

Veer Surendra Sai University of Technology, Burla

68 years of Glory

Formerly known as University College of Engineering, Burla

Placement Brochure



5200 Students . 11 Branches . 350 Acre Campus 30000 Alumni in 7 Continents

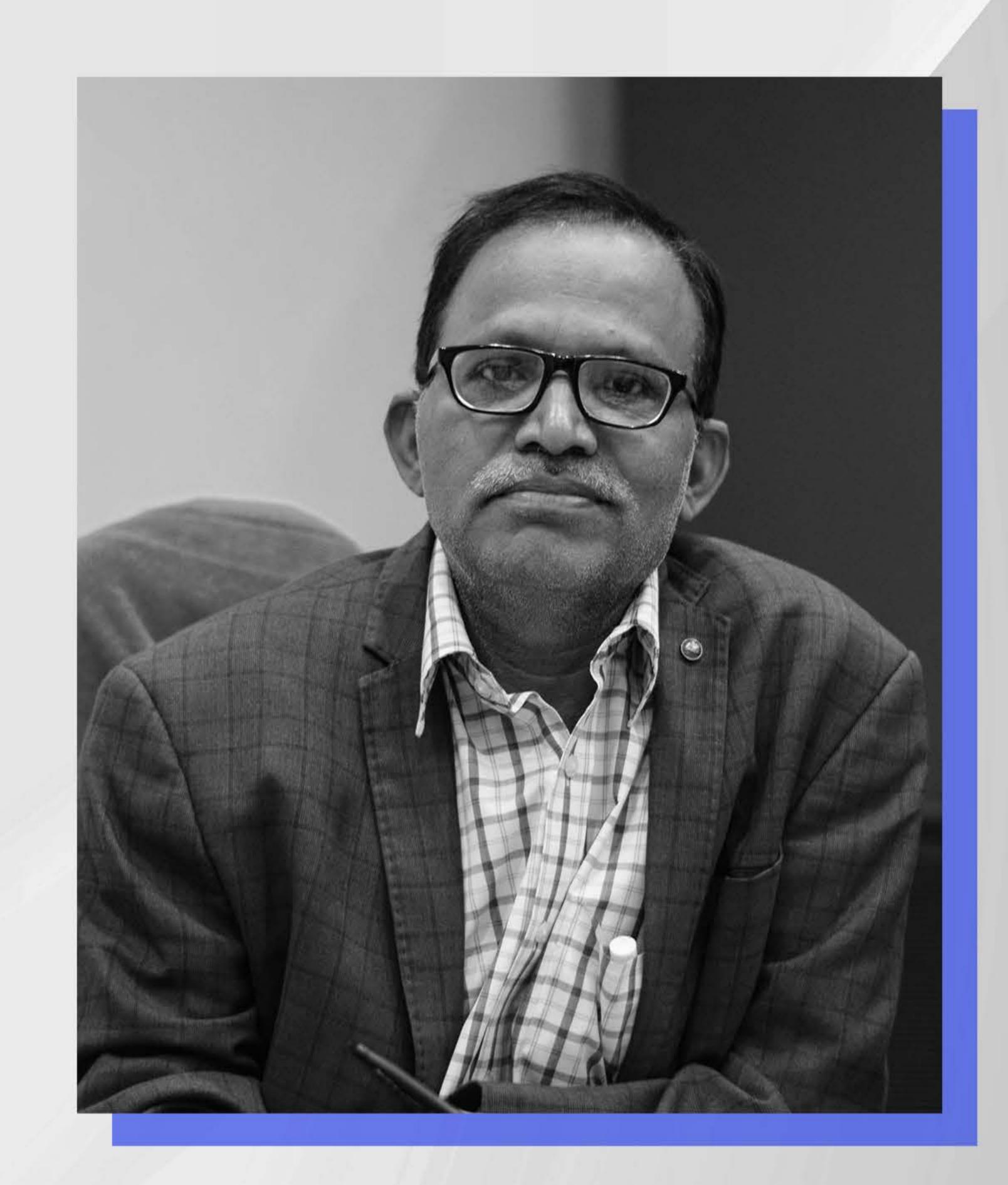
FROM VC's DESK

The Veer Surendra Sai University of Technology (VSSUT) was formed by converting the University College of Engineering (UCE), the first Engineering College of Odisha, Burla to a non-affiliating Unitary University.

The beautiful campus occupies nearly 300 acres of prime land in Burla. Situated at the foothill of world famous Hirakud dam, the University is surrounded by picturesque views and the town is well connected to Bhubaneswar, Raipur and Kolkata with roads and railways. The campus is well facilitated for students' needs and it is the most ideal place for learning and achieving one's privileged dreams. With a glorious history of more than half a century, our curriculum aims to uphold the legacy of quality education and produce future-ready skilled youth.

The University marches ahead to attain its mission through a goal of blending contemporary knowledge with skills and values to groom high calibre thinkers. Here the young talents get ample opportunity to manifest their inner qualities. The University acts as a torch bearer in promoting visionary reflection on the technical front. Learning, leading and Innovation are our strong arms. To achieve these objectives, students are taken through industrial tours and are familiarised with industrial safety gadgets & procedures.

We strive to bring out the best in each individual. I am confident that the Veer Surendra Sai University of Technology is marching in the right direction, shaping human resources, and contributing to nation-building. I can assure you that our students are inspired by a proactive approach to take up challenges confronting the present society and prove productive individuals in an ever-changing society. I welcome you to visit VSSUT to engage with our students; Your association with our institution will be truly worthwhile.



Prof. Bansidhar Majhi

Hon'ble Vice Chancellor VSSUT, Burla

FROM TNP's HEAD DESK

The Veer Surendra Sai University of Technology is famous for its legacy of diversity in the fields of Engineering and Technology.

VSSUT entices top talent at all levels and takes pride in its academic standards and recruitment process. Our institute offers several opportunities for students to obtain inter and intradisciplinary knowledge during their tenure at this temple of learning. Students of our Institute are exposed to courses that are highly regarded in academia around the world.

Our students put in their best efforts to come beyond frontiers. Our primary objective is to provide students with holistic development, develop their personalities, and imbue them with the qualities of this country's responsible and ethical citizens. To achieve this goal, the placement cell works tirelessly with faculty members from diversified academic divisions and tries its best to assist the students. Due to our substantial commitment to delivering quality manpower to industry and academia, which indirectly contributes to nation-building, we attract many coveted recruiters to visit our campus regularly. We value their partnership and confirm our untiring support to them. Additionally, we welcome all of our new partners to our campus process and look forward to establishing a long-term, healthy relationship with all of them.

Over the past few years, the Training and Placement cell has taken steps to value the engagement of each firm.

Therefore, we appeal to all recruiters to take the time to consider these aspects in light of the opportunity. I take this as a privilege to extend my sincere gratitude to all the industrial partners. They have provided their best/outstanding opportunities for internships and full-time positions. Moreover, I would like to request their extraordinary support and career engagement in these endeavoring times.

On behalf of the entire Training and Placement cell, we wish you all a fruitful and long-term association with our Institute. Wishing you all a healthy and progressive year ahead.



Prof.(Dr.) P.Nanda

Prof. & Head Training & Placement Cell VSSUT, Burla

MAJOR CITIES IN TOUCH

Below are the details of major cities through where you can reach our university. Burla is well connected to major highways for a hassle-free drive.



40 minutes drive from University (JRG) JHARSUGUDA

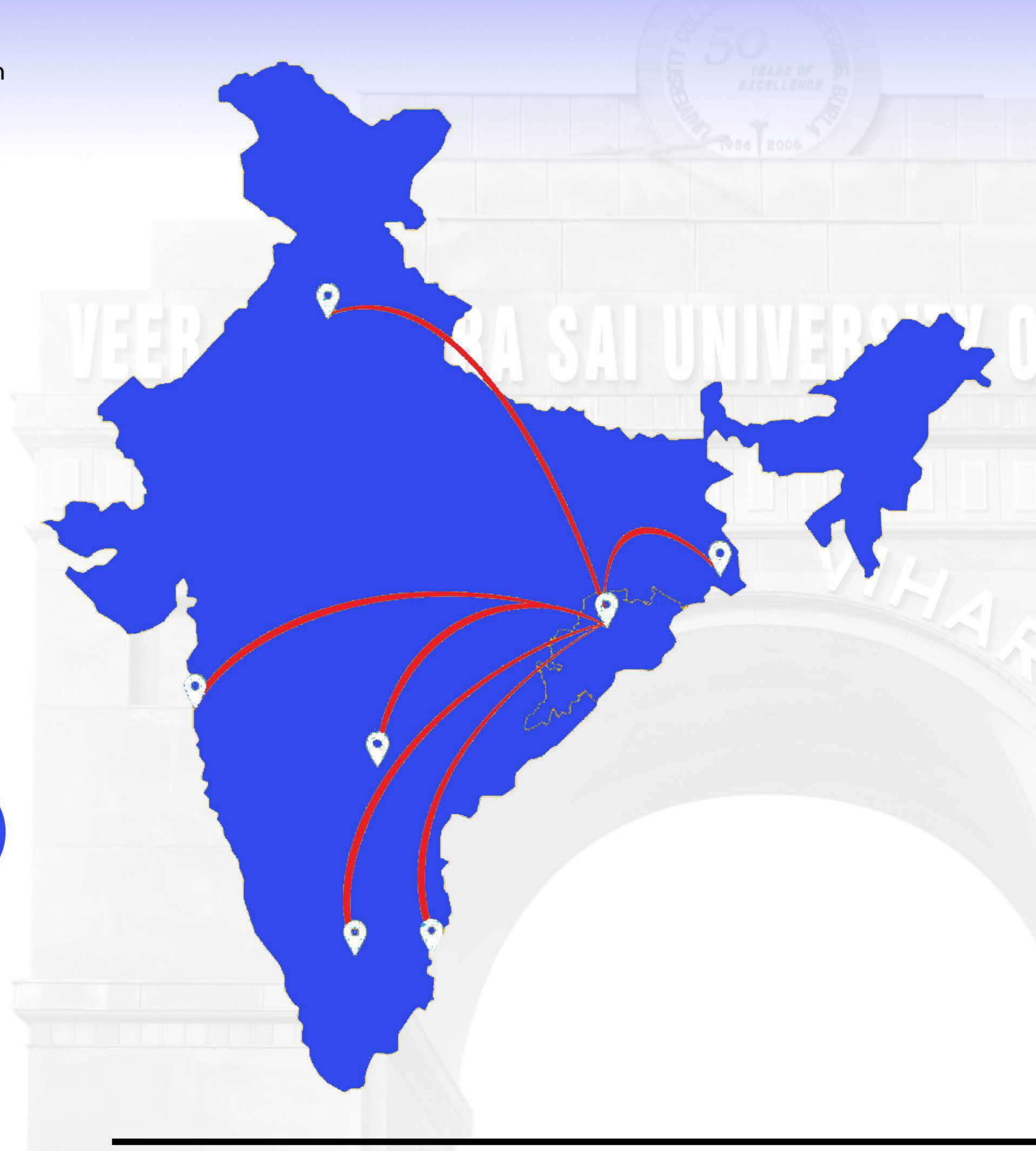
03 hours drive from University (RPR) RAIPUR

