Management is a Hindi linguistic minority institute of Maharashtra state. So, it is mandatory to have 51 quota reserved for the linguistic minority students and 20 seats are for all India institute level. Another 29 quota is under the Centralized Admission Process (CAP) of Govt. of Maharashtra (GoM). • The admissions for 29 seats (CAP General quota) and 51 seats (Linguistic Minority quota) are done through CAP where candidates are admitted based on merit. • The institute level seats (20 of sanctioned intake) are also filled strictly based on merit and with full transparency. • The institute has initiated merit-based scholarships to attract meritorious students.
Industry Interaction / Collaboration	RCOEM has always emphasized on strong industry institute interaction. The major modes of interaction are listed below • Participation of industry professionals in curriculum design, delivery and assessment • Center of Excellence sponsored by industry association • Joint Organization of Conferences / Workshops • Joint research programs and field studies by

faculty and experts from industries • Consultancy undertaken by the faculty for industries • MDPs Training offered by faculty on various domains • Industrial testing by faculty at Client site or in Institute laboratory • Industry exposure to students and faculty through Industry Visits, Internship, Live Industry projects etc. • Memorandum of Understanding between the Institute and different industries

Human Resource Management

• Group insurance for Staff, Faculty and Students. • Recruitment of teaching and non-teaching staff as per requirement and rules. • Orientation programmes for newly recruited faculty. • Development programmes for non-teaching staff. • Encouragement to faculty for attending FDP, STTP, Industry training, Ph.D. etc. • Leaves applicable as per rules. • Incentives for Publication to Faculty. • Incentives for Publication to Students. • Share in Consultancy to Faculty.

Library, ICT and Physical Infrastructure / Instrumentation

• Library is using GEMS ERP software for Library automation. • Computer terminals are kept for OPAC search facility. • Library website is created - <http://www.rk nec.edu/Academics/Library/CentralLibrary.aspx> • Digital Library and WIFI connection is available. • Remote access is provided through <https://rk nec.new.knimbus.com/user#/home> • Bar coding of Books Scanning Photocopying facility. • Library subscribes to databases like DELNET, SCOPUS, CMIE PROWESS (Financial Database). • Adequate seating arrangement with well furnished, fully air-conditioned library and under CCTV surveillance. • Library is regularly updated and upgraded by adding new Text books, reference books, Research journals, magazines, newspapers, e-Journals E-books. • Library resources are provided to Faculty, Students Research Scholars. • Orientation on effective use of library resources to all the new users. • Purchased new software - JAWS (For blind) • Separate Entrance for easy access for specially abled students.

Examination and Evaluation

The college perpetually initiates quality improvement strategies in the examination and evaluation system that can make the process efficient and effective while maintaining its secrecy

and sanctity. Taking the digitization process further, the Examination Section has completely automated the requisition, payment and issue of all certificates such as Migration Certificate, transcripts, attempt certificate etc. • In view of the Covid-19 pandemic, keeping the health and safety of the students as the highest priority, the End Semester Evaluation for all final year students was conducted online, wherein students could successfully appear for their examination from home while ensuring that malpractices are curbed through online invigilation. • The mechanism for online evaluation and result declaration resulted in fast and error free declaration of results. • In order to cater to the physiological issues of students, such as examination fear and anxiety, more so since they were new to the online, process of examination, interactive sessions with students the students were conducted by the student welfare and counseling cell of the college.

Research and Development

The following are the initiatives taken by the college during 2019-20 for the betterment of the research outcomes. • To boost research, innovation and to promote interdisciplinary research the college has made the investment and developed the required infrastructure by setting up five multidisciplinary centers of excellence. • The college organized two conferences to share the new knowledge generated by researchers. • To enhance the Ph.D. program the college admitted research scholars through the NDF Scheme of AICTE. • To maintain the highest ethical standards while publication of any research, the college has formulated and implemented the Academic Integrity and Prevention of Plagiarism Policy

Curriculum Development

The Institute has implemented AICTE model curriculum for all UG programme since 2018-19. Syllabus for fifth and seventh semester is revised as per the model curriculum. Increased the number of programme and open elective courses to provide an opportunity to learn specialized and interdisciplinary courses. A course on Innovation and Entrepreneurship is introduced at 4th

	semester as open Elective. The course was designed and taught by a serial Entrepreneur.
Teaching and Learning	<ul style="list-style-type: none"> <li>• Online learning Management Systems including Google classroom, Juno Campus are used extensively to plan, execute and assess online learning processes during COVID-19 pandemic.</li> <li>• Online lectures live were conducted for students using Google meet.</li> <li>• Recorded video lectures prepared by faculty are provided to students for revising and better understanding of concepts.</li> <li>• Self-learning among students is promoted by encouraging learning through MOOC course offered by NPTEL/Coursera/EdX/M-Tutor.</li> </ul>

