

TOPICS COVERED

- Concept of Affordable Energy for Humanity
- Carbon capture and storage Technology
- Carbon Capture, and conversion Technology
- Carbon dioxide capture and conversion to green methanol
- Hydrogen energy - commercialization in industrial / transportation sectors
- Internet of Things (IOT)

TARGET PARTICIPANTS

- Faculty members from Engg. Colleges / Universities
- Research scholars & UG/PG students.
- Academicians and R&D personnel from industries
- Selection based on first-come-first-serve.

REGISTRATION LINK

<https://forms.gle/3BJmkSUd41C96xHA7>

REGISTRATION FEE

ENFUUSE Members	: Free
Faculty Members & students	: Rs.200
Industrial Participants	: Rs.300

FACULTY COORDINATORS

Dr. A.Peer Fathima, Professor,SELECT

Dr. S.Elavenil , Professor & Dean, SCE

REGISTRATION & COMMUNICATION

Dr.A.Peer Fathima,
Professor
School of Electrical Engineering
Vellore Institute of Technology,
Chennai- 600127
e-mail : peerfathima.a@vit.ac.in
Mobile : 9444022777



INTERNATIONAL VIRTUAL WORKSHOP
ON

AFFORDABLE CLEAN ENERGY TO HUMANITY 2.0

27 & 28 October, 2022

Organised by

School of Electrical Engineering &

School of Civil Engineering,
VIT,Chennai.



Co-sponsored by



ENERGY AND FUEL USERS' ASSOCIATION OF INDIA

ABOUT VIT CHENNAI

VIT, for the past 38 years has made a mark in the field of higher education in India imparting quality education in a multicultural ambience, intertwined with extensive application-oriented research. VIT was established with an aim to providing quality higher education in accordance with International Standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. VIT was established by a well-known educationalist and former parliamentarian, Dr. G. Viswanathan, the Founder and Chancellor, a visionary who transformed VIT into a center of excellence in higher technical education. MHRD, Govt. of India ranked VIT as No.12 among the Engineering Institutions in India. VIT has been accredited as A++ grade by NAAC. VIT Chennai is ably spearheaded by Vice Presidents Mr. Sankar Viswanathan, Dr. Sekar Viswanathan, Mr. G.V. Selvam, Asst. Vice President Ms. Kadhambari S. Viswanathan, Vice-Chancellor Dr. Rambabu Kodali, and Pro Vice Chancellor, Dr. V.S. Kanchana Bhaaskaran. They share in the mission to make VIT a global center towards academic and research excellence.

ABOUT SCHOOL OF ELECTRICAL ENGINEERING & SCHOOL OF CIVIL ENGINEERING

The School of Electrical Engineering (SELECT), VIT Chennai was established in 2010. Since the inception of the campus, the department has developed the state-of-the-art infrastructure for teaching and research. The school has highly qualified and experienced faculty members. The school offers B.Tech. and Ph.D. programmes in Electrical and Electronics Engineering. There are four major research groups: Power Systems, Power Electronics, Control & Instrumentation and Electrical Machines & Drives. The research findings of these groups are published in various peer-reviewed International Journals with high impact factor. The school has always endeavored to contribute significantly to the growth of technical education by organizing several workshops, seminars and guest lectures for the benefit of faculty members, students and research scholars of educational institutions. Eminent professors from reputed Indian and foreign universities share their expertise for the benefit of the students. The school has also signed MoUs with various industries for collaborative works.

In VIT Chennai, the School of Civil Engineering (SCE) was established to impart state-of-the-art education, training and research in the field of Civil Engineering. The School offers B.Tech Programme in Civil Engineering, Integrated M.Tech

Programme in Construction Technology & Management, M.Tech programme in Structural Engineering and Ph.D. / M.S. (Research). The School has highly qualified faculty members with good theoretical background and valuable industrial experience in diverse fields like Environment, Water Resources, and Geosciences, Geospatial Technology, Transportation, Structural engineering and Construction Management. The research findings are published in several peer reviewed International Journals with high Impact factor. The School also signed MoU with various industries for collaborative works. Eminent professors from reputed Indian and Foreign Universities share their expertise for the benefit of the students.