05 hours drive from University (BBI) BHUBANESWAR



To minutes drive from University (SBP) SAMBALPUR

05 minutes drive from University (HKG) HIRAKUD





The roots of this institution trace back to the early 1900s when the state of Odisha had to deal with frequent strife against the floods caused by the mighty Mahanadi river. Following Mahatma Gandhi's Sambalpur visit in the year 1928, he requested Sir Visveswaraya to find a solution in order to regulate the uprising floods and what came as the result was Burla, the well-known location for having the longest dam in the world—The Hirakud Dam.

However, the leaders and the founding engineers were perturbed about the future of the dam. They were concerned about the management and operation of this grandeur project. Having recently stepped into the world as an independent nation, the country was building itself and the state was void of any engineering institute. Hence, on August 12th of 1956, the first engineering institute of Odisha, University College of Engineering (UCE), was founded to nurture the young minds into capable engineers who could be trusted with the management of the dam. The visionary chief engineer, Er Tirumala lyengar, allocated land for the college from the Hirakud project and the first teachers in the institution were engineers from the dam itself. In 2008, the elite college was upgraded into a state university and was renamed after the legendary Indian revolutionary, Veer Surendra Sai, and is now known as Veer Surendra Sai University of Technology.

Merely started as a source of engineers for the mighty dam, today the university has grown into several spheres with students and alumni spread across the globe, occupying top positions in various organisations justifying its motto - "Siddhirbhawati Karmajā" meaning success comes through hardwork. Veer Surendra Sai University of Technology continues to produce talented engineers and actively contributes in the building of our nation.

WHY VSSUT



Standing as one of the finest and oldest engineering colleges in Odisha, Veer Surendra Sai University of Technology, fondly termed VSSUT, is an epitome of perfection. With versatile programs and innovative clubs led by capable students, VSSUT gives its students hope for a better future. Each year, after various struggles, the students are selected by our renowned institution. Those who get the opportunity to study at such a wonderful college work extensively to make the most of it.

Notable recruiters from all over the world approach the students of VSSUT for the process of recruitment, which is a splendid achievement in itself. Having been taught practically and conveniently, recruitment for them becomes easier as the basis on which such talents bloom is commendable. With massive industrial exposure from well-established facilities and a tie-up with the Indian Space Research Organization, VSSUT strives to prepare its students for a better tomorrow, safeguarding their future with the Memorandum of Understanding.

VSSUT refines and channels the talents and potential of the students while letting them experience the atmosphere of working facilities through their internship programs. With six months for B. Tech students and one year for M. Tech students, they become familiar with the working atmosphere concerning their future aspirations.

The reach of VSSUT is not just restrained by ideas and innovation but boundless and beyond anyone's reach. Such talents are discovered and refined through the various competitions which happen throughout the year on campus along with exceptional motivation toward the line of entrepreneurship. The culture of startups has given rise to several budding entrepreneurs who dwelled on this idea and have bought out the finest ideas ever heard and worked upon. In the ever-thriving real world, the capable students of VSSUT are sure to leave a mark wherever they go with their thirst to strive against all odds.

ACHIEVEMENTS

Even a book won't be enough to highlight how much our students have achieved. Here are some of them listed below.

- 1. Winners of IIGP 2.0 University Challenge 2019.
- 2. 2nd Runner's Up at L&T CreaTech 2020.
- 3. Our Team Spine-Care won the 2nd Runners Up prize with a Cash Prize of INR 1 Lakh at Anveshan 2019 Innovation Fellowship organized by Analog Devices, Inc.
- 3. Our Team Spine-Care won the 2nd Runners up Prize with a Cash Prize of INR 1 Lakh at Anveshan 2019 Innovation Fellowship organized by Analog Devices, Inc.
- 4. VSSUT Student Satellite got feliciated on Republic Day (26th January 2020).
- 5. Our team got 2nd at upstart **IIT Kanpur,** BANGALORE edition.
- 6. A team from Entrepreneurship Club ranked 4th in top 10 startups at NIT-Rourkela & was felicitated with 1.5 lakh funding with incubation.
- 7. Runners up in **Uber's** Scale It competition held at IIT-KGP E-Summit.
- 8. We received state award for Startup odisha, Startup India from honorable CM of Odisha.
- 9. We have **3 successful startups** in revenue stage and **10+ startups** in growing stage under Entrepreneurship club.
- 10. One of our students got selected to represent INDIA at **South Asian youth summit** and is present member of **International Youth Council**, Odisha.

- 11. 1st, 2nd and 3rd position: Digitizer, Innovision 2k19, NIT rourkela
- 12. AIR-1 in Sonarous at National student's space challenge 2019 organized by **IIT kharagpur** in association with **ISRO**.
- 13. Shortlisted for round-2, ABU Robocon 2020.
- 14. 2 participants got internship at IIT Bombay through e-yantra robotics competition 2019 by **IIT Bombay** and **MHRD.**
- 15. AIR-4 at National finals of **MathWorks Minidrone** competition 2019.

16. BAJA-SAE 2020

- 1st in engineering Design event 1st in Computer aided engineering event
- 1st in Catalytic converter event
- 3rd in cost presentation
- 17. As an exclusive special package, **ISRO** has established Tech Innovation cum Incubation Center at VSSUT Burla, the only of it's kind in country.
- 18. VSSUT Satellite team registered themselves in LIMCA BOOK OF RECORDS as the only student body in India to develop indegineous rocket system.
- 19. Sheetal Sahu, class of 2018, is the new Miss Odisha and will represent the state at the Fbb Colors Femina Miss India 2019 pageant in Mumbai in June.

ACHIEVEMENTS

Even a book won't be enough to highlight how much our students have achieved. Here are some of them listed below.

- 20. Winner of BIRAC National Innovation Challenge for the Innovation Senio Care- A smart Phone based Breast Cancer Early Screening Device by **NITI Aayog.**
- 21. International Rank-12 out of 1500 teams in MoveHack 2018: Global Mobility Hackathon conducted by NITI Aayog.
- 22. AIR-2 in e-Yantra Robocon, a robotics competition organised by **IIT Bombay** in association with **MHRD**.
- 23. Two of our teams "Team Medicos" & "Team VeeRs" were selected at top 5 teams at Innovate Odisha
- 24.Startups of our university have been recognised by startup odisha.
- 25. Successfully organised 2nd edition **TEDx VSSUT** under the theme "Fast Forward Future" with 9 eminent and distinguished speakers making it the **largest independent TED event in Eastern India**. Our college is the only government college in Odisha to get Tedx license twice in a row.
- 26. Conducted VSSUT InnoBuzz Dwitiya, the largest independently organised hackathon in Eastern Seaboard with over 600+ online registrations, 140 finalists for the on-site round. Innobuzz patnered with Github, Unity Gaming, Jetbrains, Girlscript India, Devfolio for mentors and goodies, with judges from leaders of the industry.
- 27. AIR-3 in Matlab Robocon-2018: A Technical Event Hosted by MathWorks.

- 28. The ASME Student Team stood at 4th Rank in Asia in IAM3D Challenge and made to the quarterfinals among 23 teams in SDC.
- 29. **Team MetaLabs**, with a project on **"Virtual Reality Educational Lab"**, got **runners up** position in student exhibitor at **startup mela**
- 30. Maruti Suzuki Supra SAE 2018, Buddh International Circuit:

AIR 9 Overall
AIR 3 Design Event
AIR 10 Cost Event
AIR 7 Endurance among 126 teams

- 31. Maker Fest Odisha 2023 in collaboration with Karkhana and IG drones provided a platform to some of the extraordinary budding innovators and makers in the society to showcase their creativity and ideas.
- 32. Organised **TEDxVSSUT 3.0** on April 16th 2022, with the theme "Unparalleled Amidst Uncertainty"- pertaining to the unpredictabilities that drive one to stand undaunted and strive hard to achieve what one has aimed for.
- 33. For the very first time in Western Odisha, ITR DRDO, the premier R&D organisation of the country showcased their 12 missiles and safety systems in the Space Defence Expo 2022.
- 34. Team Krishiseva and Team Garuda have marked their triumph by making it to Top-100 teams all over India in 5G Hackathon.

