



**C. V. Raman
Global University**
Odisha . India

CGU
ODISHA



INFORMATION BROCHURE



From **President's** Desk

At C.V. Raman Global University, Bhubaneswar, Odisha, we fully understand the multifarious roles education plays in the life of students.

Our focus is to provide a well-rounded education, blended academic pursuit, skill development and extra-curricular activities. Established as per the Odisha Act 2020, CGU is a natural progression of C. V. Raman College of Engineering, founded in 1997. With constant addition, CGU now offers a plethora of courses in different areas of learning. The university has a state-of-the-art infrastructure and a dedicated faculty, viewed as its most important pillars. In addition, CGU has adopted and implemented the National Education Policy 2020 (NEP). To focus on skill development and to connect education with industry, CGU has established 26 Centres of Excellence which are supported by industry partners. These measures have led to the success of our students at the World Skills Platforms, with Gold and Silver medals won in 2019 and 2022, respectively. Recognizing the importance of start-ups in the development of industry, we provide infrastructure and facilities to start-ups through our incubation centres. These centres are nurturing several engineering and agro-engineering start-ups. At CGU, students from 28 different nationalities live, study and grow in a stimulating environment which provides a rich multicultural exposure to our students. The education they receive not only enables them to get placements in leading industrial and social organizations but also ensures a wealth of academic learning and cultural growth opportunity for them.

Sanjib Kumar Rout
Founder President, CGU, Odisha



From **Vice-Chancellor's** Desk

The world, in the era of a knowledge economy with a focus on sustainable development, is recalibrating its moves in the post-COVID period. The supremacy of knowledge was always envisaged in India, as espoused by one of the four mahavakya or major sayings of Vedas or "Pragyanam Brahma" which means "Knowledge is Supreme or Ultimate". In the post-COVID era, most nations are relooking at a new paradigm of: i) Reshoring ii) Diversification iii) Regionalization and iv) Replication to minimize external influence and optimize international collaborations. Such collaborations are being planned by the key players with the partners who provide the highest Global Value Chain (GVC) empowerment. Further, all future developments, be it an innovative product or effective novel service, are supposed to be enabled by knowledge. The recent UNCTAD World Investment Report 2022 shows that India figures at the top in Global Value Chains (GVC). Further knowledge-enabled disruptive products and services are expected to account for over \$40 Trillion market opportunity, of which over 25% is to be contributed by India. C. V. Raman Global University, as a new university, has set itself to be a major cog in the Indian GVC chain wheel in the era of Knowledge Economy. The effort is to create a new education pedagogy ready for the 21st-century skills, Industry 4.0, Age of Digitalization & Education 4.0, with a focus on experiential learning & orienting faculty to relook at an inclusive continuous formative STUDENT CENTRIC assessment of integrated learning, linking knowledge, skills and competence. To enable the same, the university has proactively established over 26 advanced, industry-based labs for skilling and product development, thus providing students with a unique platform for learning by doing. This is especially enabled by bringing academia and Industry, including (MSMEs & startups) to work together for Experiential Learning, Research & Innovation, thus leading to Skilled Employable Students with competence in Innovation, R&D, Joint development and Entrepreneurship. With an effort to not just enable Incremental Innovation or adaptation for products and services, but even generate next-generation Disruptive Technologies with a focus on "Make in India" or Atma Nirbhartha, it is our constant endeavour to stay steady with the university vision and encaptured in the tag line "Home grown World class". C V Raman Global University offers something unique to prepare each one of them for the world of the future, bringing the best of both worlds, at the most affordable cost with an assured great experience of learning.

Prof. (Dr.) Sudhindra Nath Panda
Vice-chancellor, CGU, Odisha



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Welcome to C.V. Raman Global University

Located in Bhubaneswar, the capital city of Odisha, C.V. Raman Global University (CGU) is a premier educational institution in Eastern India. It attracts students from all over the world. Currently students from 28 different nationalities are studying at CGU. This diverse student body provides a rich multicultural ambience for the students. Various programs in engineering, pure sciences, agriculture, management, tourism and hospitality, and humanities are being offered at CGU. Additionally, there are two incubation centres for start-ups to support student entrepreneurship.

Evolution of Leadership

CGU, Odisha hinges on the legacy and leadership of C.V. Raman College of Engineering (CVRCE) which began its transformative journey in 1997. It grew in record time imparting technical education with a larger purpose and impact through world-class laboratories, research-intensive learning pedagogy, unmatched Centres of Excellence and unhindered connectivity to some of the finest libraries in the world. CGU, Odisha imbibes the same institutional values of CVRCE and aims to offer a dynamic learning environment to students through its responsive support system, robust infrastructure and global exposure enabled via International seminars, conferences and workshops. Committed to offering quality education to all, it aims to push the frontiers of knowledge with cutting-edge research, innovation and creative thinking.



Vision

To emerge as a global leader in the area of technical and professional education; create a benchmark for R & D and technical innovations; add new frontiers to Basic Sciences, Humanities, Engineering and Management.

Mission

Providing state-of-the-art technology education at UG, PG and Ph. D levels, working collaboratively with world leaders in technical education, research, innovation and human resource development in varsities and institutions, keeping abreast with the latest technical advancements and R & D activities, re-orienting our vision and objectives in a time-bound, but phased manner.

Infrastructure & Facilities

- Campus
- Central Library
- Hostel
- Food Court
- Clubs
- National Service Scheme (NSS)
- Health Centre
- Auditorium
- Bank / Post-Office
- Sports Facilities
- AIC & TBI Incubation Centre for Start-ups
- Centres of Excellence

Infrastructure & Facilities

Campus



- 110 acres of sprawling Green Campus
- Wi-Fi enabled.

- Seating capacity of 500 students
- 64,081 books
- 2,220 journals
- 59 periodicals
- CD-ROM, DVD-ROM
- On-line databases
- Micro-documents
- Video-cassettes
- Audio-visual facilities
- NPTEL (National Programme on Technology Enhanced Learning)
- Audio - visual courses

Central Library



Hostel



- 6 hostels with a capacity to accommodate 2500 students
- Separate hostels for boys and girls
- Individual and shared accommodation
- AC and Non-AC rooms

Infrastructure & Facilities

Food Court



- Being centrally located, the university food court and cafeteria serve snacks and meals to the students and staff at affordable prices.
- Besides the food court and the cafeteria, the campus also runs a canteen for students and the staff.

Health Centre



The University has a dispensary to meet the medical needs of the students and the staff. It has ambulance facilities in case of medical emergencies. The health centre has a team of dedicated healthcare professionals available round-the clock to address the needs of the students.

Clubs

- The following clubs are available at the university;
- Robotics, Photography, Band, Nukkad, Carom, Chess, Basketball, Badminton, Cricket, Volleyball, Kabaddi, Electric Mobility, NCC, NSS, Yoga, Literary, Ethic, EBSB, Marketing Club, Football, Space Club.



Auditorium

- S. C. Bhadra Auditorium: Seating capacity 400
- RIHC Auditorium: Seating capacity 250
- Bosch Auditorium (with a state-of-art facility, and superior acoustics): Seating capacity 140



NSS



- NSS allows the students to identify community needs, participate in community development and evolve a sense of social responsibility.

Bank/ Post Office



For fast and smooth financial transactions the University has a Bank inside its campus for the benefit of the students and staff. There is also a Post Office on the campus that caters to the various needs of the students and the staff. The bank including the ATM and the post office are all located at the back gate of the campus.

