



CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY BHILAI

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www.csvtu.ac.in

admissioncell_utd@csvtu.ac.in



+ 91- 0788-2200062

+ 91 - 9406020587, 7828248112



ABOUT THE UNIVERSITY

Chhattisgarh Swami Vivekanand Technical University (CSVTU) was established by an act (No. 25 of 2004) of legislature passed by the Chhattisgarh State Govt. Assembly vide notification no. 639/21-A/praroopan/04 dt 21st January 2005 to incorporate a University and Technology for the purpose of ensuring systematic, efficient and quality Education in engineering and technological subjects including architecture and pharmacy at research, post graduate, degree and diploma Level.

It was inaugurated on 30th April 2005 by the hon'ble Prime – Minister of India Dr. Manmohan Singh. The University without waiting, for full fledged infrastructure development started identifying the frontier area of research and development and outreach programs for the benefit of the society. With The permanent campus of the university encircles 250 acres of land in the vicinity of Bhilai township considered to be one of the most eminent education hubs in INDIA. The construction of university administrative building is complete.

ABOUT THE UNIVERSITY TEACHING DEPARTMENT

The university teaching department started in the year 2016 with four PG courses, namely M.tech. in energy and environmental engineering, M.Tech. in biomedical engineering and bioinformatics, and M.Tech. in microelectronics and VLSI, from Academic session 2017-2018, three new PG courses – M.tech in Structural Engineering, M.tech. in Environmental and Water Resources Engineering And M.Plan in Urban Planning were started. Currently, UTD is running total six PG courses. All the six courses are uniquely and specifically designed to meet the challenges in research and industry.

DEPARTMENT OF URBAN PLANNING

About The Department

The urban planning department was initiated at the Chhattisgarh Swami Vivekanand Technical University, Bilai, in the year 2017. In the year 2018, the department was housed in its own independent building and premises. The Department has the singular eminence of being the first in the Chhattisgarh in instituting a master degree course in Urban planning (M. Plan.) with **ITPI Approval**. The department is actively engaged in different Urban Planning research areas.

Facilities Available At Department

The research hub of CSVTU provide GIS equipped with the latest professional software like Geomedia, Erdas , ArcGIS. ERDAS, which is basically digital image processing software mainly used for study and analysis of satellite imagery, GeoMedia used for working with and conducting analysis on geographic information, also Workstation for technical applications with 3D glass with Topo mouse is available in research hub.

Career Prospects

HIGHER EDUCATION

- Department of Architecture and Planning in all IIT's and NIT's
- Department of Planning in Selected Private Institutions affiliated with ITPI

CAREER IN PRIVATE SECTOR

CAREER IN GOVERNMENT SECTOR

- TCPO
- DDA
- GIS / RS Department

DEPARTMENT OF ENERGY AND ENVIRONMENTAL ENGINEERING

About the Department

Department of Energy and Environmental Engineering has been established at the University Teaching Department, CSVTU, Bhilai since June 2016. The Department offers PG Programme (M.Tech.) in Energy and Environmental Engineering. The department believes in imparting quality education to the students, interaction with eminent personalities and academicians from prestigious Institutions/industries. The major task of the Department is to develop comprehensive innovative solutions to various energy and environmental challenges by undertaking Environmental and Energy leadership projects. This involves promoting energy efficiency and the adoption of renewable energy sources like Solar, Wind, Geothermal, Small Hydro, and Biomass etc. to meet energy requirements and to consider various renewable energy policies at the local, regional, and national levels.

Facilities available at department

A well equipped research hub has been developed at UTD, CSVTU with following Software and Hardware focusing on needs of Department of Energy and Environmental Engineering:

Software available: MATLAB 2019, Ansys etc

Equipment available: FPGA based Solar Energy emulator system, FPGA based Wind Energy emulator system

Career Prospects

The knowledge and skills gained by students of the Programme will afford them strong career prospects. They will find employability in current and emerging areas of energy systems, environmental monitoring and control, smart green building technologies, among others. They can also pursue doctorate studies in their specialized areas of interest in India or overseas.

DEPARTMENT OF STRUCTURAL ENGINEERING

About the Department

The department comes in to existence in the year 2016 under the university Teaching Department of Chhattisgarh Swami Vivekanand Technical University Bhilai, Chhattisgarh, India with the intake of 10 M-tech students per year. Structural engineering is usually considered a specialty discipline within Civil Engineering. Structural Engineering depends upon the detail knowledge of physical law, structural performance of different material and geometries, applied mechanics; material science etc. structural design utilizes a number of simple structural elements to build complex structural systems. The department is also committed to give its students to advance the structural engineering profession through research, teaching and service by integrating engineering mechanics, computational modeling simulation

Facilities available at department

A well-equipped research hub has been developed at UTD, CSVTU with following Software and Hardware :

Software available: Bentley Products (STAAD Pro)

Hardware available: 3D Printer

Career Prospects

The knowledge and skills gained by students from their M Tech Program will afford them strong career prospects. They will find employability in current and emerging areas of concrete structure, Timber- steel hybrid structure, Dynamic structural Analysis. They can also set themselves as Engineering Consultancies, and can take job opportunity in different Government Jobs, in Public utilities Companies, and also in Construction and Consultant companies

About the Department

The department came into existence in the year 2016 under the University Teaching Department of Chhattisgarh Swami Vivekanand Technical University, Bhilai, Chhattisgarh, India with the intake of 10 M.Tech Students per year. Biomedical engineering is an interdisciplinary branch which involves the study and implementation of the different engineering concepts in the wide arena of health care services to aid the doctors in better diagnostic and therapeutic procedures, while the bioinformatics deals with the area of the analysis of huge quantum of data coming out of genetic research which demands not only the knowledge of biology but also requires a sound knowledge of the statistics and computer science.