ACHIEVEMENTS

Even a book won't be enough to highlight how much our students have achieved. Here are some of them listed below.

- 35. Subham Acharya from batch 2022 got selected as campus Ambassador in Entrepreneurs Face and is connected with more than 1000 mentors and Investors in 90 plus countries.
- 36. FxUAV Technologies Pvt Ltd have successfully raised pre-seed funding of a whopping 2.5 million rupees from Next Generation Technology fund managed by Pontaq Ventures.
- 37. **Project HIMAT- Human Identification Model** Artificially Trained,got selected to Incubate, Chunauti 2.0 under NGIS and also emerged as the **2nd Runners Up** in "**Dare to Dream 2.0**".
- '38. Smart Luggage Carrying Wheelchair' was recognized as the "Maker with Most Engagement on Website" in Maker Mela 2022
- 39. At Make in **Odisha Conclave-2022** at Bhubaneswar we received the **'Best Stall' award for VSLV**
- 40. Our PDR report for CANSAT got selected at ISRO's CANSAT competition PDR round.
- 41. Our Team got selected in the PDR round of the University Rover Challenge.
- 42. Our Team Innoviz got **1st runner up** in **Smart India Hackathon 2022.**
- 43. Our Robotics Team got the 1st prize at Innovation Design Competition 2022 conducted by ISRO.

- 44. Team VeerRacers Electric bagged AIR 4 in a online events called Piev-2022
- 45. Featured in **Top 50 projects** shortlisted by **Microsoft Azure Women Hackathon** among 2 lakh international projects.
- 46. Lancyfirm, a startup has bagged a place in the 100X VC Entrepreneurship Gurukul and was selected for Cohort 02.
- 47. Top 10 in **Innominds Hackathon** at Odisha StartUp Mela 2023
- 48. **1st runner up** position in **Innovation Challenge 2023** at PMEC Berhampur Team BioPot, **AIR -13 among 550** teams in Poornima Hackathon 2023
- 49. 11 students from a National wide total of 300 got selected for HWI which saw a participation of over 120k.
- 50. The club members shone in the **Credit Suisse Global Coding challenge** with **Global rank 6th, 9th, 22nd, 24th, 29th.**
- 51. Our Team qualified for the TVS epic semi-final and for the Flipkart grid final.
- 52. Team WalkingPal was selected to receive a grant of \$11,000 from The 1517 Fund.
- 53. Team Wasper was successfully accepted into Xartup's fellowship for October 2022 Cohort and bagged \$200,000 worth of credits.

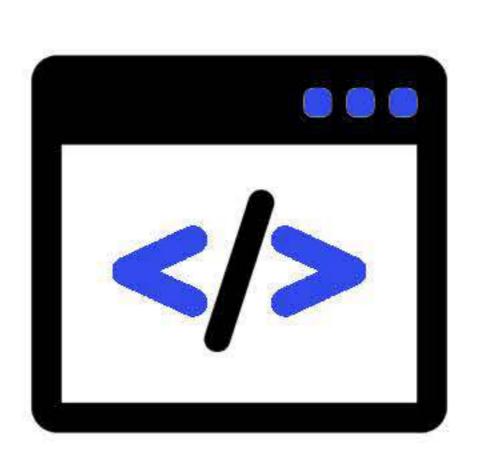
Our Departments



Architecture

Estd. 2013

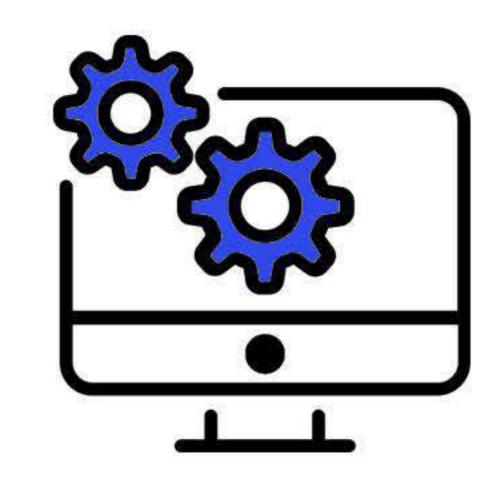
B.Arch: 60 PhD: 20



Computer Science & Engineering

Estd. 1994

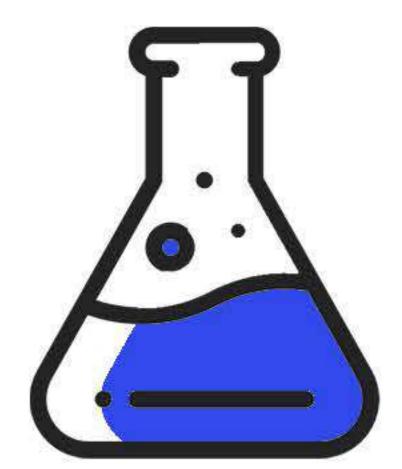
B.Tech : 60 M.Tech : 18 PhD : 20



Information Technology

Estd. 2003

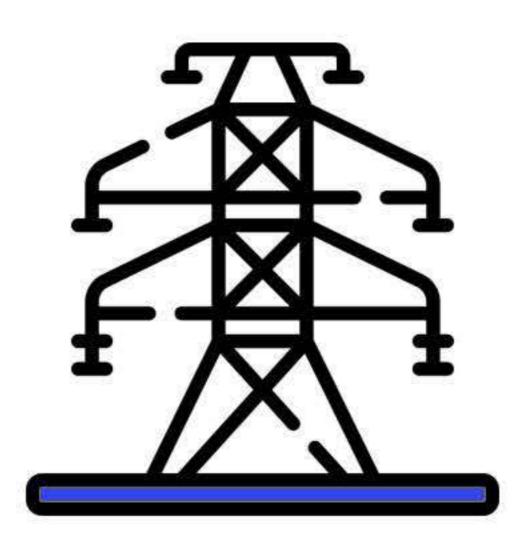
B.Tech: 60 M.Tech: 18 PhD: 07



Chemical Engineering

Estd. 2014

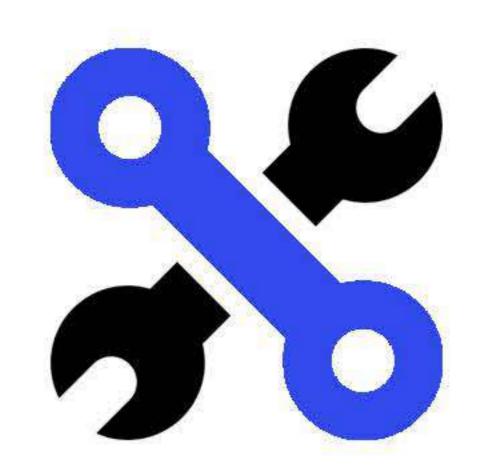
B.Tech: 60 PhD: 05



Electrical Engineering

Estd. 1956

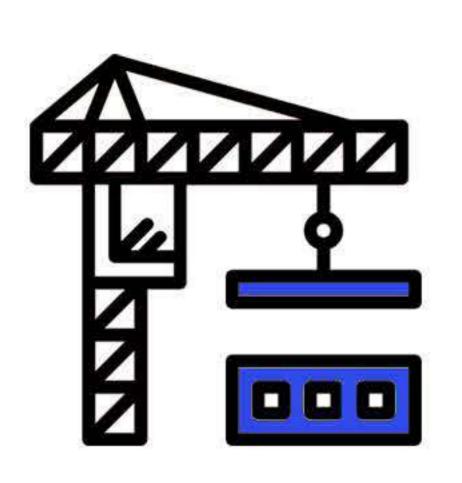
B.Tech: 120 M.Tech: 36 PhD: 25



Mechanical Engineering

Estd. 1956

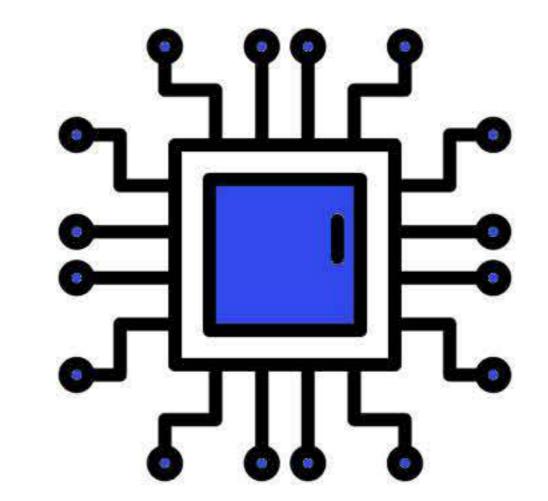
B.Tech: 120 M.Tech: 54 PhD: 11



Civil Engineering

Estd. 1956

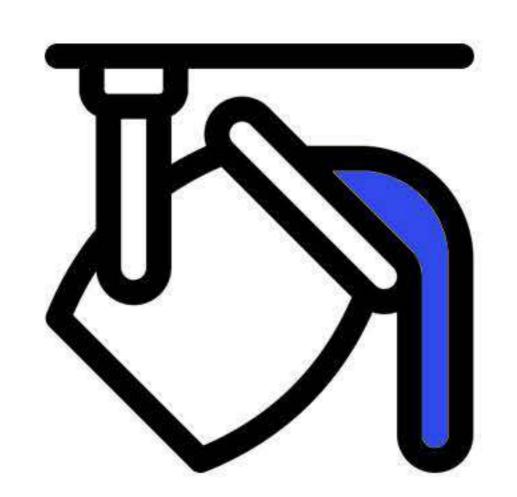
B.Tech: 120 M.Tech: 90 PhD: 49



Electrical & Electronics Engg.

