

**WORKSHOP****Workshop on "Energy Conservation Building Code Simulation"  
Conducted at CSVTU**

Chhattisgarh Swami Vivekanand Technical University (CSVTU) recently conducted a two-day workshop on Energy Conservation Building Code Simulation at its Raipur campus. The workshop, held on July 7-8, 2023, witnessed the participation of municipal corporation officials, university authorities, and Ph.D. research scholars. The workshop aimed to explore innovative approaches to energy conservation in building designs and codes. Participants, including PG and Ph.D. research scholars specializing in Mechanical, Electrical, Civil, and Architecture, actively engaged in interactive sessions and knowledge sharing. The event facilitated fruitful discussions between municipal corporation officials and the academic community, fostering a comprehensive understanding of energy conservation practices. CSVTU continues to emphasize sustainable practices and energy conservation in building design and construction, contributing to a greener future.





Interested individuals are encouraged to stay connected with the university's nodal officer for PG and Ph.D. research scholars to remain updated on future workshops and events.

CSVTU's commitment to promoting energy conservation and sustainable development remains unwavering, as it strives towards a more environmentally conscious future.



### **SICKLE CELL ANAEMIA TEST CAMP**

**SWAMI VIVEKANANDA TECHNICAL UNIVERSITY AND CHANDULAL CHANDRAKAR MEMORIAL GOVERNMENT MEDICAL COLLEGE SUCCESSFULLY CONDUCT TWO-DAYS SICKLE CELL SCREENING CAMP.**





## **SUBTITLE: JOINT INITIATIVE RAISES AWARENESS AND IDENTIFIES 12 SICKLE CELL ANEMIA CASES**

Chhattisgarh - Swami Vivekananda Technical University (CSVTU), in collaboration with Chandulal Chandrakar Memorial Government Medical College, organized a two-day screening program to detect sickle cell anemia. The initiative aimed to create awareness about the disease among the university community and residents of surrounding rural areas. The program, led by renowned doctors, resulted in the identification of 12 individuals affected by sickle cell anemia.

Under the guidance of Dr. Shashikant Swarnakar and Dr. Vartika Singh from Government Chandulal Chandrakar Medical College, the screening program began with an inaugural ceremony attended by Dr. Sanjay Aggarwal, the Pro Vice Chancellor of CSVTU, and Dr. PK Ghosh, the Director UTD, CSVTU. The distinguished guests highlighted the severity and implications of sickle cell anemia, emphasizing the significance of early detection and treatment.

With the assistance of the National Service Scheme Unit of the University, over 200 people residing in the technical university campus and nearby areas underwent thorough examinations on the first day. Specialized doctors conducted the screenings to identify potential sickle cell anemia cases.



The screening program received overwhelming participation and support from students, professors, employees, and various departments at the CSVTU campus. This united front showcases a collective effort in combating this debilitating disease. The joint endeavor between Swami Vivekananda Technical University and Chandulal Chandrakar Memorial Government Medical College sets a noteworthy example for fostering community health awareness programs.



## SOCIAL SERVICES

### UTD NSS UNIT OF CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY (CSVTU), BHILAI SUCCESSFULLY COMPLETED SOCIAL SERVICES IN ADOPTED VILLAGES UNDER UNNAT BHARAT ABHIYAN SCHEME



In a commendable effort towards sustainable rural development, the National Service Scheme Unit of the Chhattisgarh Swami Vivekanand Technical University (CSVTU) in Bhilai has recently adopted five villages under the esteemed Unnat Bharat Abhiyan (UBA). The villages, namely Bodhal, Amarori, Marra, Gudiari, and Giridih, situated in the Durg district of Chhattisgarh, are set to receive technical and educational assistance from the university for the next three years.

With a core focus on uplifting the living standards of rural communities and promoting sustainable growth, the objectives of this village adoption initiative are multifaceted. The dedicated NSS UTD team plans to achieve these objectives through various well-rounded activities that cater to the specific needs of each village.





To kickstart the program, the NSS UTD team embarked on a visit to each village, engaging with the respected sarpanch to establish effective communication channels. In a symbolic gesture, trees were planted in each village, symbolizing the growth and prosperity that is set to follow.

The enthusiastic team of students has been divided into five groups, each assigned to a specific village, ensuring a focused and personalized approach to developmental activities. The students have begun their mission by conducting comprehensive surveys to assess the unique requirements of the villagers.



