



# **ROORKEE INSTITUTE OF TECHNOLOGY**

Managed by : Himalayan Charitable Trust | Approved by : AICTE, Ministry of HRD (Govt. of India)

Affiliated to : Uttarakhand Technical University, Dehradun & Uttarakhand Board of Technical Education,  
Roorkee ,8th Km, Dehradun Road, Puhana, Roorkee - 247667 (Uttarakhand)

Email : ritroorkee@gmail.com Website : www.ritroorkee.com Mob.: 9927099210, 9927099219

## **Mandatory Disclosure**

### **1. Name of the Institution**

**Roorkee Institute of Technology**

8th Km. Dehradun Road,Puhana,Roorkee,District-Haridwar,(Uttarakhand) Pin-247667

Telephone: 01332-234036

Director Office: +91-7055106021

Email- ritroorkee@gmail.com

### **2. Name and address of the Trust/ Society/ Company and the Trustees**

**Himalayan Charitable Trust**

8th Km. Dehradun Road,Puhana,Roorkee,District-Haridwar,(Uttarakhand) Pin-247667

Telephone: 01332-234036

Mobile: +91-9927099220

Email:ritroorkee@gmail.com

### **3. Name and Address of the ~~Vice-Chancellor/Director/Director~~**

**Dr. Parag Jain**

**(Director)**

8th Km. Dehradun Road,Puhana,Roorkee,District-Haridwar,(Uttarakhand) Pin-247667

Telephone: 01332-234036

Mobile: +91-70551506021

Email: director@ritroorkee.com

### **4. Name of the affiliating University**

**Veer Madho Singh Bhandari Uttarakhand Technical University,Dehradun**

### **5. Governance**

#### **Members of the Board and their brief background**

**The Following are the members of Governing Body of Roorkee Institute of Technology:**

1. **CA S.K. Gupta**, Chairman, Roorkee Institute of Technology – A Chartered Accountant & Educationist
2. **Sri. Sanjay Agarwal**, Secretary & Treasurer, Roorkee Institute of Technology - an Educationist by profession & Businessman

3. **Mr. Naman Bansal**, Managing Trustee, Himalayan Charitable Trust
4. **Mr. Yash Aggarwal**, Managing Trustee, Himalayan Charitable Trust
5. **Dr. Onkar Singh**, University Nominee - Vice Chancellor, Veer Madho Singh Bhandari Uttarakhand Technical University, Dehradun.
6. **Mr. R.P. Gupta**, University Nominee – Registrar UTU
7. **Prof. Satyendra Mittal**, Academician, Professor, CE Department, IIT Roorkee
8. **Prof. Rajesh Chandra**, Academician, Ex-Professor, Architecture & Planning Department, IIT Roorkee
9. **Mr. Manoj Aggarwal**, Industrialist - Industrialist Owner at Axa Parenteral Ltd.
10. **Mr. Anil Jain**, Industrialist – Tarang Kinetics
11. **Prof. Parag Jain**, Academician – Director, Roorkee Institute of Technology
12. **Prof. S.C. Gupta**, Academician –Professor, Department of Electronics & Communication Engineering

The Details of Governing Body and Members are available at: <https://www.ritroorkee.com/mandatory-disclosure/>

### **Members of Academic Advisory Body**

The Following are the members of Academic Advisory Body of Roorkee Institute of Technology:

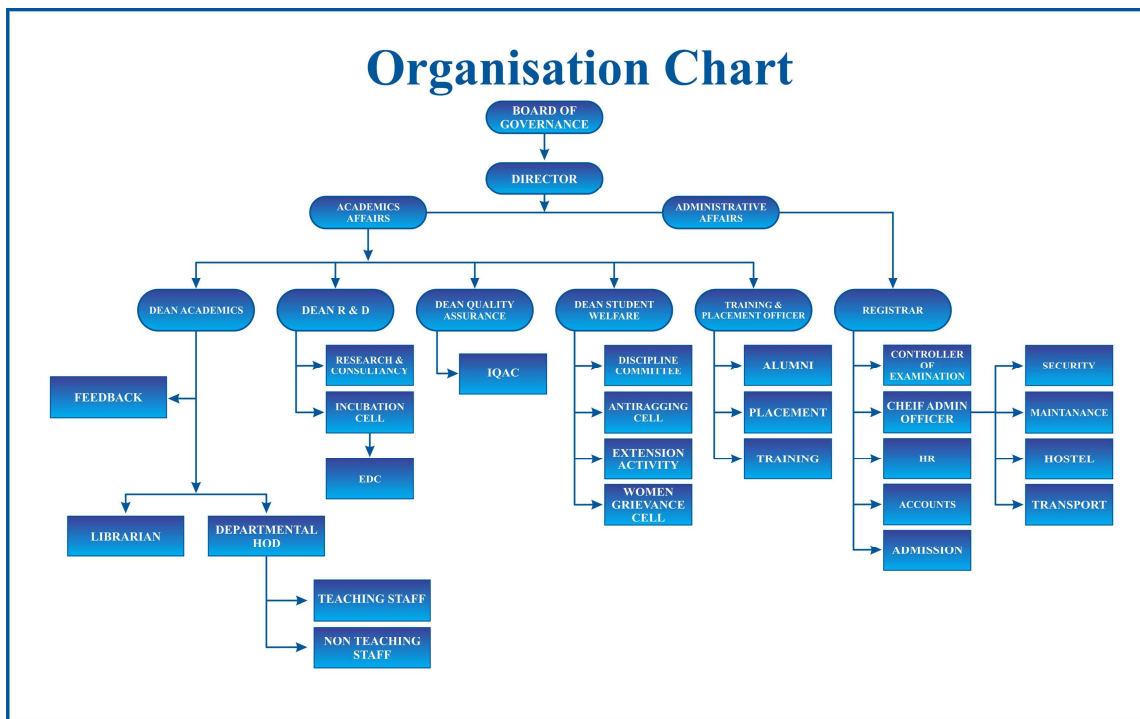
1. **Dr. Parag Jain, Director**, Roorkee Institute of Technology
2. **Mr. Gaurav Chaturvedi**, Dean Academics, Roorkee Institute of Technology
3. **Dr. Lokesh Kumar**, Dean Quality Assurance, Roorkee Institute of Technology
4. **Mr. Ajay Sigh, Head**, Department of Civil Engineering, Roorkee Institute of Technology
5. **Dr. Amit Tanwar, Head**, Department of Mechanical Engineering, Roorkee Institute of Technology
6. **Dr. Deepak Arya, Head**, Department of Computer Science, Roorkee Institute of Technology
7. **Mr. Vishal Sharma, Head**, Department of Electronics & Communication Engineering, Roorkee Institute of Technology
8. **Dr. Shefali Joshi**, Head, Department of Applied Science & Humanities
9. **Dr Amit Rawat, Head**, Department of Management Studies, Roorkee Institute of Technology
10. **Dr Vibhor Sharma**, Dean, Research & Development, Roorkee Institute of Technology

### **Frequently of the Board Meeting and Academic Advisory Body**

The Governing Body meets at least once in an Academic Year,

Academic Advisory Body meets at least twice in an Academic Year.

## Organizational chart and processes



Organisation Chart is shown at: <https://www.ritroorkee.com/mandatory-disclosure/>

<https://www.ritroorkee.com/mandatory-disclosure>

### Organizational Chart

The college has a well-structured organizational structure which clearly shows the people responsible for various tasks and the levels of supervision. The Governing Body is the highest body of the college and it is supreme decision-making body. The Governing Body of the college meets at least once in a year. In the governing body several issues pertaining to various academic and administrative matters were taken up, discussed and appropriate decision would be taken keeping the student development as its central agenda. The Governing Body strongly feels that the students should accomplish their desired goals and thus makes all the efforts (right educational methods - outcome-based education, infrastructure, equipment and tools) to creating a student centric environment. It follows the guidelines laid by the apex bodies like AICTE and UTU and comply them with utmost sincerity. The Governing Body continuously monitors the strategic plan and make suitable advice/direction for the administration to execute the plan.

In addition to the governing body, there are several statutory and other committees are in place to administer various activities related to academic, administrative and extension. Thus, the governance of the college is more participatory and led by the governing body. This ensures holistic growth and development of the student stakeholders. Societal impact and responsibility are given prime importance by the Institute so as to contribute and promote sustainable socio- economic development through globally competitiveness.

The directions / suggestions of the governing body are effectively carried to the next levels by the Director as shown in the organisation chart. Also, HODs, Deans, Registrar other In-charges present their proposals, recommendations, progress to the GB through the Director for the information and necessary approvals from the GB.

## **Nature and Extent of involvement of Faculty and students in academic affairs/improvements**

Regular meetings with Faculty, Students and other stakeholders are conducted to collect the feedback and suggestions on the existing academic matters. Valid Feedback and/or suggestion will be considered for amendments and/or modifications.

## **Mechanism/Norms and Procedure for democratic/good Governance**

The management believes good governance is essential to run an effective system for the growth and development of an institution and enhancing its outcomes. The objective of this focus on decentralization of the governance and delegating responsibilities to various senior functionaries and heads of the departments. This objective promotes inclusiveness and participatory management style of functioning. As an integral part of the governance, the management delegated power (both administrative and academic activities) to the Director and academic heads for smooth running of the institutional activities. The decentralization also helps the decision making with proper authority and financial power. Thus, decentralization has shown a significant impact on the policy making, planning, and management with reference to engineering education. The college includes all the stakeholders while framing various guidelines to fortify the systematic functioning of the college. At the same time, decentralization should be seen as a means of improving the efficiency of the system and its quality. There are several committees, both statutory and other, are in place to administer and effectively govern the institute.

The members of the Governing Body (GB) has responsibility for institutional performance. The chairman and members of the GB are actively engage themselves in the institute developmental activities. All of its decision and policies are made in the best interest of the institution with due consultations with the concerned stakeholders. This top-down approach of the GB not only motivate the stakeholders but also effectively helped the development of institute. The minutes of the governing body, other committees and academic activities are published on the college website as act of transparent governance. The information is also shared with the employees through various meetings and circulars from time to time. Achieving academic excellence requires that the all the responsible people work together with defined role, responsibility and authority. The college organization chart provides an insight into the overall structure and authority with responsibility of various administrators and their levels in the organization.

There are many active committees in the college which work constantly to uphold all- round development of the students. The following are the few operational level decentralization of various activities in vogue in the institution: High Level Committees: The Governing Body and Statutory committees partake in the overall development and growth, policy decisions, financial and disciplinary issues. Middle Level Committees: Director, Deans, Registrar, COE, and HODs partake in rules and regulations, academic development, curricular and co-curricular activities etc. Lower Level Committees: Various committees constituted for purpose of monitoring the policies and rule and regulations of the institutes.

## **Student Feedback on Institutional Governance/ Faculty performance**

Feedback Student is collected on the following,

- i) Feedback on faculty
- ii) Feedback on institutional governance and facilities
- iii) Feedback on Teaching learning

### **i) FEEDBACK ON FACULTY**

- a. Feedback on all courses will be collected through online from the students once in a semester.

- b. Each parameter is measured based on the rating assigned to it i.e., 5 for Strongly Agree, 4 for Agree, 3 for Neutral, 2 for Disagree and 1 for Strongly Disagree. Each parameter average is measured by calculating the average number of students given against each rating. Final feedback of a faculty is measured considering the average rating given against each parameter.

**Five Parameters used to collect the Feedback at the mid of the semester:**

- c. Has the Instructor clearly stated the Learning Outcomes of the course?
- d. Was the class controlled and discipline maintained?
- e. How effective are the communication skills of the Faculty?
- f. Was the Instructor enthusiastic about teaching the class and invited questions and comments from students?
- g. Has the Instructor related course material to real life situations?

**Ten parameters used to collect the feedback at the end of the semester:**

- a. Was the class controlled and discipline maintained?
- b. How effective were the communication skills?
- c. Provides up-to-date information on the topic(s)?
- d. Did the faculty use real world examples and cases?
- e. Was the class interactive and doubts were clarified?
- f. How was the presentation style of the faculty?
- g. Encourages students to solve complex problems in the class?
- h. Makes objective and impartial evaluation of assessments?
- i. Sincerity and commitment towards academic work?
- j. Approachable after class hours for discussion and advice?

**Student Participation Percentage:**

On an average 70% of the students will be participating in the feedback process.

**Feedback analysis Process and Corrective Measures:**

The collected feedback will be analyzed based on the rating given against each parameter of evaluation. Based on the final average of the feedback, corrective measures are taken by:

1. Interacting HOD with the faculty to identify the reasons for not performing well.
2. Providing further guidance in the subject by available senior faculty / other faculty who taught the same subject.
3. Deputing faculty to FDPs if required.

Faculty who get better feedback will be rewarded by giving more weightage in faculty annual self-appraisal for the consideration of the increment

**ii) FEEDBACK ON FACILITIES**

A standard procedure is adopted by RIT for collecting feedback on facilities. The feedback on facilities like classrooms, laboratories, infrastructure, library, sports etc. are collected from students. Collected feedback is analyzed for identifying corrective actions to be taken. On an average 80% of the students will be participating in the feedback process.

**Parameters for collecting feedback on facilities:**

1. Internet facility in the campus.
2. Access to the students and Wi-Fi connectivity.
3. Quality of computer labs in the department /college.
4. Quality and functioning of equipment in the department laboratories.

5. Helpfulness of labs personnel.
6. Overall staff responsiveness in the laboratories.
7. Quality of classrooms in terms of visibility of the board / adequacy of fans and lights in the class/ ventilation.
8. Use of technology in delivering the content.
9. Transport facility to students.
10. Quality of food in the college canteen.
11. Amenities in the hostel.
12. Drinking water facility in the college.
13. Cleanliness and Adequacy of toilets.
14. Games and sports facility.
15. Extra and co-curricular activities.
16. System of internal examination assessment and impartiality in awarding marks.
17. Ambiance of the college.
18. Quality of Training provided for placements.

### **iii) FEEDBACK OF TEACHING LEARNING PROCESS**

1. How well the teacher prepares for the class?
2. How well the teachers communicate?
3. How much of the syllabus is being covered by the end of the semester?
4. Was your performance in assignments and tests discussed with you by the concerned teacher?
5. RIT takes active interest in promoting internship, student exchange, field visit opportunities for students.
6. The teaching and mentoring process in your institution facilitates you in cognitive, social and emotional growth.
7. Teachers are able to identify your weaknesses and help you to overcome them.
8. The institution makes effort to engage students in the monitoring, review and continuous quality improvement of the teaching learning process.
9. The RIT faculty use student centric methods, such as experiential learning, participative learning and problem solving methodologies for enhancing learning experiences.
10. Teachers encourage you to participate in extracurricular activities like games, sports, professional society activities.
11. What percentage of teachers use ICT tools such as LCD projector, Multimedia, etc. while teaching.

The overall quality of teaching-learning process at Roorkee Institute of Technology is very good.

### **Grievance Redressal mechanism for faculty, staff and students**

The college has grievances and redressal cell for the faculty, staff and students to address issues pertaining to facilities, teaching learning process, discrimination or any other related. There are separate cells for these wings which are headed by the Director, a senior faculty as convener and other senior faculty being the members.

These Grievance Redressal committees are formed to look in to the complaints received from the aggrieved. A Compliant Boxes are provided at Office of Director and in the departments for students and faculty to lodge their complaints separately. The convener of the committee will consolidate the complaints received from all the students, faculty and staff. This will be presented before the committee which meets regularly depending upon the need. The committee recommends corrective

measures to be taken and recorded in the register. Provision is also given to send the complaints to ritroorkee@gmail.com & at the following links: <https://ritroorkee.com/student-grievance-cell/>

### **Establishment of Anti Ragging Committee**

The institute has established Anti-Ragging Committee as per the guidelines of the Apex Bodies. The committee is recently reconstituted and approved by the Governing Body in its Meeting held on 09-05-2021.

### **Establishment of Online Grievance Redressal Mechanism**

The institute has Online Grievance Redressal facility. Any aggravated student can report issues through the college website ([www.ritroorkee.com](http://www.ritroorkee.com))

Establishment of Grievance Redressal Committee in the Institution

The institute has established Grievances and Redressal Committee as per the guidelines of the Apex Bodies. The committee is recently reconstituted and approved by the Governing Body in its Meeting held on 09-05-2021.

### **Establishment of Internal Complaint Committee (ICC)**

The institute has established Internal Complaint Committee (ICC) as per the guidelines of the Apex Bodies. The committee is recently reconstituted and approved by the Governing Body in its 22nd Meeting held on 09-05-2021.