Estd. 2010

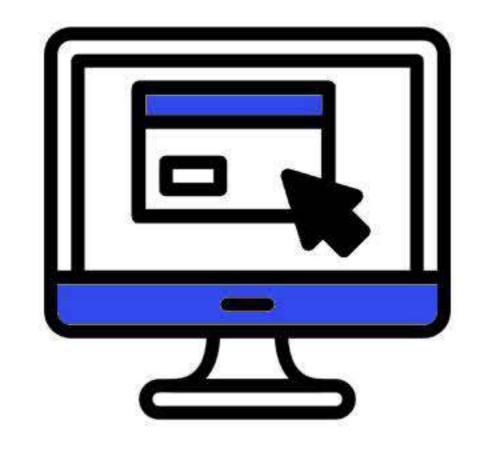
B.Tech: 60 M.Tech: 18 PhD: 10



Metallurgy & Materials Engg.

Estd. 2013

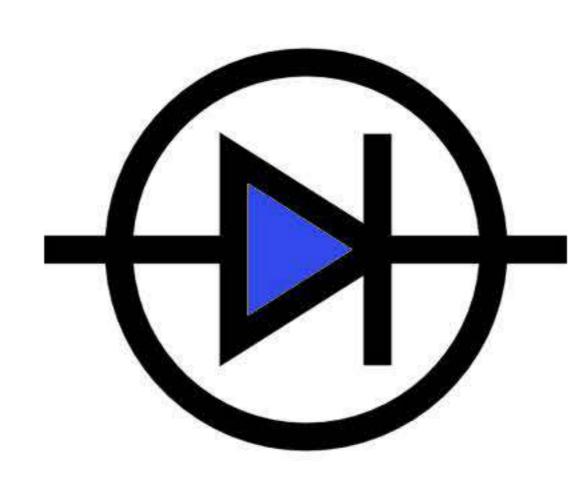
B.Tech: 60 M.Tech: 18 PhD: 02



Computer Applications

Estd. 1993

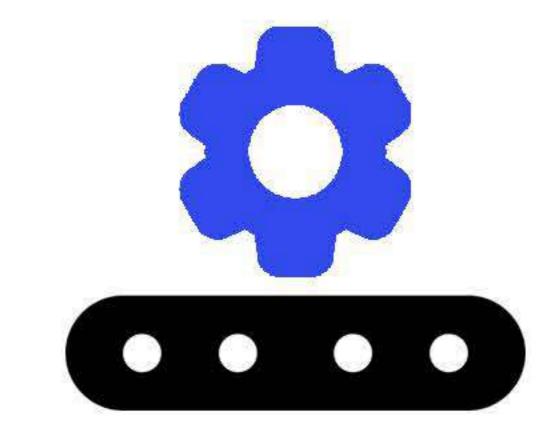
MCA:30



Electronics & Telecomm. Engg.

Estd. 1972

B.Tech: 120 M.Tech: 54 PhD: 11



Production Engineering

Estd. 1996

B.Tech: 60 M.Tech: 54 PhD: 09



Undergraduate (B. Arch)

Architecture 5 Year Course (2013) - 60

PhD (Architecture) (2017) - 1

Classroom Courses

- Green Building Infrastructure
- ▶ Disaster Resistant Architecture
- Professional Practices
- Advanced Structural System and Structural Analysis
- Human Settlement and Town Planning

Labs Offered

- Building Construction
- Architectural Design Studio
- Model Marking
- CAD Lab
- Landscape Design & Site Planning
- Survey & Levelling
- Architectural Graphics Studio

Research and Development Scopes

- Urban Planning
- Public Space Design
- Urban Climate
- Urban Conservation
- Project Consultancy
- Field Survey & Documentation
- ► Product Design

Project Consultancy

- Redevelopment of Hirakud, Mahasamund and Harishankar Road Railway Station under Amrit Bharat Scheme.
- Preparation of Land Use Map and preparation of DPR for wastewater treatment plants for Sundargarh Municipality.
- Rejuvenation of Urban Water Bodies under Sambalpur Municipal Corporation under Aama Pokhari Scheme of Govt. of Odisha.
- Development and Beautification of Bhutapara Chowk, Sambalpur
- Design of extension block for Civil Engg. Department, VSSUT
- Design of Innovation cum Incubation Centre, VSSUT
- Landscape Design of VSSUT Campus
- Design of Foot Over Bridge, VSSUT

Projects

- ► Institutional & Commercial Building Design
- Hospital Design
- Muesuem Design
- Housing
- Professional Thesis

- In ZNC 2020, shortlist entry in writing architecture and Gsen trophy.
- In ZNC 2021, received runner up prize in E-Sports, special mention in cahoots trophy and shortlisted entry for design 36.
- Received 2 trophies in ZNC 2022
- 30 Students participated in the Zonal National Association of Students of Architecture (NASA) Convention held in Royal School of Architecture, Guwahati from 22nd - 25th Sept. 2017.
- The Dept. has bagged 5 Trophies in different categories.
- The Dept. has secured 2nd position as New College Entry in Zonal NASA Convention held in PMCA, Cuttack 2018.



Undergraduate (B. Tech)

► Chemical Engineering (2014) - 60

PhD - 05

Classroom Courses

- Mass Transfer
- Heat Transfer
- Chemical Reaction Engineering
- Fluid Dynamics
- Mechanical Operations
- Coal Processing Technology
- Chemical Process Calculation
- Process Dynamics and Control
- Petroleum Refinery Engineering
- Mineral Processing Engineering
- Chemical Process Technology
- Process Modelling and Simulation

Labs Offered

- Mass Transfer Lab
- Heat Transfer Lab
- Chemical Reaction Engineering Lab
- Chemical Engineering Thermodynamics Lab
- ► Fuel Technology Lab
- ► Fluid Mechanics Lab
- Process Control and Instrumentation Lab
- Material Handling Lab

Research and Development Scopes

- ► Industrial Chemistry
- ► Fuels and Combustion
- Waste Water Treatment
- ► CAPPD
- Mineral Processing
- BioMechanics of C.Elegans, Rheology, Soft-Lithography
- Bio-diesel, Thermo-chemical conversion of biomass of liquid fuel

Projects

- Tyre Pyrolysis Oil
- Deriving Aliphatic from Aromatic Compound
- Multi-directional Water Pump
- Increasing efficiency of IC Engine
- Upgrading of Biomass Pyrolytic Oil

- A student qualified 1st Round of National Engineering Olympiad 3.0.
- Stanford Longevity Design Challenge - 2019 (Global Rank -11)
- Bosch Road Safety Hackathon-2019 (18th Rank in final round among 180 teams held in IIT Guwahati)
- Smart India Hackathon 2019 Runners Up
- One Student secured Rank 568 in Google Kickstart Phase C (2020).
- One Student secured 2nd position in Tata Crucible Hackathon 2020.
- One Student got placed in Air Control and Chemical among 4 engineers from India.



Undergraduate (B. Tech)

► Civil Engineering (1956) - 120

Graduate (M. Tech)

- Structural Engineering (1976) 18
- ► Water Resources Engineering (1965) -18
- ► Transportation Engineering (1977) 18
- Environmental Engineering (2012) -18
- Geotechnical Engineering (2012) -18

5 Years Integrated Course

Structural Engineering (2015) - 18

PhD (2010) - 20 (Completed) 29 (Ongoing)

Classroom Courses

- Structural Analysis
- Water Resources Engineering
- Design of Concrete Structure
- Estimation and Professional Practice
- ► Transportation Engineering
- Geotechnical Engineering
- Environmental Engineering

Research and Development Scopes

- Rural Development and Suistainable Technology
- Sustainable Habitat Planning
- Water Resources Development and Management
- Smart City Design
- Sustainable Building Materials
- Advanced Composites/ Fibre Reinforced Polymers

Labs Offered

- Hydraulics Flow
- Highway Engineering
- Structural Engineering
- Surveying Lab
- ► Computational (AutoCAD, MATLAB, STAADPro)
- Geotechnical Engineering
- Environmental Engineering

Projects

- Sustainable precast concrete blocks using construction-demolition and plastic waste.
- Potential for river bank filtration in the State of Odisha.
- ► FRP shear strengthening of damaged concrete beams.
- Flood forecasting in river Mahanadi using hydrological and mathematical modelling.
- Development of Cement-Less Concrete.

- Ranked 1st Position in Commencez at Megalith, IIT Kharagpur in 2016
- Winners at National Hydraulics Bridge Designing Challenge at Innovision, NIT Rourkela
- Runners Up in National Bridge Designing Competition at NIT Rourkela

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Computer Science & Engineering

Programme Offered

Undergraduate (B. Tech)

Computer Science & Engg. (1994) - 60

Graduate (M. Tech)

Computer Science & Engg. (2008) - 18

PhD (2011) - 29

Classroom Courses

- Machine Learning
- Artificial Intelligence
- Data Mining & Soft Computing
- Theory of Computation
- Operating Systems
- Microprocessors & Microcontrollers
- ► Software Engg. & OOAD
- Database Engineering
- Computer Graphics & Multimedia
- Computer Network & Security
- Computer Organisation

Labs Offered

- ▶ Theory of Computation
- Advanced Computing
- Software Engineering
- Computer Hardware & Microprocessor
- Operating System
- Data Communication & Computer Networls
- Database Engineering

