Yearly Status Report - 2019-2020

Part A	
Data of the Institution	
1. Name of the Institution	**RAAJDHANI ENGINEERING COLLEGE**
Name of the head of the Institution	**Dr. Bimal Sarangi**
Designation	**Principal**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**06742972892**
Mobile no.	**9437123892**
Registered Email	**bimal_binit@yahoo.com**
Alternate Email	**rec_bbsr@yahoo.co.in**
Address	**PO: MANCHESWAR RAILWAY COLONY MANCHESWAR**
City/Town	**BHUBANESWAR**
State/UT	**Orissa**
Pincode	**751017**
2. Institutional Status	
Affiliated / Constituent	**Affiliated**
Type of Institution	**Co-education**
Location	**Urban**
Financial Status	**Self financed**
Name of the IQAC co-ordinator/Director	**Dr. Sanjay Kumar Behera**
Phone no/Alternate Phone no.	**+918327717210**
Mobile no.	**8763173320**
Registered Email	**sanjaybeheraoec@gmail.com**
Alternate Email	**iqac.rec123@gmail.com**
3. Website Address	
Web-link of the AQAR: (Previous Academic Year)	**https://www.rec.ac.in/IQAC/aqar-2018-19.pdf**
4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	**https://www.rec.ac.in/upload/ACADEMIC-CALENDER-2019-20.pdf**

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	B	2.50	2014	21-Feb-2014	20-Feb-2019
2	B	2.30	2019	04-Mar-2019	03-Mar-2024

6. Date of Establishment of IQAC — 10-Oct-2010

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Workshop on student solar ambassoder	02-Oct-2019 1	250

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8. Provide the list of funds 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
Dept. of Computer Science & Engineering	TEQIP III	TEQIP, BPUT	2019 6	262964
Dept. of Electrical & Electronics Engineering	TEQIP III	TEQIP, BPUT	2019 6	263398

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9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	**View File**
10. Number of IQAC meetings held during the year :	10
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	**View File**
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

12. Significant contributions made by IQAC during the current year(maximum five bullets)

1. Upgradation of laboratories. 2. Implementation of knowledge exchange program with other academic institutes and industries. 3. MOU with industries for field visit of students and faculties. 4. Promotion of research activities for students and faculties.. 5. Upgradation of ICT smart class

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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	Achivements/Outcomes
undefined	undefined
Add on courses for students	Semesterwise one addon courses provided
Research promotion activities among PG and UG students	Several research paper published

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14. Whether AQAR was placed before statutory body ?	Yes

Name of Statutory Body	Meeting Date

GOVERNING BODY	15-Jun-2020

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	**Yes**
Date of Visit	**02-Mar-2019**
16. Whether institutional data submitted to AISHE:	**Yes**
Year of Submission	**2020**
Date of Submission	**10-Feb-2020**
17. Does the Institution have Management Information System ?	**Yes**
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	**It is a system designed to systematically organize information related to the management of educational development. MIS is responsible for the promotion and use of information for policy planning and implementation, decision making, and the monitoring and evaluation of an education system. MIS also substantially aids efforts made to assess the performance of an education system. It also closely monitors the equitable distribution of resources, and plays an active role in providing information to top management about the deployment of teachers, student performance assessment, and internal efficiency of the education system. In academics Attendance monitoring, Continuous assessments of students, eresources for students, time table, extra and co curricular activities, library, examination etc are performed. At admin side faculty and students profile, scholarship record, college level certificates like CLC, admission etc. SMS and email notification also sent by MIS to all stake holders. In students support, MIS also have a module of proctorial system on which proctor observations are recorded throughout the year. The institute has its own ERP system for administrative academic operations. The following modules are functional. • Faculty roll / attendance: The biometric attendance is integrated with ERP for salary purpose. • Time tables student attendance. • Maintenance applications are forwarded by faculty through this module.**

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Planning and Implementation

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

The institute is affiliated to Biju Patnaik University of Technology, Odisha and follows the curriculum prescribed by the university: Institute has constituted an Academic Committee (AC) comprising of Principal, Dean (Academic) and Heads of the Department (HODs) which is responsible for planning and monitoring of overall academic activities and its functioning as per University guidelines. Subjects are allocated to the faculty members based on their subject expertise and experience well in advance. Time table for every semester is prepared by the respective Time Table coordinators of various departments in consultation with the HODs and the load distribution is informed to the Principal. The university provides the syllabus with evaluation schemes and course objectives for every course. Faculty follows the evaluation scheme mentioned in the syllabus for each course. Course Objectives and Course outcomes of the subjects in accordance with the university prescribed syllabus are decided by the respective subject in charge in consultation with the HOD. Teaching plan and the assignments for the semester are prepared by the respective subject in charge in advance for the new session. Performance of the students in laboratory experiments are timely assessed and graded according to the performance indicators. Depending on the evaluation scheme, two

class tests per semester are conducted taking in to consideration the COs defined for each course to evaluate the students. The result analysis of the internal assessment is done and proper measures are incorporated to improve the performance by arranging remedial classes for the weaker students and giving additional assignments/tasks to the brighter students. Course files are maintained by faculty members which contains Academic calendar, Individual timetable, Lesson plan, Assignments, Class test question papers, University question papers, question banks for Quiz & surprise test, Performance details etc. Remedial classes are conducted for slow learners. In addition to traditional teaching methods, video lectures, NPTEL lectures, OHP, PowerPoint presentations, projects, model case studies, surveys etc are being conducted. Guest faculties from reputed institutes are regularly invited to bridge the gap in the prescribed curriculum. An AC meeting is conducted at the end of the semester to conclude the academic session. At the end of every semester course exit feedback is taken from the students and analyzed for proper measures. Students are encouraged to do final year projects in industries thereby giving them the exposure to the recent trends in industries. Students are encouraged to undergo industrial internships and industrial visits during vacation periods. Students are given training in various software's so as to make them enable for competition in global employment opportunities. Special emphasis is given on the development of the overall personality of the students through the conduction of various personality development programmes. Students are encouraged to participate in social activities so as to enable them to be socially responsible citizens. Seminars, value added courses, industrial visits and expert talks are arranged to enrich the curriculum for overall growth of the students.