### **Establishment of Committee for SC/ ST**

The institute has established SC/ST Committee as per the guidelines of the Apex Bodies. The committee is recently reconstituted and approved by the Governing Body in its 22nd Meeting held on 09-05-2021.

### **Internal Quality Assurance Cell**

The Internal Quality Assurance Cell (IQAC) of the institution is a cell which continuously monitors the quality practices and ensures all the institutional academic policies thoroughly followed as prescribed by the apex bodies. The prime responsibility of IQAC is to initiate, plan and supervise various activities that are obligatory to increase the quality of the education imparted in the college. The role of IQAC in maintaining quality standards in teaching-learning processes and evaluation becomes crucial. The IQAC Cell strategically ensures the quality of teaching-learning practices through stringent initiatives and measures taken such as Faculty Self-Appraisal, FDPs, and Training Programs for Non-Teaching, Workshops on OBE, Conference Educational Reforms, Setting Quality Bench Marks, Key Performance Indicators, Auditing and Impact Mentoring, and Academic and Administrative Audit. Thus the IQAC monitors the continuous quality improvement of the academic processes. The two best practices and bench marked processes of the College are Key Performance Indicators, and Setting the quality Bench Marks.

Key Performance Indicators: The performance of a department is based on various parameters that play a key role in the assessment of quality. The assessment for quality improvement is done

regularly and report is generated for all the departments every month, every semester and every year. Few Parameters on which the quality is measured are the academic performance of the students, success rate of the students, academic audits, number of publications done and the quality of the journal in which it is published, include the number of faculty awarded PhDs degree in that year, number of funded research projects, total grants received, patents applied and granted. Besides these impetus is also given to consultancy works and faculty's contribution to writing books.

Setting the quality Bench Marks: The IQAC has initiated a standard for setting a performance at two levels viz the Faculty level and the Department Level. First bench mark set for the faculty are based on the number of papers published in International Journals of repute like IEEE, Elsevier, another being Doctorates form a cluster and work together for publications and also write proposals for funding projects, Faculty refresher courses, one week or FDP program guiding at least two UG projects, pursue online certificate courses, student's feedback and maintenance of academic performance index (API) score. The bench marks on which the departments assessed are, the no of paper publications maintained with a minimum set at 1:1 ratio, funding projects starting with minimum 20 Lakhs per annum, consultancy work with minimum 20 lakhs PA, Faculty Development Programmes, Workshops, Hands-on Training Programmes, Higher education guidance, Student publications, Student Innovations, Student hardware working porotypes, Outcome-based education, computing CO-PO attainment and analyzing the impact of the TLP in deriving the outcomes, Increasing success rate of the students right from the first year. In order to gauge the true reflection of the activities carried out by the performance metric used in strategic management to identify and improve various internal functions, departmental score was devised and used to measure efficiency and effectiveness of the processes.

The institute has established IQAC Committee as per the guidelines of the Apex Bodies. The committee is recently reconstituted and approved by the Governing Body in its 22nd Meeting held on 09-05-2021.

## 6. Programmes

### Name of Programmes approved by AICTE

SN o	Program	Level	Course
1.	ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING
2.			ELECTRONICS AND COMMUNICATION ENGINEERING
3.			COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)
4.			MECHANICAL ENGINEERING
5.			CIVIL ENGINEERING
6.			ELECTRICAL ENGINEERING
7.		POST GRADUATE	ELECTRICAL ENGINEERING
8.			PRODUCTION ENGINEERING
9.			STRUCTURAL ENGINEERING & CONSTRUCTION
10.	MANAGEMENT	POST GRADUATE	MBA
11.	COMPUTER APPLICATION	POST GRADUATE	MCA



NAAC Accreditation Status		
1	<del>Accredited</del>	
2	Applied for Accreditation	IIQA SUBMITTED
	<del>A. Applied but Visit not happened</del>	
	<del>B. Visit happened but result awaited</del>	
3	<del>Not Applied</del>	

**For each Programme the following details are to be given:**

- *Name*
- *Number of seats*
- *Duration*
- *Cut off marks/rank of admission during the last three years*
- *Fee*
- *Placement Facilities*
- *Campus placement in last three years with minimum salary, maximum salary and average salary*

Course	<b>UG - B. Tech – Computer Science and Engineering</b>		
Number of seats	150		
Duration	4 Years		
Cut off PCM marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	45	45	45
Fee	Rs. 1,07,900		
Placement Facilities	Yes		

Course	<b>UG - B. Tech – Computer Science and Engineering(Artificial Intelligence &amp; Machine Learning)</b>		
Number of seats	60 ( <i>From the AY 2022-2023</i> )		
Duration	4 Years		
Cut off PCM marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	45	<i>Not Applicable</i>	<i>Not Applicable</i>
Fee	Rs. 1,17,900		
Placement Facilities	Yes		

Course	PG - M. Tech – Electrical Engineering		
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Course	UG - B. Tech – Electronics and Communication Engineering		
Number of seats	60		
Duration	4 Years		
Cut off PCM marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	45	45	45
Fee	Rs. 1,07,900		
Placement Facilities	Yes		

Course	UG - B. Tech – Electrical Engineering		
Number of seats	30		
Duration	4 Years		
Cut off PCM marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	45	45	45
Fee	Rs. 1,07,900		
Placement Facilities	Yes		

Course	UG - B. Tech – Mechanical Engineering		
Number of seats	30		
Duration	4 Years		
Cut off PCM marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	45	45	45
Fee	Rs. 1,07,900		

Course	UG - B. Tech – Civil Engineering		
Number of seats	30		
Duration	4 Years		
Cut off PCM marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
Fee	Rs. 1,07,900		
Placement Facilities	Yes		

Number of seats	24		
Duration	2 Years		
Cut off B.TECH marks of admission during the last three years	2022-2021	2021-2020	2020-2019
	50	50	50
Fee	Rs. 80,000		
Placement Facilities	Yes		

Course	PG - M. Tech – Production Engineering		
Number of seats	24		
Duration	2 Years		
Cut off B.TECH marks of admission during the last three years	2022-2021	2021-2020	2020-2019
	50	50	50
Fee	Rs. 80,000		
Placement Facilities	Yes		

Course	PG - M. Tech – Structural Engineering & Construction		
Number of seats	18		
Duration	2 Years		
Cut off B.TECH marks of admission during the last three years	2022-2021	2021-2020	2020-2019
	50	50	50
Fee	Rs. 80,000		
Placement Facilities	Yes		

Course	PG - MBA – Master of Business Administration		
Number of seats	60		
Duration	2 Years		
Cut off Graduation marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	50	50	50
Fee	Rs. 163400		
Placement Facilities	Yes		

Course	PG - MCA – Master in Computer Application		
Number of seats	60		
Duration	2 Years		
Cut off Graduation marks % of admission during the last three years	2022-2021	2021-2020	2020-2019
	50	50	50
Fee	Rs. 72,000		

Placement Facilities	Yes
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**Name and duration of Programme(s) having Twinning and Collaboration with Foreign University(s) and being run in the same Campus along with status of their AICTE approval. If there is Foreign Collaboration, give the following details:**

**Details of the Foreign University**

- Name of the University
- Address
- Website
- Accreditation status of the University in its Home Country
- Ranking of the University in the Home Country
- Whether the degree offered is equivalent to an Indian Degree? If yes, the name of the agency which has approved equivalence. If no, implications for students in terms of pursuit of higher studies in India and abroad and job both within and outside the country
- Nature of Collaboration
- Conditions of Collaboration
- Complete details of payment a student has to make to get the full benefit of Collaboration

**Roorkee Institute of Technology is not offering any Programme(s) having Twinning and Collaboration with Foreign University(s).**

**For each Programme Collaborated provide the following:**

- Programme Focus
- Number of seats
- Admission Procedure
- Fee
- Placement Facility
- Placement Records for last three years with minimum salary, maximum salary and average salary

**Not Applicable**

**Whether the Collaboration Programme is approved by AICTE? If not whether the Domestic/Foreign University has applied to AICTE for approval**

**Not Applicable**

**7. Faculty**

**Course/Branch wise list of Distinguished Faculty Members**

**Branch wise list of Distinguished Faculty Members is available at the following links:**

- Department of CSE: <https://ritroorkee.com/department/computer-science-and-engineering/>  
 Department of ECE: <https://ritroorkee.com/department/electronics-communication-engineering/>  
 Department of EE: <https://ritroorkee.com/department/electrical-engineering/>

Department of ME: <https://ritroorkee.com/department/mechanical-engineering/>

Department of CE: <https://ritroorkee.com/department/civil-engineering/>

Department of MBA: <https://ritroorkee.com/department/business-administration/>

Department of AS&H <https://ritroorkee.com/department/applied-science-humanities/>

### **Adjunct Faculty**

Currently no adjunct Faculty are associated with the college.

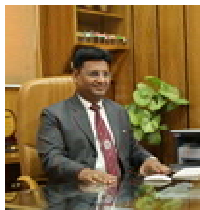
### **Permanent Faculty: Student Ratio**

Permanent Faculty Student Ratio is 1:15

### **Number of Faculty employed and left during the last three years**

<b>Academic Year</b>	<b>Total Number of Faculty Employed</b>	<b>Number of Faculty Joined</b>	<b>Number of Faculty Left</b>
<b>2022-2021</b>	98		
<b>2021-2020</b>	95		
<b>2020-2019</b>	103		

## 8. Profile of Director, Dr Parag Jain



*Dr. Parag Jain*

A progressive and dynamic leader of the team of young engineers Dr. Parag Jain is the Director of RIT. An M.Tech and Ph.D in computer science, he has the distinction of working as a research scholar under the guidance of internationally acclaimed emeritus Prof. Dr. S.C. Gupta, ex Professor Indian Institute of Technology, Roorkee. He has thirty international and nine national research papers to his credit which were published in reputed International & National Journals. Apart from his administrative assignments Dr. Parag Jain is continuously contributing to academic and research pursuits wherein eight Ph.D. research scholars are researching under him in Uttarakhand Technical University. He has been guiding projects at institute level also and owing to his excellent guidance, the model submitted by RIT undergraduate students in “Texas Instruments Innovation Challenge India Design Contest 2015” has won laurels, and he has received the Certificate of Appreciation for mentoring the students for their outstanding model. He has attended many International Conferences, Seminars, Workshops and Faculty Development Programmes on cloud computing, effective use of teaching tools in the class room, and policy based IP creation and management etc. in IIT Roorkee. He also attended “Cloud Computing Security Issues and Challenges : A Review”, and International Conference on Systemics, Cybernetics and Informatics (ICSI-2017) under the aegis of Pentagram Research Centre India, Avtar MedVision US., LLC., NC., USA held at State Gallery of Art Madhapur, Hyderabad.

Dr. Parag Jain has more than fifty Patents registered in his name and his more than fifty research papers have been published in international journals authored by him. He has authored one book, and wrote seven chapters. In the last 17 years, while working for Roorkee Institute of Technology, his entire focus was on doing the best for his Director organisation RIT. During his journey of academic year 2021-22, he managed to accomplish his goal of winning Seven awards, establishing six centers of excellence, encouraging RIT faculty to concentrate on their research and publish research papers, get patents and avail govt/non govt funded projects thereby motivating the students of RIT to participate in national level Hackathon and win accolades by the end of academic year 2021-22. Many milestones have been crossed in the process and it is satiating to note that he succeeded in touching the limits of excellence and over-achieved his goal.

Dr Parag Jain has been awarded by AICTE –UKIERI’s Technical Education leadership Development Programme (TELDP) AICTE, British Council UK-India Education and Research initiative under UKIERI’s Technical Education Leadership Development Programme conducted by the faculty from Dudley College, England he has earned CMI Level – 5 award in Management and Leadership with credits 5, Level 5, U.K.

His major accomplishments are;

- \* "Best Research Award for the year 2022", Certificate of Recognition awarded by DG of Education in Singapore
- \* Director of the Year Award 2022 conferred by Divya Himgiri, Uttarakhand Council of Science & Technology and Uttarakhand Technical University,  
presented by Hon'ble Chief Minister of Uttarakhand Shri Pushkar Singh Dhami
- \* Delivered many Guest Lectures/ Expert Talks on Cyber Security, Artificial Intelligence, Research Opportunities etc.
- \* Participant of 6 Days Workshop in Indian School of Business Hyderabad.
- \* Participated in MDP on Managing Start-up Incubation and Ecosystem held at IIM Lucknow from 2nd to 6th March 2020.
- \* "Best Research Award for the year 2022", Certificate of Recognition awarded by GEH Research, Japan

### Profile of the Faculty:

Profile of each faculty member is available at department wise at the following links:

Department of CSE: <https://ritroorkee.com/department/computer-science-and-engineering/>

Department of ECE: <https://ritroorkee.com/department/electronics-communication-engineering/>

Department of EE: <https://ritroorkee.com/department/electrical-engineering/>

Department of ME: <https://ritroorkee.com/department/mechanical-engineering/>  
Department of CE: <https://ritroorkee.com/department/civil-engineering/>  
Department of MBA: <https://ritroorkee.com/department/business-administration/>  
Department of AS&H: <https://ritroorkee.com/department/applied-science-humanities/>

## 9. Fee

### Details of Fee, as approved by State Fee Committee, for the Institution

The details of Fee, as approved by State Fee Committee, for the Institution is available at:  
<https://ritroorkee.com/admissions-process/fee-structure/>

### Time schedule for payment of Fee for the entire Programme

01<sup>st</sup> July of every year

## Academic Scholarships - (2022-23)

Following are the academic Scholarships: (All the scholarships are available for limited seats only)

B.Tech

RIT offers Scholarships to all meritorious students who perform well in their 12th (10+2) Board examination and seeking admission in RIT:

Students securing 90% and above aggregate of PCM Rs. 30000/-  
Students securing 80% to 89.9% aggregate of PCM Rs. 20000/-  
Students securing 70% to 79.9% aggregate of PCM Rs. 10000/-

JEE Based Scholarships

Scholarships are provided to students who have secured well in their JEE Examinations:

Rank 1 – 50000	Rs. 68000/-
Rank 50001 – 100000	Rs. 34000/-
Rank 100001 – 300000	Rs. 20400/-
Rank 300001 – 600000	Rs. 13600/-

B.Tech Lateral Entry Students

Scholarships are available to all deserving lateral entry candidates who seek admission in RIT and do well in Diploma examinations:

Students securing 70% and above aggregate of Diploma/B.Sc	Rs. 25000/-
Students securing 60% to 69.9% aggregate of Diploma/B.Sc	Rs. 20000/-
Students securing 50% to 59.9% aggregate of Diploma/B.Sc	Rs. 10000/-

MCA Lateral Entry

Scholarships will be given to all meritorious students who secure the following percentage of marks in BCA/B.Sc. (Comp. Science) or equivalent degree as per AICTE Norms:

Students securing 70% and above aggregate of BCA/B.Sc(CSE)/IT	Rs. 25000/-
Students securing 60% to 69.9% aggregate of BCA/B.Sc(CSE)/IT	Rs. 20000/-
Students securing 50% to 59.9% aggregate of BCA/B.Sc(CSE)/IT	Rs. 10000/-

MBA

Scholarships will be given to all meritorious students who secure the following percentage of marks in Graduation or equivalent degree as per AICTE Norms:

Students securing 80% and above aggregate of Graduation Rs. 30000/-

Students securing 70% to 79.9% aggregate of Graduation Rs. 25000/-

Students securing 60% to 69.9% aggregate of Graduation Rs. 15000/-

Sports Scholarships

RIT Roorkee believes in recognizing students passionate about sports. Following are the Sports Scholarships: (All the scholarships are available for limited seats only)

An applicant should have received the sports certificates at any of the four levels- School, District, State, and National. RIT offers Scholarship for sports Quota students who have done well in their sport and seeking admission in RIT in any branch/stream.

The sports Quota scholarship is given as mentioned below-

- Students who have played at national level may receive 50% scholarship on tuition fee.
- Students who have played at state level may receive 30% scholarship on tuition fee.
- Students who have played at District level may receive 20% scholarship on tuition fee.
- Students who have played at School level receive 10% scholarship on tuition fee

Sports Certificates should be of the year of admission.