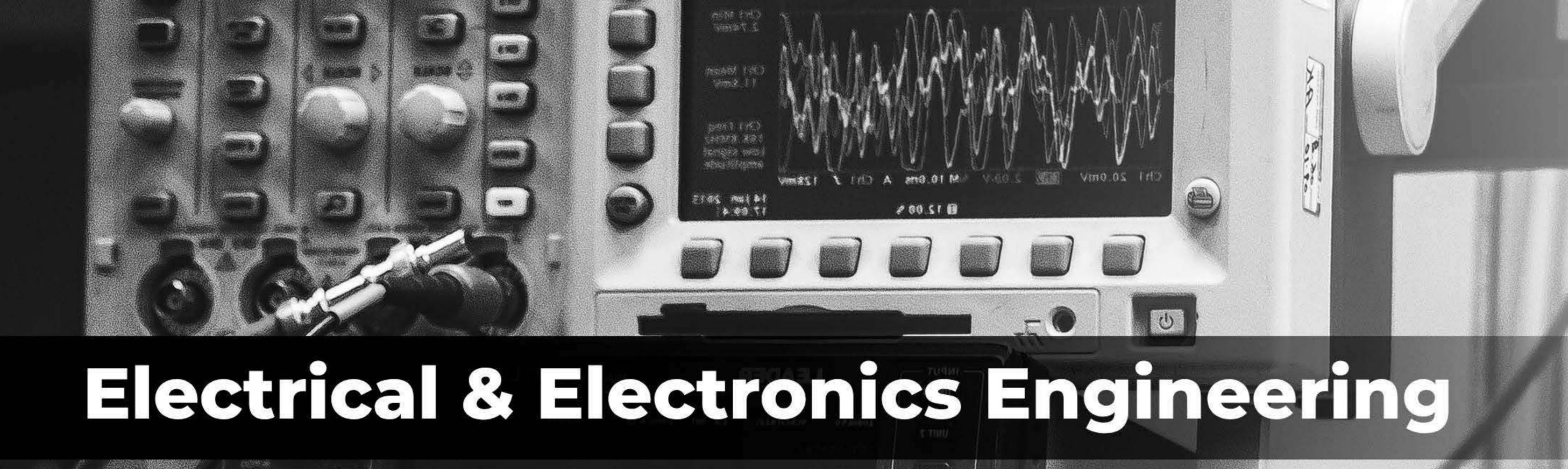
Research and Development Scopes

- Parallel Processing
- Algorithm Engineering and Foundation of Computing
- Data Communication & Networking
- Data Mining & Soft Computing
- Distributed Systems
- Software Engineering
- Big Data & Cloud Computing
- ► Image Processing

Projects

- 3D Face Reconstruction with Position Map Regression Networks
- Deep Learning for Natural Language Text & Image Analysis
- Using a Blockchain Cryptocurrency to enable an Educational Business Ecosystem
- Survivable Information System Information
 Architecture with Intrusion Tolerance, Containment and Recovery in Distributed Environment
- Security Analysis of Cloud Infrastructure

- Top 10% participants with a percentile rank of 100 % in Red Hat IT Aptitude Test India 2023
- Top 50 teams in Microsoft Azure Women's Hackathon 2022
- International Collegiate Programming Contest(ICPC)-2020 Regionalist held in Amritapuri, Kerala.
- A Team of Students secured AIR 4 at the National Finals of the MathWorks Minidrone Competition, NUMA Bengaluru
- Many students were Semi Finalists in IICDC 2020 by Texas Instruments
- A student was 1st Runner's Up in Digitizer (Image Processing Event) Innovision 2018, NIT Rourkela
- One Student passed and Secured 98% in Oracle Cloud Foundations Associate Exam and Fullfilled the criteria of being Recognised as Oracle Cloud Foundations Associate



Undergraduate (B. Tech)

► Electrical & Electronics Enginering (2010) - 60

Classroom Courses

- Network Theory
- Electronics Circuit
- Control System Engineering
- Embedded System
- Digital Circuit and Design
- Power Electronics
- Electrical Machines
- Digital Signal Processing
- Microprocessor and Microcontroller
- Electrical Measurements & Instrumentations
- Power Station Engineering

Labs Offered

- Power Electronics Lab
- Signal and System Lab
- Electronics Circuit Lab
- Microprocessor and Drives Lab
- ► Control and Instrumentation Lab
- Computational Lab
- Electrical Machines Lab
- Power System Lab

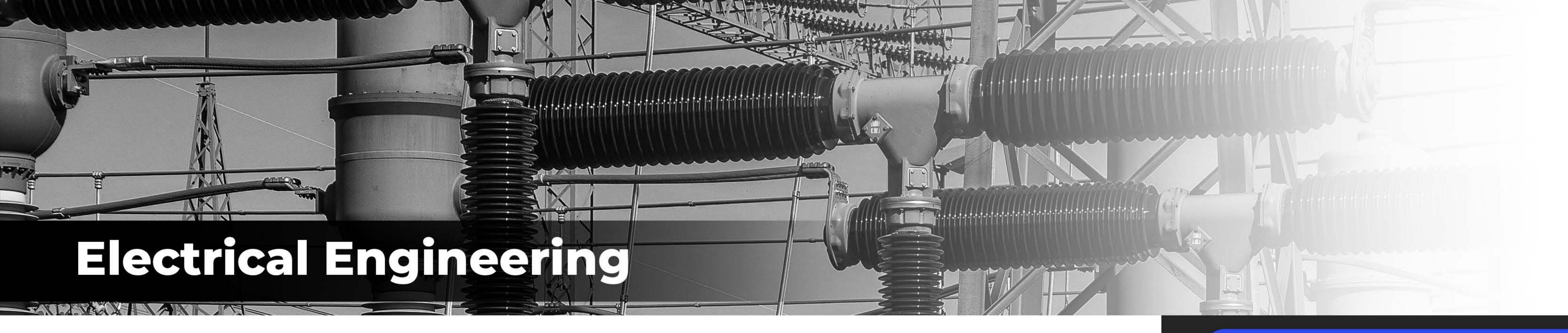
Research and Development Scopes

- Control on Industrial Drive using Microprocessor
- Microprocessor based Digital Protection and Industrial Drive Control
- ▶ Neuro-Fuzzy Techniques in Power System
- Power System Optimization by application of Soft Computing
- Power Quality Improvements by developing Intelligent Techniques

Projects

- Intelligent Soft Computing Approach to Power System Operation and Control (AICTE)
- Application of CNN to AI & Neural Networks (MHRD)
- Robust coordinated approach for AVR and PSS design (AICTE)
- Developing Intelligence Techniques for Power Quality Improvements (DST)

- Semi Finalist at L&T Techgium, 2019-20
- Stage 2 Qualifier at Eyantra, IIT Bombay
- Quarter Finalist at IICDC, 2019 conducted by Texas Instrument
- Top 30 Ideas at Hack the Crisis India, Ministry of Electronics & Information Technology
- Second Runners-Up in Sonarous, NSSC, IIT Kharagpur 2019
- AIR-4, Mathworks Minidrone Competition 2019, NUMA Bengaluru



Undergraduate (B. Tech)

► Electrical Engineering (1956) - 120

Graduate (M. Tech)

- ► Power System Engineering (1968) 18
- ► Power Electronics & Control Drives (2012) 18
- ► Control and Instrumentation (2015) 18

PhD (2011) - 29

Classroom Courses

- Embedded System
- ► Electrical Machines I & II
- ▶ Electronics Circuit
- Power Electronics
- Smart Power Grid
- Electric and Hybrid Vehicle
- Power Systems
- Electrical Drives & Traction
- Control System
- Signal System

Labs Offered

- High Voltage Engineering
- Microprocessor & Microcontroller
- Soft Computing & Signal Systems Lab
- Control System Engineering
- Machines Lab
- EMD and Instrumentation Lab
- Power System Lab
- Network Theory Lab
- Power Electronics Lab

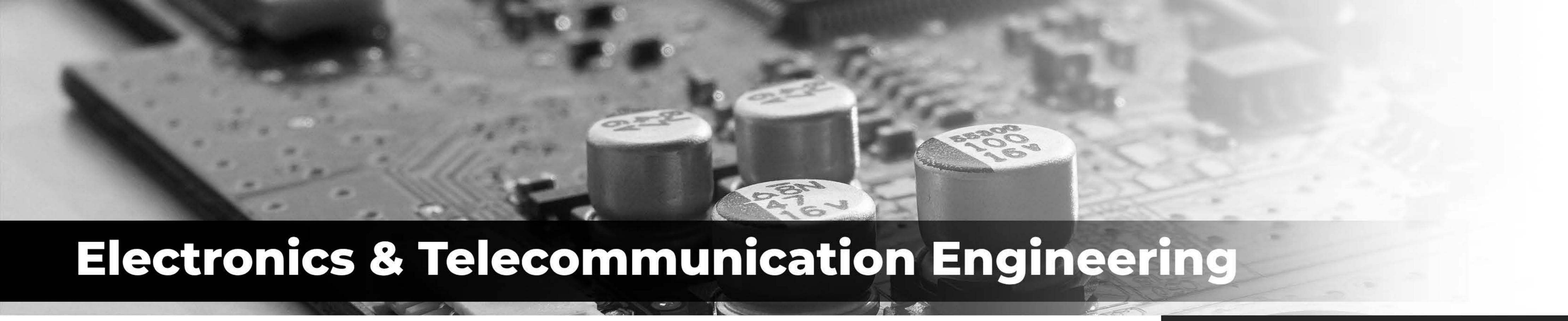
Research and Development Scopes

- Computer Aided Design for Compensation of Extra High - Voltage AC Transmission Line
- Improved methods for Simulation of Non-Linear Systems
- Modeling of Transformers and Over Voltage Problems due to Third Harmonics
- Microprocessor based Digital Protection and Industrial Drive Control
- Neuro-Fuzzy Techniques in Power System
- Soft Computing Applications to Power System Optimisation and Control Problems
- Testing of Circuit Breakers, Dielectric Strength of Insulators and Parameters of Solid Dielectric using Stringent Techniques

Projects

- Intelligent Soft Computing approach to Power System Operational Control
- Robust Controller Structure for Coordinated Power System Voltage Regulation and Stabilisation
- Application of Advanced Signal Processing Techniques to Fault Diagnosis of Power System Elements
- Application of ANN to Power System Problems

