

DEPARTMENT OF ELECTRICAL ENGINEERING

IE, INDIA AWARDS GOLD MEDAL TO Prof. H.K. VERMA.

Prof. H.K. Verma has received Gold Medal from "The Institution of Engineers, India" for the paper entitled, "A Novel Hybrid Statistical Particle Swarm Optimization for Multimodal Functions and Frequency Control of Hybrid Wind-Solar System." The paper, co-authored by Mrs. Cheshta Jain was published by "The Institution of Engineers, India" in the year 2016.

PROJECT GRANT AWARDED TO Dr. SHAILENDRA SHARMA

M.P. Council of Science & Technology has granted Rs. 9.62 Lakhs to Dr. Shailendra Sharma for his research proposal on "Analysis, Design and Control of Power Electronics Converters for Grid Integrated single-phase Solar Rooftop System." The project emphasises on design of low cost converter systems for electrifying urban area households.

DEPARTMENTAL WORKSHOPS

Two days workshop on "Power Electronics Applications in Apparatus Industry," 10th-12th Dec, 2017, SGSITS, INDORE was organised by Dr. Shailendra Sharma. The Hon'able speakers were Prof. Bhim Singh (Prof., IIT, Delhi), Dr. Chinmay Jain (AGM, R&D, Shakti Pump), Mr. Brahmanand Reddy (Manager, R&D, Crompton Greaves, Mandideep, Bhopal). Looking into the current scenario of Renewable energy, the speakers talked on solar energy applications, electric vehicles, their design details and current trends in electric traction.

IN THIS ISSUE

IE. awards Gold Medal to
Prof. H.K. Verma

Project grant awarded to
Dr. Shailendra Sharma

IEEE MP Sub Section Chairmanship
awarded to Prof. M.P.S. Chawla

Departmental Workshops

Other Departmental News

The phenomenal rise of solar and wind
energy in India

Other Departmental News

1 An Expert lecture was organized by the "Sparkle Club" on "Quest for pinnacle of human growth." The lecture was delivered by Dr. Ganeshram Pauranik, Retired Physician Doctor from Mahatma Gandhi Memorial Medical College, Indore.

2 Industrial visit to Omkareshwar Hydel Power plant was organized by the department on 23rd Feb, 2018, for the pre-final year students.





A detailed description of the plant layout and operation was conveyed to students by Mr. Akhilesh Partidar (H.R. Deputy Manager, NHDC).

- 3 Sparkle club organized the "Orientation Session" for second year students. In the session, pre-final year students discussed renewable energy sources which is need of the hour. They also talked about the current renewable energy scenario in the country and requirement of enhancing the same.



THE PHENOMENAL RISE OF SOLAR AND WIND ENERGY IN INDIA

According to the reports of World Energy Council (WEC), 2016, "the phenomenal rise of solar and wind energy will continue at an unprecedented rate till 2060, recreating both new opportunities and challenges." The report adds, "Both these sectors contributed to only 4% of the global power generation in 2014 and are expected to contribute 20-39% of the power generation by 2060. Other non-fossil fuels, such as hydro and nuclear, will also maintain their contribution, although, inter-regional differences in the growth will exist."

The trend is quite visible in the Asian countries like India & China. As on 31st March, 2018, with total renewable energy capacity of 69.02 GW, India is ranked 5th in the world preceding China, US, Brazil and Germany. The country has achieved eight fold increment in the solar power capacity since 2014 (2.3 GW to 21.65 GW). In the last four years, the wind capacity has also increased from 21 GW to 34 GW. Credit goes to the strong focus of the government policies on renewable energy as well as timely implementation of renewable energy projects. According to the reports from Ministry of New and Renewable Energy (MNRE), the future plans are to achieve the targets of 100 GW of installed renewable energy capacity by March, 2020 and 175 GW by March, 2022.

In order to achieve the ambitious targets, India started planning in 2010 to enter the field of "Off-Shore Wind Power." Global Wind Energy Council (GWEC) started project FOWIND (Facilitating Offshore Wind in India) to identify potential zones for development of off-shore wind power in India. In January 2016, Prime Minister Narendra Modi and French President François Hollande laid the foundation stone for International Solar Alliance (ISA) in Gwal Pahari, Gurgaon. The ISA will focus on promoting and developing solar energy for countries with abundant solar resources.