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employability/entrepreneurship	Skill Development
CAD	NA	12/09/2019	30	EMPLOYABILLITY	NA
FIELD SURVEY USING TOTAL STATION	NA	07/12/2019	30	EMPLOYABILLITY	NA
GIS	NA	09/01/2020	30	EMPLOYABILLITY	NA
NDT	NA	21/02/2020	30	EMPLOYABILLITY	NA
STADDPRO	NA	19/04/2020	30	EMPLOYABILLITY	NA
MACHINE LEARNING WITH PYTHON: A PRACTICAL INTRODUCTION	NA	02/01/2020	30	EMPLOYABILLITY	NA
COMPUTING IN PYTHON I: FUNDAMENTALS AND PROCEDURAL PROGRAMMING	NA	05/01/2020	30	EMPLOYABILLITY	NA
BLOCKCHAIN: UNDERSTANDING ITS USES AND IMPLICATIONS	NA	10/01/2020	30	EMPLOYABILLITY	NA
MACHINE LEARNING WITH PYTHON: FROM LINEAR MODELS TO DEEP LEARNING	NA	02/07/2019	30	EMPLOYABILLITY	NA
BUILDING MODERN PYTHON APPLICATIONS ON AWS	NA	05/07/2019	30	EMPLOYABILLITY	NA
INTRODUCTION TO CLOUD DEVELOPMENT WITH HTML5, CSS3, AND JAVASCRIPT	NA	16/08/2019	30	EMPLOYABILLITY	NA
AUTO CAD	NA	09/01/2020	30	EMPLOYABILLITY	NA
ADVANCE C PROGRAMMING	NA	02/01/2020	30	NA	SKILL
ADVANCE JAVA	NA	05/01/2020	30	EMPLOYABILLITY	NA
DOT NET	NA	12/09/2019	30	NA	SKILL
PLC	NA	07/12/2019	30	EMPLOYABILLITY	NA
SCADA	NA	09/01/2020	30	NA	SKILL
MOTOR WINDING	NA	10/04/2020	30	NA	SKILL
PANEL BOARD REPAIRING	NA	02/01/2020	30	NA	SKILL
SOLAR PANEL	NA	05/01/2020	30	EMPLOYABILLITY	NA
HOUSE WIRING	NA	01/01/2020	30	NA	SKILL
LAMINATION OF CORE OF A TRANSFORMER	NA	02/07/2019	30	EMPLOYABILLITY	NA
ELECTRICAL INSTALLATION	NA	05/07/2019	30	NA	SKILL
EMBEDDED SYSTEMS	NA	09/01/2020	30	EMPLOYABILLITY	NA
MATLAB	NA	05/01/2020	30	NA	SKILL
TALLY ERP9	NA	01/08/2019	30	EMPLOYABILLITY	NA
SIX SIGMA	NA	01/11/2019	30	EMPLOYABILLITY	NA
SPSS FOR DATA ANALYSIS	NA	10/01/2020	30	EMPLOYABILLITY	NA

PROJECT MANAGEMENT PROFESSIONAL	NA	01/07/2019	30	NA	SKILL
STRATEGIC MARKETING	NA	15/07/2019	30	NA	SKILL
HR ANALYTICS	NA	10/06/2019	30	NA	SKILL
FINANCIAL RISK MANAGEMENT	NA	07/01/2020	30	EMPLOYABILLITY	NA
CAPITAL MARKET SECURITIES ANALYTICS	NA	10/07/2019	30	EMPLOYABILLITY	NA
PCB CIRCUIT DESIGNING	NA	12/08/2019	30	EMPLOYABILLITY	SKILL
PROGRAMMING USING LABVIEW	NA	18/02/2020	30	EMPLOYABILLITY	SKILL
PROGRAMMING USING XILINX AND USE OF FPGA BOARDS	NA	15/10/2020	30	EMPLOYABILLITY	SKILL
EMBEDDED SYSTEM DESIGN USING RTOS	NA	13/08/2019	30	EMPLOYABILLITY	SKILL
ENGINE OVERHAULING MANTAINANCE	NA	16/08/2019	30	EMPLOYABILLITY	SKILL
GEAR BOX REPAIRING	NA	04/11/2019	30	EMPLOYABILLITY	SKILL
REFRIGERATION AND AIR CONDITIONING	NA	06/01/2020	30	EMPLOYABILLITY	SKILL
LEATHE MAINTANCE	NA	08/07/2019	30	EMPLOYABILLITY	SKILL

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
BTech	NA	01/07/2019
Mtech	NA	01/07/2019
MBA	NA	01/07/2019
MCA	NA	01/07/2019

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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BTech	CIVIL ENGINEERING	01/07/2019
BTech	COMPUTER SCIENCE & ENGINEERING	01/07/2019
BTech	ELECTRICAL ENGINEERING	01/07/2019
BTech	ELECTRICAL & ELECTRONICS ENGINEERING	01/07/2019
BTech	ELECTRONICS & COMMUNICATION ENGINEERING	01/07/2019
BTech	MECHANICAL ENGINEERING	01/07/2019
Mtech	COMMUNICATION SYSTEMS	01/07/2019
Mtech	COMPUTER SCIENCE ENGINEERING	01/07/2019
Mtech	POWER SYSTEM ENGINEERING	01/07/2019
Mtech	PRODUCTION ENGINEERING	01/07/2019
Mtech	STRUCURAL ENGINEERING	01/07/2019
MBA	MBA	01/07/2019
MCA	MCA	01/07/2019

1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	2162	Nil

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
STADD-PRO	03/08/2019	74
ARDUINO	05/11/2019	30

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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
BTech	CIVIL ENGINEERING	60
BTech	MECHANICA ENGINEERING	40

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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

The feedback is key tool which triggers in continuous improvement in the quality of education. Feedback form / formats are designed for the stakeholders. This includes faculty feedback, alumni feedback, student feedback, exit survey etc. The institute has a system of taking feedback from students on academic structural facilities and performances. Faculty feedback from the students for the respective course is taken twice in a semester on various teaching / learning aspects and it is analyzed by the HODs and corrective measures if any are informed to the respective faculties for further improvements. This is a feedback on 5-point scale, which measures parameters like Subject knowledge, Expression, Teaching aids used methodology etc. which is analyzed by our management for taking appropriate decisions for enhancing the infrastructure and also quality of teachers. Course exit feedback and program exit feedbacks are taken to analyze the understanding capability of the students. Feedback about the infrastructural facilities is taken from the final year students at the end of the program for improving the overall facilities, if any. The alumni feedback and exit feedbacks are taken from all students. From these forms we are able to make out whether the proper teaching learning process is in place. Also, this process enables the institute to improve in the areas where ever necessary. Feedbacks from the parents are taken by interacting with them during Parent Teacher Meet. Feedback from faculties is also taken for their suggestions in syllabus revision. Feedback is also collected from the companies. This feedback is discussed in meeting of training and placement cell. Library has also a feedback forms which are kept on the circulation counter and open to fill-up by any user as per their wish. The collected data is entered in excel sheet and is presented in front of library committee for review and discussion. We have also installed a suggestion box which is accessible to all the stake holders so that they can give their feedback/ suggestions for improvements, if any.