- Rashtriya Gaurav Award 2010: Prof. (Dr.) PK Hota
- Mother Teresa Excellence Award 2010: Prof. (Dr.) P K Hota
- Best Paper Award in IEEE Conference 2013: Dr. RK Sahu
- Young Scientist Award 2010: Dr. A K Barisal
- Top cited (top 2%) scientists by Stanford University and Elsevier: Prof. Sidhartha Panda and Prof. Banaja Mohanty
- Seed Fund Research Project Grant in Odisha University Research and Innovation Incentivization Plan (OURIIP)-2022 : Dr Nutan Saha
- One of the Faculty members felicitated for publication of five or more journal papers in SCI/SCIE/SCOPUS in an Academic year 2021-2022: Dr. Papia Ray
- Patent design published published by Ayushman Jena on "Silo Launchpad Assembly or Model Rocketry" (09/2022)



Undergraduate (B. Tech)

► Electronics & Telecom. Engg. (1956) - 120

Graduate (M. Tech)

- Communication System Engineering (1995) 18
- ► VLSI Signal Processing (2012) 18
- ► RF & Microwave Engineering (2014) 18

PhD (2009) - 32

Workshop Organized

- Recent Trends in Antenna Analysis and design, 15th to 20th May 2017
- Recent Advancements in Signal Processing,
 Microwave and VLSI (RASPM-2018)
- Modern Trends & Advances in Communication Systems & VLSI (MTACSV), 4th -9th Jan, 2016
- Signal Processing for Wireless Communication and Sensor Networks (SPWCSN-2018)
- Advances in VLSI Technology and Signal Processing, 3rd to 8th April, 2017)

Patents and Publications

- Dr. Bikramaditya Das, Dr. Madhusmita Panda, Prof. Bibhuti Bhusan Pati: Smart Electric Wheelchair
- Dr. Bikramaditya Das, Prof. Bibhuti Bhusan Pati : Mobile charger using the energy of our steps
- ► Publications (Journals : 131, Conference : 65, Book : 3, Book Chapter : 25)

Labs Offered

- VHDL & Verilog System Design
- Image Processing
- Microprocessor
- Microcontroller & Embedded System
- Digital & Analog Circuit Design
- Analog & Digital Communication
- ► Telecommunication System
- Design Simulation System
- Circuit Debugging Lab

Research and Development Scopes

- Communication Systems
- Signal / Telematics Processing
- RD & Microwave Engineering
- VLSI & Embedded Systems
- Graphics / Image Processing
- Computer Vision
- Antenna Design
- Mechatronics

Projects

- IoB Spline Wavelet based Signal Processing for Remote Sensing Applications
- Flexible distributed Manufacturing Systems using LON
- Micro Strip Antenna design on Ferrite Substrate
- Building Cognition for Intelligent Robots
- Telematics

Achievements

- Prof. Harish K. Sahoo: FPGA Based Power Quality Estimator For Smart Grid Applications, Sponsored Project from DST, Govt. of Odisha | South African Patent Granted in 2022 with Title " Analytic Hierarchy Process Based Image Processing System
- ▶ Dr. Bikramaditya Das: Development of hardware setup and realtime implementation of motion control for Autonomous Underwater Vehicles –NMICPS funded | AICTE funded MODROB project on Communication Lab
- Dr. Manoranjan Pradhan: AICTE funded MODROB project on Microcontroller and Embedded System Laboratory
- Smart India Hackathon 1st Runners up -2023
- Flipkart Grid 4.0 Hackathon Semi-finalist National Finalist of Chunauti 2.0 (conducted by govt. of India) •
- Google startup Bootcamp:Top 18 startup selected for the startup bootcamp at google Hyderabad program for an IASc-INSA-NASI Summer

Research Fellowship in 2022.

Information Technology

Programme Offered

Undergraduate (B. Tech)

► Information Technology (2003) - 60

Graduate (M. Tech)

► Information Technology (2013) - 18

PhD (2011) - 16

Classroom Courses

- Machine Learning
- Artificial Intelligence
- Data Mining & Soft Computing
- Theory of Computation
- Operating Systems
- Microporcessors and Microcontrollers
- ► Software Engineering & OOAD
- Database Engineering
- Computer Graphics & Multimedia
- Computer Network & Security
- Computer Organisation

Labs Offered

- ▶ Theory of Computation
- Advanced Computing
- Software Engineering
- Computer Hardware & Microprocessor
- Operating System
- Data Communication & Computer Networks
- Database Engineering

Research and Development Scopes

- Parallel Processing
- Algorithm Engineering & Foundation of Computing
- Data Communication and Networking
- Data Mining & Soft Computing
- Distributed Systems
- Software Engineering
- Big Data & Cloud Computing
- ► Image Processing

Projects

- Iris Feature Segmentation using Semantic in Biometric Devices
- Multi Robot and Communication using modified Q-Learning Algorithm
- Health Monitoring Watch using Android Applications
- ► Signature Verification using Custering Algorithm
- Intelligent Emotion Recognition using Brain Signals (IEMOTION)
- Detecting Terror Related Activities on Net by using Data Mining Technique

- International Collegiate Programming Contest(ICPC)-2022 100th Rank in Regional round among 130 teams held in Amritapuri, Kerala
- One girl secured position in Top 30 and bagged PPOs at Women of Mettle
- A Team was Qualified among Top 20 Teams in Bhopal Smart City Hackathon 2019
- A team was Qualified among Top Teams in Hack in India Script Foundation Hackathon
- A student Qualified among the Top Finalists in P&G Hackathon 2020
- A student bagged State-UtkalHacks 2nd Runners-Up (Hackathon)



Undergraduate (B. Tech)

► Mechanical Engineering (1956) - 120

Graduate (M. Tech)

- ► Machine Design and Analysis (1972) 18
- ► Heat Power Engineering (1972) 18
- Production Engineering (1972) 18

PhD (2001) - 50

Classroom Courses

- Manufacturing Science & Technology
- Mechanics of Solid
- Fluid Mechanics
- Industrial Engg. & Operational Research
- Heat Transfer & Power Plant Engg.
- Composite Materials
- Automobile Engineering
- Machine Dynamics
- Machine Design
- Fluid Dynamics & Hydraulic Machine
- ▶ Internal Combustion Engine & Gas Turbine
- ► Refrigeration and Air Conditioning
- ► Introduction to Nano Technology
- Computer-Aided Design & Manufacturing
- ► Computational fluid dynamics (CFD)
- Cryogenic Engineering
- ► Emerging Trends in Manufacturing Technology
- Gas Dynamics
- ► Industrial Management
- ► Non-Conventional Energy

Labs Offered

- ▶ Central Workshop
- ► Thermal Engineering and Foundry Lab
- ► Heat Transfer & Refrigeration and Air Conditioning Lab
- ▶ Product Design & Product Tooling Lab
- ► Metal Cutting & Metal Forming Lab
- ► Metallographic Study & Non-Destructive Testing Lab
- Hydraulic Machine Lab

Research and Development Scopes

- Mechatronics
- Design and Analysis
- Composite Materials
- Nano Technology
- Production EngineeringThermal Engineering
- Sustainability Engineering

Projects

- Design, Modelling, and Manufacturing of Strong and Light Weight 3D printed Honeycomb Composite
- Integrated Manufacturing
- Development of NCD & UNCD diamond coatings and their characterization on cemented carbide inserts
- Performance enhancement of a slotted fin heat sink
- Composites for heat shielding components in aircrafts
- Development of a high vacuum brazing furnace for joining metals to ceramics

- Smart India Hackathon 2022 -Runners-up in final round among all teams held in Noida
- Start up Odisha mela 2023 -Runners-up in final round held in Bhubaneshwar
- 3 Girls secured position in Top 30 and bagged PPOs in Women of Mettle by TATA Steel
- A group of students brought Glory by becoming Finalist at L&T Techgium 2020
- Many students were finalist in National Engineering Olympiad
- Some Bright Girls of the Department were selected as finalist in "MechAura" by the Collins Aerospace
- Students were finalist of East Zone of TATA Crucible
- Students were Second Runners-Up at L&T Createch

Metallurgical & Materials Engineering

Programme Offered

Undergraduate (B. Tech)

► Metallurgical & Materials Engg. (2013) - 60

Graduate (M. Tech)

► Industrial Metallurgy (2020) - 18

PhD

Classroom Courses

- Physical Metallurgy
- ► Phase Transformations and Heat Treatment
- Extractive Metallurgy
- Mechanical Metallurgy
- Thermodynamics & Kinetics
- ► Fabrication of Materials (Casting & Welding)
- Materials Characterisation
- ► Iron Making & Steel Making
- ► Introduction to Surface Engineering
- ▶ Transport Phenomena

Labs Offered

- ► Phase Transformation & Heat Treatment
- Mineral Processing
- Material Processing
- Physical Metallurgy
- Electro-Metallurgy & Corrosion
- Process Metallurgy Lab
- Materials Characterisation Lab
- Material Testing Lab & NDT Lab
- Computational Lab
- ▶ Foundry Lab
- Welding Technology Lab

Research and Development Scopes

- Structure Property Correaltion of Ferrous,
 Non-Ferrous Metals and Alloys
- Reduction of Cut-off Grades and Development of Innovative Process fir Increasing Resource base
- Development of Structural Material by Top-Down and Bottom-Up Approach
- Nano-Technology

Projects

- Modeling and FEM Simulation of DRX Microstructure for Automotive Applications
- Base & Precious metals recovery from waste of Electroncis & Electrical Equipments
- Weld ability study of Nitrogen containting Austenitic Steels
- Boronizing behaviour of Low Carbon and
- Medium Carbon Steel
- Enhancing Shape Memory properties of Ti-Nb
- Binary Alloy through ECAE Processing for Bio-Medical Applications
- Failure Analysis of Steam Turbo Generator Bearings
- Defect Characterisation & Aluminium Foil Samples for Beverages Can Applications
- Failure Analysis of Vacuum Pump Casting
- Enhancement in Bone Regerenation by Hydroxyapatite
 Doped Piezoelectric Composite Coating

- A Student bagged 2nd Prize in Advance Material Engineering at BTTD'S STUDENT SEMINAR at CSIR NML Jamshedpur
- Ist in Oral Presentation National Metallurgists Day Annual Technical Meeting 2015
- 2nd in Poster Presentation in BTTD '15, CSIR-NML Jamshedpur
- Ist in Metallography in NCPCM '15
- 2nd in Poster Presentation in NCPCM '15
- Two students secured AIR 75 & AIR 98 in GATE 2023.
- Two students bagged Summer Research Fellowship internship 2023 at IIT Bhubane-shwar and NIT, Rourkela.
- Three students got selected for Project Intern at Advanced Systems Laboratory, DRDO, Hyderabad.
- Finalist at L&T TECHGIUM Hackathon 2022.