Infrastructure & Facilities

Sports



The University has excellent recreational facilities for sports including a gymnasium, basketball court, volleyball court and spacious grounds for sports such as football, cricket and hockey. There is an on-campus swimming pool for the students. Regular yoga practice classes are held for the holistic physical and mental well being of the students.

Atal Incubation Centre (AIC) - CGU was established under the Atal Innovation Mission (AIM) of NITI Aayog. "The AIC especially focuses on bringing all aspects for Digitalization including AI, ML, Big Data, Analytics and Virtual Reality, and Media Labs together for product, process and service enabling." Supports, facilities like initial brainstorming, furnishing ideas, consultancy, mentorship, networking, and connecting to other subject experts, leading them to market access.

AIC & TBI Incubation Centre



Centres of Excellence



At present, the University has 26 Centres of Excellence (CoEs). To name the prominent ones, they are the Bosch-Rexroth Center of Excellence, FESTO Authorised and Certified Training Centre (FACT), Siemens Center of Excellence and Robotics Center of Excellence to generate trained workforce adhering to global standards while offering technical solutions and consultancies to local industries for Process Automation.

Connectivity

CGU is well connected to the Bhubaneswar international airport, railway station and central bus station. The city is also well connected by road to Delhi, Bhopal, Ranchi, Raipur, Kolkata and Hyderabad. From infrastructure to knowledge, skills and extracurricular activities, to an excellent placement cell and start-up incubation facility, CGU is a friend, guide and mentor to its students at every step on their way to success.

Faculty of ENGINEERING & TECHNOLOGY

- Department of Chemical Engineering
- Department of Civil Engineering
- Department of Computer Science and Engineering
- Department of Electrical Engineering
- Department of Electronics & Communication Engineering
- Department of Marine Engineering
- Department of Mechanical Engineering



DEPARTMENT OF Chemical Engineering

Established in 2006, the Department offers courses such as B. Tech, M. Tech, and Ph.D. in Chemical Engineering. The courses provide deep insight into the chemical processes and industrial chemical techniques. The Department is committed to producing students that are very promising with significant potential. The Department has well-equipped labs and its faculty members have expertise in various areas. Industry visits, conferences, expert presentations, and advanced training courses in different prominent areas are all organised by the department to cater to the academic interests of the students and keep them abreast of the most current technological developments. Training in specialised software like CHEMCAD, MATLAB, and Process Automation is also offered by the Department to further prepare students for careers in the sector. The Department's FACT Centre of Excellence is a great resource for students looking to learn more.

Academic Programmes

B. Tech in Chemical Engineering
M. Tech in Chemical Engineering
M. Tech (Research) in Chemical Engineering
Ph.D. in Chemical Engineering
CHEMAD Special Course
MATLAB Special Course
Process Automation Special Course

Laboratories

Mechanical Operation Laboratory
Fluid Flow and Flow Measurement Laboratory
Chemical Process Technology Laboratory
Fuel Combustion Technology Laboratory
Mass Transfer Laboratory
Process Control Laboratory
Computer-Aided Design Laboratory
Water Technology Laboratory
Chemical Reaction Engineering Laboratory
Heat Transfer Laboratory



Achievements

S. Aswath Narayan : Gold Medal winner (in Water Technology) at WorldSkills 2019

Praveen Kumar Giri : Silver Medal winner (in Water Technology) at WorldSkills 2022

Tania Pal : 1st Prize, IFAT India University Challenge - Young Water Professionals' Program, 2019 organised by: IFAT India & DWA, Germany.

1st Prize, Poster Presentation, 2019. Organised by: Chemical Engineering IGIT Sarang, QUIMICA -4.0

D. Kissan Achary: 1st Prize, IFAT India University Challenge Young Water Professionals' Program, 2019 organised by: IFAT India & DWA, Germany

Somnath Khatei : Silver Medal in IndiaSkills 2018 Water Technology

The Department has been a successful combination of academic and industrial expertise. Young potential talents in structural, water resources, transportation, and environmental engineering inspire and guide students in diverse programmes. There are seven well-equipped labs used for research and projects which enables the department to publish a large number of articles in indexed national and international journals. The department has been constantly adding value to the curriculum by establishing a plumbing centre of excellence, imparting REVIT, AutoCAD, STAAD Pro, GIS, RS, etc. Since November 2018, the department has had a student branch in the India Chapter of the American Concrete Institute (IC-ACI) serving eastern India.

DEPARTMENT OF Civil Engineering



Academic Programmes

B. Tech in Civil Engineering

M. Tech (Research) in Civil Engineering

Ph.D. in Civil Engineering

Laboratories

Concrete Laboratory

Geotechnical Laboratory

Transportation Laboratory

Survey Laboratory

Fluid Mechanics and Hydraulic Machines' Laboratory

Material Testing Laboratory

STAAD Pro and AutoCAD Laboratory

Achievements

MD Monish Kamal : Gold Medal in Bricklaying at India-Skills National Competition 2022, Delhi, India

Represented India in WorldSkills Brick Laying competitions

Mohit Prakash: Silver Medal in Construction Work at India-Skills National Competition 2022, Delhi, India

Represented India in WorldSkills Concrete Construction competitions

Rinki Mahato: Medallion of Excellence in Plumbing and Heating at India Skills 2022, Delhi, India

Gold Medal in Plumbing and Heating at Regional Level North India 2021, Delhi, India

Research Areas of the Department

Concrete with different reinforcement materials

Design of structures using STAAD Pro

Industrial waste water treatment by adsorption and biological methods

Turbulent flow around submerged vertical cylinders

Atterburg's limits of Bentonite clay





DEPARTMENT OF Computer Science and Engineering

Established in 1997. The Department is recognised by NBA as Tier-1 and ISO for its high-quality education. It has a strong history of placing Bachelor's and Master's Degree students in international software companies and top US universities. Work-integrated learning, learning-based work, problem-solving, and cross-cultural abilities has made the CSE Department standout. In addition, the Department works in research fields such as Neuro Robotics, Machine Learning, Cloud Computing, Computer Vision, WSN, MANET, IoT, SDN, Big data Analytics, Image Processing, Network Security, Pattern Reorganization, Software Testing and Software Engineering. The Department has IoT, Cyber Security, AI & ML and AR & VR Centre of Excellence. The department plans to set up a "Centre of Excellence" in Print Media Technology, IT Network & Cabling and IT Network Administration to make the student industry ready. University has recently signed MOU with IBM India, NASSCOM India, Marcraft USA, Calligotech India, FANUC India and Amazon Web Services. The Department is committed to maintaining assured academic standards by focusing on Outcome Based Education (OBE), creative teaching, Industry-Academic interaction, and live projects. Students can face life's challenges with our holistic, student-centred teaching-learning methods, and it also encourages them to indulge in extracurricular activities to shape themselves up as leaders.