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
BTech	CIVIL ENGINEERING	120	113	113

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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	1949	327	129	18	12

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	Numberof smart classrooms	E-resources and techniques used
160	160	85	31	12	8

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

The Student Counseling Cell, chaired by a senior faculty member as chief proctor supervises and effectively implements mentoring activity at college level. He has a team of coordinators at department level and first year to assist him in smooth operation of mentoring by all teachers. Students Counseling Cell will hold a meeting once in a month with all Departmental Mentor coordinators. Departmental Mentor coordinator distributes the hard copy of required formats to the department mentors. Departmental Mentor coordinator conducts the meeting once in the month within department and maintains the minutes. The process of mentoring includes appointment of teachers as mentors to the batch of 20 to 25 students of each class. This ensures that every student is allotted a mentor. Students allocated to specific mentor will remain with him/her till the completion of the semester. Then for next semester, new mentors are appointed who are teaching the subjects to the respective class. The mentor establishes the contact with the parents through telephonic discussion, appraise them about the development of their ward. The mentee meets the mentors once in a fortnight and the observations about mentee viz. achievements, doubts, fears, grievances etc. are recorded. Based on which, the student is counseled in the necessary areas/ issues where he/she needs mentoring. Depending on the severity of issues of mentee, he/she is forwarded to central counseling where the mentee is counseled by professional counselors, appointed by the institute at administrative level. The timely and extensive implementation of mentoring generates healthy interaction between students, parents and teachers and results in less student grievances.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
2276	159	1:14

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
159	159	Nill	14	22

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
2019	DR. S. K. BEHERA	Professor	BEST INNOVATIVE PROJECT AWARD
2019	PROF.UTTAM KUMAR JENA	Assistant Professor	BEST TEACHERS AWARD

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
BTech	Civil Engineering	Odd / 2019	30/12/2019	21/03/2020

2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

The Examination committee is an apex body of the Institute which is headed by Professor in-charge. The main function of this Committee is to keep the record of each and every issue related to the examination and results, carry out examinations (Both internal and university), publish results, award certificates (provided by the University and Institute) to the students who pass the final examinations. Also to coordinate with the university examination cell for better and improvement of examination system are also the responsibilities of this Committee. Objective To conduct Internal Assessment and External Assessment Examination related all work as per University notifications. Role and Responsibility • Registration of students for regular back examinations as per university schedule. • The Examination Committee shall prepare relevant time tables for our College based on the Examination Time Table of the University. • The Examination Committee shall make Seating Arrangement and display them on the concerned Notice Board . • The Exam Committee shall prepare and display an overall Invigilation Duty List as well as Daily Invigilation Duty List on the Staff Notice. • The Exam Committee shall ensure that adequate stationery, like answer sheets, drawing sheets, charts, graph paper, drawing boards, trays, threads, water jugs etc. are made available. • Committee should collect examiners names for assessment and moderation of each subject from respective HODs. • The Exam cell in consultation with the HODs shall prepare the list of the Examiners (for internal external) depending upon their availability. • The Prof in-charge shall ensure that the evaluation and moderation process is completed on time and the same be sent to the University for Necessary Approval within stipulated period as notified by the university. •

The Prof in-charge along with Exam Cell shall be in touch with the University for obtaining necessary approvals on time. • All the results (First Year to Final Year) shall be displayed on the respective student Notice Boards/College Website after publication by university and a copy of the same shall be sent to the respective HODs. • Under the guidance of the Prof in-charge, the Exam Cell shall analyze the exam results and the same shall be sent to HODs, the Principal and Director. • Preparation of smooth conduct of Examinations, preparation of time – table schedules, Invigilation duty chart, Seat allotment in the Examination halls etc. • To ensure that the entire exam related documents reach the university in time. • To conduct Internal Assessment examination as per academic calendar. • Distribution of marks lists to the students after the results of various examinations received from the University.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

Being affiliated to BPUT, Odisha, Institute follows academic calendar of University. Before commencement of each academic session, The Principal along with the Director conducts an Academic council meeting with Heads of all the Departments and finalise the Academic Calendar in alignment with the university schedule. College academic calendar is designed considering all events in accordance with the University academic calendar. The academic calendar is planned which mainly include commencement date, closing date of the each semester, dates of internal tests I and II, college festivals, submissions, oral / practical exams etc. Schedule for internal exams and tentative dates for University theory and practical exams are displayed in academic calendar. Curricular and extra-curricular activity dates, exam schedules and other activity dates are displayed in the academic calendar. Dean Academics is in charge of academic monitoring cell. Academic monitoring cell is responsible for ensuring proper academic calendar and teaching learning process. It monitors all parameters right from attendance, (75 attendance is mandatory as per University rules), assignments, practical's / labs, internal tests. List of defaulter students is notified fortnightly and the parents are informed. All departments prepare their academic calendar in accordance with Institute academic calendar. Various activities such as industrial visit, expert lecture, seminars/ workshops/ conferences, department social programs etc are included in department academic calendar. Teaching plan is prepared by each teacher which adheres to the academic calendar of institute. Department Academic Committee (DAC) has standard procedure of fortnight monitoring that ensures smooth conduction of lectures and practical sessions. Parent teacher meeting date is also mentioned in the academic calendar. Faculty conducts lectures and practicals as per the timetable in alignment with the academic calendar.