~~Further, Through RIT Tuition Fee Remission (VTFR) wards of RIT staff members are provided with 20% of fee remission.~~

### **Estimated cost of Boarding and Lodging in Hostels**

Estimated Cost of Boarding and Lodging in Boys Hostel per annum - Rs. 68,000

Estimated Cost of Boarding and Lodging in Girls Hostel per annum – Rs. 68,000

### **Any other fee please specify**

Nil

## **10. Admission**

### **Number of seats sanctioned with the year of approval**

SNo	Course	Year of Approval	2023-2022	2022-2021	2021-2020
1.	UG - B.Tech. - COMPUTER SCIENCE AND ENGINEERING	2005	120	120	120
2.	UG - B.Tech. - COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)	2022	60	NA	NA
3.	UG - B.Tech. - ELECTRONICS AND COMMUNICATION ENGINEERING	2005	60	60	60
4.	UG - B.Tech. - ELECTRICAL ENGINEERING	2012	30	60	60



SNo	Course	Year of Approval	2023-2022	2022-2021	2021-2020
5.	UG - B.Tech. - MECHANICAL ENGINEERING	2006	30	60	60
6.	UG - B.Tech. - CIVIL ENGINEERING	2011	30	60	60
7.	PG - M.Tech. - ELECTRICAL ENGINEERING	2013	24	24	24
8.	PG - M.Tech. – PRODUCTION ENGINEERING	2013	24	24	24
9.	PG - M.Tech. – STRUCTURAL ENGINEERING & CONSURATION	2011	18	18	18
10.	PG – MBA – MASTER OF BUSINESS ADMINISTRATION	2006	60	60	60
11.	PG – MCA – MASTER IN COMPUTER APPLICATION	2006	60	60	60

**Number of Students admitted under various categories each year in the last three years**

SNo	Course	Total Number of Students Admitted under Various categories		
		2022-23	2021-2022	2020-2021
1.	UG - B.Tech. - COMPUTER SCIENCE AND ENGINEERING	153	124	126
2.	UG - B.Tech. - COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)	62	NA	NA
3.	UG - B.Tech. - ELECTRONICS AND COMMUNICATION ENGINEERING	24	28	26
4.	UG - B.Tech. - ELECTRICAL ENGINEERING	0	7	7
5.	UG - B.Tech. - MECHANICAL ENGINEERING	3	5	0
6.	UG - B.Tech. - CIVIL ENGINEERING	13	13	12
7.	PG - M.Tech. - ELECTRICAL ENGINEERING	0	1	2
8.	PG - M.Tech. – PRODUCTION ENGINEERING	0	1	2
9.	PG - M.Tech. – STRUCTURAL ENGINEERING & CONSURATION	9	10	09
10.	PG – MBA – MASTER OF BUSINESS ADMINISTRATION	43	15	17
11.	PG – MCA – MASTER IN COMPUTER APPLICATION	37	17	8

**Number of applications received during last two years for admission under Management Quota and number admitted**

Year	Number of Applications Received	Number Admitted
2020-2021	298	268
2019-2020	321	250

### **11. Admission Procedure**

Roorkee Institute of Technology, Roorkee is approved by All India Council of Technical Education (AICTE), New Delhi. It is affiliated to UTU, Dehradun. Entire admission process for First Year Engineering, direct second year Engineering is managed by UTU, Dehradun and Directorate of Technical Education and institute strictly follows rules laid by AICTE/UTU.

#### **Admission Notification:**

- Every year, the UTU publishes the information regarding admission process on its website (<http://www.uktech.ac.in>) and in admission brochure.

#### **Seat Allotment:**

- The merit list in all categories is prepared by university on the basis of applications received and scores secured by candidate in the qualifying examination (JEE). Allotment of seats is based on State and Category merit number generated by university and preference is given by the candidate.
- First Year Engineering 85% (35% ALL INDIA & 50% STATE) of total seats are filled through centralized admission process controlled by the UTU.
- 15% seats are filled at institute level, as per the guideline given by the AICTE/UTU.
- Reservations applicable for various categories belonging to Uttarakhand State are considered while allotting the seats through online system of **Centralized Admission Process (UKSEE)**.
- Supernumerary seat TFWS (Only for B.E./B.Tech. courses) :- **In addition to these 5% of total intake capacity over and above the sanctioned strength in each of the institution will be reserved for TFWS (Tuition Fee Waiver Scheme).**

**The reservations of supernumerary seats are subjected to fulfillment of the conditions laid by the AICTE for the session 2022-23.**

The admission to the candidates as per Prime Minister's Special Scholarship Scheme (PMSSS) for the students belonging to Jammu and Kashmir and the scheme of Government of India of allocation of Supernumerary seats in AICTE approved colleges to North Eastern States and UT's which lack in such facilities of Technical Education shall be done by the competent authorities appointed by the Central Government as per their eligibility criteria.

#### **Direct Admission to Second Year Engineering (Lateral Entry).**

- All seats are filled through College controlled by the VMSBUTU.
- Reservations applicable for various categories belonging to Uttarakhand State are considered while allotting the seats through online system.
- Lateral Entry Seats: 10% of Sanctioned Intake, which will be over and above, Supernumerary

to the approved Intake. (ii) Vacant Seats: The seats, within the sanctioned intake, which remain vacant during previous year.

- The final fee approved and published by fee regulating authority for that year shall be the fee payable by the candidate for that course for that academic year.

**Stepwise procedure for admission through centralized admission process for UG & PG courses:**

1. Notification of admission by the UTU.
2. Filling online application form by candidate for participation in UKSEE counseling.
3. Based on the marks scored in 12<sup>th</sup> (Board Examination) & JEE Exam UKSEE will announce the merit rank list for UG Courses.
4. Based on the marks scored in Graduation & GATE/MAT/CAT Exam UKSEE will announce the merit rank list for PG Courses.
5. Confirmation of online Application Form and Document Verification at facilitation centre (approved by UTU, Uttarakhand) by the candidate.
6. Display of Provisional Merit list.
7. Submission of grievances at facilitation centre if any.
8. Display of final merit list.
9. Display of available category wise seats (Seat Matrix) for UKSEE round 1
10. Filling up and confirmation of online option form having preferences of courses and institutions before UKSEE round I
11. Reporting and accepting the offered seat as per the allotment of the UKSEE Round 1 by the candidate at allotted college within stipulated time.
12. Display of available category wise seats for UKSEE round 2.
13. Repeat step 8 to 11 for UKSEE round 2.
14. Reporting and confirmation of by candidate at Institute in respective branch after 1, 2 and 3 (if allotted seat is freeze).
15. Display of available category wise seats for UKSEE round 3.
16. The Round 3 is conducted by institute itself on the Based on the marks scored in 12<sup>th</sup> (Board Examination) & JEE Exam
17. Commencement of courses as per UTU academic calendar schedule

**Stepwise procedure of Institute Level Admission for UG/PG courses:**

1. Information brochure or prospectus of the Institute is published well before the commencement of process of admission.
2. Notification of admission process by Institute in local and National Newspapers/ website inviting applications from aspiring candidates
3. Filling of institute applications forms by eligible candidates.
4. Verifying all required documents.
5. Preparing merit list of candidates to be filled in the Institute level.
6. Display of branch wise/Course wise merit list of eligible candidates.
7. Reporting and confirmation of admission by eligible candidates in respective branch.
8. If any UKSEE seat remains or becomes vacant after the UKSEE round, then the same is filled on the basis of inter-merit of the candidates.

## 12. Information of Infrastructure and Other Resources Available

### 12.1 Number of Class Rooms and size of each

The institution has 41 class rooms. The details and size of each room are shown in the below table.

SNo.	Room No.	Details	Carpet area (in sq m)
1	C-206	CSE CLASS ROOM-1	66
2	C-208	CSE CLASS ROOM-2	66
3	C-210	CSE CLASS ROOM-3	66
4	C-212	CSE CLASS ROOM-4	66
5	C-214	CSE CLASS ROOM-5	66
6	C-216	CSE CLASS ROOM-6	66
7	C-302(A)	ECE CLASS ROOM-1	66
8	C-302(B)	ECE CLASS ROOM-2	66
9	C-303(A)	ECE CLASS ROOM-3	66
10	C-301	EE CLASS ROOM-1	66
11	C-303(B)	EE CLASS ROOM-2	66
12	C-304(A)	EE CLASS ROOM-3	66
13	C-304(B)	EE CLASS ROOM-4	66
14	C-305(A)	EE CLASS ROOM-5	66
15	C-108	ME CLASS ROOM-1	66
16	C-112	ME CLASS ROOM-2	66
17	C-114	ME CLASS ROOM-3	66
18	C-116	ME CLASS ROOM-4	66
19	B-39	ME CLASS ROOM-5	66
20	C-02	1 YR CLASS ROOM-1	66
21	C-04	1 YR CLASS ROOM-2	66
22	B-01	1 YR CLASS ROOM-3	66
23	B-02	1 YR CLASS ROOM-4	66
24	B-03	1 YR CLASS ROOM-5	66
25	B-31	CE CLASS ROOM-1	66
26	B-32	CE CLASS ROOM-2	66
27	B-33	CE CLASS ROOM-3	66
28	B-37	CE CLASS ROOM-4	66
29	B-38	CE CLASS ROOM-5	66
30	A-27	MBA CLASS ROOM-1	66
31	A-28	MBA CLASS ROOM-2	66
32	C-202	MCA CLASS ROOM-1	66
33	C-204	MCA CLASS ROOM-2	66

## Number of Tutorial rooms and size of each

The institution has 8 tutorial rooms. The details and size of each room are shown in the belowtable.

SNo.	Room No.	Details	Carpet area (in sq m)
1	A-23	CSE CLASS ROOM-1	66
2	A-26	CSE CLASS ROOM-4	66
3	A-27	CSE CLASS ROOM-5	66
4	A-28	ECE CLASS ROOM-6	66
5	A-29	EE CLASS ROOM-7	66
6	A-23	CE CLASS ROOM-3	66
7	A-30	M1 CLASS ROOM-8	66
8	A-31	MBA CLASS ROOM-9	66

## Number of Laboratories and size of each

The institution has 30 Laboratories. The details and size of each room are shown in the belowtable.

SNo.	Room No.	Details	Carpet area (in sq m)
1	B-15	CSE LAB-1	66
2	B-16	CSE LAB-2	66
3	B-26	CSE LAB-3	66
4	B-27	CSE LAB-4	66
5	B-28	CSE LAB-5	66
6	A-15	CSE LAB-6	66
7	C-201	ECE LAB-1	66
8	C-203	ECE LAB-2	66
9	C-205	ECE LAB-3	66
10	C-213	ECE LAB-4	66
11	C-215	ECE LAB-5	66
12	C-211	ECE LAB-6	66
13	C-11	EE LAB-1	66
14	C-12	EE LAB-2	66
15	C-13	EE LAB-3	66
16	C-14	EE LAB-4	66
17	C-103	ME LAB-1	66
18	C-104	ME LAB-2	66
19	C-106	ME LAB-3	66
20	C-110	ME LAB-4	66
21	C-111	ME LAB-5	66
22	C-113	ME LAB-6	66
23	C-115	ME LAB-7	66
24	B-21	CE LAB-1	66
25	B-22	CE LAB-2	66
26	B-23	CE LAB-3	66
27	B-39	CE LAB-4	66
28	B-40	CE LAB-5	66
29	B-11	1 Yr APPLIED PHYSICS LAB-1	66
30	B-12	1 Yr APPLIED CHEMISTRY LAB-1	66

### Number of Drawing Halls with capacity of each

The institution has 2 Drawing Halls. The details and size of each hall is shown in the below table.

SNo.	Room No.	Details	Capacity	Carpet area (in sq m)
1	C-306	DRAWING HALL - 1	60	132
2	C-307	DRAWING HALL - 2	40	80

### Number of Computer Centres with capacity of each

The institution has 2 Computer Centres. The details and size of each Computer Centre is shown in the below table.

S No.	Room No.	Details	Capacity	Carpet area (in sq m)
1	B-15	COMPUTER CENTRE-1	90	150

S No.	Room No.	Details	Capacity	Carpet area (in sq m)
2	B-26	COMPUTER CENTRE-2	50	150

### Central Examination Facility, Number of rooms and capacity of each

The institute has central examination facility with 3 rooms. The details and size of each room is shown in the below table.

SNo.	Room No.	Details	Capacity	Carpet area (in sq m)
1	C-206	STRONG ROOM	1	30
2		CONTROLLER OF EXAMINATION OFFICE	4	40
3		DISTRIBUTION AND COLLECTION ROOM	1	40

### Online examination facility (Number of Nodes, Internet bandwidth, etc.)

For online examination college is having 413 nodes with 500 Mbps bandwidth. UPS Backup facility and additionally supported with Diesel Generators.

### Barrier Free Built Environment for disabled and elderly persons

It has been felt that differently-abled persons need special arrangements in the RIT College premises for their mobility and independent functioning. RIT has architectural barrier free environment that disabled persons find easy for their day-to-day functioning. The college addresses the accessibility relevant issues as per the stipulations of the Persons with Disabilities Act 1995. All the existing infrastructure in the college is disabled-friendly and RIT ensures that the future construction will also be based on the principle of inclusion. The institute has special facilities such as Wheel chairs, Walkers, Lifts, Ramps, Hand Rails, Special Toilets, and other necessary changes to meet the needs of differently-abled persons.

**1. Physical Facilities:** The classes for differently abled students are conducted on the ground floor for their convenience. Mobility devices like Wheel Chairs and Walker are made available in major buildings.

**2. Provision for lift:** Lift is provided in Block 1 which is interconnected with other two blocks.



**3. Rest Rooms:** Rest rooms are provided with clean and hygienic conditions in every building block. The rooms are constructed in the ground floor for the convenience of the students.

**4. Scribes for examination:**

RIT provides scribes for differently abled students if required during examinations. as per the UTU and AICTE rules of examinations.

AICTE: F.No.AICTE/e-Gov/230/2015-16- Disable friendly examination centre for candidateswith disabilities – Order of Court of Chief Commissioner for Persons with Disabilities

**5. Any other Facilities:**

- i. First Aid and Sick Room is made available in the ground floor of Block-1 room No. B-07 with stretcher and bed along with doctor.
- ii. Ambulance facility is made available in the campus in case of any emergency.
- iii. RIT provides guidance and counselling to differently abled individuals and assist them to



gain successful employment in the public as well as private sectors.

- iv. RIT conducts awareness programmes for faculty about the approaches to teaching, evaluation procedures, etc, which they should address in the case of differently-abled students.
- v. College buses are arranged with extra door step to support physically challenged persons.