6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
Student Admission and Support	The admission module in GEMS automatically enables on-line form filling, scrutiny of all the forms, and generates the merit lists (provisional as well as final). It also handles admission related grievances online. At the end of the admission process the student gets registered in a particular stream and for that particular session.
Finance and Accounts	The module looks after receipt of fees and helps in disbursing sponsorship amount received from the government agency to the respective students.
Examination	The module consists of various activities related with the configuration, conduction, and final result processing of students belonging to all departments and courses. It begins with exam configuration and ends with Result Declaration for Regular and Ex Examinations. The complete process of result processing has been automated, due to which the time taken to declare result is considerably reduced. It successfully integrates with the academic module for the purpose of detention list generation and internal marks uploading. Finally each department does grade moderation in a decentralized way. This speed up the exam process and the results get declared within 10-15 days of completion of semester end examination.
Planning and Development	<ul style="list-style-type: none"> <li>• Academic Planning: In academic planning, planning is done for the next</li> </ul>

	<p>semester. In planning the scheme, student subject allocation, faculty subject allocation etc. are entered. •</p> <p>Event Planning: In event planning, different events like international conference, STTP, Student society events etc. are created. Applicants can register for the event and can do the payment through online payment mode. •</p> <p>Infrastructure Booking: In infrastructure booking different infrastructure of college for various events can be booked. •</p> <p>Placement Planning: In placement planning different future placement drives are planned.</p>
Administration	<p>The module looks after general administration work related with purchase, stock and inventory. It also incorporates the registrar module which implements the policies and procedures of the Institute with regards to Employee Muster, Service book and Leaves.</p>

### 6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Dr. S. H. Deshmukh	International Conference on power electronics and drive systems (IEEE PEDS)	Nil	104125
2020	Dr. Pranjali S. Deole	International Conference on Design and Manufacturing Engineering	Nil	77514
2019	Prof. Mangesh Joshi	XXIII Annual International Conference of the Society of Operations Management	Nil	19728
2020	Prof. T. G. Arora	The 2020 International Electrical Engineering Congress (iEECON2020)	Nil	34751

2020	Prof. Bhusan Bissa	SAEINDIA E-BAJA 2020	Nil	20100
2019	Prof. P. B. Shiwalkar	The 15th IFTOMM World Congress	Nil	93344
2019	Dr. Rajesh Pande	Nil	IEEE	9310
2019	Dr. Richa Khandelwal	Nil	IEEE	5870
2019	Dr. V. A. Huchche	International Conference on power electronics and drive systems (IEEE PEDS 2019)	Nil	94280
2020	Remaining list attached	Remaining list attached	Remaining list attached	268419
<a href="#">View File</a>				

6.3.2 – Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2020	Webinar on " Algebra: Historical Development and Applications	NA	13/05/2020	13/05/2020	121	Nil
2019	Two week FDP on "Current Trends in Depp Learning and Its Applications "	NA	09/12/2019	20/12/2020	40	Nil
2020	Webinar on "Techniques To Make Computer Science Education More Useful And	NA	08/05/2020	08/05/2020	248	Nil

	Interestin g					
2019	FDP on VLSI Chip Design Hands on using Open Source EDA , RCOEM, Jointly organized by: Electr onics ICT Academies at- IIT Guwahati, IIITDM Jabalpur, MNIT Jaipur, NIT Patna, IIT Roorkee and NIT Warangal	NA	16/12/2019	20/12/2019	26	Nil
2020	One Week Online Faculty De velopment Program on Arduino	NA	20/05/2020	24/05/2020	448	Nil
2020	One Week Online Faculty De velopment Program on PHP and MySQL	NA	26/05/2020	30/05/2020	286	Nil
2020	Webinar on Superca pacitors, Solar Cell Devices and Solar Thermal Technology	NA	11/05/2020	14/05/2020	940	Nil
2020	Webinar on Enginee ring Appli cations in Inter-Disc iplinary FieldsN	NA	23/05/2020	23/05/2020	120	Nil
2019	TWO weeks AICTE	NA	02/12/2019	14/12/2019	35	Nil

	sponsored FDP on Computational Linguistics: Techniques and Applications					
2019	List Attached	List Attached	01/07/2019	30/06/2020	1100	Nil
<a href="#">View File</a>						