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)

https://www.rec.ac.in/document/POPSOCO.pdf

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
Civil Engineering	BTech	Civil Engineering	131	129	98.47

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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)

https://www.rec.ac.in/upload/students-satisfication-survey-Analysis.pdf

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Resource Mobilization for Research

3.1.1 – 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
Industry sponsored Projects	180	ULTRATECH CEMENT LTD.	0.25	0.25
Interdisciplinary Projects	180	INSTITUTIONAL FUNDING	0.25	0.1

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3.2 – Innovation Ecosystem

3.2.1 – 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-DAY ONLINE WORKSHOP ON "IPR AND PATENTING"	DEPARTMENT OF CIVIL ENGINEERING	18/01/2020
ONLINE WORKSHOP ON ÏPR, PATENTS AND PATENTABILITY ASSESSMENT	DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	02/12/2019
AN ONLINE TRAINING WORKSHOP FOR RESEARCHERS	DEPARTMENT OF BASIC SCIENCE HUMANITITES	16/12/2019
WEBINAR ON INTELLECTUAL PROPERTY RIGHTS (IPRS) RESEARCH ETHICS	DEPARTMENT OF MECHANICAL ENGINEERING	22/02/2020
WEBINAR ON ROLE OF IPR IN A GLOBAL ECONOMY: CHALLENGES ISSUES	DEPARTMENT OF MBA	16/09/2019

3.2.2 – 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
OIL FILTER	PROF.D.DAS	M/S. CORROSION PROTECTION PVT. LTD., BHUBANESWAR	12/08/2019	RESEARCH

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3.2.3 – 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	REC ENGINEERING SOLUTION	ISTE	CONSTRUCTION CONSULTANT.	PROFESSUIONAL	10/06/2019

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3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
47	3	0

3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
NA	Nill

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

Type	Department	Number of Publication	Average Impact Factor (if any)
International	MECHANICAL ENGINEERING	16	1.2
National	MECHANICAL ENGINEERING	22	0.9

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3.3.4 – 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 MASTER IN COMPUTER APPL	9
DEPARTMENT OF BASIC SCIENCE HUMANITIES	12
DEPARTMENT OF ELECTRONICS COMMUNICATION ENGINEERING	13
DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	18
DEPARTMENT OF CIVIL ENGINEERING	25
DEPARTMENT OF MBA	5
DEPARTMENT OF MECHANICAL ENGINEERING	30

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3.3.5 – 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
Adversarial Actor-Critic Method for	Amit	IJESPR	2019	2	Raajdhani	16

| Taskand Motion Planning Problems Using Planning Experience | Kumar Jha | | | Engineering College, Bhubaneswar, Odisha | |

3.3.6 – 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
Adversarial Actor-Critic Method for Taskand Motion Planning Problems Using Planning Experience	Amit Kumar Jha	IJESPR	2019	6	16	Raajdhani Engineering College, Bhubaneswar, Odisha

3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	79	82	6	76
Presented papers	62	64	10	30
Resource persons	5	9	11	25

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3.4 – Extension Activities

3.4.1 – 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
Social awareness campaigns	NSS/NCC/RED CROSS/YRC	44	220

3.4.2 – 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
Campus plantation	Green Volunteers	Ever Green Forum, BBSR	307
Street Play Competition	Trophy and Certificate	Sulabha Society, Green World Publication	15
"Science Quiz Competition" National Science Day	Trophy and Certificate	BMC, Bhubaneswar	110
"Stop Soil Pollution" World Soil Day	Trophy and Certificate	Save world foundation	72
Village sanitisation awareness camp	Trophy and Certificate	youth foundation, Gadakana	125
Road safety campain	Certificate	Odisha Road Safety Forum	120

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3.4.3 – 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 activites	Number of students participated in such activites
Social awareness scheme	NSS/NCC/RED CROSS/YRC	Social awareness campaigns	44	220

3.5 – Collaborations

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

Nature of activity	Participant	Source of financial support	Duration
Training on MATLAB	Faculty	Institute	2

[View File](#)

3.5.2 – 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
Iternship	Training	Bharat Motors Ltd.	01/06/2019	30/06/2019	5

[View File](#)

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

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
CAD-CAM ACADEMY	03/09/2019	Software Training	66

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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
50	43.36

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Seminar halls with ICT facilities	Newly Added
Classrooms with LCD facilities	Newly Added
Seminar Halls	Newly Added
Class rooms	Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Laboratories	Newly Added
Campus Area	Newly Added

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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 patially)	Version	Year of automation
LIBSYS	Fully	LSEase(EJB).Rel1.0	2017

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	42163	1773312	1265	86189	43428	1859501
Reference Books	1441	496593	90	6832	1531	503425
e-Books	9789	110297	1144	25705	10933	136002
Journals	122	23640	20	4200	142	27840
e-Journals	597	1693036	92	16152	689	1709188
Digital Database	1	96000	Nill	Nill	1	96000
CD & Video	2203	220300	118	11800	2321	232100
Library Automation	1	96000	Nill	Nill	1	96000

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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 & 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
PROF. U.K.JENA	Bigdata analytics using Hadoop technology	ILMS	05/07/2019
SARUK MALLICK	AUTOMATION ROBOTICS IN CONSTRUCTION	ILMS	02/08/2019

[View File](#)

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	633	10	2	1	1	19	10	80	0
Added	82	1	0	0	0	3	0	0	0
Total	715	11	2	1	1	22	10	80	0

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

80 MBPS/ GBPS

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
You tube channel	https://youtu.be/JA5mg3vVio8
You tube channel	https://youtu.be/U5xBkQ8mTdM
You tube channel	https://youtu.be/efBo1Pux3QM
You tube channel	https://youtu.be/vlLJ0w9PdC8
You tube channel	https://youtu.be/_ymvaRKLHOE
You tube channel	https://youtu.be/VTbQRbhoFk0
You tube channel	https://youtu.be/M6dhDXepzl
You tube channel	https://youtu.be/KPjkdUEpCD8
You tube channel	https://youtu.be/IwXvRsC2Hfs
You tube channel	https://youtu.be/8oRf0UrnppU
You tube channel	https://youtu.be/_DJJqn2JyMA
You tube channel	https://youtu.be/GF-5fdsrHLA
You tube channel	https://youtu.be/P3rArkk4k8Y
You tube channel	https://youtu.be/I4EooeosQw4
You tube channel	https://youtu.be/-Dy2H_XiRGo
You tube channel	https://youtu.be/hK6_wU_ukHg
You tube channel	https://youtu.be/othFw2350kU
You tube channel	https://youtu.be/I6B1sUbeEdo
You tube channel	https://youtu.be/J9Zc6UCfLGs
You tube channel	https://youtu.be/z5bS7YYuX14
You tube channel	https://youtu.be/mu0u3_C6UU0
You tube channel	https://youtu.be/IwXI89z1bak
You tube channel	https://youtu.be/VPkTWHjuvwQ
You tube channel	https://youtu.be/awU8ICnZB1w
You tube channel	https://youtu.be/apmM-1qPt-o
You tube channel	https://youtu.be/HWaE2rqUN_U
You tube channel	https://youtu.be/9WI9W767dhY
You tube channel	https://youtu.be/VPkTWHjuvwQ
You tube channel	https://youtu.be/VML0nk9i890
You tube channel	https://youtu.be/IwXvRsC2Hfs
You tube channel	https://youtu.be/KPjkdUEpCD8
You tube channel	https://youtu.be/M6dhDXepzl
eLecture Notes	https://www.rec.ac.in/upload/Integral%20calculus(1).pdf