### Fire and Safety Certificate

कार्यालय मुख्य अग्निशमन अधिकारी जनपद हरिद्वार।  
ल-cfohdr.ukfs@gmail.com  
आंक: न-10(2)/सीएफओ-आर/2022  
फोन नं०-01334-265700  
दिनांक सितम्बर 10, 2022।

प्रधानाचार्य/प्रबन्धक  
हिमालयन चेरिटेबल ट्रस्ट  
C/O रूडकी इन्सटिट्यूट ऑफ टेक्नोलॉजी,  
8 Km देहरादून रोड, पुहाना, रूडकी, जनपद हरिद्वार।

विषय: अग्निशमन सुरक्षा सम्बन्धी अनापत्ति प्रमाण पत्र के **Annual Clearance** के सम्बन्ध में।

कृपया आपके आवेदन यूनिट नम्बर-60031466, दिनांक: 30.08.2022 जो कि Uttarakhand Fire and Emergency Services के वेब पेज पर प्राप्त हुआ है, के अनुसार अग्निशमन सुरक्षा व्यवस्था का निरीक्षण प्रभारी फायर स्टेशन रूडकी द्वारा किया गया। प्रभारी फायर स्टेशन रूडकी की निरीक्षण आख्या के अनुसार अग्निशमन सुरक्षा व्यवस्था अग्निजोखिम के अनुरूप संतोषजनक पायी गयी। समस्त अग्निशमन यन्त्र कार्यशील दशा में है तथा नवीनीकरण किये जाने की संस्तुति की गयी है।

उपरोक्त भवन में कुल G+3 तल है। जिसके प्लान का क्षेत्रफल 41,500.00 वर्ग मी० है तथा उक्त भवन का क्षेत्रफल (Covered Area) 33,186.00 वर्ग मी० है। भवन/संस्थान की ऊँचाई 12 मी० है। भवन/संस्थान में बेसमेन्ट है/ नहीं है, जिसका क्षेत्रफल.....वर्ग मी० है।

अतः उत्तराखण्ड शासन, गृह अनुभाग-03 की अधिसूचना संख्या-342/XX-3/2021-2(39)2006 देहरादून दिनांक: 29 नवम्बर, 2021 के अनुपालन में दिनांक: 10 सितम्बर 2022 से 09 सितम्बर 2025 (3 वर्ष) तक के लिये प्राथमिक अग्नि उपकरणों सम्बन्धी कार्यशीलता प्रमाण-पत्र प्रदान किया जाता है कि निम्न शर्तों का पालन किया जाये।

1. सभी बाहर निकलने या बचाव के रास्ते तथा सीढ़ियाँ प्रत्येक दशा में अवरोध मुक्त रखी जाये।
2. शिक्षण संस्थान के सभी शिक्षक/कर्मचारियों को उपलब्ध अग्निशमन यन्त्रों का तथा सुरक्षित निष्क्रमण (Evacuation) प्रक्रिया का ज्ञान होना आवश्यक होगा।
3. सभी अग्निशमन यन्त्रों को कार्यशील दशा में रखने की जिम्मेदारी प्रबन्धन की होगी। अग्निशमन यन्त्रों की स्थापना का अर्थ यह नहीं लगाया जाए कि अग्निकाण्ड की घटना नहीं हो सकती है। अतः प्रबन्धन को अग्निनिरोधक उपाय सदैव करते रहना चाहिए।
4. भवन/संस्थान में विद्युत यन्त्रों की स्थापना, वेंटीलेशन, स्ट्रक्चर, स्टेबिलिटी, सैट बैक एरिया व निर्माण Land Use Change में बदलाव आदि का सत्यापन सम्बन्धित अधिकारी से कराया जाए।
5. इस अनापत्ति प्रमाण पत्र का उपयोग अवैध निर्माण को नियमित करने के लिए नहीं किया जा सकता।
6. संस्थान की अग्निशमन व्यवस्था के कार्यशील होने का स्व-घोषण प्रमाण पत्र/ Audit Report प्रति छः माह में प्रस्तुत/अपलोड करना अनिवार्य होगा।
7. यदि उपरोक्त अग्निशमन अनापत्ति प्रमाण पत्र से सम्बन्धित भवन या अधिमोग के आकार, प्रकृति, प्रयोजन या स्थान के किसी प्रकार का कोई परिवर्तन किया जाता है, तो अग्नि सुरक्षा प्रमाण पत्र नये सिरे से लिया जाना अनिवार्य होगा।
8. संस्थान में अग्निशमन सुरक्षा व्यवस्था निर्धारित मानकों/एन.बी.सी 2016 के भाग 04 की गाईड लाईन के अनुसार सदैव अद्यतन (Update) स्थिति में रखा जाना जीव रक्षा एवं राष्ट्रीय सम्पत्ति की सुरक्षा के हित में आवश्यक है।

(नरेन्द्र सिंह कुँवर)  
मुख्य अग्निशमन अधिकारी  
हरिद्वार।

प्रतिलिपि: प्रभारी फायर स्टेशन रूडकी को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

### Hostel Facilities

The institute has separate Boys Hostel and Girls hostel facility. The Boys hostel has 194 Rooms with a total Capacity of 479. The Girls hostel has 60 Rooms with a total Capacity of 164.

**These hostels are having the following facilities:**



- Internet Facility
- Cafeteria Facility
- RO Purified Drinking Water
- Laundry
- 24X7 Security, CCTV Surveillance,
- Solar Fencing and In-House Warden
- A sanitary napkin vending machine and an incinerator are available to maintain health and hygiene
- Round the clock ambulance service
- Inward and the outward movements are registered and allowed only with the prior information from the parents
- For fitness of girls along with boys there is a separate high-quality equipment of games, sports, and gym is provided
- Anti-Ragging Vigilance
- Medical & other Facilities at Hostel
- Resident Doctor
- 24X7 ambulance facility.
- MoU with nearest multispecialty emergency hospital.

## Library

### Number of Library books/ Titles/ Journals available (program-wise)

Programme/Course	No. of Titles	No. of Volumes	No. of National Journals	No. of International Journals	No. of e-Journals/ Online Journals	No. of e-Book Titles	No. of e-Book Volumes
Engineering & Technology	4985	26030	72	0	DELNET	300	2181
Management	310	1710	17	0		25	502
MCA	305	1645	16	0		25	532

## E- Library facilities

The Central Library provides digital content to the user community (students & faculty) for updating their pedagogy and learning beyond curriculum through the library webpage <https://ritroorkee.com/life-at-rit/infrastructure/library/> which access of OPAC (Online Public Access Catalogue), World e-Book Library (e-Books), NPTEL & SWAYAM web & video courses, SWAYAM Prabha (32 DTH Channel for Education), National Digital Library of India (NDL), memberships of DELNET, N- List and British Council Library, and other Open Educational Resources (OERs).

### National Digital Library(NDL) subscription details

NDLI Club Subscription ID: INTGNCW4HWSRLVW

#### Laboratory and Workshop

- *List of Major Equipment/Facilities in each Laboratory/ Workshop*
- *List of Experimental Setup in each Laboratory/ Workshop*

## Computing Facilities

## **Internet Bandwidth**

The institute has internet connection with a bandwidth of 600 Mbps.

## **Number and configuration of System**

The institute has a total number of 413 Computers.

## **Total number of system connected by LAN**

All 413 computers of the institute are connected by LAN.

## **Major software packages available**

The institute has 3 System Software and 65 Application Software.

## **Special purpose facilities available (Conduct of online Meetings/Webinars/Workshops, etc.)**

1 Lecture Video Recording Studio Room, 210 Seating Auditorium with Silver Screen and Cinema Projector and multimedia systems, Video conferencing rooms with A-View software.

## **Facilities for conduct of classes/courses in online mode (Theory & Practical)**

### **Innovation Cell**

Centre for Innovation and Entrepreneurship (CIE) at Roorkee Institute of Technology is established to promote and support technology-based entrepreneurship spirit among the graduated and graduating students of RIT. CIE. ROORKEE INSTITUTE OF TECHNOLOGY wishes to facilitate the creation of ideas and inventions that benefit society.

In Incubation program at CIE, we support Innovation and Entrepreneurship aspirants with funding opportunities, mentoring support, nurturing ideas and help these aspirants to start their unique startups and entrepreneurship journey. Our virtual incubator is accessible to all the aspirants and can operate from anywhere in India. In CIE we support Early-stage startups, Mid to large-sized companies with developed ideas by identifying the challenges they are facing and provide proper guidance to get started or scale-up the initiative. Our world-class Mentorship team help our Incubated startups to brainstorm, pitch and reach the desired Goals with increased productivity and impact.

In CIE Roorkee Institute of Technology, we organise a series of Entrepreneurship Development Workshops and Entrepreneurship Awareness Camps to Identify and guide early-stage ideas and startups with required skills, network and support. We have partnered with WADHWANI Foundation to help our incubated entrepreneurs to network with startups and leaders who are creating an impact in the fields. We received immense guidance, funds and support from DST - NIMAT, MSME, Entrepreneurship Development Institute of India, INOVATION CELL to help our incubated startups to acquire skills and scale-up their ventures.

We have recently partnered with T - Hub and implementing their flagship program (T-Tribe) where we support idea-stage startups, build skills and help entrepreneurship aspirants to get knowledge from basics. Till date, we have many startups who won National and International

awards for the Socio Economical Impact they have created under the training and guidance from our Incubation centre.

All these success stories help us to stay motivated and help more entrepreneurship aspirants to start their own startup journey.

### **Social Media Cell**

Roorkee Institute of Technology is active on various Social Media Platforms like Facebook, Twitter and Instagram. The institute can be reached on social media on the following links.

Facebook: <https://www.facebook.com/roorkeerit/>

Instagram: <https://www.instagram.com/ritroorkee2005/2hl=en>

### **Compliance of the National Academic Depository (NAD), applicable to PGCM/ PGDM Institutions and University Departments**

Not Applicable

### **List of facilities available**

#### **Games and Sports Facilities**

##### **Indoor Games and Sports facilities available:**

RIT provides an on-campus sports environment matching global standards to all its students. The students are encouraged to take part in indoor & outdoor games and sports as the sports constitute an integral part of the education. Besides providing physical and mental discipline, they inculcate students with team spirit, discipline, sportsmanship and self-confidence.

Our main motive is to maximize access, development and excellence especially to girls at all levels of participation in sports in order to improve social cohesion.

##### **Indoor Sports:**

Indoor games / activities like Table Tennis, Chess, Carom, Snooker are provided by the institute.

##### **Outdoor sports:**

RIT has a huge sports ground. There are well equipped gym and sports kits. Students are encouraged to participate in various zonal and inter-zonal tournaments; they are paid daily allowances and travelling expenses. Students are provided with various sports kits and equipments. They participate in inter collegiate and inter University matches.

Annual Sports Meet 'SPORTECH' is celebrated every year with various sports events like Long Jump, athletic race, Volleyball, Table Tennis, Cricket, Chess, Carom, Soccer, Badminton, Basketball, Kabbadi and many more.

The college has a four-acre play ground for outdoor games. Every year the college conducts State level Tournaments in Volleyball, Basketball, Cricket and Foot ball in the college campus. The college conducts interdepartmental sports activities and sports day. The college students regularly participate in intercollegiate and other private tournaments at different venues.

Institute has following facilities:

- Volley Ball Court
- Tennis Court
- Basket Ball Court
- Foot Ball Court
- Cricket Ground
- Badminton
- Yoga and Meditation
- Self-Defense Training for Girls
- Gym and Aerobics

## **Extra-Curricular Activities**

To provide a common platform for students to explore their inherent talents through extra-curricular activities the following clubs are formed under the Student Affairs division.

The pressures of a highly demanding curriculum can get to even the best of students.

The diversity of students from overseas and access the country provides an exciting and stimulating environment to learn and grow.

SWAR is a student's body, run by the students to enhance their inbuilt event

SWAR embodies fine divergent clubs,

Namely UDAAN, UTTHAN, URJA, UTTPRERNA and UNNATI.

Each club is maintained by a committee of students under the supervision of EXTENSION Committee Head who is wholly responsible for the smooth functioning of the body.

Student Affairs division continuously organised various events under these clubs for encouraging students talent.

## **Soft Skill Development Facilities**

Many of the students enter the portals of the institution are from the first-generation families who look for a job immediate as career option after completion of their graduation. The challenge here is that their eligibility for a campus placement opportunity (the industry expects a minimum of 60% marks at both 10th and 12th standards). The college is totally concern about this. In order to facilitate the students to improve their academic performance and communication skills the college felt there is need for continuous skill building activity. Accordingly, a dedicated student skill development cell was established in the year 2017. The main objective of the Skill Development Cell is to bridge the gap between academia and industry and train the students on the required skill sets. Students are trained on employability skills to suit the requirement of the industry.

The institute hires skilled trainers specialized in various fields related to the requirements of the job market. The students are trained in areas of Aptitude knowledge, Quantitative theory, Soft Skill and Technical Skills. These trainers offer courses for the 2nd and 3rd year students for the semester and the syllabus is designed accordingly to suit the requirement of the job market. Apart from the regular classes, students are also provided the industry related training for 15 days or weekly based on the student's requirements. Gradually the trainers were taken on rolls and on full time job in order to spare more time and focus for the training and imparting skills. The impact of this shown a gradual increase in the placements due to persistent efforts in preparing and training the students for employability. Most of our students before they graduate, get job offers from companies of repute like, Cap-Gemini, Tata Consultancy Services, Amazon, Salesforce, Wipro and several others.

There are several students who opt for the internship, however, the students don't have a clear idea of how to get the internship and the various assessment processes. Hence, the Student Skill Development Cell assist such students to go through the process and help them to attend and clear the interview. Some of our graduates prefer going for the higher studies in the foreign universities, however, they cannot afford to go without the scholarship. Hence, they need to appear for various test like GRE, TOFEL, PTE, IELTS etc, the trainers also extend helping hand and personal guidance to the desired students for achieving success in the test. The cell also extends its reach to the staff and faculty in aiding to improve their communication and connect with the industry for fetching a professional internship during the semester breaks. Since the Student Skill Development Cell also offers the assistance to the faculty/staff it is named as competency

Development Cell (CDC) in the year 2018. The cell is headed by a senior faculty in the capacity associate dean of the institute. The competency development cell focusses on gathering the requirement of students, staff and faculty through various surveys and identify the gaps and offer suitable services for enhancing the competencies of the concerned.

## Teaching Learning Process

### Curricula and syllabus for each of the Programmes as approved by the University

Curricula and syllabus for each of the Programmes as approved by the University is available at

<https://uktech.ac.in/courses/>

### Academic Calendar of the College

Academic Calendar of the College is available at: <https://ritroorkee.com/academic-calendar/>

### Academic Time Table with the name of the Faculty members handling theCourse

Department Wise Academic Time Tables are available at college ERP

### Teaching Load of each Faculty

13. Department Wise FACULTY Teaching load are available at college ERP

## Internal Continuous Evaluation System and place

### ASSESSMENT

#### Assessment Tools

The academic performance of a student shall be evaluated course-wise by using the assessment tools as mentioned below:

Type of Course	Assessment Tools										
	CIE Marks								SEE Marks		
	CIE1		CIE2		AVG	A&A		CIE Total	SEE		SEE Total
	T	P	T	P	CIE1 & CIE2	T	P		T	P	
Theory Course	30	-	30	-	30	20	-	50	100	-	100
Practical Course	-	20	-	0	30	-	-	20	-	30	30

**Table: Assessment Tools for Regular Courses**

**T: Theory; P: Practice; A&A: Attendance & assignment**

The assessment of Internship/Mini-Project/Project Work (Phase-I)/Project Work (Phase-II) is done as per university syllbus.

The assessment of audit courses (non-credit) is through semester end examination for 100marks. Students are eligible to apply for re-valuation if he/she fails in any particular course.


## Students' assessment of Faculty, System in place

### Academic Calendar and frame work

Academic Calendar of Roorkee Institute of Technology are available at:

<https://ritroorkee.com/academic-calendar/>

### Academic Calendar frame work:



## ROORKEE INSTITUTE OF TECHNOLOGY

Managed by : Himalayan Charitable Trust | Approved by : AICTE, Ministry of HRD (Govt. of India)  
Affiliated to : Uttarakhand Technical University, Dehradun & Uttarakhand Board of Technical Education, Roorkee  
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Date: 01.08.2022

**B.TECH/ M.TECH / M.C.A. / M.B.A.**  
**ACADEMIC CALENDAR**  
**(ODD SEMESTER 2022-23)**

S.N	ACTIVITY	DATE	DAY
1	Registration of B.Tech 4 <sup>th</sup> year (all branches), MBA/MCA/M.Tech 2 <sup>nd</sup> Year students	6 August 2022	Saturday
2	Commencement of Classes Session 2022-23 of B.Tech 4 <sup>th</sup> year (all branches), MBA/MCA/M.Tech 2 <sup>nd</sup> Year students	8 August 2022	Monday
3	Registration of B.Tech 3 <sup>rd</sup> year (all branches) students	12 August 2022	Friday
4	Commencement of Classes Session 2022-23 of B.Tech 3 <sup>rd</sup> year (all branches)	16 August 2022	Tuesday
5	Registration of B.Tech 2 <sup>nd</sup> year (all branches), MBA 1 <sup>st</sup> year students	20 August 2022	Saturday
6	Commencement of Classes Session 2022-23 of B.Tech 2 <sup>nd</sup> year (all branches) MBA 1 <sup>st</sup> year students	22 August 2022	Monday
7	Registration of B.Tech 1 <sup>st</sup> year (all branches), MCA 1 <sup>st</sup> year Students	29 to 31 August 2022	Monday-Wednesday
8	Induction Program	1 to 10 September 2022	Thursday-Saturday
9	Commencement of Classes Session 2022-23 of B.Tech/M.Tech/MBA/MCA (1 <sup>st</sup> Year)	12 September 2022	Monday
10	Engineers Day	15 September 2022	Thursday
11	Vishwakarma Pujan	17 September 2022	Saturday
12	Showing Attendance list (2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> Year)	01 October 2022	
13	Showing Debarred list of students (2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> Year) before CIE 1	4 October 2022	Tuesday
14	CIE 1 (Sessional 1 <sup>st</sup> ) (2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> Year)	6 Oct – 10 Oct 2022	Thursday-Monday
15	Showing answer sheets to students(2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> Year)	12 October 2022	Wednesday
16	Showing Attendance list (1 <sup>st</sup> Year)	12 October 2022	Wednesday
17	Showing Sessional Marks on Notice Board & Letter Dispatch	14 October 2022	Friday
18	Showing Debarred list of students (1 <sup>st</sup> Year) before CIE 1	15 October 2022	Saturday
19	CIE 1 for 1 <sup>st</sup> Year (Sessional 1 <sup>st</sup> )	17 October-21 October 2022	Monday-Friday
20	Showing answer sheets to students	22 October 2022	Saturday
21	Showing Sessional Marks on Notice Board & Letter Dispatch	27 October 2022	Thursday
22	Sports	9 to 13 November 2022	Wednesday-Sunday
23	Registration of Student for External Exam	14 November 2022	Monday
24	Online filing of University examination form	18 November-25	Friday-Friday

**Vision**  
To be an Institute of Academic Excellence committed to provide Technical and Management Education.

**Mission**  
To provide excellence in education and skills development by encouraging the students to be lifelong learners.  
To facilitate the environment of growth and excellence of its students in their respective areas of interest.  
To create a community of dynamic workers and learners that values personal development and mutual well being.  
To undertake collaborative projects which offer opportunities for interaction with academia and industry.