Undergraduate (B. Tech)

► Production Engineering (1996) - 60

Graduate (M. Tech)

- Manufacturing System Engineering (2011) 13
- Robotics & CAD/CAM (2011) 13

PhD (2010) - 04

Classroom Courses

- ► Manufacturing Science & Technology
- Fluid Mechanics
- Operational Research and Management
- Machine Dynamics & Design
- Robotics & FMS

Labs Offered

- Design Sessions
- ▶ Tools Design
- Vibration Laboratory
- ► CAD / CAM Labs
- Advance Manufacturing Lab
- Metal Forming Lab
- Robotics and FMS Lab

Research and Development Scopes

- ► Non-Traditional Machining
- Robotics & Flexible Manufacturing Systems
- ▶ Tool Condition Monitoring
- Welding Process Optimisation

Projects

- Modernisation of Non-Traditional Machining Process
- Modernisation of Metal Machining Lab
- Virtual Manufacturing using Information Technology

- A group of students baged position in Top 10 in L&T CREATECH 2020
- Many students were Runners-Up in TATA Crucible Eastern India 2020
- A team of students were finalists in Maker Faire Hyderabad
- Many students were participants of Akruti Design, Dassault Systems
- A group of students were National Finalist at L&T CREATECH

What does one expect a University which is surrounded by cluster of worldclass industries and institutes to do - to partner with them for research and solve problems of the society? VSSUT exactly does that. It is the epicenter of mamoth industries who have investments to the tune of 150,000 crore rupees. It is surrounded by many reputed Universities and also an IIM. Together they create opportunities to broaden the reacha and vision of students.

Internships Training & Industrial Visits

Students are exposed to internship and training programs in reputed industries like NVIDIA, Nokia, KPMG, ITC, L&T, Hindalco, Vedanta, ECIL, NALCO, OHPC, OPGC, TATA Steel, NTPC, etc; They conduct various research interships from top IITs and NITs, BAARC etc. They are taken on industrial tours; they participate in problem-solving and take up projects. Some companies our students were offered internships:



























Startup Entrepreneurship

Apart from such industrial and academic giants, even budding start ups of the country are considered while giving internship opportunities to the students. The University and Alumni Association organize regular workshops and seminars addressed by successful entrepreneurs, administrators and policy-makers. We have 3 successful startups in revenue stage and 10+ startups in growing stage under Entrepreneurship Club.

Alumni Presence Corporate Footprint

VSSUT is gifted with a vast and vibrant Alumni body which has National as well as International presence. Alumni organize internship and placements for the students; they are the trusted source of career guidance, counseling etc. which prepare the students in the best possible way to compete at the global level.

ROBOTICS SOCIETY

Provides training and resources along with an elite competitive environment preparing students to strive national level robotics competitions like ROBOCON and various other inter-university tournaments.

SOCIETY OF AUTOMOTIVE ENGINEERS

It has two teams BAJA and SUPRA. BAJA designs all-terrain vehicles (ATVs) and SUPRA designs F3 prototype class vehicles, adhering to global standards of performance.

AIR-6 Overall (Enduro Student India-2018) AIR-1 Dirt-X (Enduro Student India - 2018) AIR-1 Endurance Race (Enduro Student India - 2018)

EDP SOCIETY

Responsible for development of entreprenurial skills in students and refining them to face a tough corporate world. The club helps in developing professionalism while refining every individual talent.







LITERARY SOCIETY

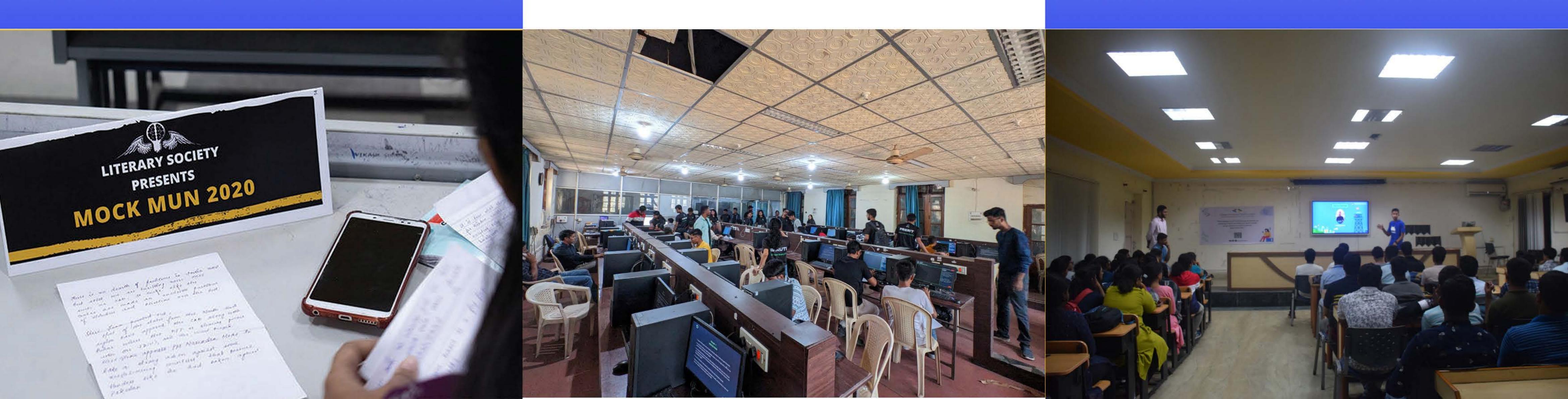
Literary Society promotes literary activities across the domains of speaking, reading & writing in the students via events and activities. It primarily handles the official e-Newsletter and annual magazine of the University, and it's a major component of the annual cultural fest.

ENIGMA

Enigma provides a platform to the tech savvy students in the field of coding and developer technologies. It also organizes events, sessions, hackathons and programming challenges throughout the year. Enigma has achieved multiple qualifications in International competitions such as ACM-ICPC and Google Code Jam.

GOOGLE DEVELOPER STUDENT CLUB

With an aim to connect, learn and grow and facilitate community learning, Google Developer Student Clubs are established for college and university students interested in Google Developer Technologies. Students grow their knowledge in peer to peer learning environment and build solutions for community.



CODECHEF VSSUT CHAPTER

An initiative for the geeks, who share the common love for Computational Problem Solving. CodeChef VSSUT is a non-commercial organisation with a goal to provide a platform for programmers and developers everywhere to meet, compete and have fun. We host exciting contents frequently and post content to sharpen your coding skills.

HACKEREARTH HUB VSSUT

The HackerEarth Hub VSSUT is a platform for students who are passionate and are interested in building a programming community as well as being an active part of it. We aim to navigate everyone through various hiring challenges, hackathons and competitive programming challenges and help improve everyone's cognizance about said opportunities

ATHLETIC CLUB

Responsible for promoting health, fitness and sports in the community. The club organizes the annual athletic meet ILLUMINA and the bi-annual Inter-University Sports Meet. It provides training and exposure to oncampus athletes and sportspersons.



IDEA AND INNOVATION CLUB

A platform where new and young innovators are guided towards their success which eases their work and achieve something remarkable and provides them with appropriate resources.

MUSIC AND DANCE CLUB

The club is filled with music and dance lovers who take the preferred hobbies to a whole new level with their extra sense of music and dancing. They were runner's up this year in CYPHER - the ultimate street battle at IIT KGP.

QUIZZINE THE QUIZ CLUB

The club conducts regular quizzing sessions for interested and aspiring quizzers. Quizzers from VSSUT have won in National Level Quizzing Events at IIT Kharagpur, Tata Crucible, Mettle Quiz and Mahindra Auto-Quotient. They also organise annual open quiz named VARCHAS-WA



Infrastructural Marvel



- A state-of-the art Innovation cum Incubation Centre has been set up in colaboration with ISRO and Startup Odisha is fully functional.
- Eleven majestic Wi-Fi equipped hostels provide the right environment for students, away from the distractions of a city. VSSUT cultivates an amazingly bonded 'Gurukul' culture.
- VSSUT has the largest Technical Library in the region with over 60,000 books and journals. It has an e-library offering online resources and every user is given a smart card.
- A 1500 seating capacity Auditorium renders an apt platform to talented students and eminent speakers.



