7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

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

Industry internship and projects (IIP)

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

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

Undergraduate research experience (URE)

URE track allows students to carry out in-depth study of engineering concepts, while emphasizing handson experiences and practical applications. Under URE track students are expected to carry out a research topic and present their work in international journals and conferences. In the eighth semester of engineering, total 24 credits are allotted to this track. Out of these, 17 credits are allotted to research project, 4 credits are allotted to Research methodology-theory and practical course and 3 credits are allotted to technical course related to project. Education through research projects has a positive effect on student knowledge and the development of skills such as collaboration, critical thinking, and problem solving which increases their motivation and engagement. More than 42 students have secured admissions for Masters in abroad from 2017-18. URE track helped many students to build their resumes from a research point of view.

Entrepreneurship development (ED)

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

one credit is allotted to ED program. Under ED track, students are expected to, determine distinct entrepreneurial traits and design a business plan. Total 6 students of RIT have started their business from 2017-18. These start-ups are of small scale.

Regular capstone project (CP)

Under the Regular capstone project, students must do a project in a group. Moreover, they need to learn Program and open electives as per their choice. In the eighth semester of engineering, total 24 credits are allotted to this track. Out of these, 16 credits are allotted to the project. Remaining credits are allotted to the program and open electives. Under CP track, students learned skills like teamwork, leadership, innovation and time management. Students who had opted CP track showed good performance in Graduate Aptitude Test in Engineering (GATE) and campus placement. Total 77 students qualified in GATE from 2016-17 to 2020-21. These students were eligible to take admissions for PG at reputed institutes like IIT, NIT etc.

Student Internships (Global)

RIT has signed MOU with many prestigious universities like Asia University, Taiwan, Teesside University, UK, IUKL, Malaysia and University of Nottingham, Malaysia for various short term and long term programs. This MOU has helped RIT students to get fully / partially funding to attend international programs. Total 18 students completed two month internship on Artificial Intelligence at Asia University, Taiwan in 2019-20. RIT is also collaborating with CTIF Global Capsule for 45 days' international internship (UG Fellowship) in various prestigious universities from Poland, the USA, Italy, Thailand, Denmark, England and Russia. Total 7 students secured UG fellowship at reputed organizations like University of Poznan, Poland, Ural Federal University, Russia, University of Nevada, USA.

Virtual Internship Programs (VIP)

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