## 16. Enrollment and Placement details of students in the last 3 years

SNo	Course	No. of Students Admitted			No. of Placement Offers		
		2020-2021	2019-2020	2018-2019	2020-2021	2019-2020	2018-2019
1.	UG - B.Tech. - COMPUTER SCIENCE AND ENGINEERING	153	124	126			
2.	UG - B.Tech. - COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)	62	NA	NA			
3.	UG - B.Tech. - ELECTRONICS AND COMMUNICATION ENGINEERING	24	28	26			
4.	UG - B.Tech. - ELECTRICAL ENGINEERING	0	7	7			
5.	UG - B.Tech. - MECHANICAL ENGINEERING	3	5	0			
6.	UG - B.Tech. - CIVIL ENGINEERING	13	13	12			
7.	PG - M.Tech. - ELECTRICAL ENGINEERING	0	1	2			
8.	PG - M.Tech. – PRODUCTION ENGINEERING	0	1	2			
9.	PG - M.Tech. – STRUCTURAL ENGINEERING & CONSURATION	9	10	09			
10.	PG – MBA – MASTER OF BUSINESS ADMINISTRATION	43	15	17			
11.	PG – MCA – MASTER IN COMPUTER APPLICATION	37	17	8			

## 17. List of Research Projects / Consultancy Works

### Number of Projects carried out, funding agency, Grant received

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments in the institution during the last five years (INR in Lakhs)								
Sr. No.	Name of the research project/endowment	Name of the Director Investigator/Co-investigator	Department of Director Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non-Government)
<b>Year 2021-22</b>								
1	Gas Detection & Alerting System using ARDUINO-UNO	Dr. Mohit Payal(AP-PI), Mr. Vishal Sharma( AP CO-PI), Upasna Morya, Sakshi , Aman Kumar, Amerjeet Kumar Aman(Students)	Department of Electronics & Communication Engineering	2022	15000		AXA PARENTALS LTD.	NON-GOVERNMENT
2	Digital Farming: A smart farming aid	Dr. Parag Jain(AP PI), Mr. Gaurav Chaturvedi(AP Co-PI), Shaktisha Yadav, Harshita Srivastava, Kapil Agarwal(ECE)(Students)	Department of Computer Science Engineering	2022	10000		AXA PARENTALS LTD.	NON-GOVERNMENT
3	RVM-Reverse Vending Machine	Mr. Pankaj Singh (AP-PI), Mr Narendra Bansal(AP Co-PI), Harshit Kumar Singh(Student)	Department of Mechanical Engineering	2022	10000		AXA PARENTALS LTD.	NON-GOVERNMENT
4	StandBeast Spy Robo	Mr. Pankaj Singh(AP PI), Dr. Amit Kr Tanwar(AP CO-PI) , Wansha Dalin Marwien, Ruben Deccurze, Aditya Sagar(Students)	Department of Mechanical Engineering	2022	15000		CLEENA INDUSTRIES PVT.LTD.	NON-GOVERNMENT
5	Ensuring Safety for Minors	Dr Vibhor Sharma(AP-PI), Dr. Meenu Rani(AP CO-PI), Kapil Agarwal, Rachna Kumri, Nitesh Kr., Mansi Shekhawat	Department of Electronics & Communication Engineering	2022	10000		CLEENA INDUSTRIES PVT.LTD.	NON-GOVERNMENT
6	ARMOK: Robotic Arm Model	Dr. Meenu Rani(AP-PI), Mr. Vishal Sharma( AP CO-PI), Priyanka Kumari(Student), Dikshant Bohra(Student), Shubhanker Suman(Student),	Department of Electronics & Communication Engineering	2022	10000		CLEENA INDUSTRIES PVT.LTD.	NON-GOVERNMENT



		Manisha Kumari(Student), Nivesh Pratap Singh(Student)						
7	Smart Attendance & Report System	Mr. Aman Kumar(AP), Pulkit Saini(Student), Swati Gupta(Student), Vansh Raj(Student)	Department of Computer Science Engineering	2022	15000		TECHNICO N DEVELOPERS PVT.LTD.	NON-GOVERNMENT
8	Model for Leaching Proof Garbage Dumbing Yard	Dr Amrendra Kumar(AP PI), Ravi Kumar Chaudhary(AP Co-PI), Bhavesh Kumar, Viveswan Singh, Karan Kumar, Prem Kumar, Nongmaithem Chelsea Devi, Samukhcham Kaiba(Students)	Department of Electronics & Communication Engineering	2022	10000		TECHNICO N DEVELOPERS PVT.LTD.	NON-GOVERNMENT
9	MOSCA BITAN: Capturing Flying Insects	Dr. Amna Bedi(AP-PI), Ms. Puja Sharma(AP CO-PI), Maryam Ansari(Student), Riya Srivastava(Student), Sufiyan Ahmad Khan(Student),Md Muzammil Haider(Student), Krishna Sharma(Student)	Department of Electronics & Communication Engineering	2022	10000		TECHNICO N DEVELOPERS PVT.LTD.	NON-GOVERNMENT
10	Smart ID Card for Live Location Tracking	Dr. Deeak Arya (Prof. PI)	Department of Computer Science & Engineering	2022	1.5 Lakh	1 Year	RIT Seed money policy 2020-21	NON-GOVERNMENT
11	Smart Video based Real Time Security System	Mr. Gaurav Gupta (AP-PI)	Department of Computer Science & Engineering	2022	2.0 Lakh	1 Year	RIT Seed money policy 2020-21	NON-GOVERNMENT
12	Smart Assistive Navigation System	Dr. Parag Jain (Prof. PI)	Department of Computer Science & Engineering	2022	1.5 Lakh	1 Year	RIT Seed money policy 2020-21	NON-GOVERNMENT
13	Artificial Intelligence based Smart Secure Eye	Mr. Aman Kumar (AP-PI)	Department of Computer Science & Engineering	2022	1.0 Lakh	2 Years	RIT Seed money policy 2020-21	NON-GOVERNMENT
14	Smart Assistive	Mr. Gaurav Chaturvedi (AP-PI)	Department of Computer	2022	1.0 Lakh	1 Years	RIT Seed money	NON-GOVERNMENT

	App for Soil Testing and Health Monitoring		Science & Engineering				policy 2020-21	NT
15	Smart Energy Meter using LoRa-WAN (EC)	Mr. Vishal Sharma (AP-PI)	Department of Electronics & Communication Engineering	2022	0.9 Lakh	1 Years	RIT Seed money policy 2020-21	NON-GOVERNMENT
16	Impact of Gasoline and Bioethanol Blends on Combustion Performance using IC Engine (EC)	Dr. Sakendra Kumar (AP-PI)	Department of Mechanical Engineering	2022	0.4 Lakh	1 Years	RIT Seed money policy 2020-21	NON-GOVERNMENT

**Year 2020-21**

1	Being Solar City Futurestic Mobile App	Mr. Gaurav Chaturvedi(AP PI), Dr. Deepak Arya(CO-PI), Anurag Gupta, Somrupa Sarkar(CSE Students)	Department of Computer Science Engineering	2021	<b>7000</b>		Tarang Kinetics Pvt. Ltd.	NON-GOVERNMENT
2	Intelligent Street Lights On-OFF on the object movement	Gaurav Gupta (AP PI), Dr Deepak Arya(AP CO PI), Love Verma(CSE), Swapnil Suman(CSE) (Student)	Department of Computer Science Engineering	2021	<b>7000</b>		Tarang Kinetics Pvt. Ltd.	NON-GOVERNMENT
3	Manage Using IoT Plug & Play Point	Dr. Parag Jain(PI), Dr Deepak Arya(Co-PI), Manu Chaudhary(CSE), Tushar Barnwal(CSE) Students	Department of Computer Science Engineering	2021	<b>10000</b>		CLEENA INDUSTRIES PVT.LTD.	NON-GOVERNMENT
4	A system to detect and report real-time accidents and method thereof	Dr. Parag Jain(PI), Dr Deepak Arya(Co-PI), Ayushi Sinha(CSE),	Department of Computer Science Engineering	2021	<b>10000</b>		CLEENA INDUSTRIES PVT.LTD.	NON-GOVERNMENT
5	Stock Market and Trading	Dr. Parag Jain(AP PI), Mr. Praveen Verma(AP Co-PI), Khusboo, Sourav Deb(CSE Students)	Department of Computer Science Engineering	2021	<b>7000</b>		TECHNICON DEVELOPERS PVT.LTD.	NON-GOVERNMENT

	Algorithmic using Machine Learning.							
6	IoT Based Robot Doctor to advise the healthcare processes	Dr. Deepak Arya (Professor-PI) Mr. Vishal Sharma (AP CO-PI) Sonali (CSE Student)	Department of Computer Science Engineering	2021	7000		BRITE PAPER PRODUCTS	NON-GOVERNMENT
7	Design and Modeling of Hybrid Fuel Cells for Green Energy	Dr. Madhvendra Saxena (AP PI) Mr. Rachan Karmakar (AP CO-PI) Priya Singh, Pankaj Dhiman (ME Students)	Department of Mechanical Engineering	2021	7000		SES INSTRUMENTS PVT.LTD.	NON-GOVERNMENT
8	Development of PICO Turbine for Uttarakhand Rural Region	Dr. Madvendra Saxena (AP PI) Dr. Rachan Karmakar (AP CO-PI) Pankaj Dhiman, Priya Singh (ME Students)	Department of Mechanical Engineering	2021	7000		SES INSTRUMENTS PVT.LTD.	NON-GOVERNMENT
9	Seamless and Continuous domination Surveillance of any territory	Dr. Abhay Bhatia (AP PI) Dr. Lokesh Kumar (AP CO-PI) Sudhanshu Chand, Jashandeep Kaur (CSE Students)	Department of Computer Science Engineering	2021	7000		AXA PARENTALS LTD.	NON-GOVERNMENT
10	$\beta$ -glucosidase-catalyzed bioethanol production from de-juiced sugarcane and its performance test in SI engine	Dr. Rachan Karmakar(AP PI), Dr Madhavendra Saxena(AP CO-PI), Priya Singh(ME Student)	Department of Mechanical Engineering	2021	7000		AXA PARENTALS LTD.	NON-GOVERNMENT
11	Dorebot-A Step toward Humanity	Dr. Parag Jain, Mr. Gaurav Chaturvedi	Department of Computer Science Engineering	2021	98500		PATH INFOTECH LTD.	NON-GOVERNMENT
<b>Year 2019-20</b>								
1	Concrete Block with Earth filled Plastic Water Bottle	Mr. Ajay Singh (Prof.-PI)	Department of Civil Engineering	2019	1.1 Lakh	2 Years	TEQIP-III NPIU	GOVERNMENT

2	Development and Demonstration of Ethanol Fuel in 4 Stroke Gasoline Engine	Mr. Nitin Kumar (AP-PI)	Department of Mechanical Engineering	2019	2 Lakh	2 Years	TEQIP-III NPIU	GOVERNMENT
3	Asset Tracking with Lora Module	Mr. Vishal Sharma (AP-PI)	Department of Electronics & Communication Engg.	2019	1.5 Lakh	2 Years	TEQIP-III NPIU	GOVERNMENT

**Publications of Patents in last three years**

**Year 2021-22**

S.No.	Title	Application No.	Faculty Name	Department	Status(Filed/Published/Granted)	Date of Filing	Date of Publication/Grant
1	Cyber Threat Detection Using Deep Learning.	202211027591	Dr. Deepak Arya, Saurabh Bhardwaj, Praveen Kr. Verma, Bhanu Priya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Aman Kumar, Dr. Mohit Payal, Gaurav Gupta, Gaurav Chaturvedi	CSE	Published	13-May-22	3-Jun-22
2	LGP Gas Leakage Detection Kit.	202211033356	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Deepak Arya, Vishal Sharma, Gaurav Chaturvedi, Munendra Chauhan, Bhanu Priya, Puja Sharma	CSE	Published/Awaiting Request for Examination	10-Jun-22	24-Jun-22
3	Voice alert Rain Sensing Kit	202211033357	Dr. Deepak Arya, Vishal Sharma, Dr. Parag Jain, Dr. Vobhor Sharma, Dr. Meenu Rani, Naman Bansal, Yash Agarwal, Gaurav Gupta, Somrupa Sarkar, Nikhil Kirola	CSE	Published/Awaiting Request for Examination	10-Jun-22	24-Jun-22
4	ASW Data Lake Notification Using Machine Learning.	202211027590	Dr. Manish Kumar, Dr. Sachin Singh, Chesi Sen, Anil Kumar, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Abhishek Jain, Shailja Bhardwaj, Divya Jain,	CSE	Published	13/05/2022	3-Jun-22

			Neha Kumari				
5	Fever Decreased Using Composition of (Honey, Ginger Etc.)	20221103353	Dr. Rachan Karmakar, Dr. Piyush Mani Maurya, Dr. Shailja Joshi, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Garima Chandna, Dr. Sachin Srivastava, Dr. Dinesh Kumar, Dr. Yuvraj Yadav, Avika Rathi	Chemistry	Published	10-Jun-22	24-Jun-22
6	Formulation of A Polyherbal Handwash With Potential Antibacterial Activity.	202211027587	Dr. Rachan Karmakar, Dr. Swati Bhardwaj, Ritu Jain, Amod Krishna, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Pankaj Kumar, Manoj Kumar, Amit Saini, Sailesh, Shani Patel	Chemistry	Published	13-May-22	3-Jun-22
7	Seawater Separation Process and Method.	202211027585	Ajay Singh, Ayush Sangal Dr. Amrendra Kumar, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Swati Dhiman, Raman Sharma, Dr. Rahul Kumar, Kumari Shivani, Ayush Raj	CE	Published	13-May-22	3-Jun-22

8	IoT- Based Robot Doctor to Advise the Healthcare Processes	202211027588	Dr. Deepak Arya, Vishal Sharma, Puja Sharma, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Munendra Chauhan, Shaleen Jain, Dr. Meenu Rani, Sanket, Sonali	ECE	Published	13/05/2022	3-Jun-22
9	Supersonic Aircraft With Spike to Reducing Sonic Boom	202211033115	Dr. Amit Tanwar, Narendra Bansal, Munendra Chauhan, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Abhay Bhatia, Puja Sharma, Dr. Meenu Rani, Vishal Sharma, Dr. Deepak Arya, Aman Kumar	ME	Published	9-Jun-22	24-Jun-22
10	Simulation of Self-Balancing Solar Energy Storage System.	202211027592	Dr. Pavan Gangwar , Dr. Sandhya Prajapati, Munendra Chauhan, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Rishabh Singhal, Jyoti Badola, Vishal Sharma, Deepak Kumar, Puja Kumari, Dr. Neeraj kumar	EE	Published	13-May-22	3-Jun-22
11	Manage Using Iot Plug and Play Point.	202211033355	Bhuvnaswer Swaroop, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Deepak Arya, Mr. Amit Rawat, Shailja Bhardwaj,	ECE	Published	10-Jun-22	24-Jun-22