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
5-day Online STTP on MATLAB based Teaching - Learning in Mathematics, Science and Engineering	2	18/05/2020	22/05/2020	5
Awareness Workshop on SWAYAM and NPTEL	4	19/07/2019	20/07/2019	2
AICTE Sponsored Two Week FDP on Current Trends in Deep Learning and Its Application	21	09/12/2019	20/12/2019	14
Webinar series on Recent Advance in Material Research	21	26/05/2020	29/05/2020	4
One Week STTP on Advanced tools for research in Mechanical Engineering	5	02/03/2020	06/03/2020	5
Online Faculty Development Program on Applications of Geogebra	3	01/06/2020	05/06/2020	5
One week FDP	3	20/05/2020	24/05/2020	3



on Arduino				
FDP on "Effective Proposal Writing for Research and Funding"	4	13/05/2020	18/05/2020	6
FDP on "VLSI Chip Design Hands on using Open Source EDA"	13	16/12/2019	20/12/2019	5
List attached	566	01/07/2019	30/06/2020	0
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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
225	274	89	217

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
<ul style="list-style-type: none"> <li>• Gratuity • EPF • Medical Leaves • MediClaim Insurance Scheme • Group Insurance Scheme (Including Covid Kawach scheme) • Staff Cooperative society</li> </ul>	<ul style="list-style-type: none"> <li>• Gratuity • Medical Leaves • MediClaim Insurance Scheme • Group Insurance Scheme • Staff Co-operative society</li> </ul>	<ul style="list-style-type: none"> <li>Medical facilities • Accidental Insurance Schemes • College offers partial/complete financial support from 'Students Welfare fund' to students who are unable to pay their tuition fees and help them complete their Engineering • Alumni offer financial support to meritorious students and pay their complete one year tuition fees every year • Mentoring and Counseling, Career Guidance, Student Chapters • First aid unit in every department / building</li> </ul>

**6.4 – Financial Management and Resource Mobilization**

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The Institute has a transparent policy with regard to external and internal financial audits. The internal audits are carried out monthly. The internal financial audits were carried out by M/s Jain, Nandgokar and Shah and Co for session 2019-20. The verification is carried out on the following areas and the report is submitted to the Principal and Management. • Cash Vouchers • Bank Vouchers • Ledger Payroll • Trail Balance • Payroll Journal Vouchers The compliance report based on the observations of the internal auditor, if any, is submitted to the Steering Committee. External audit is carried out on yearly

basis as required by Income Tax Act, 1961. Compliance on observations, if any, made in the audit reports are promptly carried out by Finance Officer and are communicated to the Management, for subsequent submission to statutory auditor. The auditing agency which has carried out the external audit for session 2019-20 is M/s S. D. Paranjpe and Co.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
GIZ, Germany	192000	SME Innovation projects grant
<a href="#">View File</a>		

6.4.3 – Total corpus fund generated

0
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## 6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	External Experts	Yes	ISO
Administrative	Yes	External Experts	Yes	ISO

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

Parents are involved and contribute in different initiatives and give their valuable suggestions through their representation in: 1. Induction Programme of their wards (First year) on the first day of College every year. 2. Parent teacher meet is conducted once every semester. Feedback from the parents is taken during these meetings. Feedback on Curriculum is also taken from parents. Apart from this the class teacher meets the parents whenever necessary. 3. Parents from industrial sector support for enhancing industry institute interaction and organization of industrial visits for students. 4. Parents are on the Internal Quality Assurance Cell (IQAC) committee of the institute. Their inputs and suggestions are given due consideration.

