Carbon Mitigation Techniques using Advanced Coal Cycles, MSW and other Biomass Resources

(Under the KARYASHALA Scheme - A SERB initiative)

February 19th- 25th of 2024

Funded By

Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India under Accelerate Vigyan Scheme

Organized by

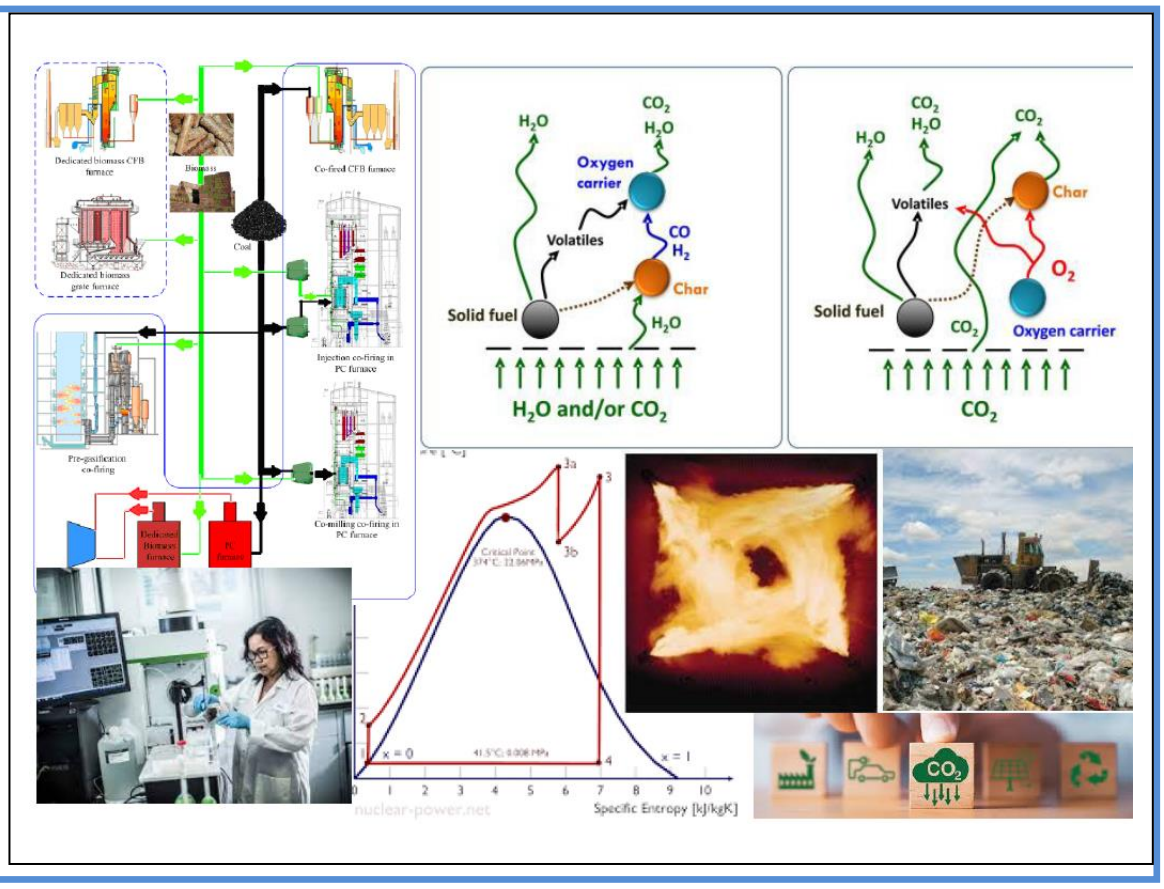
Department of Energy and Environment, National Institute of Technology, Tiruchirappalli

About NITT

The National Institute of Technology Tiruchirappalli (formerly known as Regional Engineering College, Trichy) is situated in the heart of Tamil Nadu on the banks of river Cauvery. Since its inception in 1964, it has established itself as a premier institute imparting quality technical education and engaged in research and development in different fields. The institute offers ten Undergraduate programmes and twenty-one Post Graduate programmes in Science, Engineering & Technology, besides M.S. (by Research) and Ph.D. in all the departments. NIT Trichy is located about 22 km from Tiruchirappalli Junction / Central Bus stand on the Trichy Thanjavur Highway. Department of Energy and Environment (DEE herein, formerly known as CEESAT) was established in 1995 under the UK India REC project. MTech. (Energy Engg.), an interdisciplinary full-time programme is offered since 1996. The research and development activities of DEE include CO_2 capture and sequestration, effluent treatment using solar energy / phytoremediation, energy modeling, Coal and biomass conversion, wind energy, Solar PV/ Thermal systems, energy-efficient building, and energy storage devices. The department is committed to convert its research into a real-time technology transfer to the society and industry where it meets out its ultimate objective.

About theCourse

Around 71% of India's current energy needs are met by coal. Notwithstanding the rapid growth of renewable energy sector, for developing countries like India, coal will remain to be a major contributor for another five to six decades time. Hence, advanced coal cycles like supercritical, ultra super critical, IGCC, CLOU systems not only help to improve the efficiency of the plant but also promises efficient carbon mitigation methods. In addition to this, if we could make these plants to use fuels derived from waste sources like MSW (municipal solid waste) , biomass etc., we could move towards carbon negative and achieve most of the SDG (Sustainable development goals) set by United Nations by Indian government like Swachh Bharat Abhiyan , Atmanirbhar Bharat and Make in India scheme. This workshop aims to bring new insights to the participants working in this domain to strengthen their knowledge, skill and conceptualize coal-based hybrid energy strategies to have a clean and green environment for all our future generations.



Who can attend: Karyashala is open to research scholars/ postgraduate students from all Institutes, Colleges and Universities who want to develop hands-on expertise/skill to handle sophisticated analytical and energy audit instruments. **There is no registration fees**. **Limited seats are available**, **Allotment will be on first come first serve basis.**

How to Apply? https://forms.gle/meFZi1ebUsJywTTR9

Skilled Experts from

- *Bharat Heavy Electricals Limited, Siemens, General Electric*
- *MNRE and Ministry of Coal, Government of India*
- *IIT's and NIT's*
- *CSIR labs for fuel characterization techniques*
- *Field partitioners in MSW and Biomass based power plants*

Important Dates

Registration opens

January 01 ,2024

Last date for application

February 01 ,2024

Display of shortlisted candidates

February 05, 2024

Workshop dates

February 19th -25th 2024

Event Organizer

Dr. V. M. Jaganathan
Asst. Professor

Advisory Committee

Dr. M. Premalatha,
Professor, DEE

Dr. Aditya Kumar
Asst. Professor

Dr. Damodhar Siva Krishna Rao
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