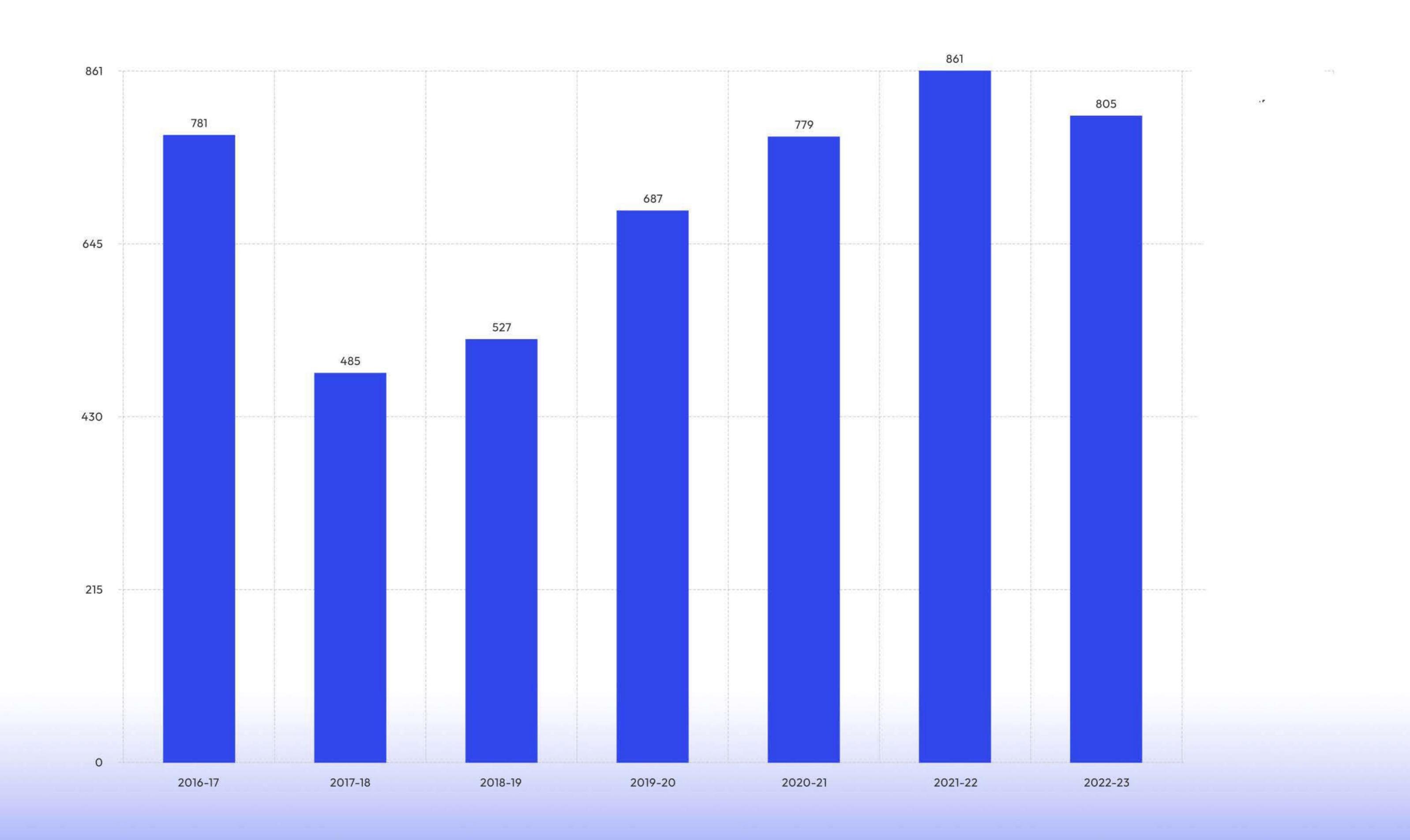
- Construction of a 5000 seated Amphi Theatre is soon starting which would raise the bar of exsisting infrastructure.
- A state-of-the-art e-Learning Centre, fully e-enabled has been created to meet the growing needs.
- Plans are drawn to fill the campus with Centres of Excellences, Research Centres, Innovation Centres, Entrepreneur Cell. All in the next couple of years



- Odisha Cabinet has approved implementation of institute development plan with outplay of Rs. 2000 Cr for transformation of Veer Surendra Sai University of Technology (Formerly UCE), Burla
- This will give impetus to multidisciplinary teaching & research, & help in introducing new generation industry oriented & employment linked courses.

Placement Highlights 2022-23

Each students leaves the campus with termendous self-belief, competitive attitude and a hunger to win. They know that they have a promise to kep, a point to make and something to achieve. VSSUT has placed trust on each of them and they know they have to deliver that trust. That keeps the companies across sectors to visit VSSUT year after year for placements.



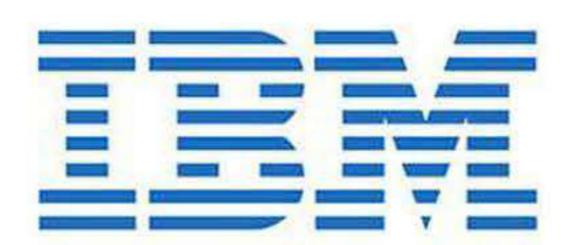
Winning over the Corporate World.





Deloitte

































































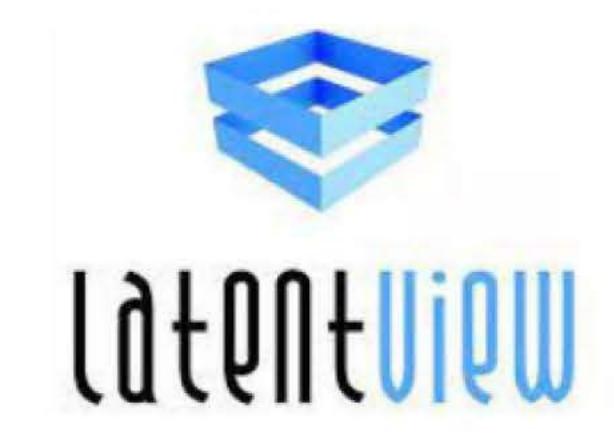






















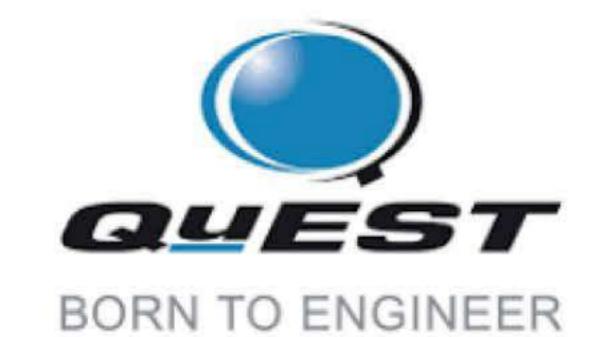






































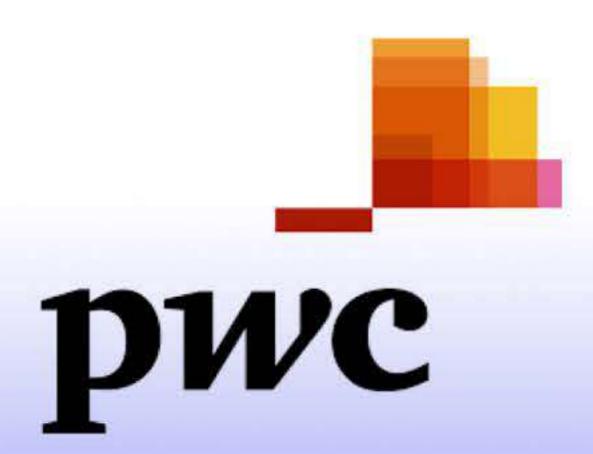
































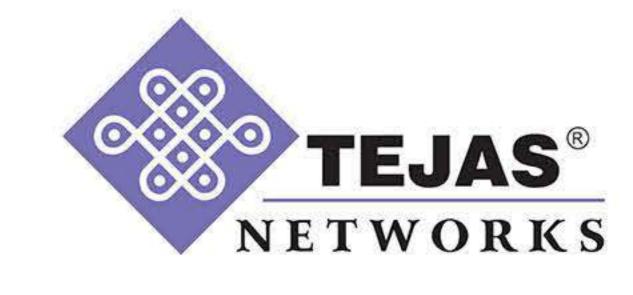














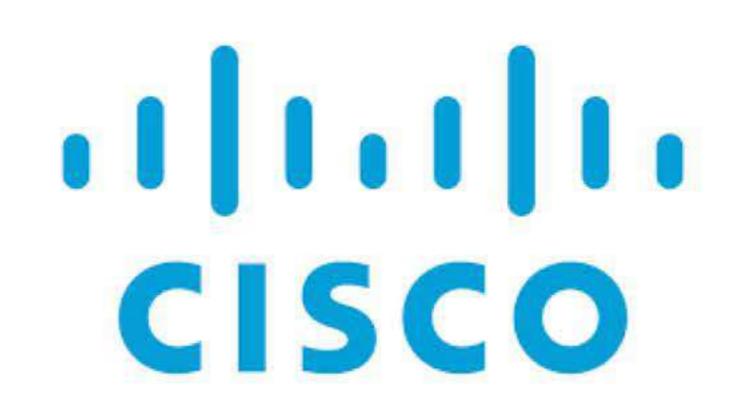


























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MoU Signed With

The university has successfully collaborated with renowned institutions and companies, establishing a healthy environment to learn and grow wisely.



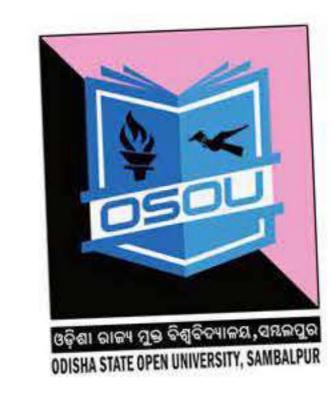




























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