6.5.3 – Development programmes for support staff (at least three)

1. Mock drill of Fire Extinguisher Cylinder for non-teaching staff members of RCOEM on 7th March 2020. 2. On the occasion of International day of Yoga a Yoga practice session was organized for Non-Teaching Staff of RCOEM on 21st June 2020. 3. Expert Talk on Women Empowerment for ladies Teaching, Non-Teaching Staff and Girl Students on 9th March 2020

6.5.4 – Post Accreditation initiative(s) (mention at least three)

- Establishment of Center of Excellence: RCOEM-NVIDIA Center of Excellence for Artificial Intelligence, Machine Learning, Deep Learning and Data Analytics
- Establishment of Center of Excellence for Microsystems
- Establishment of Center of Excellence: RCOEM-QCFI Center of Human Excellence
- Establishment of Center of Excellence: Tata Technologies Limited - Center for Invention, Innovation, Incubation and Training (CIIIT)
- SWAYAM - NPTEL Local Chapter rated Grade A based on performance in NPTEL Online Certification courses in July - December 2019 run
- Academic Integrity and Prevention of Plagiarism

Policy prepared and implemented • Proposal for introduction of four new UG Programmes and one PG Programme in the emerging areas

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	Yes
d) NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2020	Expert Talk on SCOPUS Training By Dr. Shubra Dutta, Customer Consultant, South Asia, Research Solution Sales, Elsevier for PG students and Faculty	16/01/2020	16/01/2020	16/01/2020	159
2019	Expert Talk on Noise Pollution By Er. Satish Lokhade, CSIR-NEERI, Nagpur for Students	21/12/2019	21/12/2019	21/12/2019	95
2019	Annual Convention on Quality Circle Forum India (QCFI) organized by Department of Management Technology, Shri Ramdeobaba College of Engineering and Management, Nagpur	20/10/2019	20/10/2019	20/10/2019	800
2019	Intercolle	19/07/2019	19/07/2019	20/07/2019	157

giate - Two Days Awareness Workshop on SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) and NPTEL (National Program on Technology Learning)

2020	One Day Visit and Expert Talk on State of the Art Technologies and Appropriate Mix of Fundamentals for Development of Chipset pertaining to 5G Communications By Dr. Kanti Prasad, Professor, Electrical and Computer Engineering Department and Foundin	03/01/2020	03/01/2020	03/01/2020	177
2020	Intercolle giate - Webinar on The Pedagogical Innovations of the 21st Century for Faculty	11/06/2020	11/06/2020	11/06/2020	72
2020	Intercolle giate - Webinar on POST - COVID or CO - COVID: Challenges and Opportun	10/06/2020	10/06/2020	10/06/2020	86

	ities for Faculty				
2020	Expert Talk on Women Empowerment for ladies Teaching, Non-Teaching Staff and Girl Students	09/03/2020	09/03/2020	09/03/2020	115
2020	Expert talk on Outcome Based Education by Dr. B. N. Chaudhari, Professor, Department of Electrical Engineering, Government College of Engineering, Amravati for Faculty	27/02/2020	27/02/2020	27/02/2020	15
2020	Workshop on "Simplifying Writing: Functional Grammar for Research and Professional Use" for Post Graduate Students and Faculty	15/02/2020	15/02/2020	15/02/2020	52
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## CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Flag Hoisting	15/08/2019	15/08/2019	35	20
Ganesh Idol Making	25/08/2019	25/08/2019	28	22

Spreading Art	31/08/2019	31/08/2019	18	13
Diwali Celebration	23/10/2020	23/10/2020	52	41
Self-defense workshop	30/01/2020	30/01/2020	58	Nil
Women Empowerment	09/03/2020	09/03/2020	115	Nil
Women's Day Celebration	11/03/2020	11/03/2020	83	Nil

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
Electrical Power requirement of RCOEM is 475KVA. As on today, 340KWP Solar PV Roof top is installed and connected to grid. So, about 71.57 of power requirement is met by Renewable Solar source. Average electrical units generated per month are 40800. Moreover, almost all the illumination gadgets are replaced by LED to practice energy conservation. Sewage Treatment Plant of 200KLD is installed and in use for treatment of waste water thereby saving water, otherwise being used for gardening. Provision of rainwater harvesting is done in campus at eight strategic locations to increase underground water table.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	10
Provision for lift	Yes	10
Ramp/Rails	Yes	10
Braille Software/facilities	Yes	1
Rest Rooms	Yes	10
Scribes for examination	Yes	10
Special skill development for differently abled students	Yes	10
Any other similar facility	Yes	6

