

INDUSTRY ALIGNED INDUSTRIAL TRAINING FOR DIPLOMA ENGINEERING STUDENTS

BRANCHES : ME / ELE / ETC / CIVIL /CSE

COURSE STARTING SEMESTER : 3RD SEM

COURSE COMPLETION SEMESTER : 6TH SEM

CENTRE OF EXCELLENCES:

BOSCH REXROTH CENTRE / MITSUBISHI CENTRE / FESTO CENTRE / TRTC / SIEMENS CENTRE / HVAC & REFRIGERATION CENTRE / TATA MOTORS CENTRE / PLUMBING CENTRE / WELDING CENTRE / DRONE TECHNOLOGY CENTRE / ROBOTICS CENTRE / PCB CENTRE

COURSE OBJECTIVE :

The objective of the Industrial training program is to expose the participants to different aspects of Industrial automation and to improve their knowledge in Advanced Welding, Mechatronics , Hydraulics, Pneumatics, Tool Room & Production Machines, AC/DC Drives, LV Switch Gears, PLC, DCS and Total Integrated Automation Technology with IoT , Automobile , Refrigeration- Air conditioning, Robotics, Plumbing & Drone Technology. The program covers both class room and laboratory components in line with those recommended by International Brands like Bosch Rexroth, Festo, Mitsubishi, SIEMENS Ltd, BFW, Fanuc, TATA . The program will be conducted at C. V. Raman Campus and will offer the trainees an opportunity to handle state-of-the-art latest automation equipments marketed by Bosch Rexroth, Festo, Mitsubishi, SIEMENS Ltd, BFW, Fanuc, TATA. It helps to develop competent manpower for different Industries to support the industrial growth of India. The Training Centre has labs equipped with latest equipment on Welding, Hydraulics, Pneumatics, BFW, Fanuc, Mazak, I 4.0, AC/DC Drives, LV Switch Gears, DCS(PCS7) , PLC and Internet of Things, Automobile, Refrigeration- Air conditioning, Robotics, Plumbing & Drone Technology. . Apart from the labs the faculty have been trained on the subject in the authorised training centres of Bosch Rexroth, Germany, Siemens Germany, Festo, BFW, Fanuc, TATA etc.

COURSE SCHEDULE :

BRANCH	COURSE /Centre of Excellence	SEMESTER
Mechanical Group 1	CNC & Auto CAD /Tool Room	3 rd
Mechanical Group 2	Gas Arc & TIG MIG / Welding / Light Motor Vehicles TATA Technology	3 rd
Mechanical Group 1	Gas Arc & TIG MIG / Welding / Light Motor Vehicles TATA Technology	4 th
Mechanical Group 2	CNC & Auto CAD /Tool Room	4 th
Mechanical Group 1	Hydraulics & Pneumatics / Bosch Rexroth	5 th
Mechanical Group 2	Refrigeration & Air-conditioning / HVAC	5 th
Mechanical Group 1	Refrigeration & Air-conditioning / HVAC	6 th
Mechanical Group 2	Hydraulics & Pneumatics / Bosch Rexroth	6 th
Electrical	Relay Logic Control & Programmable Logic Controller / Bosch	3 rd

	Rexroth	
Electrical	Mechatronics / Bosch	4th
Electrical	AC DC Drive LV Switch Gear /Siemens	5th
Electrical	Factory Automation / Mitsubishi	6th
ETC	Relay Logic Control & Programmable Logic Controller / Bosch Rexroth	3rd
ETC	Mechatronics / Bosch Rexroth	4th
ETC	Integrated Automation / Siemens	5th
ETC	Factory Automation / Mitsubishi	6th
Civil	Hydraulics & Pneumatics / Bosch Rexroth	3rd
Civil	Plumbing Practices	4th
Civil	Water Tech / Festo	5th
Civil	Auto Cad / Tool Room	6th
Computer Science Group-1	I 4.0 (IoT) / Bosch Rexroth	3rd
Computer Science Group-2	I 4.0 (IoT) / Bosch Rexroth	4th
Computer Science Group-3	I 4.0 (IoT) / Bosch Rexroth	5th
Computer Science Group-4	I 4.0 (IoT) / Bosch Rexroth	6th