Furthermore, agricultural training sessions have been organized to equip the villagers with modern techniques and methodologies to maximize their agricultural output. By enhancing their skills, the NSS UTD team hopes to contribute to improved agricultural practices and sustainable livelihoods for the villagers.

The village adoption program undertaken by NSS UTD, CSVTU, and Bhilai exemplifies a praiseworthy endeavor towards rural upliftment. With unwavering commitment and dedication, the team strives to achieve the set objectives of the program and bring about a significant positive change in the lives of the villagers. Through collective efforts and support, this invaluable initiative has the potential to inspire similar endeavors across the nation, ushering in a brighter and more prosperous future for rural India.

**PG ADMISSIONS**

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY BHILAI  
INTRODUCE DIRECT ADMISSION FOR PG COURSES**

Chhattisgarh Swami Vivekananda Technical University Bhilai (CSVTU), has announced direct admission for students in PG-level courses, including those who clear the GATE exam.



The university offers 7 PG courses through its UTD, with 18 seats available in each course, totaling 126 seats.

The PG courses offered include Energy and Engineering, Environmental and Water Resources Engineering, Structural Engineering, Micro Electronics and VLSI, Bio-Medical Engineering, Bioinformatics, M Plan, and Steel Technology. However, due to a lack of interest, the Steel Technology course has been declared a zero-year for the past three years. Interested students can apply for admission to this course.

Students enrolled in PG courses will benefit from various facilities, including access to hi-tech labs, a studio, and guidance from experienced professors. Accommodation arrangements have been made in BSP's Vizak Hostel, providing 20 rooms for student accommodation.

Scholarship opportunities are also available for PG students, with SC and ST students eligible for a scholarship of Rs. 60,000 per year. Additionally, students who score well in GATE will receive a scholarship of Rs. 20,000.

Direct admission for female students has been introduced, and in case of more applications than available seats, an entrance exam may be conducted by Technical University Bhilai.

This new initiative by Technical University Bhilai aims to streamline the admission process and provide greater opportunities for students pursuing PG courses.



## **SCHOLARSHIPS**

### **CSVTU ANNOUNCES ADMISSION FOR PG DIPLOMA COURSE IN INDUSTRIAL SAFETY AND FIRE SAFETY MANAGEMENT**

Chhattisgarh Swami Vivekanand Technical University (CSVTU) has released admission details for the PG Diploma course in Industrial Safety and Fire Safety Management. The course, with a fee of Rs. 30,000 per semester, offers a total of 30 seats to prospective students.

Out of the 30 seats, 22 seats are reserved for students from Chhattisgarh (CG quota), while the remaining 8 seats are allocated specifically for sponsorship students. To be eligible for admission to the first semester of the PG Diploma course, candidates must have a graduation degree in Engineering/Technology/Science with a minimum of 50% marks or equivalent grades from a recognized Board/University. Additionally, passing the higher secondary education (10+2) with Physics, Chemistry, and Mathematics as main subjects from the CG Higher Secondary Education Board or an equivalent examination is required. Candidates with relevant sponsorship must also possess a minimum of one year of experience in the relevant field after passing the qualifying examination. Prospective students who meet the eligibility criteria can apply for admission through the online application process, with the deadline to be announced by CSVTU. It is crucial for interested candidates to carefully review the admission guidelines and provide accurate information during the application process.



CSVТУ's PG Diploma course in Industrial Safety and Fire Safety Management aims to equip students with the necessary skills and knowledge to ensure workplace safety. The university's commitment to providing quality education and fostering a skilled workforce is evident in this specialized program.

Aspiring candidates are advised to stay updated with CSVТУ's official announcements regarding the admission process and important dates.



### **E-LIBRARY ACCESS**

## **CSVТУ LAUNCHES E-LIBRARY, PROVIDING ACCESS TO BOOKS FOR 15,000 STUDENTS**

Bhilainagar - Chhattisgarh Swami Vivekanand Technical University (CSVТУ) has introduced an e-library, benefiting 15,000 students. This digital platform allows students to access a wide range of books and study materials, providing convenience and cost savings.

Students pursuing Diplomas in Engineering, B.Tech, and Pharmacy in their fourth semester are currently benefiting from the e-library. The university plans to extend access to all students in a phased manner, ensuring widespread availability.

The e-library enables students to study anytime, anywhere, eliminating the need to carry physical books. They can download various books and notes from the platform, allowing access to comprehensive study materials in both Hindi and English.