Academic Programmes

B. Tech in Computer Science & Engineering

B. Tech in Computer Science & IT

B. Tech in Computer Science Engineering (AI & Machine Learning)

B. Tech in Computer Science Engineering (Data Science)

B. Tech in Computer Science & System Engineering

B. Tech in Computer Engineering (Software Engineering)

B. Tech in Computer Engineering

B. Tech in Computer Science & Engineering (IoT & Cyber Security Including Block Chain Technology)

B. Tech in Robotics & Artificial Intelligence

B. Tech in Cloud Computing

B. Tech in Web Technology

M. Tech in Computer Science & Engineering

M.Tech (Research) in Computer Science & Engineering

Ph.D. in Computer Science & Engineering



Laboratories

Operating System Laboratory

Database Engineering Laboratory

Programming Laboratory

Network Laboratory

Computer Organisation Laboratory

IoT & SCADA Laboratory

Supercomputing (AI & ML) Laboratory

Research Laboratory

Cyber Security Laboratory

Cloud Computing Laboratory

Achievements

Swagat Choudhury: Represent India in World Skills, Print Media Technology, 2022

Yashika: Represent India in World Skills Special Edition, Industry 4.0 skills 2022

Team Falcon, Winner, Smart India Hackathon, 2022

Team Tesla, Winner, Smart India Hackathon, 2019

Team CodeKids, Winner, Smart India Hackathon, 2019

Kaushik Ojha: Gold Medal, Odisha Skills Development, 2019

Winner of Cognizant Master Code - 2019

Winner of Chhatra Viswakarma Awards - 2019

BRICS Future Skills-2020 (Best of the Nation winner in ITSSB, ML & Big Data)

Safia Akhtar : SIH-2022 Finalist Ideathon 2022

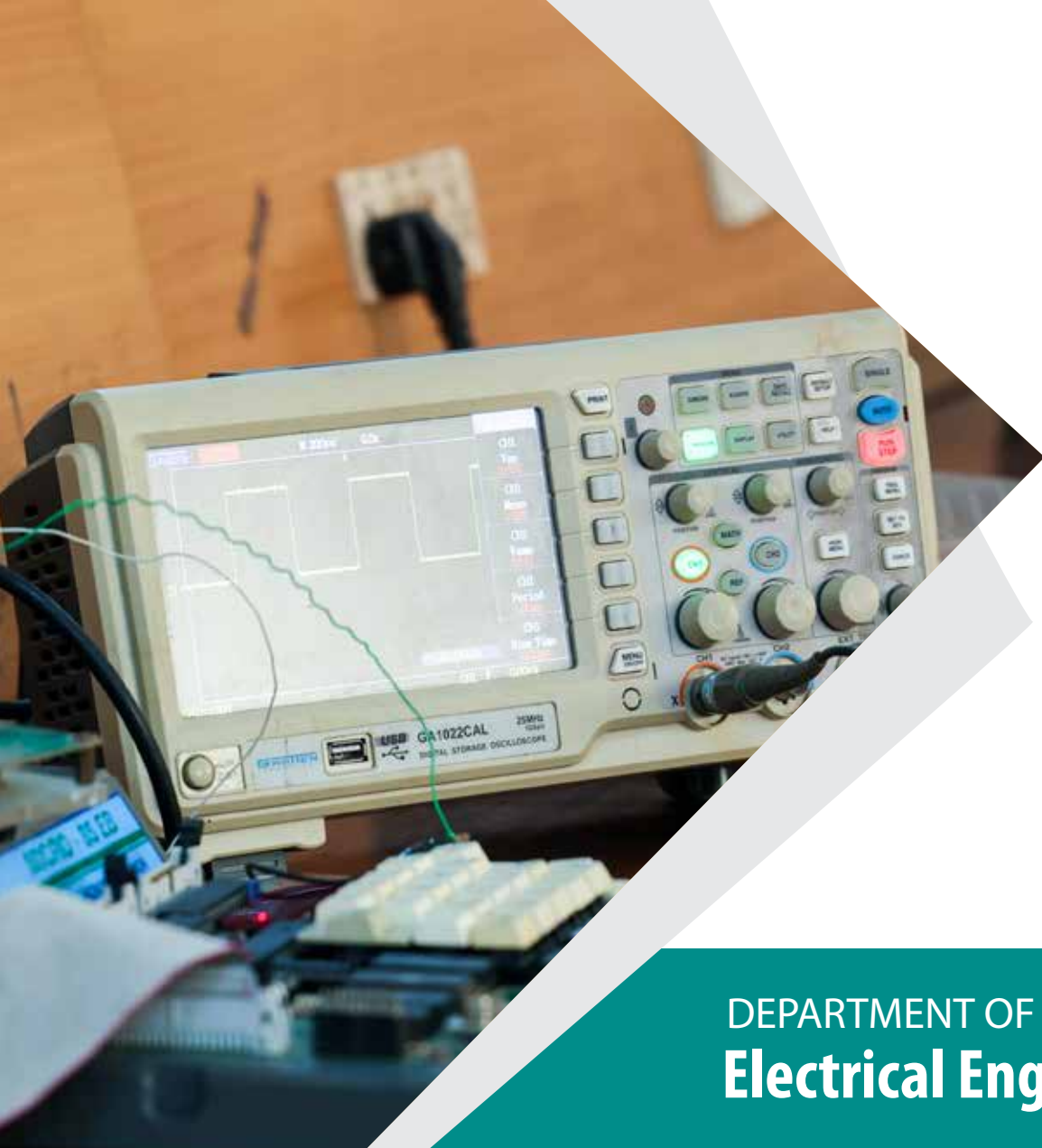
Finalist Odisha Technological Conclave 2022

Janmajay Behera : 1st position in Web Development organised by GDSC in association with Newton School Positioned in the TOP 50 at the AR-VR game development Hackathon in TECHXR in association with IIT ROORKEE.

Sachidanand Sahu : BRICS Skills Competition 2022, International Winner (Bronze) in Mobile App. Development

Tithi Singh : Model Conclave 2022 Winner Smart India Hackathon 2022 Runners Up





DEPARTMENT OF Electrical Engineering

Set up in 2002 the Department of Electrical Engineering aims at producing trained engineers to fulfil industrial demands. The department's curriculum emphasises basic principles of EE while encouraging students to solve engineering issues independently by using multidisciplinary technologies in diverse sectors of Electrical Engineering. The Department offers advanced courses in Smart Grids, Electric Drives and Traction, Renewable Energy, Electric vehicles, Artificial Intelligence & IoT. It has the newest simulation tools including MATLAB, SIMULINK, PSCAD, EMTDC, ETAP, PSPICE, and others to serve numerous specialities and facilities for measurement, characterization, and synthesis of experimental and theoretical findings as well as research. For industry institute engagement, the department often visits OPTCL, SLDC, OHPC, NTPC, and others. It provides a welcoming environment and abundant research resources for teachers and students to conduct high-quality research to gain national and worldwide recognition. The department hosts IEEE, Springer, and other International and National Conferences.