Facilities Available at the Department

- Schrodinger feature and application
- Labview
- MATLAB
- Spectrophotometer

Career Prospects:

Companies/Organizations: CSIR Labs, General Electric, Philips, Toshiba, Johnson & Johnson, Hitachi, Siemens, BPL Technologies, Boston Scientific, MED-EL India and many more companies working in the field of healthcare.

About The Department

The Department of Environment and Water Resources Engineering (EWRE) was established in 2017 at University Teaching Department, which offers M. Tech degree program at the Chhattisgarh Swami Vivekanand Technical University, Bhilai, Newai Campus. The discipline takes broad scientific area for technical advances on addressing local and worldwide issues related to environmental and water resources engineering. Our aim is to train our students to face challenges and to develop innovative engineering solutions in various aspects of environmental and water resources engineering domains.

Facilities Available at the Department

The EWRE department has a specialised and a fully facilitated Water Resources laboratory for computer-based simulations that is one of its own kind in the Chhattisgarh state. The department houses dedicated workstations to carry out intensive computations and simulations pertaining to modelling softwares. The laboratory has equipped with various softwares for Geospatial Data Modelling, Monitoring and Analysis (ERDAS Imagine, Geo Media, ArcGIS Advanced & Terrset Geospatial), Hydrological and Hydraulic Modeling (PCSWMM, MIKE-SHE; Urban+; Hydro basin; Flood-2D), Groundwater Modeling (Visual Modflow flex, Hydro Geo-analyst, FEFLOW) and advanced surveying instruments like DGPS system.

Career Prospects

Department of Civil/Water Resources/Environmental engineering at various IIT's, NIT's. Prestigious Water resources research institutes like NIH, NEERI and CPCB, VALMI, CII Triveni Water Institute, ICAR- Indian Institute of Water Management, National Hydrology Project.

DEPARTMENT OF MICROELECTRONICS AND VLSI

About the Department

The Department of Microelectronics and VLSI has a broad range of research that spans generation of new fundamental knowledge as a primary function. This culture of collaboration is one of the major strengths of the department enabling integrative research based on interactions between investigators in different disciplines. Our research labs are equipped with state-of-the-art EDA software tools for Digital and Analog-Mixed signal IC design.

Facilities at Microelectronics & VLSI Department

Software Labs

CADENCE Research Bundle/ XILINX VIVADO Software University VIVADO System Edition SEF-vivado System / ORCAD PCB Bundle / MATLAB 19 / Micro wind (Mixed Signal VLSI Design with FIN-FET Technology)

Hardware Labs

IoT Hardware/Software Lab / Advance FPGA Lab / Legacy FPGA Lab

Career Prospects

VLSI & Embedded Industry: Major Companies like Intel, Texas Instruments, Samsung, Western Digital, Collcomm, Nvidia, Broadcom offer Lucrative Package ranging from 4 LPA to 14 LPA to Microelectronics & VLSI Post Graduate freshers. Some of our Alumni are placed in major Multinational companies. Higher Education prospects like PhD, JRF positions in Department of ECE, Computer Science, Microelectronics & VLSI, Embedded Engineering ect. at various IIT's, IIITs, NIT's. Research Laboratories like SCL Mohali, SSPL, New Delhi, CEERI, Pilani, Rajasthan . offer lucrative job opportunities to skilled Microelectronics-VLSI Post Graduates.

STUDENTS ACTIVITIES

Seminars / Workshops / Conferences at CSVTU



Field visit



Co - Curricular Activity at CSVTU



Eligibility Criteria

S. No	PG COURSES NAME	ELIGIBLE BRANCHES NAME	GATE SUBJECTS
1	M. Tech. in Energy & Environmental Engg.	Bachelor's Degree in Engineering M.Sc.(Physics, Chemistry, Bio Technology, Environment, Environmental Engg./ B.Tech. Agriculture)	Any Subject in Engineering / PH/ CY/ BT/XL/AG/
2	M.Tech. in Micro Electronics & VLSI	BE/B.Tech. in Elex/ ECE/ETC / EEE/ EE/E&I /I &C/CSE /CS/IT / Nano Technology /Material Science Engg./IETE/ AMIE (ECE / CSE /IT/EE), M.Sc.(Physics/Electronics/CS/IT/Informatics/ Information Science)	EC/PH/IN/CS/E E
3	M.Tech. in Bio Medical Engineering & Bio Informatics	BE/B.Tech.- Bio Medical / Bio Technology / Bio Informatics/ET&T/CSE/IT/EE/EEE/E&I/Instrumentation Engg./Mechatronics , M.Sc.(Electronics/ CSE/IT/Bio Informatics/Bio Technology/Life Science/ Physics / Maths/ Chemistry)	BT/EC/CS/PH/ MA /XL/ CY
4	M.Tech Civil Engineering with Specialization in Environmental & Water Resources Engineering	B.E./B.Tech. (Civil Engineering/ Environmental Engineering/ Water Resources Engineering/ Agricultural Engineering or equivalent) M.Sc. (Engg.)	CE/EE/WRE/AE
5	M.Tech Civil Engineering (Structural Engineering)	B.E./B.Tech. in Civil Engineering or equivalent.	CE
6	Master of Planning (Urban Planning)	Bachelor of Architecture/Bachelor of Planning, B.E./B.Tech. in Civil Engineering Msc/MA (Geography/Economics/ Sociology)	Architecture/CE
7	M.Tech in Steel Technology	BE/B.Tech in Metallurgical Engineering Mechanical Engg./Chemical Engg./ Electrical Engg. / Electronics & Telecommunication or related discipline of Engineering or its equivalent	MT/ME/CH/EE/ EC