eLecture Notes	https://www.rec.ac.in/upload/Differential%20calculus.pdf
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-em
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-physics
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-chemistry
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-bce
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-basic-electrical-engineering
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-basic-electronic-engineering
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eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-2nd-semester-problem-solving-c
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-cse-daa
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-cse-coa
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-cse-dsp
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-cse-mpmc
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-cse-ds
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eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-cse-coi
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-me-etd
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-me-kdm
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-me-icgt
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-me-ipme
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-me-mpmc
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-me-ee
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-surveying
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-te
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-ob
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-sa-i
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-ct
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-ipme
eLecture Notes	https://www.rec.ac.in/page.php?page=b.tech-4th-semester-ce-coi
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eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ee-eee-emt
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eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ee-eee-coi
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eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ece-nt
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ece-coi
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ece-dsd
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ece-ds
eLecture Notes	https://www.rec.ac.in/page.php?page=b-tech-4th-semester-ece-ee
eLecture Dsotes	https://www.rec.ac.in/page.php?page=mca-2nd-semester-dsus
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-2nd-semester-oopus
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-2nd-semester-os
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-2nd-semester-ppm
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-2nd-semester-es-gt
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-2nd-semester-es-gt
eLecture Pwotes	https://www.rec.ac.in/page.php?page=mca-4th-semester-pwj
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-4th-semester-cg-m

eLecture Notes	https://www.rec.ac.in/page.php?page=mca-4th-semester-se
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-4th-semester-cd
eLecture Notes	https://www.rec.ac.in/page.php?page=mca-4th-semester-erp-ec
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-cs
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-hrm
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-ed
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-cf
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-rm
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-ifss
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-itferp
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-om
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-2nd-semester-ib
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-pbm
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-rm
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-shrm
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-tdw
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-bf
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-il
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-bt
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-mcr
eLecture Notes	https://www.rec.ac.in/page.php?page=mba-4th-semester-b2b-market

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 incurredon maintenance of physical facilites
110	88.5	165	115.8

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, provide link)

Annual budget is allocated for the purchase, repair and maintenance and housekeeping facility. Budget is approved after scrutiny and approval of central purchase committee and Board of governance. In case of major repair and maintenance, approval for the expenses is taken from the Head of the institute after submission of necessary documents. Maintenance procedure of Laboratory Laboratories and computers are upgraded as per the guidelines of syllabus issued by University. 1. The Lab In charge or the concerned teacher / staff maintains the record of Laboratory equipments and maintenance and all such records are maintained in the history card of the equipment. 2. In case of any breakdown / repair works the Lab In charge through the HOD contact the vendor from whom the equipment is purchased and get the equipment checked for the fault and get repaired timely. 3. In case maintenance, purchase upgradation of Laboratory equipments arise, the concerned laboratory in charge issues a maintenance request to the Central Purchase Committee through the HOD. Based on the request, the central purchase committee invites the application for laboratory equipment up gradation and purchase. 4. Number of computers on the campus is as per the student's ratio and guidelines of AICTE. Computers, internet lab services is maintained by system administrator under guidance of HOD (Computer Science Engineering). Maintenance Procedure of Library 1. Library invites the book and journal requisition from all the faculties for various subjects in the curriculum through the HODs. The central library committee scrutinizes all the requisitions and gets it approved by the Head of the Institution for final purchase. 2. Each faculty and students are issued the library cards for issue of books, magazines and journals. 3. The condition of all books is verified at end of each semester by the library committee and is repaired through a vendor. Maintenance procedure of Support facilities 1. Cleanliness and hygiene are maintained in class rooms and all the places through housekeeping staff regularly. 2. Annual maintenance contract (AMC) is given for maintenance of computers, Printers, Photocopy Machine, Cameras, Water coolers/filters, gardening, cleaning etc. Maintenance of Sport facilities The institute is running a Sports complex and open ground for organizing various competitions and Annual Sports Events. Facilities are maintained by sports committee.

https://www.rec.ac.in/upload/MAINTENANCE-AND-UTILIZATION.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	Student Benifit Scheme	414	8280000
Financial Support from Other Sources			
a) National	Post Matric Scholarship	947	46803700
b)International	NA	Nill	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 implemetation	Number of students enrolled	Agencies involved
RELIABILTY AND WORK ETHICS CLASS	01/04/2019	125	ADARSH ACADEMY, BBSR

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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 passedin the comp. exam	Number of studentsp placed
2019	Awareness session for higher studies and research	155	125	23	12

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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	5

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
73	455	310	18	119	98

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

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	6	B.Tech	Mechanical Engineering	NIT, RKL	M. TECH

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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
GATE	26
CAT	4
GMAT	12

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

Activity	Level	Number of Participants
RADIANCE, 2019	INSTITUTIONAL	1860

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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	NA	National	Nill	Nill	Nill	NA

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

All the departments have Student chapters of various professional associations and various Social clubs. The Head of the Department, staff and students of the respective departments in consultation with the Principal choose the office bearers. The College has various academic and administrative bodies that have student representatives. This representation helps them in their overall development. These bodies create more avenues for students to develop technical skill, updating knowledge, personality development and service to society through the following Societies/Associations. There are staff advisers to guide students in the smooth and efficient conduct of these activities. The various committees where the students are members such as Class Committee, Cultural Committee, Symposium/Conference Committee, Students (chapter/forum) Associations such as ISTE,IE etc, Grievance Cell, Anti-ragging Committee, Sports Committee, NSS, YRC and RRC, Women Empowerment Cell etc.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

The Institution has a registered Alumni Association with Registration No-1899-61 of 2013-2014. The association is coordinated by a senior faculty and one representative from each department. Its activities and major contributions for Institutional, academic and infrastructure development are significant. The Institution connects with all the alumni through social networking. Alumni meet is conducted every year. This facilitates regular interaction with the alumni and helps to understand their progress and obtain necessary feedback at the central level. Alumni's are also engaged for motivating the students by giving presentation, conducting mock interviews etc. Placements are also arranged by them when there is an opportunity in their company where they work. Special lectures are given by the alumni members by sharing their experience at work place. Company specific Alumni feedback is also collected time to time and the same input will be used to enhance the teaching learning process.