Academic Programmes

- B. Tech in Electrical Engineering
- B. Tech in Electrical & Electronics Engineering
- M. Tech in Electrical Engineering (with specialisation in Power System Engineering)
- M. Tech in Mechatronics
- M. Tech (Research) in Electrical Engineering
- Ph.D. in Electrical Engineering

Laboratories

- Basic Electrical Engineering Laboratory
- Network & Devices Laboratory
- Electrical Machine – Laboratory (I)
- Electrical Machine – Laboratory (II)
- Power Electronics Laboratory
- Electric Drives Laboratory
- Renewable Energy Sources Laboratory
- Electrical Measurement Laboratory
- Power System Protection Laboratory
- Control System Laboratory
- Simulation Laboratory
- Schneider Electric Laboratory
- SEW Eurodrive Laboratory
- Quanser Laboratory



Achievements

Roubins Kumar: Silver Medal in Mobile Robotics National skills, India 2021

Soumya Darshan Mahakul: Silver Medal in Mobile Robotics National skills, India 2021

Sweta Sneha Das: Bronze Medal in Renewable Energy Skills, National skills, India 2021

Deepak Kumar Beniya: Medal of Excellence in Mobile Robotics National skills, India 2021

Silver Medal in Mobile Robotics East Zone, World Skills 2021

Jasman Sahu: Silver Medal in Mobile Robotics East Zone, World Skills 2021

Satyam Tarai: Silver Medal, Industrial Control, Odisha Skills 2021

Puranchand Verma: Bronze Medal, Industrial Control, Odisha Skills 2021

Swaraj Kumar Sahu: Gold Medal, Mechatronics, Odisha Skills, 2021

Ashish Kumar Jena: Gold Medal, Mechatronics, Odisha Skills, 2021





DEPARTMENT OF Electronics & Communication Engineering

The capacity to communicate information quickly, precisely, and effectively has always been a driving force behind human creativity. From ancient humans using signal fires to today's high-powered executives with smartphones, communication has always been essential for survival and achievement. Telecom has continually progressed with human expansion, becoming more ubiquitous and efficient as contemporary civilization advances and develops. The Department of Electronics and Communication Engineering (ECE) was founded in 1997 to produce world-class Engineers and Researchers in Communication Engineering, Electronics System designing, Embedded & IoT, Signal Processing, Image Processing and Robotics. The department's best practices in teaching, learning, industry-relevant courses, R&D, and student placement have gone up by leaps and bounds over the last two decades.

Academic Programmes

B. Tech in Electronics and Communication Engg
 B. Tech in Electronics and Computer Science Engg
 M. Tech in Electronics and Communication Engg
 (Spl. in Signal Processing and Communication)
 M. Tech (Research) in Electronics & Communication Engg
 Ph.D. in Electronics and Communication Engg



Laboratories

Analog Electronics Circuit Lab
 Digital Electronics Circuit Lab
 MATLAB Fundamental and Programming Technique Lab
 Microprocessor & Microcontroller Lab
 Analog Communication Lab
 Digital Communication Lab
 VLSI Design Lab
 Digital Signal Processing Lab
 RF and Microwave Engineering Lab
 Digital Image Processing Lab
 Information Theory and Coding Lab
 Advanced Communication (Optical and Satellite Lab)
 Radar and TV Engineering Lab
 Design and Simulation Lab
 Image Analysis and Computer Vision Lab (R&D)
 Soft Computing Lab (R&D)
 Space Systems Lab



Achievements

Safwan Ghanem, Shakti Kumari and Rubeena Naaz: Won the first prize in the Smart India Hackathon 2019

Shikha Kumari Pathak, Taniya Ghosh, Gayatri Jena, Akash Mishra, and Pratyush Pani: Won the first prize in Smart India Hackathon 2020

Swati Kumari and Nausin Nigar: Represented India at the WorldSkills competition (in 2022) in Robot System Integration.

National level Gold Medal in India Skills competition.

Silver Medal winner at regional level in IndiaSkills competition

Anikesh Sharma: Participated in CGU Internal Hackathon

Participated in Model Exhibition at Jaydev Bhawan, Bhubaneswar

Suman Kuma: Won the Bronze Medal in OdishaSkills State Level Competition in the field of Mechatronics 2021.

The Department of Marine Engineering was established in 2003 under the auspices of BPUT with DGS's consent. In 2009, the organisation's affiliation was switched to IMU. Once again, the affiliation moved in 2016 from IMU to BPUT (Autonomous) and subsequently in 2020 to C. V Raman Global University. The department offers undergraduate and graduate courses in technical education. It collaborates consistently with Technical Institutes, Universities, and industries of national and international repute. To make the students aware of the most recent technological advancements, the department provides modern laboratories and equipments. Faculty members, along with students and research scientists are committed to boosting the university's R&D activities.

DEPARTMENT OF Marine Engineering



Academic Programmes

B. Tech in Marine Engineering

1 Year Graduate Marine Engg. (GME)

Ph.D. in Marine Engineering

STCW Courses

Laboratories

Marine Workshop

OOW Simulator

GMDSS Simulator

Auxiliary Boiler

Fire Fighting lab

Ship-in-Campus

Advanced STCW & Modular Courses

Ship Security Officer (SSO)

Medical First Aid (MFA)

Advance Fire Fighting (AFF)

Proficiency in Survival Craft and Rescue Boat (PSCRB)

Refresher Training for Proficiency in MFA

Refresher Training for Proficiency in AFF

Basic STCW & Modular Courses

Personal Safety and Social Responsibilities (PSSR)

Elementary First Aid (EFA)

Personal Survival Techniques (PST)

Fire Preservation and Fire Fighting (FPFF)

Basic Safety Training (PSSR+EFA+PST+FPFF)

Security Training for Seafarers with Designated Security Duties

Refresher Training for Proficiency in FPFF

Refresher Training for Proficiency in PST

Basic Training for Oil & Chemical Tanker Cargo Operation (OCTO)







DEPARTMENT OF Mechanical Engineering

The Department of Mechanical Engineering was established in 1997. The objective of the Department is to be regarded as one of the best Departments for excellent teaching and research relevant to Mechanical Engineering. The Department consults DST, BRNS, NALCO, and other funding agencies on several R&D initiatives. The Department offers B.Tech., M.Tech., and Ph.D. programmes and has a great research environment. The Department encompasses HVAC, Welding, TTL, TRTC, and Bosch Centres of Excellence. The Department researches various areas like Heat exchanger analysis, Phase change material and Solar thermal applications, Welding Technology, Mineral Processing and Materials Characterization, Refrigeration and air-conditioning, Cryogenics, Material Science, Product Development, Automotive Design, Micro-machining & Cryogenic Machining, Rotor dynamics, Mechatronics System, Advance Machining Process, Smart Materials, Vibration, Fluid Mechanics & CFD applications in single and multiphase flows, Sustainable Machining & Machining Tribology, Composite materials, Bio-fuel and Optimization.

Academic Programmes

B. Tech in Mechanical Engineering
 M. Tech in Mechanical Engineering
 M. Tech in Thermal Engineering
 M. Tech in Production Engineering
 M. Tech in Mechanical Engineering
 M. Tech (Research) in Mechanical Engineering
 Ph.D. in Mechanical Engineering



Laboratories

Central Workshop
 Computer Centre
 Mechanical Measurement Laboratory
 Refrigeration & Air-conditioning Laboratory
 Heat Transfer Laboratory
 Production & Dynamics Laboratory
 Fluid Machine & Fluid Power Laboratory
 Internal Combustion Engine Laboratory
 Basic Manufacturing Laboratory
 Fluid Mechanics and Mechanism Laboratory
 Basic Mechanical Engineering Laboratory
 Material Science Laboratory
 Heating, Ventilation and Air Conditioning (HVAC) Lab
 Tata Technology Laboratory (TTL)
 Welding Laboratory
 Cryogenics Laboratory



Achievements

Jagriti Karna: 2nd Position in the Best Speaker Category at MOCK G20 Organized by SOA under 'G20 Jan Bhagidari' Initiative

Anurag Parida: Silver Medallist in WorldSkills Competition (South zone),

Medallion of Excellence in WorldSkills Competition (National level)

Apramaya Hrishikesh: 'Silver Medal' at Regional Competition -South in the Skill Welding 2021 (National Skill Development Corporation).

Medallion of Excellence at India Skills National Competition 2022

Omkar Narayan Mohanty: Winner of 'Fronius India Award - Aspirant Welding Engineers' Competition 2020-21.

