

The logo for Retron Energies features a stylized 'R' with a green lightning bolt inside a black circle, flanked by two black wings. Below the graphic, the text 'RETRON ENERGIES' is written in a bold, sans-serif font, with 'RETRON' in black and 'ENERGIES' in green.

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IIT DHANBAD



तमसो मा ज्योतिर्गमय



# ICSSES 2024

**IOP** Conference Series  
Earth and Environmental Science

Organized by  
Department of ELECTRICAL & ELECTRONICS ENGINEERING

# ICSSES 2024



**IOP** Conference Series  
Earth and Environmental Science



## About the Conference

The International Conference on Smart and Sustainable Energy Systems (ICSSES 2024) going to be held on February 16-17, 2024 via virtual platform is hosted by Electrical and Electronics Engineering Department of Vishnu Institute of Technology. This 2 day international event is aimed to bring the students, faculty, researchers and stake holders from different parts of the Globe to share their knowledge and experience which aims to provide an insight in the broader area of "Engineering Sciences and Sustainable Technologies of the Future Society". The conference is intended in specific to benefit the students who are part of this event, by providing a huge technical platform to exchange their ideas and findings in the presence of legendary experts from the institute of national importance (IISCs, IITs, NITs) and abroad as well.

## Vishnu Institute of Technology (Autonomous)

Vishnu Institute of Technology was established in 2008 by Sri Vishnu Educational Society (SVES), a leading educational trust to promote quality education, under the aegis of eminent philanthropist Padma Bhushan Dr. B.V. Raju (Late). The institute is approved by AICTE and is permanently affiliated to JNTUK, Kakinada. Over a decade, this institute has witnessed significant growth and stands out as one of the best engineering colleges in AP. This institute is accredited by NAAC twice with 'A++' grade (3.51/4) with its validity up to 2024. The institute has attained autonomous status for 10 years from the year 2019. Indian Merchant's Chamber (IMC) recognized the services of VITB with its Ramakrishna Bajaj National Quality award in education sector (2010, 2011, 2017) and Asia Pacific Quality Organization (APQO)-Best in class Award (2012, 2018).



## Department of Electrical & Electronics Engineering

The Department of Electrical & Electronics Engineering is one of the largest department in the Institute, which offers a regular U.G programme B.TECH. course in Electrical and Electronics Engineering stream and P.G programme M.Tech. in Electrical and Power Engineering specialization. Our Department is well equipped with highly sophisticated laboratory equipment and excellent research facilities with advanced software's in Electrical Engineering. It is dedicatedly organizing Workshops and Faculty Development Programmes for the benefit of Students, Researchers and Faculty of various Technical Institutions. The department is honoured with the achievement of prestigious ChhatraVishwakarma Award 2020 and Smart India Hackathon 2019. It also won the Tie-Grad business idea competition twice.

## Call for Papers

Authors from Educational Institutions & Industries are invited to submit their full length original research papers in ICSSES 2024, which have not been yet submitted nor published elsewhere. Coming to theme of the conference, It mounts up the relevant areas of Research in the subjected title, which promotes and entertains the reliable sharing of individual and team innovations via ICSSES platform. Welcoming inventions in different areas and certainly not-limited to the following

### Environmental Engineering and Sustainability

- Alternate and Sustainable Energy Generation and Operation
- Policies, Frameworks, and Strategies of Non-Conventional Technologies
- Renewable Energy Resources Forecasting Technologies
- Global Potential of Green Energy Resources
- Smart Energy Systems
- Distribution and Grid Automation
- Smart Grid and Microgrids

### Renewable Energy Engineering and Technologies

- Energy Storage in Renewable Applications
- Energy Management System
- Power Converters Applications in Solar PV, Wind, Geothermal, Wave & Tidal
- Hydrogen & Fuel Cells
- Electric and Hybrid Vehicles
- Charging Phenomena of E-Vehicles

### Smart Energy Systems

- Sustainable Informatics and Optimization
- Hybrid Integration of Renewable Energy Sources
- Active Research in Photovoltaic Systems and Industrial Applications
- Vehicle to Grid and Grid Interaction Issues
- IoT Technology in Renewable Energy Systems

### Energy Efficiency and Management

- Energy Saving Concepts and Energy Audit

### Future Challenges and Opportunities in Energy Sectors

- Sustainable Communication and Security
- Novel Approaches for Domestic and Industrial Lightings
- Reliability, Security, and Safety Aspects for Sustainable Technologies
- Renewable Energy for Globalization and Smart-City Concepts
- Future Challenges, Directions, and Opportunities in Renewable Sectors

### Applications of Power Converters in Renewable Energy Applications

- Power Converters in Solar Photovoltaic (PV) Systems
- Power Converters in Wind Energy Systems
- Power Converters in Energy Storage Systems for Renewables
- Integration of Power Converters in Hybrid Renewable Energy Systems

### Sustainability for Industrial Applications

- Sustainable Practices in Industrial Energy Generation
- Energy-Efficient Technologies for Industrial Processes
- Renewable Energy Integration in Industrial Settings
- Sustainable Lighting Solutions for Industrial Applications
- Energy Management Systems in Industrial Facilities
- Sustainability in Industrial Communication and Security





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### IMPORTANT DATES

PAPER SUBMISSION LAST DATE : 31-12-2023

NOTIFICATION OF ACCEPTANCE : 20-01-2024

PAYMENT & REGISTRATION : 05-02-2024

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"Together Let us pave the way towards a cleaner and more sustainable energy for the future"