

**Brief Report on the visit of Dr. K. Balaraman, Director General,
NIWE, Government of India, Chennai, Tamil Nadu**

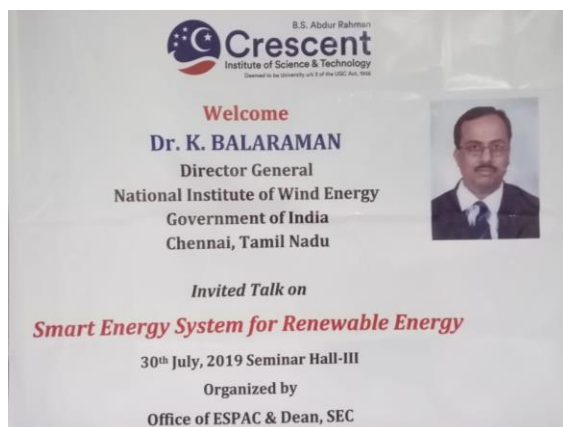
Date: 30th July 2019 at Seminar Hall – III, 11.00 – 14.30

Objective of the visit: To promote sponsored projects, research, consultancy and training.

Topic of the invited talk: Smart Energy System for Renewable Energy

The following are the main points of interaction and discussion with faculty members to promote projects on Renewable Energy.

- ✚ Government of India has an ambitious plan in a big way for renewable energy
- ✚ The problem is need for power and power generation at different times.
- ✚ As a customer we require energy at all the time.
- ✚ The main challenge is prediction and control power generation.
- ✚ Architecture of power system requires data analysis in a big way.
- ✚ India has the largest homegrown solar.
- ✚ Renewable energy requires multi-parametric data analytics.
- ✚ In present scenario the data is a multibillion dollar business.
- ✚ The data storage per day may vary from 3 GB to 1 TB
- ✚ Wind has grown tremendously in the world and presently 35000 wind turbines across the world.
- ✚ National Institute of Wind Energy (NIWE) is looking for innovative solutions for many problems.
- ✚ NIWE has been working with 25 private universities by supporting them with projects.
- ✚ NIWE requires data analytics in big way, especially in the areas of Advance Analytics (AA), Artificial Intelligence (AI) and Machine Learning (ML).
- ✚ Infra day forecasting for 15 minutes and interday forecasting is done at present.
- ✚ The present day accuracy is close to 90%.
- ✚ He suggested to initiate integrated micro grid concept in our campus.
- ✚ There are many problems to take-up under project mode and NIWE can provide the research problems to the research scholars that are of interest to funding agencies.
- ✚ Long time forecasting can be taken up by Crescent.



Book on Extra-Mural R & D Projects of Govt. of India, released by Dr. K. Balaraman, DG, NIWE and our Vice Chancellor, Registrar of BSARCIST.

After the talk, the following places were visited by the chief guest

- Power Electronics, High Voltage Lab (in Electrical Sciences Block), Process Control Lab in Electronics and Instrumentation Department.
- Solar plant on the roof top of the Auditorium building
- 3 Pilot units near STP plant adjacent to boys hostel
- Crescent Innovation and Incubation Council

EVENT PHOTOS



Interaction and discussion with Director ESPAC, Dean & Faculty members



Visit to Solar Plant



Visit to Crescent Innovation and Incubation Council