Third Prize in Students Group in the 5th Welding Technology International Remote Competition (2021 Arc Cup International Welding Competition).





Faculty of PHYSICAL & MATHEMATICAL SCIENCE

- Department of Chemistry
- Department of Physics
- Department of Mathematics
- Department of Life Sciences



DEPARTMENT OF **Chemistry**

The Department of Chemistry was established in 1997. The Department teaches Engineering Chemistry, Environmental Science and Technology, and Material Science to undergraduates, and Industrial Chemistry to all Engineering Students. The Department has been conducting laboratory classes for Engineering Chemistry and Industrial Chemistry. In addition to teaching, the department is engaged in several R&D initiatives. The P.G. course in Chemistry began in 2018. The U.G. and P.G. students work on a variety of Minor and Major projects during their studies. The Department offers programmes in research areas such as Catalysis, Environmental Reactions, Water splitting, Medicinal Chemistry, Inorganic complex synthesis and application, Electrochemical applications and Materials synthesis and characterization.

Academic Programmes

M.Sc. in Chemistry

Ph.D. in Chemistry

Laboratories

Inorganic Chemistry Laboratory

Organic Chemistry Laboratory

Food Testing (Food, Soil & Water) Laboratory

Engineering Chemistry Laboratory

Industrial Chemistry Laboratory

Analytical Chemistry Laboratory





DEPARTMENT OF **Physics**

The Department of Physics came into existence in 1997. It manages introductory courses for undergraduates in Engineering Physics. Since 2016, the Department has been providing Postgraduate courses in the field of Applied Physics, with three new combinations available for M.Sc. such as Fibre Optics and Optoelectronics, Plasma Physics, and Materials Science and Technology. The Department conducts research in Fibre Optics and Optoelectronics, Materials Science, Physics, Nanotechnology, Thin Film Technology, Polymer Composites and Computational Quantum Physics. In the last three years, it has published around fifty publications. It is now operating one DST-sponsored project and has a Mobile Science & Technology Laboratory that supports science education in rural high schools. The department has been awarded the following funds for research: AICTE-funded MODROB Project, CSIR-funded Project, and DST-funded Project.

Academic Programmes

M.Sc. in Physics

Ph.D. in Physics

Laboratories

(P.G. Lab)

Electromagnetics and Optics Laboratory

General Physics Laboratory

Analog & Digital Electronics Laboratory

Numerical Methods & Computational Techniques Laboratory

Modern Physics Laboratory

Plasma Physics Laboratory

Material Science Laboratory

Fibre Optics & Optoelectronics Laboratory

(U.G. Labs)

Engineering Physics Laboratory

Material Science Laboratory

Nano-photonics Laboratory

(Research Labs)

Material Science Laboratory

Nano-photonics Laboratory



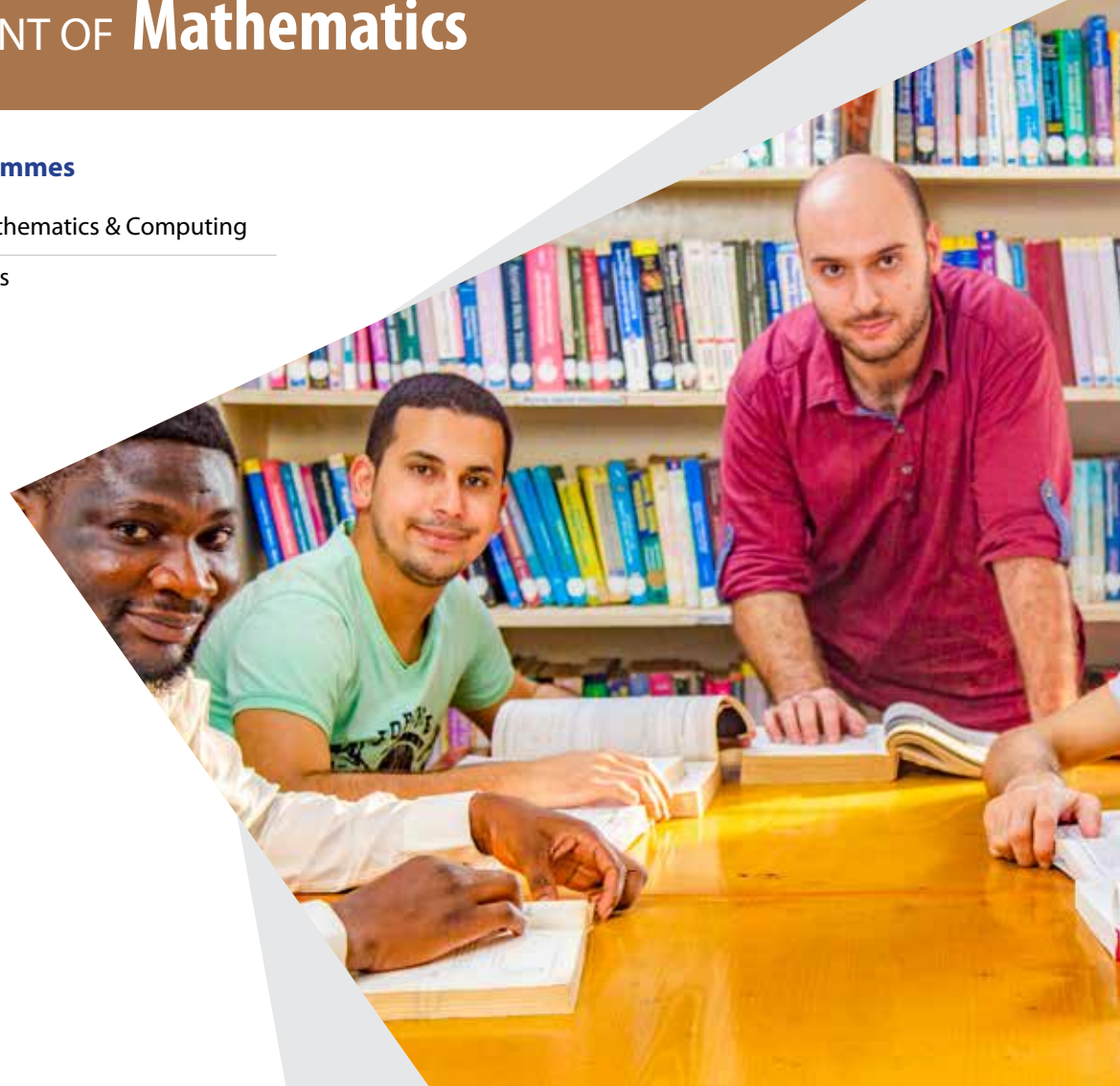
The Department of Mathematics came into existence in 1997. The Department offers various Mathematics courses to Graduate and Post Graduate Engineering students. As Mathematics is the language of engineering, the department serves the same purpose as any other engineering department. The department teaches Differential Calculus, Integral Calculus, Vector Calculus, Matrix Algebra, Ordinary and Partial Differential Equations, Complex Analysis, Numerical analysis, Discrete Mathematics, Graph Theory, Laplace Transform, Fourier series and Z-Transforms, Optimization Engineering, Probability Theory and Stochastic Process. P.G. Degree in Mathematics started in 2016. The Department's mission is to provide world-class mathematics education and research in engineering, industry, sciences, and commerce in a diverse society. Postgraduate and Ph.D. scholars are involved in advanced research and publishing. The department acts as consults and researches Cosmology, Differential Equations, Fluid Dynamics, Graph Theory, Inventory Models, Mathematical Epidemiology, Optimization, Fuzzy Optimization, Algebra, and Cryptography. Government of India organisations such as AICTE, DST, and CSIR help the department's R&D initiatives.

