

## SELF-RELIANT INDIA WEBINARS 74th Independence Day Series

To commemorate the 74th Independence Day and the 1st anniversary of SIDDHI, we present to you a series of webinars on "India & Energy" held between 13th and 15th of August, 2021



**13th August**  
6.30 pm - 7.30 pm  
(IST)



**Clean water: Challenges and opportunities**

SPEAKER

**Prof. T. Pradeep**

Institute Professor & Deepak Parekh Institute  
Chair Professor, IIT Madras



**14th August**  
6.30 pm - 7.30 pm  
(IST)



**India's energy needs and innovative solutions**

SPEAKER

**Prof. Ashok Jhunjhunwala**

Institute Professor, Indian Institute of Technology, Madras  
& Faculty-In-charge, IITM Research Park



**15th August**  
6.30 pm - 7.30 pm  
(IST)



**India's 5G standard : Manufacturing  
Ecosystem and Impact**

SPEAKER

**Prof. Bhaskar Ramamurthi**

Director, Indian Institute of Technology Madras

Register on : [https://linktr.ee/SIDDHI\\_IITM](https://linktr.ee/SIDDHI_IITM)

Watch LIVE at





## Towards 100% Renewable Energy

6:00 pm to 6:45 pm IST

MODERATOR : SPEAKER



**Prof. Ashok Jhunjhunwala**  
FOUNDER AND PRESIDENT  
IIT MADRAS RESEARCH PARK



**Dr. Jonathan Fagerström**  
DEPT. FOR ENERGY SYSTEM ANALYSIS  
INSTITUTE FOR ENERGY TECHNOLOGY  
KJELLER, NORWAY

### ABSTRACT

India is poised to play a significant role in the global energy transition. The IoE project, "Towards 100% RE", looks into the steps India can take to address climate change, and shift to fully renewable energy based systems.

## Microgrid Technologies

6:45 pm to 7:30 pm IST

MODERATOR : SPEAKER



**Prof. Krishna Vasudevan**  
DEPT. OF ELECTRICAL ENGINEERING  
IIT MADRAS



**Prof. Frank Behrendt**  
TECHNISCHE UNIVERSITÄT BERLIN  
BERLIN, GERMANY

### ABSTRACT

Technologies for microgrid sources, interface power electronics, and storage useful for diverse sites are proposed to be researched. Topologies using distributed sources and loads would be studied with decentralised and centralised control paradigms.

## Advanced Gas Turbine Engine Technologies

7:30 pm to 8:15 pm IST

MODERATOR : SPEAKER



**Prof. T.M. Muruganandam**  
DEPT. OF AEROSPACE ENGINEERING  
IIT MADRAS



**Prof. Kamalesh Hatua**  
DEPT. OF ELECTRICAL ENGINEERING  
IIT MADRAS



**Prof. Tim Liewen**  
DEPT. OF AEROSPACE ENGINEERING  
GEORGIA INSTITUTE OF TECHNOLOGY  
ATLANTA, GEORGIA, USA

### ABSTRACT

The AGTET Centre develops complementary technologies that improve sustainability and reduce the carbon footprint of the aviation industry. It has four verticals: Futuristic Fuel Based Combustion; Thermal management; Seals and Rotor dynamics; and Hybrid electric components. The research uses advanced manufacturing technologies to create complex geometries and enable quantitative reduction at low cost and weight.