ABOUT CENTRE OF EXCELLENCES:

C.V.RAMAN BOSCH REXROTH CENTRE OF EXCELLENCE



C.V.Raman has collaborated with BoschRexroth, Germany – a market leader in drives and control equipment, to produce trained personnel for automation in industries. The collaboration has resulted in the establishment of a state-of-the-art training centre at the CGU campus. The objective of the above training programme is to expose the participants to different aspects of automation and improve their knowledge of Drive and Control Technology. The programme covers both classroom and laboratory components in line with those recommended by Bosch Rexroth. It will be highly beneficial for B.Tech., Diploma and ITI students. It will not only enhance their market value but also add to their employment potential. The C. V. Raman Bosch Rexroth Centre of Excellence was inaugurated on 17th September 2010 by the Hon'ble Minister, Dept. of Higher Education, Govt. of Odisha.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

HYDRAULIC, PNEUMATIC, PLC, SENSORICS, MECHATRONICS AND INDUSTRY 4.0.



C.V.RAMAN TOOL ROOM & TRAINING CENTRE



Established in 2012, C. V. Raman TRTC (Tool Room & Training Centre) Bhubaneswar is aimed at promoting technical education through a real manufacturing environment. It has ultramodern, sophisticated Tool Room facilities under one roof. It's what every tool maker would aspire for. The wide spectrum of hi-tech machines includes the latest and advanced in CNC Milling, CNC Turning and EDM Wire Cut machines which can cater to various requirements of the customers. Modern Tool Room facilities are indispensable for the industrial development of the country.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

In-depth training in production processes like process planning, CAD, CAM, machining, assembling and inspection, CAD/CAM/CAE/CNC machining and tool & die technology.



C.V.RAMAN WELDING CENTRE OF EXCELLENCE



Advanced Welding CoE of C.V. Raman, established in the year 2016 aims to promote technical education on Training & Research programmes which will help in catering to the growing demands from Engineering and manufacturing industries in India.

It imparts training to undergraduate, postgraduate and vocational school students to meet industry requirements, bridging the industry-academic gap and enhancing the competency levels of students for better employability.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Basic & Advanced Welding with Robotics Application





TATA Technologies Limited is a company in the Tata Group that provides services in engineering and design, product lifecycle management, manufacturing, product development, and IT service management to automotive and aerospace OEM Companies and their suppliers.

The Objective is to make Students Industry Ready by exposing them to the latest in modern designs using advanced software, digital manufacturing, and Product Life Cycle management processes. The latest concepts in Automotive Engineering are imparted by the Subject Matter Experts. Students get exposure to value-added Hands On experience under the supervision of the specialist

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

LIGHT MOTOR VEHICLE & THE LATEST CONCEPTS IN AUTOMOTIVE ENGINEERING



C.V.RAMAN MITSUBISHI ELECTRIC TECHNOLOGY CENTRE OF EXCELLENCE



Distinguished as the first and sole Authorized Training Centre (ATC) for Mitsubishi Electric FA in Odisha, the center provides access to cutting-edge equipment deployed in real-world automation applications. Through immersive hands-on training, students gain practical experience, equipping them to excel in the automation industry, which represents the future of diverse sectors. Each course schedule strikes a harmonious balance between theoretical instruction and practical training, ensuring a comprehensive understanding and mastery of the automation technologies and techniques being taught.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Hands On Practice with Mitsubishi Electric iQ-R PLC-based FA training kit, incorporating high-tech components such as HMI, VFD, Servo Amplifier, and a Robot Arm 4V-4FRL, various series of Robot Controllers and Robot Arms, exploring their diverse functionalities and applications in the field of robotics.