			Rishabh Singhal, Roopam Arora, Megha Bhatia, Vedita Agarwal				
12	Environment-Friendly Connected Vehicle Driven Using Hybrid Renewable Energy.	202211027583	Dr. Amit Tanwar, Pankaj Singh, Narendra Bansal, Dr. Piyush Mani Maurya, Ashutosh Sheel, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Amna Bedi, Harshit Gautam	EE	Published	13-May-22	3-Jun-22
13	Stock Market and Trading Algorithmic Using Machine Learning.	202211027589	Dr. Deepak Arya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Aman Kumar, Gaurav Chaturvedi, Praveen Kr. Verma, Rohan Walia, Ankur Saini, Swati Gupta, Gopi Dhiman	CSE	Published	13-May-22	3-Jun-22
14	Quantum Computing Machine Learning	202211027586	Dr. Parag Jain, Dr. Deepak Arya, Naman Bansal, Yash Agarwal, Aman Kumar, Gaurav Chaturvedi, Praveen Kr. Verma, Bhanu Priya, Mongome Roy, Ashish Savita	CSE	Published	13-May-22	3-Jun-22
15	Amazon's Product Recommendations Using Deep Learning.	202211027584	Gaurav Chaturvedi, Bhuenaswer Swaroop, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr.	CSE	Published	13-May-22	3-Jun-22

			Sachin Singh, Mohd. Mursleen, Gaurav Gupta, Amit Kumar, Tanya Verma, Ankur Saini				
16	Voice Based Robotic Vehicle	202211027582	Dr. Madhavendra Saxena, Dr. Sakendra Kumar, Dr. M.J. Nigam, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Rajvardhan, Dr. Aruna Bhat, Ritu Jain, Subhasini Singh, Priya Singh	ECE	Published	13-May- 22	3-Jun- 22
17	Blood Oxygenator Detection in Your Mobile.	202211033354	Dr. Deepak Arya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Munendra Chauhan, Dr. Mohit Payal, Dr. Neeraj Kumar, Praveen Verma, Bhanu Priya, Chelsi Sen, Abhishek Jain	CSE	Published	10-Jun- 22	24-Jun- 22
18	Detect Lesions Using AI- Based at Covid-19 And Cancer Patients.	202211028849	Dr. Deepak Arya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Taruna Chhabra, Gaurav Chaturvedi, Munendra Chauhan, Ashok Kumar, Divya Jain	CSE	Published	19-May- 22	10-Jun- 22

19	Healthcare Services Provided at Home Using Cloud Computing	202211033117	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Aman Kumar, Abhishek Jain, Dr. Madhavendra Saxena, Bhanu Priya, Pankaj Singh, Ajay Soin, Gaurav Chaturvedi, Amanpreet, Vedita Agarwal	CSE	Published/Awaiting Request for Examination	9-Jun-22	24-Jun-22
20	Hand Sanitizer Making Process and Production	202211028846	Pankaj Singh, Amit Kr. Rawat, Dr. Piyush Mani Maurya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Charu Arya, Dr. Sachin Srivastava, Saurabh Arya, Dr. Rachan Karmakar, Rohit Jain, Harshit Kumar Singh		Published	19-May-22	10-Jun-22
21	Brufen Tablets 200 Mg Making Method and Production.	202211033116	Pankaj Singh, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Puja Sharma, Saurabh Arya, Dr. Rachan Karmakar, Harshit Gautam, Monu Kumar, Rajvardhan Singh, Gaurav Chaturvedi		Published	10-Jun-22	24-Jun-22
22	Farming Monitoring Using IoT-Based Technology.	202211028845	Dr. Deepak Arya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Vishal Sharma, Gaurav Gupta,	ECE	Published	19-May-22	10-Jun-22

			Dr. Gopindra Kumar, Akshat Agarwal, Shalini Anand, Vedita Agarwal, Ankur Saini				
23	Dry Electrode Manufacturing Processes for Lithium-Ion Batteries and Production.	202211028848	Dr. Pavan Gangwar, Dr. Sandhya Prajapati, Rishabh Singhal, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Vipin Saini		Published	19-May-22	10-Jun-22
24	Method And Process Start the Production Wearable Sensors to Notification Healthcare Using IoT	202211028850			Filed/ Application ready for publication		
25	Student Study Performance Monitoring Using IoT Based	202211028847	Gaurav Gupta, Bhuvnaswer Swaroop, Vishal Sharma, Dr. Deepak Arya, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Arvind Dhiman, Nancy Verma, Sharvan Kumar Rai, Vedita Agarwal	ECE	Published	19-May-22	10-Jun-22
26	Automated Monitoring of Crops Using Sensors	202211040479	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Bhanu Priya, Dr. Swati Bhardwaj, Urvashi Bhardwaj, Akshat Jain, Gaurav Chaturvedi, Dr. Pravesh Belwal, Priyanka Kumari	ME	Published	14-Jul-22	29-Jul-22

27	IoT-based Temperature Detection for a Real-Time Environment	202211040477	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Munendra Chauhan, Dr. Deepak Arya, Vishal Sharma, Bhagwan Lal Karn, Nitesh Kumar, Dr. Mohit Payal, Dikshant Bohra, Manisha	Physics	Published	14-Jul-22	29-Jul-22
28	Design Quantum Based IOT Framework for Predicting Gene Based Periodic Diseases	202211040478	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Gaurav Chaturvedi, Munendra Chauhan, Puja Sharma, Dr. Meenu Rani, Ankur Saini, Dr. Amna Bedi, Kartik Bhargav	CSE	Published	14-Jul-22	29-Jul-22
29	Water Level Notification using IoT-Based System	202211040480	Dr. Deepak Arya, Naman Bansal, Yash Agarwal, Dr. Parag Jain, Vishal Sharma, Munendra Chauhan, Aman Kumar, Gaurav Gupta, Bhuenaswer Swaroop, Aman		Published	14-Jul-22	29-Jul-22
30	VLSI Architecture for Montgomery Modular Multiplication	202211040482	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Vishal Sharma, Puja Sharma, Dr. Pavan Gnagwar, Vipin Saini, Kumari Sonali, Pradosh		Published	14-Jul-22	29-Jul-22

			Singhal, Ankit, Aditi				
31	Detection of the Tumours by Digital Image Processing of Liver CT Images.	202211040475	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Manish Kumar, Dr. Sachin Singh, Chelsi Sen, Dr. M.J. Nigam, Arpan Gupta, Raghav Sood, Nitesh Kesarwani	CSE	Published	14-Jul-22	29-Jul-22
32	Soil Moisture Based Seasonal Watering Adjustment System	202211040485	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Deepak Arya, Vishal Sharma, Munendra Chauhan, Ayush Sangal, Dr. Rahul Kumar, Seema Rani, Mohd. Musharrat	ME	Published	14-Jul-22	29-Jul-22
33	High Sensitive Photonic Crystal Mach-Zehnder-Interferometer Based Pressure-Sensor.	202211040476	Narendra Bansal, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Neha Praveen, Charu Arya, Dr. Madhvendra Saxena, Dr. Deepak Arya, Munendra Chauhan, Pradosh Singhal, Pankaj Rathor	Physics	Published	14-Jul-22	29-Jul-22
34	Improved Security Mechanism for Emergency Messages of Vanet Cryptography Schemes.	202211040483	Narendra Bansal, Dr. Parag Jain, Naman Bansal, Yash Agarwal, Munendra	ECE	Published	14-Jul-22	29-Jul-22

			Chauhan, Praveen Verma, Amit Saini, Dr. S.R. Khankhriyal, Dr. Vibhor Sharma, Gaurav Chaturvedi, Nalin Agarwal, Tanya Verma				
35	ML-Based Model for Venue Recommendation.	202211040484	Narendra Bansal,Dr. Parag Jain, Naman Bansal,Yash Agarwal ,Dr. Deepak Arya, Gaurav Chaturvedi, Shailja Bhardwaj, Abhishek Jain, Gaurav Gupta, Varun Rana, Yadav Rishikesh	CSE	Published	14-Jul- 22	29-Jul- 22
36	Hybrid Solar Water Heater System.	202211040481	Narendra Bansal,Dr. Parag Jain, Naman Bansal, Yash Agarwal,Vishal Sharma, Ajay Singh, Dr. Amrendra Kumar, Puja Sharma, Ramesh Kumar, Divyanshu Gupta, Bikram Kumar Sah, Harshit Kumar Singh	EE	Published	14-Jul- 22	29-Jul- 22
37	Stock Trading using Machine Learning System	202211040944	Dr. Deepak Arya,Narendra Bansal,Dr. Parag Jain, Naman Bansal, Yash Agarwal, Gaurav Chaturvedi, Gaurav Gupta, Aman Kumar,	CSE	Published	18-Jul- 22	29-Jul- 22

			Bhanu Priya, Chelsi Sen, Chanda Verma, Khushboo Kumari				
38	eLBP Based Biometric finger and Face through Age Detection	202211040945	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Yash Agarwal, Vishal Sharma, Abhishek Jain, Ajay Soin, Ankur Saini, Devansh Garg, Sashank Tayal, Ankit Verma	CSE	Published	18-Jul- 22	29-Jul- 22
39	Algorithm (DLB) for securing the data from Cryptanalysis.	202211040946	Gaurav Gupta ,Dr. Parag Jain, Naman Bansal, Yash Agarwal, Bhanu Priya, Mohd. Mursleen, Arvind Dhiman, Kapil Kumar, Abhinav Tiwari, Navendu Kant	ECE	Published	18-Jul- 22	29-Jul- 22
40	IoT-Based Marketing Strategies using AI	202211040947	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Gaurav Chaturvedi, Dr. Deepak Arya, Jaspreet Sidhu, Vivek Singh, Mayank Tyagi, Shashank Tayal, Shailja Tandan	CSE	Published	18-Jul- 22	29-Jul- 22
41	Artificial Intelligence (AI) & Internet of Things (IoT) Based Digital Marketing Strategies Result.	202211040950	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Deepak Arya, Gaurav Chaturvedi, Vishal Sharma, Dr.	CSE	Published	18-Jul- 22	29-Jul- 22



			Amna Bedi, Garima Chandna, Dr. Manish Kumar, Manjeet Saini, Sonoo Gupta				
42	Bacterial Luffa Fiber Reinforced mix Concrete	202211042978	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Ajay Singh, Ayush Sangal, Seema Rani, Abhishek Singh, Rakesh Rai, Swati Dhiman, Raman Sharma	BIOTECHNOLOGY	Published	27-Jul- 22	5-Aug- 22
43	Vehicle Driver Authentication System	202211040954	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Deepak Arya, Pankaj Singh, Dr. Sakendra Kumar, Dr. Amit Tanwar, Dr. Piyush Mani Maurya, Dr. Aruna Bhat, Priya Singh	ECE	Published	18-Jul- 22	29-Jul- 22
44	E-Commerce on Emerging Markets System	202211040949	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Bhuvnaswer Swaroop, Ankur Saini, Saurabh Bhardwaj, Dr. Vibhor Sharma, Taruna Chabra, Dr. Deepak Arya, Abhinav Tiwari, Ankit Sharma	CSE	Published	18-Jul- 22	29-Jul- 22

45	Effective of a Promotional Tool for Marketing Old/ New Product	202211042976	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Bhanupriya, Shailja Joshi, Ankur Saini, Gopi Dhiman, Anil Kumar, Amit Kumar, Ankit Sharma, Khushboo Kumari	CSE	Published	27-Jul-22	5-Aug-22
46	Risk Management Platform for Air Pollution.	202211040951	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Rachan Karmakar, Dr. Piyush Mani Maurya, Ayush Sangal, Raman Sharma, Ravi Kumar, Abhisheshh Kr. Singh, Rakesh Rai, Sonoo Gupta	CSE	Published	18-Jul-22	29-Jul-22
47	Atmospheric Environmental Risk Management System.	202211040952	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Ayush Sangal, Ajay Singh, Swati Dhiman, Raman Sharma, Dr. Pankaj Kumar, Sunil Kumar, Seema Rani, Vivek Singh	CSE	Published	18-Jul-22	29-Jul-22
48	Bacterial Luffa Fiber Reinforced mix Concrete	202211040948	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Gaurav Gupta, Munendra Chauhan, Dr. Deepak Arya, Harshit Gautam, Amit Kumar Rawat, Dr. Aruna Bhat, Bhuvenaswer	BIOTECHNOLOGY	Published	18-Jul-22	29-Jul-22

			Swaroop, Vishal Sharma				
49	Soil mapping and reflectance measurements using Machine Learning.	202211040953	Dr. Parag Jain, Naman Bansal, Yash Agarwal, Dr. Deepak Arya, Ayush Sangal, Ajay Singh, Ravi Kumar, Swati Dhiman, Ayush Raj, Kumari Shivani	ME	Published	18-Jul-22	29-Jul-22
50	Smart IOT Application for High Level Security and Protection from Criminals using Cloud Computing and Deep Learning Approach	202221027012	Dr. Dheresh Soni, Dr. Mohammad Shuaib khan, Dr. S. Devaraju, Mr. Simarjit Singh Malhi, Dr. Vibhor Sharma, Ms. Megha Singla, Dr. S. Jawahar	Communication	Published	10-May-22	24-Jun-22

**Year 2020-21**

S . N o .	Titl e	Ap plic ation No.	Fac ulty Na me	De par tm ent	Field of Inve ntion	Status(Fi led/Publi shed/Gra nted)	Da te of Fil in g	Date of Publi catio n/Gr ant	Sourc e Link (Offli ne)	Source Link (Live)
1	A Method of Development of Concrete Block With Earth Filled Plastic Water Bottle And Uses Thereof	202011051877	Prof. Ajay Singh, Ayush Sangal, Prof. (Dr.) Parag Jain	CE	BIO-MEDICAL ENGINEERING	Published/Awaiting Request for Examination	11/28/2020	12/4/2020	<a href="#">Journal No. 49-2020 Dated 04-12-2020.pdf</a>	
2	Dorebot	202111057746	Dr. Parag Jain, Gaurav Chaturvedi, Dr. Deepak Arya, Vishal Sharma, Chelsi Sen, Diksha Jaswal, Gaur	CS E		FER Issued, Reply not Filed	12/12/2021	12/31/2021	<a href="#">Journal No. 53-2021 Dated 31-12-2021.pdf</a>	

			av Gupt a, Bhan u Priya , Bhu vnes hwar Swar oop Bhat naga r, Abhi shek Jain, Prav een Var ma, Diks hant Bohr a, Priya nka Kum ari							
3	Gen eral Fra mew ork to Han dle Larg e Clas s of Infer ence Prob lems usin g Labe l Sequ ence Lear ning from Real time Mon itori	202 141 037 738	Ms. E.Po ongo thai, Mr. P. Glar et subi n, Dr. Muh amm ad Nau man Afta b, Ms. Rita Roy, Mrs. Puja Shar ma, Mr. Bidy ut Das,	EC E		Published	8/1 9/2 02 1	9/24/ 2021	<a href="#">Journal No. 39- 2021 Dated 24-09- 2021.p df</a>	-

	ng Vide os		Dr. Kalp esh Rasi klal Rakh olia, Dr. Subo dh E. Bhan dark ar, Mrs. Justi n Soph ia.I, Dr. Shub hra Jam wal, Mr.T arun Jais wal, Dr. T. Velu mani							
4	Reso urce Assi stanc e for Lear ning Allo catio n to Mult i Purp ose Rein force ment for Unm anne d Aeri al Vehi cles usin g Iot Net	202 141 039 099	Dr Swa pnaj a Amo l Ubal e, Mr. S. Pras anna Bhar athi, Dr. Abhi shek Badh olia, Mr. Vish al Shar ma, Mr. Aksh ay S. Aspa	EC E		Published	8/2 9/2 02 1	9/10/ 2021	<a href="#">Journal No. 37- 2021 Dated 10-09- 2021.p df</a>	-

	works		lli, Mr.S arav anan G, Dr Mur alidh aran J, Dr. M. Dhip a, Mr. Rahu l New are, Mrs. Bhar ti Ayer , Mr. V.Sr idhar , Dr. S. Jawa har							
5	Analysis and Notification of Real Time Road Accidents	202111037923	Dr. Parag Jain, Dr. Deepak Arya, Gaurav Chaturvedi, Gaurav Gupta, B.S. Bhatnagar	CS E		FER Issued, Reply not Filed	8/21/2021	9/10/2021	<a href="#">Journal No. 37-2021 Dated 10-09-2021.pdf</a>	-
6	Asset Tracking using Lora	2021103908	Sharma, Vishal; Sharma, Puja	EC E		Granted	7/6/2021	8/11/2021	<a href="#">Patent Register_2021103908.pdf</a>	<a href="https://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103908">pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103908</a>