ABOUT WISE

The Waterloo Institute for Sustainable Energy (WISE) is the University of Waterloo (UW) senate approved research organization. WISE recognize that the energy issues facing our society are complex. The mission is to develop the next generation of clean distributed energy technologies for “off-grid” access that are robust, affordable, clean and scalable, with the focus on sustainable development. Over 100 WISE faculty members working as multi-disciplinary teams across six Disciplines are involved in research studies with utilities, private sector partners and government agencies to develop improvements and alternatives to existing energy production and delivery systems, and to promote ENERGY TRANSITION TO RENEWABLE ENERGY RESOURCES. Current focus of WISE is on implementing a ‘Global Change Initiative - Affordable Energy for Humanity.’ The goal is to drive the social and technological innovations required for transition to a low carbon energy system that also delivers affordable energy to the vast proportion of humanity that remains deprived of access to electricity and modern fuels for basic needs.

CONCEPTUALIZATION OF THE WORKSHOP

With the increasing realization that the world over development in its truest sense can take place only when economic growth fosters sustainable development. Over the last century the burning of fossil fuels like coal and oil has increased the concentration of atmospheric carbon dioxide (CO₂) which has led to a drastic climatic change. Effective technologies are being explored not only to alleviate the CO₂ emissions but also to utilize CO₂ for the production of other fuels. The use of renewable energy sources and sustainable development are two separate variables that are interconnected. The major potential barrier involved in these green energy sources are its intermittent output power and load compatibility.

Energy conservation and sustainable development can also be achieved through non-conventional and novel practices. For example, Non-destructive testing (NDT) is the process of inspecting, testing, or evaluating materials, components or assemblies for discontinuities, or differences in characteristics without destroying the serviceability of the part or system. On an envision towards sustainable development especially Sustainable Development Goal (SDG 7 – Affordable and Clean Energy), there is an urgent need to bring together researchers and scholars from various streams to bring about a lasting change. Hence, this international workshop will act as a pre-conference workshop titled “International workshop on Affordable Clean Energy to Humanity 2.0” to bring the

multidisciplinary researchers under one umbrella but also to exchange ideas, forge new connections to extend and develop partnerships between the researchers from India, Canada and other Countries.

NATIONAL LEVEL RESOURCE PERSONS:

1. Mr. S. RAMALINGAM

Senior Executive, Fellow Waterloo Institute of Technology (WISE) University of Waterloo, CANADA.
President, Energy and Fuel Users' Assn. of India,

2. Mr. B. PANNERSELVAM

Chief General Manager (Retd)
Chennai Petroleum Corporation Ltd.
Vice President, Energy & Fuel Users' Assn. of India

3. Faculty Members from VIT ,Chennai

INTERNATIONAL RESOURCE PERSONS:

1. Dr. CLAUDIO CANAZARES

Executive Director, WISE,
University of Waterloo Canada.

Topic: Relevance of CCC Technologies in the global context

2. Dr. JATIN NATHWANI

Director, WISE, U. W., Canada

Topic: Energy Management for Affordable Energy for Humanity

3. Dr. ERIC CROISSET

Professor Chemical Engineering, University of Waterloo, Canada

Topics: Carbon Capture and Conversion concepts Chemistry of Green Methanol project Hydrogen Energy

4. Dr. MAURICE B DUSSEAULT

Professor Earth and Environmental Sciences,
University of Waterloo, Canada

Topics: Carbon Capture and Storage concepts Trends in Carbon management

5. Mr. SETH BREUWERS

Head Marketing & Finance, Advanced Chemical Technologies.
Waterloo, Canada

Topics: Carbon Capture in Industries