DEPARTMENT OF Mathematics

Academic Programmes

M.Sc. in Applied Mathematics & Computing

Ph.D. in Mathematics



DEPARTMENT OF Life Science



The Department of Life Sciences comprises disciplines requiring multi-disciplinary and inter-disciplinary teaching and research in life science and represents almost all areas of modern biology. Although the Department is relatively new, the faculty members are expert researchers. The Department has made pioneering efforts to integrate Physical Sciences and Engineering Technology with Biological Sciences.



Academic Programmes

M.Sc. in Zoology

M.Sc. in Botany

M.Sc. in Life Sciences

M.Sc. in Bio Informatics

M.Sc. in Bio-Technology



FACULTY OF Humanities & Social Science

The Department of Humanities and Social Sciences was founded in 1997. It encourages pupils to think critically beyond their technical expertise. Many students have benefited across disciplines by getting involved in group discussions and other activities that have greatly enhanced their overall development. The department has provided students with an excellent theoretical and practical understanding of humanities and social sciences. The department has three advanced laboratories to make learning easier. By emphasising Outcome Based Education (OBE), it provides an excellent result. The department trains future leaders in integrated learning and gives them a modern, sensitive view to confront the difficulties of the competitive world. In addition to fostering students' communication skills in English, the department has been offering two core professional courses since 2020. The department is publishing research papers and enhancing its prominence with research scholars and MA students.



Academic Programmes

M.A. in English Language and Literature

Ph.D. Programmes in English Language and Literature

Integrated M.A. with Ph.D. in English Language and Literature





FACULTY OF Tourism & Hospitality

FTH is home to the finest professionals, hospitality leaders, and entrepreneurs of the future, who are moulded, following the current industry trends, by highly trained facilitators and cutting-edge facilities. The Faculty of Tourism and Hospitality (FTH), formerly known as Ranjita Institute of Hotel Management & Catering Technology affiliated to NCHMCT, Noida, combines academic and practical education with real-world experience. The FTH education curriculum combines culinary heritage and industrial requirements. The FTH curriculum covers all facets of the hotel industry, from lodging management to hospitality law, marketing, and sales. Distinguished teams of industry executives with years of expertise and academics with great credentials guarantee that students have the exposure to practical capabilities and theoretical frameworks.

Academic Programmes

B.Sc. in Hospitality & Hotel Administration
B.Sc. in Airlines
B.Sc. in Tourism & Hospitality
B.Sc. in Pastry and Culinary Arts
Masters in Travel & Tourism Management
M.Sc. in Hotel Administration
Ph.D. in Hotel Management
Ph.D. in Tourism Management
Certificate Course in Hotel Management

Laboratories

Bakery Laboratory
Basic Training in the Kitchen
Advanced Training in Kitchen
Confectionary
Advanced Bakery Laboratory
Restaurant
Bar
Front Office
Housekeeping
Computer Laboratory



Career Opportunities

Hotel and Allied Industries
Research and Development
Entrepreneurial Ventures
Retail Sector
Corporate Hospitals
Catering Services in Government -
Railways, Defence etc.
Catering Services in large
organisations such as Airlines etc.
FMCG Industries



FACULTY OF Agriculture & Allied Sciences

The Faculty of Agriculture and Allied Sciences (FAAS) is Hon'ble President of CGU's most ambitious education endeavour under the purview of C.V. Raman Global University, Odisha, and has been functioning since 2020. It seeks a distinctive and entrepreneurial approach to agricultural education. FAAS offers B.Sc. (Hons.) Agriculture, a four years professional undergraduate degree programme. According to ICAR rules, it covers agriculture and associated disciplines. Prospective graduates are taught various fundamental, applied and advanced courses to address bottlenecks and sustainable solutions. Our graduates will be kept aware of current research initiatives and international agricultural business models. M.Sc. Zoology, M.Sc. Botany and M.Sc. Biotechnology are also being offered under the Faculty of Agriculture and Allied Sciences stream. FAAS is a residential campus wherein agriculture and students co-exist. The campus has two well-established incubators for local enthusiasts who want to introduce adaptable technology to generate more money and work towards agricultural communities' livelihood objectives.

Academic Programmes

B.Sc. (Hons) in Agriculture

M.Sc. Zoology

M.Sc. Botany

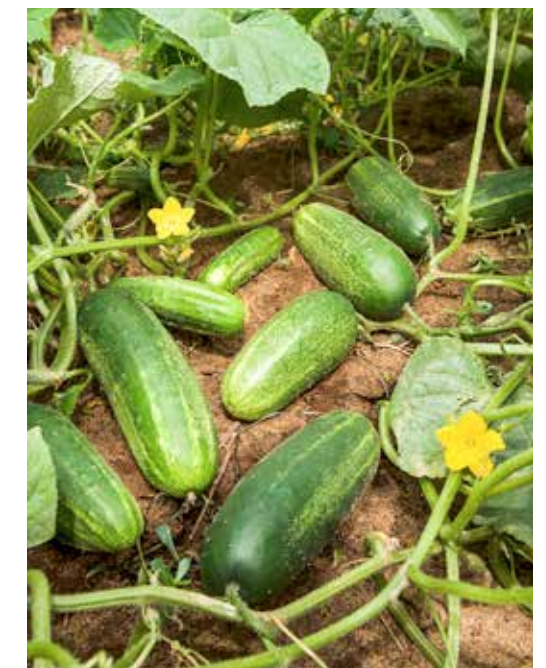
M.Sc. Biotechnology



Achievements

FAAS secured more than 10 medals/prizes in different events of the Inter-University Agri-conclave held at Bhubaneswar.

High-impact publications by faculty members of FAAS from 2020-2022.



Laboratories

Agronomy and Horticulture Laboratory

Biotechnology, Bio-chemistry, Plant

Pathology Laboratory

Plant Breeding and Genetics Laboratory

Seed Technology and Physiology Laboratory

National Accreditation Board for Testing and Calibration Laboratory

Entomology Laboratory

Agricultural Engineering Laboratory

Soil Science and Microbiology Laboratory

Certified Food Quality Testing Laboratory

The Department of Business Management was established in 2007. The department is now administering its sixteenth MBA cohort. The department also provides BBA and Ph.D. programmes in Management with various specializations. It provides a modern training curriculum tailored to the needs of the business. Management education is delivered using a “flipped classroom” learning technique centred on interactive technology. To bridge the gap between industry demands and classroom capabilities, it organises industrial visits, seminars, webinars, FDPs, and corporate talks. Student, academic, and industry professionals are brought together via local club activities. The clubs provide members a place to learn essential skills and encourage them to pursue their professional objectives and get frequent feedback. The Department of Management is engaged in cutting-edge research in the areas of:

- Data Analytics
- Behavioural Finance
- Energy Economics
- Talent Management
- Financial
- Econometric
- Capital Markets
- Behavioural Analytics
- Marketing Analytics



Laboratories

Computer Laboratory - 40 workstations to facilitate training for SAP, Tally, ticketing management system, flight information system software and other relevant peripherals.