Previously, students faced challenges in finding all the necessary books in one place and the financial burden of purchasing expensive books. CSVТУ's e-library addresses these concerns, offering many books and notes.

The initiative has been well-received by students preparing for competitive exams, as well as those preparing for departmental exams. The e-library's user-friendly interface allows students to access the platform through their mobile devices, laptops, or PCs. The collection includes books by various authors, covering a wide range of technical subjects. While the current collection features 50 e-books, the university has plans to expand the library further, making all authors' books available in the future. Additionally, the e-library will soon provide access to available knowledge materials.

The introduction of CSVТУ's e-library has greatly simplified students' access to study materials, resulting in a seamless and efficient learning experience. The initiative was inaugurated by Chief Minister Bhupesh Baghel in a virtual ceremony on February 20.

This development underscores CSVТУ's commitment to enhancing educational resources and supporting students in their academic pursuits.




**RESEARCH PAPER**
**CSVTU RESEARCH PAPER UNVEILS IMPROVED PERFORMANCE OF GATE-ENGINEERED IGBTs**


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Insulated-gate bipolar transistors (IGBTs) based on 4H-SiC are ideal for applications involving high voltage, high current, and high temperature. These devices combine the high-current capabilities of MOS gates with the low saturation voltage of bipolar transistors. However, IGBTs face trade-offs between conduction loss, switching speed, and ruggedness in high-frequency applications.

To overcome these challenges, the latest technology utilizes 4H-SiC-based IGBTs for improved conduction and speed. A silicon carbide (SiC) based Trench IGBT design is presented, featuring reduced ON-state voltage drop and a capacity of about 15kV blocking voltage.

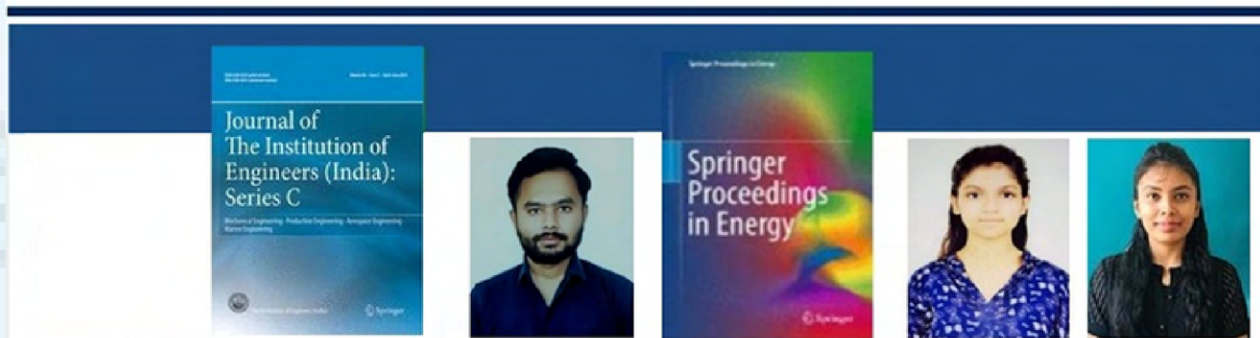


The 4H-SiC-Shielded Trench Gate-IGBT (STG-IGBT) minimizes voltage drop and enhances performance. This research breakthrough by Chhattisgarh Swami Vivekanand Technical University (CSVTU) holds promise for high-power industries, offering more efficient and reliable IGBT operation. The advancements in SiC-based IGBTs demonstrate CSVTU's commitment to technological innovation and its impact on diverse industries.



## RESEARCH PRESENTATIONS

**CONGRATULATIONS TO MR. BHUMESH CHAUHAN (PH.D. SCHOLAR), MS. NAINIKA KASLIWAL, AND MS. TANISHA YADAV (M.TECH SCHOLARS) FOR PRESENTING THEIR RESEARCH ARTICLES AT INTERNATIONAL CONFERENCES.**



The University Teaching Department at CSVTU Bhilai takes immense pride in highlighting the exceptional accomplishments of its scholars. Mr. Bhumesh Chauhan, a Ph.D. Research Scholar in Mechanical Engineering, along with Ms. Nainika Kasliwal and Ms. Tanisha Yadav, M.Tech. research scholars specializing in Energy & Environmental Engineering, have made significant contributions to their respective fields by presenting their research articles at prestigious international conferences.