	Nodes And Gateways		; Belwal, Prवेश; Jain, Parag; Aakash, Anubhav; Singh, Aditi; Bohra, Dikshant; Kumari, Priyanka; Kumari, Puja; Arya, Deepak							
7	Waterless Dishwasher Spray	2021103485	Jain, Parag; Arya, Deepak; Chaturvedi, Gaurav; Gupta, Gaurav; Sen, Chelsi; Saini, Ankur; Jaiswal,	CS E	Granted	6/20/2021	8/11/2021	<a href="#">Patent Register_2021103485.pdf</a>	<a href="https://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103485">pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103485</a>	

			Diksha								
8	Intel ligen t Stree t Ligh t On/ Off on The Obje ct Mov eme nt	202 110 138 3	Jain, Para g ; Arya , Deep ak ; Chat urve di, Gaur av ; Gupt a, Gaur av ; Bhat naga r, B. S. ; Ver ma, Love ; Shis hodi a, Lekh ika	CS E		Granted	3/1 7/2 02 1	4/28/ 2021	<a href="#">Patent Registe r_2021 101383 .pdf</a>	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021101383">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021101383</a>	
9	Voic e- Base d E- Mail Cont rolle d	202 111 010 710	Prof. (Dr.) Para g Jain (Dire ctor) , Gaur av Chat urve di (Dea n Acad emic s), Dr. Deep ak Arya (Ho D)	CS E	COM MUN ICAT ION	Published/ Awaiting Request for Examinati on	3/1 4/2 02 1	07- 05- 2021	<a href="#">Journal No. 19- 2021 Dated 07-05- 2021.p df</a>	-	
1 0	Dist ance Dete ction	202 111 010 712	Dr. Deep ak Arya	CS E	COM PUTE R SCIE	Published/ Awaiting Request for	3/1 4/2 02 1	07- 05- 2021	<a href="#">Journal No. 19- 2021 Dated</a>	-	

	Intel ligen t Id Card to Prev ent Covi d-19 or Any Othe r Purp ose.		, Prof. (Dr.) Para g Jain, Gaur av Chat urve di		NCE	Examinati on			<a href="#">07-05- 2021.p df</a>	
1 1	An Inve stiga tion into The Frict ion Stir Wel ding of Alu minu m Pipe With Stain less Steel Plate	202 110 089 4	Raja k, Upe ndra ; Kum ar, Rohi t; Mule y, Prad eep; Sinh a, Shob ha Lata ; Nash ine, Prera na; Dwi vedi, Gaur av; Sing h, Thok cho m Subh asch andr a; Kum ar, Sake ndra ; Chau rasiy a,	ME		Granted	2/1 5/2 02 1	5/12/ 2021	<a href="#">Patent Registe r_2021 100894 .pdf</a>	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021100894">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021100894</a>

			Prem Kum ar ; Kum ar, Tulal a Raja santh osh							
1 2	A Met hod of Dev elopi ng Con crete By Repl ace ment of Coar se Aggr egat e With Coal Mill Reje ct	202 010 399 0	SIN GH, AJA Y ; LAL LOT RA, BAL WIN DER ; SAN GAL , AY USH	CE		LAPSED		09- 12- 20 21	-	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2020103990">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2020103990</a>
1 3	Biod iesel Prod uctio n from Unu sed Indi geno us Alga l Bio mass	202 110 390 6	D. Gahl ot, Dine sh, Rach an Kar mark ar, Nitin Kum ar, Sake ndra Kum ar, Pram od Pant a, Pank aj Sing h	ME		Granted	6/7 /20 21	4/20/ 2022	<a href="#">Patent Registe r_2021 103906 .pdf</a>	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103906">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021103906</a>

14	Improved Collaborative Filtering for Movie Recommendation	2021107302	Arya, Deepak; Jain, Parag; Chaturvedi, Gaurav; Jaswal, Diksha; Gupta, Gaurav; Sen, Chelsi; Saini, Ankur; Priya, Bhanu	CS E	Granted	8/25/2021	12/1/2021	<a href="#">Patent Register_2021107302.pdf</a>	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107302">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107302</a>
15	Evaluate the Effect of Oscillation Energy on Mechanical and Metallurgical Properties of Non-Ferrous Alloy	2021107303	Kumar, Sakendra; Karmakar, Rachan; Kumar, Pankaj; Sheel, Ashutosh; Choudhary, Bhasker Pratap; Jaiswal,	ME	Granted	8/25/2021	12/1/2021	<a href="#">Patent Register_2021107303.pdf</a>	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107303">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107303</a>

			Divy ansh u ; Mar wein , Wan shad alin							
1 6	DAT A SEC URI TY - Prot ectin g Sens itive Data from Una tho rized Acce ss	202 110 730 4	Shar ma, Vish al ; Chat urve di, Gaur av ; Saini , Amit ; Kum ar, Asho k ; Sing hal, Rish abh ; Jain, Para g ; Arya , Deep ak ; Dub ey, Diva kar	EC E		REFUSED				<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107304">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107304</a>
1 7	Auto mati c Fish Feed ing Mac hine AQ UFF X	202 110 730 5	Shar ma, Vish al ; Saini , Amit ; Cho udha ry, Bhas kar Prata p ; Kum ar, Asho	EC E		Granted	8/2 5/2 02 1	12/1/ 2021	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107305.pdf">Patent Registe r_2021 107305 .pdf</a>	<a href="http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107305">http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=2021107305</a>

			k ; Sing hal, Rish abh ; Bohr a, Diks hant ; Kum ari, Priya nka							
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**Year 2019-20**

<b>S. N o.</b>	<b>Title</b>	<b>Applic ation No.</b>	<b>Fac ult y Na me</b>	<b>Depar tment</b>	<b>Field of Inventi on</b>	<b>Status(Filed/Pub lished/Granted)</b>	<b>Date of Filin g</b>	<b>Date of Publicati on/Grant</b>	<b>Sou rce Lin k (Off line)</b>	<b>So urc e Lin k (Li ve)</b>
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1	A Method of Development of Concrete Block With Earth Filled Plastic Water Bottle And Uses There of	202011051877	Prof . Aja y Singh, Ayu sh San gal, Prof . (Dr. ) Para g Jain	CE	BIO-MEDICAL ENGINEERING	Published/Awaiting Request for Examination	28/11/2020	4/12/2020	<a href="#">Journal No. 49-2020 Dated 04-12-2020.pdf</a>
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### MoUs with Industries

Sl. No.	Name of the MoU / Collaboration / linkage	Name of the collaborating agency / institution / industry / corporate house with whom the MoU / collaboration / linkage is made, with contact details	Year of signing MoU / collaboration / linkage	Duration of MoU / collaboration / linkage
1	Rubrics Softcon Pvt. Ltd.	Industry	2017-18	5 Year
2	Prolific Systems & Technology Pvt.Ltd	Industry	2017-18	5 Year
3	AXA Parenterals Ltd.	Industry	2017-18	Life Long
4	Taniya Builders	Industry	2017-18	Life Long
5	Zenus Infotech India Pvt. Ltd.	Industry	2017-18	5 Year
6	CETPA Infotech Pvt. Ltd-Roorkee	Industry	2017-18	Life Long
7	Web View Solution	Industry	2017-18	5 Year
8	Anhad Edutrain Solutions Pvt. Ltd.	Industry	2017-18	5 Year
9	CAD Skills Solutions Pvt. Ltd	Industry	2017-18	5 Year
10	SLOG Solutions Pvt.Ltd.	Industry	2017-18	5 Year

11	ABCROB Technologies Pvt. Ltd	Industry	2017-18	5 Year
12	Prime CAD Training Institute Pvt. Ltd	Institute	2017-18	3 Year
13	Rubrics Softcon Pvt. Ltd.	Industry	2018-19	5 Year
14	Prolific Systems & Technology Pvt.Ltd	Industry	2018-19	5 Year
15	AXA Parenterals Ltd.	Industry	2018-19	Life Long
16	Taniya Builders	Industry	2018-19	Life Long
17	Zenus Infotech India Pvt. Ltd.	Industry	2018-19	5 Year
18	CETPA Infotech Pvt. Ltd- Roorkee	Industry	2018-19	Life Long
19	Web View Solution	Industry	2018-19	5 Year
20	Anhad Edutrain Solutions Pvt. Ltd.	Industry	2018-19	5 Year
21	CAD Skills Solutions Pvt. Ltd	Industry	2018-19	5 Year
22	SLOG Solutions Pvt.Ltd.	Industry	2018-19	5 Year
23	ABCROB Technologies Pvt. Ltd	Industry	2018-19	5 Year
24	Prime CAD Training Institute Pvt. Ltd	Institute	2018-19	3 Year
25	Indian Institute of Technology, Bombay	Institute	2018-19	1 Year
26	Innovative Systel (Bentley)	Industry	2018-19	5 Years
27	Swar Yantra Technologies Pvt. Ltd.	Industry	2018-19	1 Year
28	ORACLE Academy	Industry	2018-19	3 Year

29	DUCAT(A unit of U M InfoTech Pvt. Ltd.)	Institute	2018-19	Life Long
30	Edgate Technology Bangalore	Industry	2018-19	Life Long
31	Rubrics Softcon Pvt. Ltd.	Industry	2019-20	5 Year
32	Prolific Systems & Techno;ogy Pvt.Ltd	Industry	2019-20	5 Year
33	AXA Parenterals Ltd.	Industry	2019-20	Life Long
34	Taniya Builders	Industry	2019-20	Life Long
35	Zenus Infotech India Pvt. Ltd.	Industry	2019-20	5 Year
36	CETPA Infotech Pvt. Ltd-Roorkee	Industry	2019-20	Life Long
37	Web View Solution	Industry	2019-20	5 Year
38	Anhad Edutrain Solutions Pvt. Ltd.	Industry	2019-20	5 Year
39	CAD Skills Solutions Pvt. Ltd	Industry	2019-20	5 Year
40	SLOG Solutions Pvt.Ltd.	Industry	2019-20	5 Year
41	ABCROB Technologies Pvt. Ltd	Industry	2019-20	5 Year
42	Prime CAD Training Institute Pvt. Ltd	Institute	2019-20	3 Year
43	Indian Institute of Technology, Bombay	Institute	2019-20	1 Year
44	Innovative Systel (Bentley)	Industry	2019-20	5 Years
45	Swar Yantra Technologies Pvt. Ltd.	Industry	2019-20	1 Year

46	ORACLE Academy	Industry	2019-20	3 Year
47	DUCAT(A unit of U M InfoTech Pvt. Ltd.)	Institute	2019-20	Life Long
49	Edgate Technologies Pvt. Ltd.	Industry	2019-20	Life Long
50	Indian Institute of Technology, Roorkee	Institute	2019-20	1 Year
51	Indian Institute of Technology, Bombay	Institute	2019-20	1 Year
52	Zenus Infotech India Pvt. Ltd.	Industry	2019-20	1 Year
53	Bulls Eye Knowledge System Pvt. Ltd	Industry	2019-20	Life Long
54	TATHYA FORENSIC WING EDERATION	Industry	2019-20	3 Year
55	CII ( Confederation of Indian Industry )	Industry	2019-20	life Long
56	AICRA	Industry	2019-20	3 Year
57	Deshya Technologies (ITC) IIT Gauhati	Industry	2019-20	3 Year
58	CERTIPORT	Industry	2019-20	Life Long
59	Prolific System And Technologies Pvt. Ltd Noida	Industry	2019-20	3 Year
60	Zenus Infotech India Pvt. Ltd.	Industry	2019-20	1 Year
61	Edgefx Technologies, Hyderabad	Industry	2019-20	Life Long
62	SJ MEDIA AND MARKETING PVT LIMITED	Industry	2019-20	5 Year

63	Zenus Infotech India Pvt. Ltd.	Industry	2021-22	5 Year
63	Edunet Foundation	Industry	9/22/2021	5 Year
	Cellstrat Inc., Delaware (AI Disruption)	Industry	12/18/2021	05 Years
	Edgate Technologies Pvt. Ltd.	Industry	2021-22	Life Long
68	Sklz Tect LLP.	Industry	11/25/2021	04 Year
	AICRA	Industry	2020-21	3 Year
	AICRA	Industry	2020-21	3 Year
	Sklz Tect LLP.	Industry	12/1/2021	04 Year
69	Research Development cell, Sharda university greater noida up	ACADEMIC	10/25/2021	Life Long
70	Dgguru Learning Solutions Private Limited	Industry	8/6/2021	03 Years
71	NEDC (The National Entrepreneurship Development Cell), Noida	Industry	7/8/2021	
72	Construction Industry Development Council (CIDC)	Industry	6/22/2021	
73	Dr. A.P.J. Abdul Kalam Institute of Technology, tankapur, Champavat	ACADEMIC	4/20/2021	03 Years
74	BIMLABS Engineering Services Pvt. Ltd. Kerala	Industry	4/30/2021	01 Year
75	NOAH INDUSTRIES, AJMER	Industry	1/1/2021	03 Years

76	Department of Applied Science & Humanities	ACADEMIC	2/14/2019	
77	FOECS, TEERTHANKAR MAHAVEER UNIVERSITY(TMU)	ACADEMIC	2021-22	03 Years
78	information data systems	Industry	2/24/2022	
79	Eashwa Automotive Pvt. Ltd.	Industry	12/23/2021	05 Years

**RESEARCH PAPERS PUBLISHED LAST THREE YEAR**

Sr. No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to web
1	SSS: Smart Surveillance System for Secure & Sensitive Zones	Aman Kumar	Department of Computer Science Engineering	Journal of Optoelectronics Laser, 41(7), 1176–1183	2022	1005-0086	<a href="http://www">http://www</a>
2	A Novel approach of association rule hiding for preserving privacy in data mining	Dr. Vibhor Sharma, Dr. Sachin Singh	Department of Computer Science Engineering	Telematique	2022	1856-4194	<a href="https://www.prov">https://www.prov</a>
3	Brass electrode performance in electro-discharge machining of AISI d204 die steel under dielectric medium castrol oil (SE180) using ANN and fuzzy logic modeling	Sakendra Kumar , Dr Parag, jain	Department of Mechanical Engineering	Neuroquantology	2022	1303-5150	<a href="https://www.prov">https://www.prov</a>
4	Cost and Quality Management in Buildings	Ajay Singh, Amrendra Kumar, Ayush Sangal,Ravi Kumar Choudhary	Department of Civil Engineering	IRJET	2022	2395-0056	<a href="https://www.irjet">https://www.irjet</a>
5	Effect of corrosion on metals and its prevention	Piyush Mani Maurya	AS&H	Journal of Advanced Education and Sciences	2022	2583-2360	<a href="https://www.rese">https://www.rese</a>

6	An artificial Intelligence Based Recommender System to analyze Drug Target indication for drug repurposing using linear machine learning algorithm	Dr. Vibhor Sharma	Department of Computer Science Engineering	Journal of Algebraic Statistics	2022	1309-3452	<a href="https://www.publ">https://www.publ</a>
7	Use of artificial intelgence and machine learning medicines with implimantation of bayesian techniqies	1.anubahv kumar 2 virat sharma 3. praveen verma 4. dr. abhay bhatiya. 5 Dr.manish kumar	Department of Computer Science Engineering	IJCRT	2022	2320-2882	<a href="http">http</a>
8	3D Printing in Architecture and Structure	Jagdish Kandpal, Dr. Amit Tanwar and Pankaj Rathore,	Department of Mechanical Engineering	International Research Journal of Engineering and Technology	Sep-22	e-ISSN: 2395-0056, p-ISSN: 2395-0072	<a href="https:">https:</a>
9	A Fragmentation Method For Classification Workloads Based On Genetic Algorithm	Vibhor Sharma	Department of Computer Science Engineering	Webology	2021	1735-188X	<a href="https://w">https://w</a>
10	Slurry flow erosion in industrial Pipe line	Saurabh Arya and Dr,Amit K.Tanwer	Department of Mechanical Engineering	International Journal of Research Publications and reviews	Aug-22	ISSN-2582-7421	<a href="https://">https://</a>
1	Application and Techniques of Emotion Recognition in speech	Dr. Parag Jain	Department of Computer Science Engineering	National	2021		<a href="https://asset">https://asset</a>