Digital Language Laboratory - The laboratory has state-of-the-art equipment and activity-based learning to hone communication skills through continuous practice and feedback

Research and Business Analytics

Business Communications Laboratory

Academic Programmes

Bachelor of Business Administration (BBA)

Master in Business Administration (MBA),
in HR, Marketing and Finance

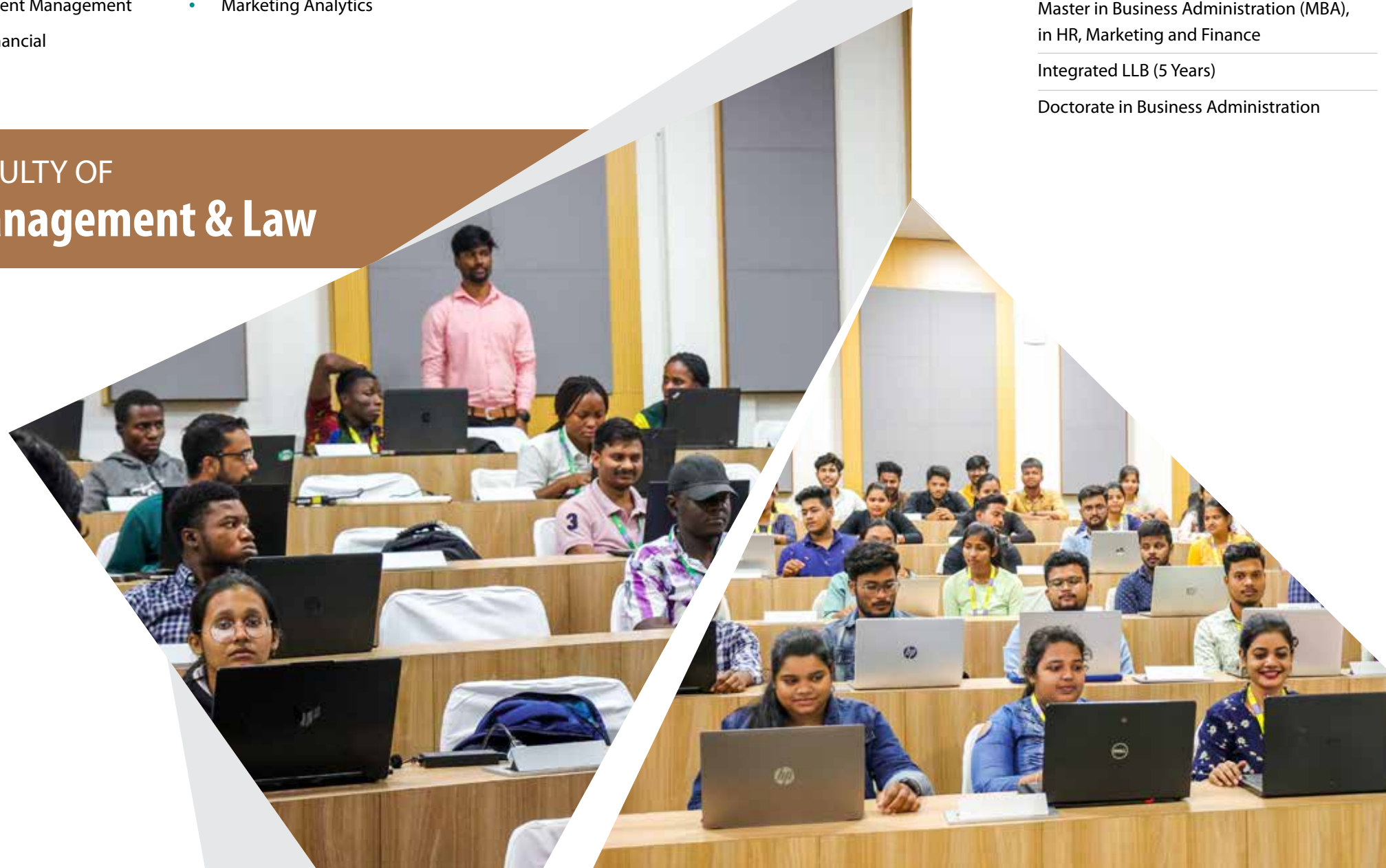
Integrated LLB (5 Years)

Doctorate in Business Administration

Achievements

Our students have been placed in several reputed companies like S&P Global, Axis Bank, Coca-Cola, Pepsico, HDFC Bank, Vedanta, Aquaguard, Aditya Birla, Dr Reddy's Foundation, Kotak Mahindra Bank, IndusInd Bank, Reliance Retail, ICICI Bank, Hyundai, Britannia Industries, Asian Heart Institute, Mother Dairy, Xcel Corp, Axis Securities including other companies.

FACULTY OF Management & Law





FACULTY OF Pharmacy

The primary focus of the faculty of pharmacy is to offer pharmaceutical education and research. The professionals here have expertise in preparing, dispensing and medication.

Academic Programmes

B.Pharm

D.Pharm



CENTRES OF EXCELLENCE

(Skill enhancement centres to meet modern industry needs)

Quanser CoE

VLSI CoE

Schneider Electric CoE

Emerging Technology in
Computer Sc & IT

Plumbing CoE

Drone Technology CoE

CDAC CoE

Mechatronika CoE

Mitsubishi

Electric CoE

GalSen CoE

Edibon CoE

AR & VR CoE

Google CoE

Bosch Rexroth CoE

Welding CoE

PCB & Circuit Design CoE

Siemens CoE

FACT Centre Gold for Process Automation

HVAC and Refrigeration CoE

TATA Technology CoE

Robotics CoE

Tool Room & Training Centre

Analytical & Research Laboratory

CISCO - CCNA CoE

Cyber Security CoE

SEW Eurodrives CoE



Bosch Rexroth CoE

Short-Term Courses

- Basic PLC
- Advance PLC
- Basic Pneumatics
- Advanced Pneumatics
- Closed Loop Pneumatics
- Basic Hydraulics
- Advanced Hydraulics
- Industrial Hydraulics
- Mechatronics
- Mechatronics with Industry 4.0
- Robotics (CMS)
- Variable Frequency Drive

Long-Term Courses

- Post Diploma in Automation & Process Control (PDAPC)



PCB & Circuit Design CoE

Short-Term Courses

- Single-layer PCB Design & Fabrication
- Double-layer PCB Design & Fabrication
- Multilayer PCB Design & Fabrication
- Prototype Development

Siemens CoE

Short-Term Courses

- Basic PLC and HMI
- Industrial PLC with TIA Portal
- DCS with PCS-7
- Industrial SCADA
- Industrial Drives
- Basic LV Switch-gear

Long-Term Courses

- Post Diploma in Automation & Process Control (PDAPC)

Welding CoE

Short-Term Courses

- Basic and Advanced Certified Welder Training on MMAW/SMAW, GMAW, GTAW
- Certified Welder Training on MMAW/SMAW-Foundation (MMAW-F)
- Certified Welder Training on GMAW-Foundation (GTAW-F)
- Certified Welder Training on GTAW - Foundation (GTAW-F)
- Certified Welder Training on MMAW/SMAW- structural welding (MMAW-S)
- Certified Welder Training on GMAW – Structural welding (GMAW-S)
- Certified Welder Training on GMAW – Auto Sector Welding (GMAW-A)
- Certified Welder Training on Boiler & Pressure Vessel Welding (MMAW-P)



FACT Centre Gold for Process Automation

Short-Term Courses

- Basic Process Automation
- Advance Process Automation
- MPS PA Compact Workstation
- MPS PA Process Automation Applicationn