5.4.2 – No. of enrolled Alumni:

649

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

97350

5.4.4 – Meetings/activities organized by Alumni Association :

Two alumni meet was organized in the year 2019 -20. 1st Alumni meet on 12/07/2019 – Plantation was carried out inside college campus 2nd Alumni meet on 23/01/2020 - Swachha Bharat Abhijan near college premises

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 Principal of Institute is assisted by Dean (Academics), HODs, Section in charges and coordinators of various cells/committees in decision making process of the Institute. 1. Internal Quality Assurance cell (IQAC) formulates perspective plan taking into consideration inputs from all stake holders. This plan is presented and deliberated in Institute Development Committee under the chairmanship of Principal to get consensus. This plan is forwarded to the governing body for approval. The Institution policy believes involvement of all staff in decision making and implementing the decentralized decision policy. 2. Our institute has encouraged facilitates Industry interaction through MOUs. The departmental heads are given freedom to choose sign MOUs which are for mutual benefit. The management supports such initiatives .The benefits accrued from this activity are projects, internships, R D, consultancy, value added courses, incubation centers, aptitude coaching and so on. 3. HODs are allowed to finalize different equipments to be used for academics and research with respect to their own department. They have been given authority for calling and finalizing of the quotations for the equipments and finalizing the purchase order.

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	The admission process of the students is done by the OJEE / DET.
Industry Interaction / Collaboration	1. The institute has constituted IQAC Cell it has Industry representatives for suggestions with regards to industry ready training programs and professional activities. 2. Our training placement cell continuously strives for networking with industries for placements internships. 3. The Institute has signed MOU with many reputed companies for mutual benefits, mainly for value added courses, Certification courses, internships, incubation centres projects. 4. The institute has got approval for sub soil exploratory testing lab. The institute also approved by DST, Govt. of India as SIRO.
Human Resource Management	1. Teaching faculty requirement is decided as per AICTE student faculty ratio. The cadre ratio is also as per AICTE norms. The nonteaching staff requirement is at the discretion of the management to meet the needs of departments. 2. The new recruitments are done through the advertisement in local and national news papers and are scrutinized as per the requirement. The selection committee comprising Principal, Concern HODs and experts from other reputed organization are called for interview and final section. 3. The grievances redressal cell is in active functioning to solve the grievances of the staff members.
Library, ICT and Physical Infrastructure / Instrumentation	We have a Library Advisory Committee, with one senior faculty as the coordinator and faculty from all the departments as Members. Books required as per AICTE norms is sought from the departments every year and purchased as per the norms of the Institute. College library is equipped with LYBSIS software. The library has online ejournals subscription for both staff and the students. The library has 10 dedicated systems for digital library and the access is made easy for the students. Printers are available for public usage. A digital library is available with Internet band width/ speed of 20Mbps. We have Institutional Repository through NPTEL and SWAYAM. Participation in Resource sharing networks/consortia is done by DELNET.
Research and Development	Institute is having Research and Development Cell headed by Dean (R D) with the following objectives 1. To create awareness for Research and Development among faculty and students. 2. To create interest and motivate faculty to take up research projects in cutting edge technology. 3. To inculcate research attitude in students. 4. Motivate and facilitate students and faculty to solve social challenges through technological innovations. 5. The institute is providing all support to the teachers for pursuing research and innovation. 6. The institute is approved as nodal centre for research for pursuing Ph.D. 7. Faculty members are encouraged to apply for research funding from various funding agencies like AICTE, DST, MNRE and University etc.
Examination and Evaluation	1. The examination and evaluation is conducted as per the guidelines prescribed by the University which includes end semester examination (Conducted by the University), internal evaluations (class tests, quiz, surprise test, assignments etc. conducted by the concerned faculty). 2. For internal assessment results provided to the students for their self analysis and concerned faculty guide the students for further necessary improvements. 3. Weak performers are taken for special counseling and special classes are conducted by the faculty member and proctors and the overall activities are coordinated by HOD. 4. The institute has been assigned as the center for online evaluation of university examination.
Teaching and Learning	1. The institute strictly follows the academic calendar of the University. 2. The subject distributions and the course plans of the subjects for the faculty members during each semester are done by the Department in consultation with HOD. 3. ICT tools and Elearning resources such as MOOCS, NPTEL, and SWAYAM are used for strengthening the academics. 4. Students' feedback is monitored by HOD in coordination with IQAC cell. 5. The teaching quality enhancement is further aided by collaboration with reputed institute and industry of national reputation for professional growth of the students. 6. Course material and video lecturer are uploaded in the college website for support to the students. 7. FDP programs , Workshops , Seminars, Model exbhitions , industrial visits, expert talks and skill development programs are regularly conducted for faculty and students as a support to the teaching and learning aid.
Curriculum Development	1. Since the institution is affiliated under Biju Patnaik University of Technology, Odisha, the curriculum and the syllabi of the University have been adopted. 2. The senior faculty member of the institution actively contributes

to the development of the courses by providing the suggestions to the BPUT as per the curriculum. 3. Each department identifies and prepares the course details of Add on courses for the students in the beginning of the session.

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

E-governace area	Details
Planning and Development	1. ERP software is used for academic planning involving various activities. 2. Feedback of students is used to improve the teaching learning process and develop new teaching methodologies catering to students' requirement. 3. Library uses LIBSYS for organizing its books' inventory, purchase of new books, etc. 4. The Institute also updates and make aware of the upcoming activities of the Institute and important events held in the Institute through the Institute website and various Medias such as Emails and Whatsapp. 5. Use of Google sheets/excel sheets is done for data transaction of academic and administrative nature.
Administration	1. ERP software is used for monitoring academic and administrative activities. 2. Biometric system is used for attendance of faculty, staff and students. 3. LIBSYS is used for library management.
Finance and Accounts	Finance and accounts section uses Tally and excel for carrying out various accounting activities. The payment of salary to the faculty and staff is done through electronic clearance deposited in the bank. The payment of student fees is also received through NEFT/RTGS mandates. Payment to affiliating bodies other stake holders is also done online through portals.
Student Admission and Support	The admission process of the students is done by the OJEE / DET. As the students come from diverse backgrounds, they are eligible for scholarships / free ships as per Govt. procedure through online. The institute supports the students throughout the course duration through grooming them with aptitude / soft skills, supporting them financially for projects, paper publications, supporting them for sports other cultural activities.
Examination	1. The examination governance is according to the University. 2. The internal assessments reports are maintained through excel. 3. The internal and University examination results are intimated to the students through website.