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2019	1	Nil	31/08/2019	2	Pool campus Drive of Hitachi C	Placement of other Institute	400

					onsulting	students	
2019	1	Nil	07/09/2019	1	Pool campus Drive of IBM	Placement of other Institute students	700
2019	1	Nil	19/09/2019	2	Pool campus Drive of Hexaware Technologies	Placement of other Institute students	500
2019	1	Nil	20/09/2019	1	Pool campus Drive of Sankey Solutions Pvt Ltd.	Placement of other Institute students	600
2019	1	Nil	26/09/2019	1	Pool campus Drive of Zycus	Placement of other Institute students	801
2019	1	Nil	02/11/2019	2	Pool campus Drive of Selec Controls Pvt. Ltd.	Placement of other Institute students	200
2020	1	Nil	13/02/2020	3	Pool campus Drive of Collabera Services Pvt. Ltd.	Placement of other Institute students	300
2020	Nil	1	01/09/2019	9	Bhadwa Mela	Social and religious activity	5000
2020	Nil	1	29/09/2019	1	Navraatri Ghatstaphana	Social and religious activity	200
2020	Nil	1	13/10/2019	1	Kojagiri Utsav	Social and religious activity	150
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#### 7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Code of Professional Ethics and Human Values	01/07/2019	Code of Professional Ethics is prepared in

		2011-12 session as prescribed by UGC in UGC Regulation on Minimum Qualification for Appointment of Teachers and Measures for the Maintenance of Standards in Higher Education 2010. All newly joined teachers are made aware of this Code of Professional Ethics and Human Values.
Code of Conduct for Teachers	01/07/2019	Code of Conduct is available for Teachers. All newly joined teachers are made aware of the Code of Conduct.
Code of Conduct for Students	01/07/2019	Code of Conduct is available for Students. All newly admitted students to first year are made aware of the Code of Conduct for Students and their signatures are taken on the Code of Conduct.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Independence Day	15/08/2019	15/08/2019	200
Tree Plantation	15/08/2019	15/08/2019	55
Stationary Collection And Donation Drive	02/10/2019	09/10/2019	62
Blood Donation	11/10/2019	11/10/2019	278
Annakoot	07/11/2019	07/11/2019	300
Blanket Donation	14/01/2020	14/01/2020	150
Special Able Children Program JUNOON	20/01/2020	20/01/2020	34
Teachers Day and Engineers Day Celebration in Electronics Engineering Department	23/01/2020	23/01/2020	215
Gramin Sampark	24/01/2020	24/01/2020	130
Republic Day Celebrations	26/01/2020	26/01/2020	200
<a href="#">View File</a>			

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)



## Rain Water Harvesting

Segregation of waste and converting them to compost

Water conservation

Environment conservation activities viz Guest Lectures by Noted Environmentalists, Competition based on Environmental themes

Reduction of plastic usage adopting Wood policy

Bicycle in Campus

## 7.2 – Best Practices

### 7.2.1 – Describe at least two institutional best practices

Best Practice 1: 1. Title of the Practice: One Semester Internship: Industry, Start-up, Research and Development and MSME 2. Objective of the Practice: To impart quality education in the field of Engineering and Management and to give exposure to industry practices thereby increasing the employability of the students, one-semester internship is offered to students in following domains:

- Internship in core/IT/allied industries.
- Internship at RCOEM Technology Business Incubators Foundation (RCOEM-TBI) under the mentorship of faculty and industry personnel to foster creativity, promote innovation and nurture entrepreneurship.
- Internship on research projects to familiarize students with contemporary research trends.
- Internship at Micro Small and Medium Enterprises (MSMEs) to leverage the capability of students and faculty to provide an effective solution to the industrial problems.

3. The Context: • To ameliorate the employability prospects, imparting appropriate skills for the demanding job market is essential which necessitates changes in the curriculum. Hence one-semester internship for under graduate students and one semester / year internship for post graduate students are provided. The opportunities provided to the students for internship are with industry, research projects under faculty, RCOEM-TBI Foundation and MSME. • Many industries offering higher packages do not hire students directly. Students need to supplement their knowledge, and through these internships, the students acquire necessary skills and bring new perspectives to problem solving eventually leading to hiring by the same industry. Also curriculum revision can be made based on feedback from Industry/ students going for internship. • Working on a research project enables the learners to adapt research culture by identifying problems, experimentation and thereby drawing conclusions. • RCOEM TBI Foundation provides an opportunity for the students to work on their business/start-up ideas, thus helping them in preparing the business plan, networking, identifying funding agencies for technology commercialization. • Internship with MSME provides an opportunity to identify the industry problems and provide feasible solutions by leveraging student capabilities under the mentorship of faculty.