Long-Term Courses

- Post Diploma in Automation & Process Control (PDAPC)



HVAC and Refrigeration CoE

Short-Term Courses

- HVAC Design Engineering
- Refrigeration and Air Conditioning System Maintenance

Long-Term Course

- Advanced Engineering Diploma Course in HVAC & R

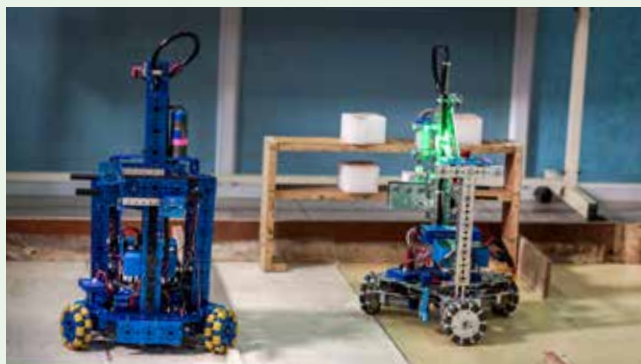




TATA Technology CoE

Courses

- Automobile Product Design & Development



Robotics CoE

Short-Term Courses

- Embedded System and Robotics
- Basic Robotics
- Advanced Robotics
- Industrial Robotics
- Embedded Systems



CISCO - CCNA CoE

Short-Term Courses

- Basics of Networking
- Practice on Router
- Switching & its Applications

Long-Term Course

- CISCO Certified Network Associate (CCNA)



Cyber Security CoE

Courses :

- Post Graduate Diploma in Cyber Security

Tool Room & Training Centre

Short-Term Courses

- AutoCAD
- CATIA
- Creo / Pro-E
- CNC Turning and CNC Milling

Long-Term Courses

- Post Diploma in Tool Design & CAD/CAM



SEW Eurodrives CoE

Short-Term Courses

- MOVIDRIVE MDX 61B
- 2 Axis – MOVIAxis
- Decentralise Drive System with Movifit FC

Quanser CoE

Short-Term Courses

- QUBE – Servo
- Rotary Inverted Pendulum Module for SRV 02
- Linear Servo Base Unit IP02 with Flexible Inverted Pendulum
- Linear Flexible Joint Module for IP02
- Seesaw Module for IP02
- Quanser AERO



Analytical & Research Laboratory

- Food & Water Testing
- Vitamins, Cholesterol, Fatty Acid, Synthetic Colours, Artificial Colours
- Carbohydrate & Energy
- Anti-Oxidants, Phenol, Nitrogen, BOD, COD Microbiology
- Screening of Microbes Trace and Ultra-Trace
- Metal & Heavy Metal Analysis
- Pesticides / Herbicides / Insecticides





VLSI CoE

Short-Term Courses

- Digital VLSI Design and FPGA implementation
- Analog VLSI Design
- Mixed Signal VLSI Design



Schneider Electric CoE

Short-Term Courses

- LV Switchboard for Professional Training
- Power Quality Management
- Industrial Wiring
- Energy Management and Automation



CDAC CoE

- Centre for Development of Advanced Computing – Big-data Analysis, IoT, Cloud Computing

Cyber Security CoE

- Automotive Mechatronics

Mitsubishi electric CoE

- Factory Automation

GalSen CoE

- Electrical Engineering and Electronics
- Automation & Robotics
- Electromechanics
- Electric Power Supply
- Renewable Energy
- Electric Measurement



Emerging Technology in Computer Sc & IT

Courses

- Machine Learning, Python, C, C++, Cloud Computing, AI&ML

Plumbing CoE

Short-Term Courses

- Assistant Plumber
- Plumber
- Master Plumber

Drone Technology CoE

- Design and Manufacturing of Drone



Edibon CoE

- Fluid Mechanics

AR & VR CoE

- 360 Degree Visualization & Reality Polarization

Google CoE

- Android Application Development



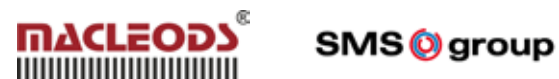
Placement Assistance

Placement is a key defining point in a student's career. A good placement as a fresher gives a great advantage to the students' future prospects. CGU has an empowered and dynamic placement cell that continuously expands its industry base and industry interactions to ensure a great start for students' careers. Training is offered to align students with the latest market demands.

Software Companies



Core Companies



International Education

The International Education Cell (IEC) has multiple objectives:

- To coordinate the effort for admission of international students into CGU.
- To coordinate admissions, scholarships, exchange programmes etc. into foreign universities for students passing out from CGU.
- Collaborate with top ranking universities of the world to deliver credit courses, semester abroad programmes, collaborative research, training for teachers, teaching-learning pedagogy etc.

CGU has 280 students from 28 countries till date. The IEC has academic collaborations with prestigious universities from Canada, South America, and Asian countries.



AWARDS RECEIVED BY THE UNIVERSITY

- Won the Medallion of Excellence in the area of Restaurant Service at WorldSkills, Switzerland, 2022.
- Won the Silver Medal in the area of Water Technology at WorldSkills, Stuttgart, Germany, 2022.
- Won Smart India Hackathon (SIH) 2022 in Software Edition.
- 9 students represented India in World Skills 2022 in 7 various Skills.
- Incubation centre has 41 Start-ups and has won 4 awards during 2020 -21.
- Won 29 Medals in IndiaSkills-2021 competition.
- 2nd Prize in Welding Technology Competition -2021.
- 2nd Prize in Welding Skills Competition in SMAW Category -2021.
- Champion in Additive Manufacturing - Best of the Nation -2020.
- Champion in ITSSB (IT Software Solutions for Business) - Best of the Nation-2020.
- Champion in Machine Learning and Big Data - Best of the Nation-2020.
- Champion in Robot Systems Integration - Best of the Nation-2020.
- Won the 1st ever Gold Medal in the area of Water Technology at WorldSkills, Kazan, Russia, 2019.

Winner of

- Singapore - India Hackathon -2019.
- SIH 2019 - Hardware Edition, Hyderabad.
- SIH 2019 - Hardware Edition, Delhi.
- SIH 2019 - Software Edition, Kolkata.
- SIH 2019 - Software Edition, Punjab.
- SIH 2019 - Software Edition, Rajasthan.
- Cyber Security Hackathon-2019.
- Mastercode Hackathon-2019.
- National Welding League - Champion-2019.
- Winner in Bhopal Smart City Hackathon-2019.
- Winner in 5th IFAT University Challenge India-2019.
- Winner in ISHRAE Quiz Competition-2019.



Manas Ranjan Bhui
Industry 4.0



Md. Monish Kamal
Brick Layng



Mohit Prakash
Concrete Const. Work



Nausin Nigar
Robot System Integration



Praveen Kumar Giri
Water Technology



Subrat Patel
Restaurant Service



Swagat Choudhury
Print Media Technology



Swati Kumari
Robot System Integration



Yashika
Industry 4.0

ADMISSION

For information on admissions for Indian nationals :

https://admission.cgu-odisha.ac.in/Index/institute_index/ins/RAMAN

For admissions to all programmes and courses, please log in to :

<https://cgu-odisha.ac.in/programmes-offered-2/>

For information on admissions for foreign nationals :

https://admission.cgu-odisha.ac.in/Index/global_register/ins/czhweGNqcXJieklkYVVpZkc1OWZ2QT09/program_code/

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