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	Prof.M.R.Das	Workshop on CNC turning	BPUT, Odisha	5000

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6.3.2 – Number of professional development / administrative training programmes organized by the College 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)
2019	PERFORMANCE APPRIASAL SYSTEM FOR TEACHING AND NON TEACHING STAFF	PERFORMANCE APPRIASAL SYSTEM FOR TEACHING AND NON TEACHING STAFF	25/06/2019	30/06/2019	159	40

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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
One day online Workshop/ Webinar on Online Teaching and Learning Skilk Development of Teachers for Development and Delivery if Lessons, Institute of Engineers (India), Kharagpur Chapter, 10am-6pm, 30, May, 2020, IIT Kharagpur	62	30/05/2020	30/05/2020	1

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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
14	14	7	7

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
1. Medical facilities support 2. Subsidized canteen support 3. Separate lavaratory for male females 4. Vending machine for females 5. EPF 6. Cool drinking water 7. Maternity leave 8. Group Insurance	1. Medical facilities support 2. Subsidized canteen support 3. Separate lavaratory for male females 4. Vending machine for females 5. EPF 6. Cool drinking water 7. Maternity leave 8. Group Insurance	1. Institutional Scholarships 2. Free Medical facilities support 3. Gymnasiums 4. Yoga Fitness clubs 5. Subsidized canteen support 6. Separate lavaratory for male and females 7. Vending machine for females

6.4 – Financial Management and Resource Mobilization

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

The institution has a pre-defined mechanism for internal and external audit. Once in year external audit is conducted by Government recognized Chartered Accountant. Internal audit is performed twice in a year. Internal audit conducted by the internal auditor of the Institute. At the end of every academic year stock of every department is verified by the team of faculty members from other departments who act as internal auditors. The qualified remarks if any, given by the auditor are taken into consideration for future course of actions. The audited income and expenditure statement for all the previous years are available with accounts section of the institute. Excess fund required for the development is contributed by the management.

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
Susri Plastic Industry (P) Ltd	120000	TECH FEST

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6.4.3 – Total corpus fund generated

1000000

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	UNIVERSITY	Yes	IQAC
Administrative	Yes	UNIVERSITY	Yes	IQAC

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

1. The parent-teacher meeting is conducted every year during Induction programme. 2. Teacher parent cell meeting meet is also organized twice in a year for informing parents regarding the performance of students, attendance and all academic planning with regard to industrial visit, campus recruitment and internships. 3. Parents from industrial sector supports for enhancing industry institute interaction

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

1. Pillars' programme conducted twice a year for support staff. 2. Technical workshop conducted to enhance their technical skill. 3. English communication training conducted. 4. Computer skill training conducted.

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

1. Applying for NBA accreditation 2. Startup and Innovation Cell 3. Consultancy work 4. Research Development Work

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	No
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
2019	Workshop on student solar ambassoder	01/09/2019	02/10/2019	02/10/2019	110

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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
Gender sensitisation program	20/09/2019	20/09/2019	125	87
Womens Day	08/03/2019	08/03/2019	130	Nill
Women Entrepreneurship	13/03/2020	13/03/2020	150	Nill

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

1. Buildings are constructed in such a way to receive natural light and Ventilation. 2. Electric fittings are kept in proper conditions to prevent leakage of electricity. Incandescent lamps have been replaced by CFL and now CFL are being replaced by LED bulbs. 3. ERP software in use is MIS for all academic, students section and examination work, stores, accounts and Establishment 4. Waste paper is sold to vendors for recycling 5. Rejected computers, printers and keyboards in working condition are donated to nearby schools. 6. Use of Tobacco and Cigarettes are strictly prohibited in the college. 7. Junk food is also prohibited in the campus. 8. Solar energy is used as renewable energy source which has reduced the consumption of conventional electricity as below. 9. Solar Water Heating System has been installed in the students Hostels. 10. Roof water harvesting is done and collected water is used for gardening purpose. 11. Hazardous Chemicals are kept separately in the store room away from the reach of students. Chemicals and safety norms in the laboratory are strictly followed. Students are made aware of the hazardous chemicals and safety aspects when they are given instructions before utilizing the chemicals. The labs are well ventilated and spacious and equipped with exhausts. 12. UPS Batteries are recharged/repaired/exchanged with the suppliers. 13. Electronic and computer accessories which are declared "Obsolete" are collected at one place and dispose. 14. e Waste management system is in existence, old spare parts are reused. 15. Green Audit

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	14
Ramp/Rails	Yes	10
Rest Rooms	Yes	200
Special skill development for differently abled students	Yes	8

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	2	2	14/08/2019	2	Traffic awareness	To create awareness about road safety and traffic rules.	120
2019	1	1	02/10/2019	1	Awareness Program on 'Plastic Usage'	Students took part very actively in various a ctivities to raise awareness on bad impacts of plastics at Padamata Z.P High School through visual media. To make a greater impact on school children	60

						to reduce usage of plastics at home.	
2019	1	1	15/11/2019	1	Rain water harvesting	To create awarenees among rural locals about rain water hervesting and benefits.	60
2020	1	1	21/02/2020	1	Covid 19 awareness	To create the awareness among the local peoples about the safety during covid 19 pandemic	40

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7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Handbook on Guidelines of Human values and Professional ethics	10/08/2019	In our Institute, we are conducting several programs related to Human Values and Ethics to enhance the character of the students. It is hoped that because of this effort made by the Institution towards Human Values and Ethics we ensure that the students are made aware of the problems and their possible solutions through self exploration. Also we ensure that the students internalize the fact that they have to respond to situations instead of reacting. At the same time, the Institution will facilitate the students to identify their societal responsibilities. Through the activities conducted an effort is made to rid society from the ills prevalent. Further through these programs we ascertain that the students realize that they have a lot of potential which when realized will propel the society forward in a positive direction.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Yoga Day celebration	21/06/2019	21/06/2019	120
Woman's Day Celebration	08/03/2019	08/03/2019	130
Envirnomental Day	05/06/2019	05/06/2019	150
Engineers Day	15/09/2019	15/09/2019	250
Road Safety Day	11/01/2020	11/01/2020	120
AIDS Day	01/12/2019	01/12/2019	120
Human Rights Day	10/12/2019	10/12/2019	120
Teachers Day	05/09/2019	05/09/2019	120

