Five day online Faculty Development Program on
Recent Advances in Renewable Energy Technologies for Sustainable Development
(25-29th September, 2020)
Organized by
Department of Mechanical Engineering

Chief Patron
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Coordinators
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About NIT Andhra Pradesh:
National Institute of Technology, Andhra Pradesh is the 31st institution among the chain of NITs started by the Government of India. It was established in the state of Andhra Pradesh in the year 2015 with an intake of 480 UG students in 8 branches of Engineering. Along with 8 UG programs the institute has started 6 PG programs, Ph.D and M.S. by Research programs. With an overall construction area of one lakh sq.m., the institute has started functioning from its permanent campus from the academic year 2019-20 and has conducted its 1st convocation on 24.12.2019 with Hon’ble Vice President as chief guest.

About Department of Mechanical Engineering:
The Department of Mechanical Engineering is currently offering one UG program, two PG programs along with Ph.D program. The department has faculty with expertise in Thermal engineering, Manufacturing, Design and automation. The department has established state of the art laboratories for UG students and in the process of establishing research laboratories.

About the Faculty Development Programme:
Energy is the driving force behind all economic activities. Consequently, the ever-increasing population and associated energy requirements to meet the increasing living standard has become a matter of great concern. In particular, the availability of suitable and sufficient energy sources, development of environmental friendly utilization technologies and the cost of energy have been extremely important factors needing immediately attention. The aim of this FDP is to impart research skills to the beginners, improve the quality of research among the existing researchers in the area of thermal energy and to give a brief knowledge about harnessing renewable energy. This programme will bring a positive transformation among the faculty members towards research work and enable the participants to develop competence in understanding recent advances in renewable energy systems.

Course Content:
- Types and futures of energy storage systems
- Standards and technical comparison
- Use of energy storage in PV generation system (wind & PV)
- Design, control and application of battery energy storage in the off-grid system
- Renewable based off-grid/Grid-interactive systems and their control
- Battery storage and electrical vehicle integration
- Modelling and Design of energy storage

Topics to be covered:
- Evaluation and assessment of solar radiation
- Recent advances in solar photovoltaics energy conversion
- Challenges in solar cooling and power generation
- Wind power forecasting and energy conversion
- Thermal management in Fuel Cells
- Recent Developments in ocean thermal energy conversions
- Advancement in Hydrogen fuelled Vehicles
- Green buildings for sustainable development
- Research challenges in solar thermal energy storage
- Research challenges in use of Nanomaterials for energy applications
- Computational Modelling of energy systems

Resource Persons:
The course content will be delivered from a pool of resource persons on the subject from leading prestigious academics institutions

REGISTRATION: There is no registration fee. However, the number of Participants are limited to 100 only. For Registration Please fill the following google form:
https://forms.gle/wuaRrjCREjTg5XsI9

Important dates: Last date for registration: 22/09/2020; Intimation of selection:23/09/2020
E-certificate will be provided for the participants.
For More details Contact: Dr. G. Santhosh Kumar, 9666555871