2	EXPERIMENTAL STUDY ON USE OF VARIOUS PROPORTIONS OF FOUNDRY SLAG AND ALCCOFINE IN CEMENT CONCRETE	Rishabh Saxena, Swati Dhiman	Department of Civil Engineering	IJARIE	2021	2395-4396	<a href="https://asset">https://asset</a>
3	Properties evaluation of A356 and A319 Aluminum alloys under different casting conditions	Sakendra Kumar	Department of Mechanical Engineering	Materails Today	2021	2214-7853	<a href="https://ww">https://ww</a>
4	ANALYSING BEHAVIOUR OF HIGH RISE RCC STRUCTURES IN P-DELTA ANALYSIS	Ayush Sangal, Swati Dhiman, Ajay Singh	Department of Civil Engineering	IRJET	2021	2395-0056	w
5	Enhancement in the security of RSA algo. Using subset sum cryptography	Praveen kumar Verma	Department of Computer Science Engineering	ALOCHANA CHAKRA JOURNALS	2020	ISSN - 2231-3990	
6	Cloud Security at a Glance	Praveen kumar Verma	Department of Computer Science Engineering	IJRASET	2020	ISSN- 2321-9653	
7	Comparative Analysis of Map Reduce Scheduling Algorithms	Dr. Parag Jain	Department of Computer Science Engineering	Journal of Advanced Research in Dynamical and Control Systems	2020	ISSN 1943023X	<a href="http://">http://</a>

8	A Comparative Study of Physical and Mechanical Properties of Glass Fiber /Polyester Composite Materials with Natural Fillers	Amir Gaur , Amit Tanwar pankaj singh	Department of Mechanical Engineering	ijsret	2020	2395-566X	<a href="http://">http</a>
9	A Comparative Study of the Renewable Solar Energy and Other Renewable Energy Sources Evaluation of Globalization	Vishal Sharma	Department of Electronics & Communication Engineering	IJEREE	2020	2395-2717	<a href="https://www">https://www</a>
10	Improvement of power flow in the power system network by using UPFC	Vishal Sharma	Department of Electronics & Communication Engineering	IJSER	2020		<a href="https://">https://</a>
11	Efflorescence in Brickwork	Prof. Ajay Singh1, Ayush Sangal2, Rahul Saini3, Nishant Sharma4	Department of Civil Engineering	IRJET	2020	2395-0056	<a href="https://">https://</a>
12	A PV, Super capacitor & PEM Fuel Cell based Fuzzy Logic Control for Energy Storage System for AC/DC Microgrids	Mansi, vishal sharma	Department of Electronics & Communication Engineering	IJRECE	2020	2348-2381	<a href="http://n">http://n</a>
13	EXPERIMENTAL STUDY ON MECHANICAL PROPERTIES OF STEEL FIBRE	Rishab Singh1 , Swati Dhiman2 , Ajay Singh3 , Vijender Singh	Department of Civil Engineering	IJARIE	2021	ISSN(O)- 2395-4396	<a href="http://www.ijarie.com">www.ijarie.com</a>
14	Optimization of electrical conductivity in copper phosphate glasses	Bhaskar pratap Chaudhary	AS&H	Materials Today proceedins	2020	2214-7853	<a href="https://www.scienc">https://www.scienc</a>

1	An Experimental Study on Compressive Strength of Composite Fiber Reinforced Concrete with Metakaolin as Admixture	Ajay Singh,D. Harikrishna Prasad	Department of Civil Engineering	IJRASET	2020	2321-9653	<a href="https://www.irjet.">https://www.irjet.</a>
2	To Study the Strength Characteristics of Concrete by Replacement of Coarse Aggregate with Coal Mill Reject	Ayush Sangal, Prof. Ajay Singh	Department of Civil Engineering	IRJET	2020	2395-0056	<a href="https://www.irjet.">https://www.irjet.</a>
3	Building Project Execution Challenges and Some Remedial Measures	Prof. Ajay Singh1, Swati Dhiman2, Ravi Kumar Choudhary3	Department of Civil Engineering	IRJET	2020	2395-0056	<a href="https://www.irjet.">https://www.irjet.</a>
4	Comparative Analysis of Map Reduce Scheduling Algorithms	Dr. Parag Jain	Department of Computer Science Engineering	JARDCS	2019	ISSN 1943023X	<a href="http://">http://</a>
5	Implementation of SOPs for quality control in small size breweries”	Mohmad sazid ali , Amit Tanwer ,pankaj singh	Department of Mechanical Engineering	ijariit	2019	ISSN: 2454-132X	<a href="https://">https://</a>
6	Effect Reduction in Injection Moulding using DMAIC Technique	Ravish Kumar	Department of Mechanical Engineering	IJSRD	2019	2321-0613	<a href="http">http</a>
7	Optimization of electrical conductivity in copper phosphate glasses	Bhaskar Pratap	Humanities	Materials Today proceedins	2019		<a href="https://ww">https://ww</a>

8	A Comprehensive Review on Vehicle to Grid (V2G) Operation in Power system Networks	Anshul Dixit, vishal sharma	Department of Electronics & Communication Engineering	IJSRD	2019	2321-0613	<a href="https://www.scienc">https://www.scienc</a>
9	Indian Rural Housing Needs to Bridge the Technological Gaps	Prof. Ajay Singh, Mr. Ayush Sangal, Abhijit Singh	Department of Civil Engineering	IRJET	2019	e-2395-0056,p-2395-0073	<a href="https://www.irjet">https://www.irjet.</a>
10	AN EXPERIMENTAL STUDY ON COMPRESSIVE STENGTH OF COMPOSITE FIBER REINFORCED CONCRETE WITH METAKAOLIN AS ADMIXTURE.	Swati Dhiman, Shubham Gairola , Rajdeep Singh Chauhan	Department of Civil Engineering	IRJET	2019	e-2395-0056,p-2395-0073	<a href="https://www.irjet">https://www.irjet.</a>
11	E-Waste Bin a Solution for E-Waste Collection in India	Abhijit Singh, Shweta Haldhar, Shubham Gairola, Sikandar Alam	Department of Civil Engineering	IRJET	2019	e-2395-0056, p-2395-0074	<a href="https://www.irjet">https://www.irjet.</a>
12	STUDY OF BEHAVIOUR OF STONE REINFORCED COLUMN ON SOIL	Ajay Singh,Ankit Garg	Department of Civil Engineering	IRJET	2019	e-2395-0056, p-2395-0075	<a href="https://www.irjet">https://www.irjet.</a>

### 18. LoA and subsequent EoA till the current Academic Year

LoA and subsequent EoA till the current Academic Year are available at <https://ritroorkee.com/affiliation/>

### 19. Best Practices adopted, if any

#### I. Centre for Innovation and Entrepreneurship (CIE)

The entrepreneurship and startup culture are the trend and the government of India has given a huge thrust promoting the culture of innovation and incubation at the higher educational institutions in general and Engineering Colleges in particular. Taking a cue from this the college initiated promoting the culture of innovation and incubation among its students. Accordingly, the college has established a Center for Innovation and Entrepreneurship (CIE) to promote and support the spirit of entrepreneurship among the graduated and graduating students.

Entrepreneurship education imparts qualities at individual level such as self-motivation and financial responsibility. In addition, this kind of education empowers people to have self-discipline since entrepreneurship involves taking well-calculated risks. People who have gone through this kind of training are able to recognize opportunities. Entrepreneurship education also encourages innovation in the running of organizations.

Teaching people innovative ways to make a living enables them to take control of their circumstances. In Tanzania, for example, entrepreneurship education is being used as a tool to empower women. Technically trained women, for example, struggle to find employment in a male-dominated domain. The education is aimed at improving their self-confidence and giving them a chance at becoming self-reliant so that they are not totally dependent on employment. This form of education also builds up self-awareness.

The CIE wishes to facilitate the creation of ideas and inventions that benefit society. To this end, CIE has established an Incubation center and adopted this Incubation Policy to provide guidance and management structure to facilitate the development of entrepreneurship. The incubation center is registered as a separate LLP Firm with the name "RIT Experimental Hub Private Limited" and all the incubated firms are registered under RIT Experimental Hub Private Limited. RIT Experimental Hub Pvt Ltd, under the aegis of CIE RIT and supported by the institute that funds, mentors and nurtures ideas, startups and entrepreneurs. Virtual incubates can operate from anywhere in India. Incubation center supports:

- Early stage startups
- Mid to large sized companies with developed ideas
- Mentors to help our startups

Primarily the aim of this training is to enable creation of employment as unemployment is a rampant problem in many societies. Entrepreneurship education aims at empowering people to create employment opportunities. Small and Medium Enterprises account for half the private workforce in India. Most people seeking employment depend on entrepreneurs to embark on new ventures and hire them.

#### **Entrepreneurship Activities on campus**

Various Activities were organized regularly to encourage and support students and faculty members.

Frequency of the activities are weekly, monthly and annually.

1. Entrepreneurship Talk series
2. Entrepreneurship Awareness camps
3. Ideation camp
4. Business Development Bootcamps
5. Visit to startups
6. Faculty development workshops
7. Establishment of Entrepreneurship development cell
8. Organized E-Summit 2018 in the college

Start-ups like Utor AI, GRAD, Acads360 India, Strada Technologies, FATCAT and Aakriti were a few startups that emerged here and the journey of entrepreneurship continues very promisingly. The college is hopeful to take this initiative in a big way with the support of EDI, MSME, and Government of India.

## **II. Student Skill Development Cell (Competency Development Cell)**

Many of the students entering the portals of the institution are from the first-generation families who look for a job immediately as a career option after completion of their graduation. The challenge here is that their eligibility for a

campus placement opportunity (the industry expects a minimum of 60% marks at both 10th and 12th standards). The college is totally concern about this. In order to facilitate the students to improve their academic performance and communication skills the college felt there is need for continuous skill building activity. Accordingly, a dedicated student skill development cell was established in the year 2016. The main objective of the Skill Development Cell is to bridge the gap between academia and industry and train the students on the required skill sets. Students are trained on employability skills to suit the requirement of the industry.

The institute hires skilled trainers specialized in various fields related to the requirements of the job market. The students are trained in areas of Aptitude knowledge, Quantitative theory, Soft Skill and Technical Skills. These trainers offer courses for the 2nd and 3rd year students for the semester and the syllabus is designed accordingly to suit the requirement of the job market. Apart from the regular classes, students are also provided the industry related training for 15 days or weekly based on the student's requirements. Gradually the trainers were taken on rolls and on full time job in order to spare more time and focus for the training and imparting skills. The impact of this shown a gradual increase in the placements due to persistent efforts in preparing and training the students for employability. Most of our students before they graduate, get job offers from companies of repute like, Cap-Gemini, Tata Consultancy Services, Amazon, Salesforce, Wipro and several others.

There are several students who opt for the internship, however, the students don't have a clear idea of how to get the internship and the various assessment processes. Hence, the Student Skill Development Cell assist such students to go through the process and help them to attend and clear the interview. Some of our graduates prefer going for the higher studies in the foreign universities, however, they cannot afford to go without the scholarship. Hence, they need to appear for various test like GRE, TOFEL, PTE, IELTS etc, the trainers also extend helping hand and personal guidance to the desired students for achieving success in the test. The cell also extends its reach to the staff and faculty in aiding to improve their communication and connect with the industry for fetching a professional internship during the semester breaks. Since the Student Skill Development Cell also offers the assistance to the faculty/staff it is named as competency Development Cell (CDC) in the year 2018. The cell is headed by a senior faculty in the capacity associate dean of the institute. The competency development cell focusses on gathering the requirement of students, staff and faculty through various surveys and identify the gaps and offer suitable services for enhancing the competencies of the concerned.

### III. Engineering Projects in Community Service (EPICS)

Engineering Projects in Community Service (EPICS) is a unique program offered by the college in which teams of undergraduate students' design, build and deploy the real systems to solve engineering-based problems for local community. EPICS programme was initiated by Purdue University of the United States. The main objective of EPICS is to expose student to address the societal issues and to make the students socially responsible by finding and providing viable solutions for the problems stated by the community partners. EPICS faculty has been mentored by Purdue University Professor, Dr. William Oakes, who is the founder of EPICS program at Purdue University. The EPICS in IEEE program connects engineering with community service in four categories of community improvement effort:

- **Access and Abilities** - By bringing together student branches at universities, secondary students and nonprofit organizations, there is a greater ability to solve accessibility issues within communities. EPICS in IEEE Access and Abilities projects help enable adaptive services, clinics for those in need (such as children with disabilities), programs for adults and assistive technologies.
- **Education and Outreach** - EPICS in IEEE strives to help young students to discover the benefits of science, math, technology and engineering for their futures. Many projects give students hands-on experiences in order to stimulate their interests in those fields.
- **Environment** - Many EPICS in IEEE projects concern themselves with new ways to create electricity and energy, recycling and the use of renewable energy sources. Through these EPICS in IEEE projects, young students learn about the impact of environmental issues and how engineering can be part of the solution. They also gain exposure to potential jobs with a growing demand for alternative energy and environmental solutions.
- **Human Services** - Through their experiences in Human Services EPICS in IEEE

projects, students find connections between engineering and the tremendous scope of community needs globally. This includes homelessness prevention, affordable housing, family and children agencies, neighborhood revitalization and local government.

This program became popular among the students as it gives more exposure to them and also establish connect with community and an opportunity to solve their problems with the application engineering.

A team of 15 college faculty members from various departments have enrolled in this program voluntarily to be the mentors for the students. These 15 faculty members have successfully completed the Design Thinking Course which is a six months course. In the month of April 2018, the college has signed an MOU with IEEE and EPICS in Purdue to introduce this EPICS course in the curriculum.

Eleven modules of Social Innovation and Engineering Explorations courses were successfully implemented so far to the students. As a part of pilot program, prototyping is also being done since 2017-18. The implementation phase has started and as a part of it five different projects and process are successfully completed. Thus, the EPICS included in the curriculum from the academic year and it profoundly helps in attaining the desired graduate attributes expected from the undergraduate engineering students of the institution.

#### **IV. Innovative Teaching to achieve Program Outcomes**

Innovative teaching is necessity for all teachers in order to meet the educational needs of the new generations. The purpose of education is not just making a student literate, but adds rationale thinking, knowledge, ability and self-sufficiency. The college practices Outcomes-based Education (OBE) approach in all aspect of TLP. Faculty members of the college use innovative teaching methods and techniques to fulfill the needs of OBE system. Some pedagogical initiatives used include role-playing, case studies, group projects, think-pair-share, peer teaching, debates, Just- in-Time Teaching, and short demonstrations followed by class discussion. The primary purpose of this practice being followed is to practice Student Centric Learning and strengthen technical Skills through Course-end projects and interdisciplinary projects and usage of Technology in teaching learning practices.

Active learning has enhanced the team spirit, learning capabilities and technical skills of the student. It created an environment to think more about technology, research and societal problems and find a solution for the problems around them, which also created a responsibility towards addressing the societal problems. Many of the students are part of research projects

leading to patents, publications, startup ideas and few startups are initiated in the campus related to day- to-day student life problems. The proactive involvement in course-based projects enhanced the team spirit and motivated towards participation in National and State level competitions as well. The students' success rate improved and this is reflected in quality and statistics of the placements. The employer's feedback is a clear testimony of this claim. The students opting for international studies are able to come up with good grades and involve in research because of the self and interactive learning aptitude.

#### **V. Online Student Feedback System**

The college has a robust Online Student Feedback System (OSFS). OSFS is a web application which provides a base to conduct student's feedback online. Transparency and precision are the hallmarks of this system without any room for tampering. Feedback from students allows the institution to evaluate how its service provision is viewed by its most important stakeholders. This system was initiated to override the problems that the students face in the institution. The students, in a convenient, consistent and anonymous manner can submit their feedback about the faculty, the facilities and the courses offered to them during their period of their study. This system approaches all about institutional and educational practices and processes that are taken into consideration and the student's concerns of the level of the knowledge they receive. This procedure ensures that there is a good and cordial relationship between the students learning environment and the teachers. This has been very effective in identifying the issues related to curriculum and facilities successfully.

The results of the student feedback process, as well as the recommendations and the action taken are important considerations for the program review which each department is required to undertake. Online Feedback System has been instrumental in gathering the required information from students about the faculty, facilities and courses. It has also been an effective quality checking device that provides scope for improvement in various sections, thus enabling a positive learning environment for the students.

However, a few problems have been encountered which are divergent in terms of gathering productive feedback. In some instances, a few students were found to be deviating from what was required of them and in few other cases of students are not providing exact feedback and also showing low levels of interest were also registered. Overall this system implemented with great transparency and feedback taken was reviewed seriously and necessary corrective actions were also taken for improvement.