4. The Practice: Internship at Industry • The Institute aggressively promotes and provides six month internship opportunities to the students all across India. • The industries offering internships select the students on the basis of written test, GD and PI. The students undergo Aptitude and Soft Skill training through series of online tests from various agencies like AMCAT, COcubes, and FNAT etc. which ensures continuous improvement in the skills of students thus leading to increased selections for internships. • Selected students are required to complete their summer/winter term and work dedicatedly in the respective industry on the specified problem statement. Many interns are offered jobs after completion of internship. Internship at MSME and GIZ • The Institute has been selected for the implementation of the Rajiv Gandhi Science and Technology Commission (RGSTC) -Technology Information, Forecasting and Assessment Council (TIFAC) MSME Internship Scheme of Government of India. • The Institute has also been selected as a Host Institute to offer internship to students under 'Student Inno Project' supported by German Corporation for

International Cooperation (GIZ). RD Internship at RCOEM • RCOEM Research Internship is designed to be an educational and professional research experience and this opportunity is available for specific research projects. • The faculty working as Principal Investigator (PI) briefs about proposed research to the potential interns. The selected interns are required to work full time on the project for six months under the supervision of PI. Internship at RCOEM -TBI Foundation • Internship at RCOEM Technology Business Incubators Foundation provides opportunity to students to work on business/start up ideas.

- This sows the seeds of innovation, entrepreneurship and helps students in product/technology development, preparing business plan, networking and identifying funding agencies for technology commercialization.

5. Evidence of Success: • This practice helps in developing learner centric environment to attain programme outcomes and achieve graduate attributes. • The experiential learning enhances team spirit, learning capabilities and soft skills and makes them socially responsible. • Students' proactive involvement in research projects and internship leads to patents, publications, start-ups and also enhances success rate of placements.

6. Problems Encountered and Resources Required: The slow pace of industrialization, absence of Original Equipment Manufacturers (OEMs), agriculture and service-based economy of Vidarbha region makes it challenging for the Institute to secure internship for all students. Following are the challenges in general faced and the resources required: • Identification of industries to provide opportunity to large number of students with different learning ability and career goals. • Providing opportunity to large number of students with stipend. • Identifying students with entrepreneurial mind set and their sustainability. • Identification of motivated students for research. • Uniform assessment of industry electives and project by the industry mentor.

Best Practice 2: 1. Title of the Practice: Financial Aid to deserving students 2. Objectives of the Practice: It has been observed from the profile of the students admitted to the Institute that there are many students from weak economic background. Also, the need was felt to recognize top academic performers in the Institute. The objectives of the practice are: • To support the economically weak students for continuation of their studies. • To provide scholarships to academically bright students and those excelling in extracurricular activities. • To provide assistance to the students during emergencies and eventualities. • To inculcate competitiveness amongst students. • To foster a sense of social responsibility amongst beneficiaries.

3. The Context: It was noted that many students are from financially weaker backgrounds and they find it difficult to afford the cost of higher education. Many of them don't qualify for Government schemes and financial assistance too. In order to facilitate their aspirations, the institute took initiative to establish the Students' Welfare Fund. Faculty and alumni were requested to contribute for the cause. It started with one day salary donation from faculty and subsequently the contributions poured in from alumni as well. Also as a part of Institutional social responsibility, emergency financial aid is provided for the students under exigencies. Award of merit scholarships to motivate the students to put their best efforts towards the achievements in academics, co-curricular activities leading to overall personality development irrespective of their economic background.

4. The Practice: Financial Assistance: • Due to the ever-increasing financial burden of professional education, the Institute felt the need to provide financial aid to ease the burden for needy students to enable them to complete their professional studies. Students' Welfare Committee was established in the year 2010 to provide partial financial assistance to financially weak students admitted. This assistance is provided either for tuition fee top-up, hostel fee, mess fee, examination fee or in case of emergencies and exigencies. Besides, the committee also provides necessary guidance to the students who can avail the education loan to complete their studies. • The financial assistance is provided out of corpus fund that is maintained in the bank account "SRKNEC