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

1. Tree plantation 2. Waste water treatment 3. Rain water harvesting 4. Waste to compost 5. Solar Lights

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

BEST PRACTICE-1 Title of the Practice: Mentorship Program Goal 1. Improvement of teacher-student relationship 2. Counseling students and interaction with the students and their parents for problem solving 3. Improving the quality of life of the students in the society. 4. Guiding students to choose right career path for job, higher studies, Entrepreneurship, etc. The Context Now a day's student needs more counseling, because of the changing scenario in the societies. Mentorship programme of the institute guides and counsel the students in academic and non-academic matters including personal domain to achieve their best in life. In particular it helps in addressing the deficiencies in attitudes, habits, and knowledge of the students regarding learning. The improvement of each student is discussed with their parents for further improvement. Many other supporting methods have been introduced for better coordination of lectures, tutorials and practical classes. Advanced tutorials are arranged by the mentors in association with the respective subject teachers and experts focusing problem-based learning of modern technology. Towards the end of semester, students work collaboratively on assignments in small groups in their practical classes. The Practice Each mentor records the performance of each mentee for monitoring and analysis of the practice on regular basis. A batch of 30 students is usually placed under a mentor. Mentor has direct communication with the teacher concerned, HODs and their parents. The Mentors meet the students associated with them once in a fortnight, The Parents/Guardians of poor attendee /

performance students are called to meet the mentors and corrective and preventive actions are implemented for further improvement. The mentors take initiative to arrange remedial and tutorial classes for slow learners. Each mentor maintains the whole student database, which is examined by the HOD and others concerned when necessary. Mentors discuss the academic and non-academic issues. The issues include: good and bad study habits, study planning and techniques how to make the most of lectures and practical classes useful, distractions if any, and how to cope with them what to do when things go wrong examination preparation health issues, etc. In addition, mentors are available even after the college hours, so that students could consult them individually regarding urgent problems they might encounter. Such consultations remain confidential on case basis. Evidence of Success Students' attendance had been found improved after counseling by the mentors. The direct communication between mentor and students has improved the teacher-student relationship. Academic performance results of students have been improved. Participation in extra-curricular activities has been enhanced. Students become more disciplined compared to their beginning sessions. Because of this mentorship the campus is ragging free. Problems Encountered and Resources Required The newly joined faculty members from other colleges who are not accustomed with the culture and instinct of the mentorship scheme are separately educated by the institute to get involved in the mentorship scheme in the right direction. Apart from regular theory and practical classes, allocating sufficient time for one to one student interaction through mentorship program sometimes becomes a constraint for the faculty members. However, the institute encourages and appreciates such activities through the annual appraisal of the faculty members. Financial budgetary requirements has been planned to organize workshops by hiring external experts in the subject of mentorship, organizational behavior and stress management on regular basis. BEST PRACTICE-2 Title of the Practice: Development of Infrastructure and Learning Resources Goal To create learning ambience with respect to physical infrastructure and learning resources. The Context Aim is to provide modern construction and infrastructure of international standards, excellent academic facilities and congenial learning environment. To create stock of learning resources to facilitate academic and research pursuits by latest IT resources and technology. The Practice The institute has provided the best possible facilities in terms of infrastructure required for teaching leaning process and also for administrative purposes. The classrooms, laboratories and tutorial rooms, office spaces are highly conducive for overall academic environment of global standards. Also we offer the best hostel facilities, sports grounds and indoor games to students. The institute has a spacious and well stocked fully automated library with e-journals. The circulation of Books is fully automated. The ICT support services include well equipped technology/science labs and workshops, computer labs with latest hardware/software, technology labs equipped with latest equipment/machines etc. The institute also has a dedicated power backup to avoid disruption of teaching/learning. Evidence of Success The excellent infrastructure has been able to attract students from almost all corners of the country. Easy dissemination of knowledge/information through ICT starting from lecture room experience to exams has greatly helped students and concerned parents. Problems Encountered and Resources Required The greatest problem encountered has been in infrastructure development due to rural surroundings and limitation of space available. In spite of limited space the institute has managed efficiently all its academic infrastructure.

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

https://www.rec.ac.in/upload/BEST-PRACTICE.pdf

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

Our institution is located in a rural area. Many of our students are from villages. Keeping this in mind, our college gives more importance to enhance the skills of the students to face the global challenges. Motivational programmes are conducted to make them aware of the society. Experts from all walks of life, Doctors, Environmentalists, Social activists, legal experts, business people, Human resource managers, sports personalities, and motivational speakers are invited and awareness programmes are conducted to enhance the skills of the students in all aspects to face the society with confidence. Moreover the students are encouraged to face the updated technological developments in the field of science and technology. Students are encouraged to participate in the programmes such as Hackathon and ICT youth Talk. Certificate courses are conducted by certified organization.

Provide the weblink of the institution

https://www.rec.ac.in/upload/INSTITUTIONAL-DISTINCTIVENESS.pdf

8.Future Plans of Actions for Next Academic Year

Institute has been initiating and implementing various activities to assure and improve quality in the different aspects of academics, co-curricular and extracurricular activities, faculty development. Another aspect, institute is focusing is social exposure to students and faculty by conducting extension activities. In view of the vision, mission and core values, institute has planned for following initiatives. 1. To apply for NBA Accreditation for UG

programs. 2. Firm up collaborations to bridge the gap between academia and industry. Industry is the major stake holder of technical institution. Continuous interaction between technical institution and industry is an essential requirement to enhance an employability of engineering graduates. In order to sustain and enhance the interaction with the industries, Institute has planned to focus on interaction with industry with the involvement of every faculty and students as well. More focus through interaction with industry will be to motivate students for industry sponsored projects, for industrial internships and employability. 3. To obtain autonomous status of the Institute. 4. To promote entrepreneurship and innovation through skill development. Institute has developed "Entrepreneurship and Skill Development Cell" and planning for enhanced activities in this area Skill development will be the focused area for enhancing employability of students. 5. To upgrade the laboratory leading to centre of excellence.