C.V.RAMAN PLUMBING TECHNOLOGY CENTRE OF EXCELLENCE



C.V. Raman is in collaboration with IAPMO and IPA for the latest technology in Plumbing & Piping. The broad area of operation comprises planning, design, installation, and maintenance of plumbing infrastructure.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Training modules from Germany to have the trainee hands-on practice on the working of different plumbing activities to supplement the planning, design, installation, and maintenance of plumbing infrastructure.



C.V.RAMAN SIEMENS TECHNOLOGY CENTRE OF EXCELLENCE



Established in 2014, the C.V. Raman Siemens CoE at CVRaman campus is a state-of-the-art training centre resulting from our collaboration with Siemens, a leader in Automation Technology. It plays a vital role in facilitating continuous learning for our students, empowering them to enhance their technical skills and tackle challenges in diverse technical landscapes.

Our course schedules strike a balance between theory and hands-on training, catering to both working professionals and students. With Siemens Certified trainers guiding participants, we equip them with the knowledge and skills needed to make significant contributions to their organisations' productivity and performance.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Automation & Drive training, covering PLC, DCS, Drives, HMI, SCADA, and LV Switchgear. Our modules provide flexible and value-based training, ensuring effective learning and enabling businesses to achieve greater productivity, cost reductions, and process optimization.



C.V.RAMAN FESTO CENTRE OF EXCELLENCE



C.V. Raman FESTO CoE was established in the year 2014 in partnership with “FESTO”, a pioneering German company and a performance leader in industrial training and education with its innovations in factory and process automation for over 75 years. CGU’s FESTO Centre aims to support the nation by generating a trained workforce at facilities adhering to global standards while offering technical solutions and consultancies to local industries for Process Automation.

The centre with its world-class training facilities has even earned a gold medal for Mr S. Aswatha Narayana in Water Technology at WorldSkills 2019 in Kazan, Russia and a silver medal for Mr Praveen Kumar Giri in Water Technology at WorldSkills 2022 in Stuttgart, Germany.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Training in Process Automation – Basic technologies, Partly automated and Fully automated systems. These include all fluids, gases and powdery substances employed in production whether these substances are used in manual or automated processes. Process Technology uses mostly closed-loop controllers and covers production, transportation, treatment and disposal.



C.V.RAMAN DRONE TECHNOLOGY CENTRE OF EXCELLENCE



Drone Technology Centre of Excellence is a pioneering centre of the C. V. Raman Global University, It has a high-tech laboratory for drone designing, manufacturing, assembling, maintenance, and research & development. The Center offers consultation on drone systems, research and capacity-building projects, and project collaborations.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Main Aim of the Training is to enhance the basic concepts of drones and assemble a complete drone from scratch, teach the calibration of its flight parameters, train to fly them manually and program them for autonomous flight.



C.V.RAMAN ROBOTICS CENTRE OF EXCELLENCE



The C.V. Raman Robotics Centre of Excellence is a state-of-the-art Embedded Systems and Robotics training centre established in 2013 in collaboration with ED Co. Ltd, South Korea. Located on the premises of C.V. Raman, focuses on strengthening technology training and bridging the gap between industry and the educational systems.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Imparting high-quality Embedded Systems and Robotics training.





One of the pioneers in printed circuit board designing and fabrication, always striving to cope with the ever-advancing pace of technology. We upgraded our laboratory with the latest equipment provided by LPKF Laser & Electronics Pvt. Ltd which is a global leader in printed circuit board designing and fabrication and also supplying machinery with raw materials to develop high-quality industry standard printed circuit boards.

TRAINING PROGRAMME FOR DIPLOMA ENGINEERING STUDENTS:

Training on up to eight layers of PCB fabrication, stencil preparation, and assembly of both PTH & SMD components with in-house PCB Layout Design by our well-experienced trainers.