Students' Welfare Fund (SWF)" in UCO Bank. Merit Scholarships: • To inculcate the spirit of competitiveness amongst students, incentives in the form of scholarships are awarded for academic toppers, those excelling in research, sports, cultural activities, and higher studies. 'Best Student of the Year' award is also conferred for best all round performance. For higher classes, the scheme is implemented from session 2018-19 and for the first year, from 2019-20. The number of students benefitted are 1090 and the quantum of merit scholarship for academic performance, research, sports, cultural activities etc. is Rs. 32,11,000/- • Drawing inspiration from the institutions legacy of pro-poor-student attitude and action, Institute is also paying the tuition fee for the wards of supporting staff. 5. Evidence of Success: Few parameters are as below, • Increased retention. • Enhanced competitiveness. • Enhanced participation in National and International technical competitions/professional body activities. • Improved performance in cultural contests. • Improved performance in sports and competitive examinations. The students supported by SWF, could complete their studies and are placed with companies like LT tech Services, Varroc, Cognizant technology solutions, Infocepts etc. Had they been not supported, they probably would have discontinued their studies. The practice of awarding merit scholarships recognizes high achieving students for academics, extra-curricular and co-curricular activities leading to competitiveness amongst students. Around 297 students were benefitted from scholarship scheme. The review results of the aid indicate that it not only enables the students to acquire higher education but also moulds them to be responsible citizens. 6. Problems Encountered and Resources Required: • Verification of the financial backwardness of the aspirants was yet another challenge. • To continue the activity of Students' Welfare Fund in true spirit. • To persuade needy students to continue with their studies.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

<http://www.rknec.edu/Imp%20Links/BestPractices.aspx>

### 7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

**Sustaining Quality Education through Transparent Governance:** Institute has adopted TRANSPARENCY as a prime governance policy. Institute's distinctive features emanate from this policy adopted since inception and a constant source of inspiration and energy required for achieving its vision. Transparency is one of the prime tenets of good governance practices. Adoption of Transparency inevitably results in embracing other good practices viz. responsiveness, equitability, inclusiveness, efficiency, following rule of law, consensus oriented decision making and participative management. Since inception, RCOEM has been following Transparency in all its processes viz. Admission, Administration, Finance and Students' evaluation Teaching Learning Process. Adopting transparency has major fallout in the form of achieving trustworthiness in society, confidence for faculty and clarity of educational process for students. Some initiatives in the priority areas are: A) Transparency in Admissions: • Even 21 percent management quota seats (earlier 71) are filled strictly through merit in open counseling process. • Merit lists displayed prior to admissions and grievances if any are addressed. • Only fees approved by Fee Regulatory Authority accepted through demand draft. B) Transparency in Administration: • To make the students / faculty aware, all the relevant acts, directions, regulations, ordinances of university / government authorities uploaded on institution's website. • Service books regularly updated and signed by faculty and staff. C) Transparency in Financial Management: • Prompt implementation of Pay Commission and DA hikes. • All

salaries deposited in beneficiary's bank accounts. • Minimal cash transactions. • Purchases through well-defined processes and by an experienced purchase committee. • Regular financial audits, financial statements made available on institute's website. • Faculty members on financial committee. D) Transparency in students' evaluation and Teaching-Learning Process: • Complete freedom to faculty in curriculum design and evaluation process. • Well defined mechanism for evaluation related grievances of students. • All valued answer sheets are made available to students for scrutiny. • Parents have access to the academic performance of their wards through regular Parent Teacher Meetings. • Students are members of BoS and other units like anti-ragging committee, internal complaints committee etc. Adoption of Transparency as an integral part of governance has major outcomes in the form of improved institutional performance in the thrust areas of: • Excellence in Academics • Skill enhancement through Experiential Learning • Exploration of Knowledge through Research • Promote Development of Professional and Ethical values • Excellent Placements and Internships • Social Recognition • Intellectual Patronage by Academicians of Repute

Provide the weblink of the institution

<http://www.rknec.edu/Imp%20Links/docs/Institutional%20Distinctiveness.pdf>

### **8.Future Plans of Actions for Next Academic Year**

1. Establishment of Energy Research Center 2. Introduction of Four new UG Programmes and One PG Programme in emerging areas 3. Conduction of External Academic Assessment and Audit 4. Conduction of Green Audit 5. Improve NIRF Ranking 6. To apply for NBA Accreditation for UG and PG programmes 7. Organization of International Conferences 8. Organization of Faculty Development Programmes, Workshops, Seminars 9. To increase the number of MoU's with industries to help students for internship and placements 10. To encourage faculty for quality research papers 11. To increase the number of patent publications 12. To encourage faculty and students to enroll for MOOC's courses 13. To organize training programmes for staff 14. Apply to various funding agencies 15. To strengthen the Centre of Positive Emotional Health 16. To organize more community service activities to contribute to the wellness of the society