Mr. Bhumesh Chauhan, under the guidance of Prof. Sanjay Agrawal Pro-Vice Chancellor CSVTU, Bhilai, and Dr. Manoj Verma, Assistant Professor (Energy Department) presented his research article titled "Methods to Enhance the Performance of Solar Air Heaters: A Brief Review." At International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD 2023) The conference served as a platform for him to showcase his in-depth analysis, garnering significant attention from fellow researchers and industry professionals. Furthermore, Ms. Nainika Kasliwal, under the guidance of Dr. Manoj Verma, presented her research article titled "Analysis and Simulation of University Building Using eQUEST Software: A Case Study from Bhilai, India." The conference was organized by the Energy Centre, Maulana Azad National Institute of Technology, Bhopal, India. At the same conference. Ms. Tanisha Yadav also presented her research article titled "Analysis and Simulation of Library Building Using eQUEST Software: A Case Study from Bhilai, India. Both articles are considered for publication in the esteemed Journal of the Institution of Engineers (India) Series C (JIEI-C) and Springer Book Series.

This conference provides a distinguished platform for both scholars to showcase their research findings. Their case study, focusing on CSVTU Bhilai, is currently undergoing the publication process in the renowned Springer Proceedings in Energy, a book series by Springer.





## SHORT TERM COURSES

### CSVTV INTRODUCES INDUSTRY-FOCUSED SHORT-TERM COURSES TO ENHANCE EMPLOYABILITY SKILLS

Chhattisgarh Swami Vivekanand Technical University (CSVTV) is actively developing students' skills to meet industry demands and improve their employment prospects. The university offers short-term courses aimed at enhancing students' abilities and preparing them for the job market.

CSVTV aligns students' skills with industry requirements to equip them with sought-after expertise. These skill development programs enhance capabilities and increase chances of securing meaningful employment.

The university's efforts have gained momentum, with growing student interest in skill development courses. Popular courses include AutoCAD (2 & 3D), MS Office (Word, Excel & PPT), Tele ERP with GST, and Programming in C.

Interested students, including PG, Graduate Diploma, ITI, Higher Secondary, and High School graduates, can register online. The deadline for applications is July 25. Classes will commence at CSVTV's old campus in Sector 8 once a minimum of 13 seats is filled. The start date will be announced soon.

CSVTV's commitment to developing industry-relevant skills and promoting employment opportunities supports the aspirations of the youth and fosters a skilled workforce.



## MSME IDEA HACKATHON 3.0

### CSVTV ENCOURAGES TECHNOLOGICAL ADVANCEMENTS IN MSMEs THROUGH FINANCIAL SUPPORT AND INNOVATIVE IDEA HACKATHON

Chhattisgarh - Chhattisgarh Swami Vivekanand Technical University (CSVTV) has taken proactive steps to facilitate the integration of advanced technologies in Micro, Small, and Medium Enterprises (MSMEs). The university has announced the commencement of the MSME Idea Hackathon 3.0, providing financial assistance and inviting innovative ideas from across India.

CSVTV is actively seeking ideas from women innovators, students, and women-owned MSMEs throughout the country. Selected ideas will be eligible for financial support of up to Rs 15 lakh through the MSME Incubation Scheme, which recognizes CSVTV as a Host Institute and Business Incubator. The primary objective of this initiative is to nurture creativity and encourage the adoption of cutting-edge technologies in MSMEs.

Applicants who are interested can access the application format and guidelines on the official website of CSVTV-FORTE, available at [www.csvtvforte.com](http://www.csvtvforte.com). This initiative not only aims to empower women innovators but also strives to propel technological advancements in MSMEs, thereby driving economic growth and fostering innovation in the region.



## INTERNATIONAL YOGA DAY

### CSVTU BHILAI CELEBRATES YOGA DAY WITH ENTHUSIASM AND PARTICIPATION FROM DISTINGUISHED MEMBERS



Chhattisgarh Swami Vivekanand Technical University (CSVTU) celebrated Yoga Day with faculty members, students, and esteemed dignitaries. The event showcased CSVTU's commitment to promoting holistic development and wellness among its academic community. The participation of distinguished members demonstrated their dedication to leading by example. The presence of esteemed dignitaries motivated and inspired participants to embrace yoga as an integral part of their lives. The celebration emphasized the benefits of yoga and its potential for overall well-being.

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