

Electrical Laboratory (WRD&M Dept.)

Achievements in the past 4 years.
(April 2011 to March 2015)

Courses Developed

Theory Courses

- WR-545: Power Electronics Controlled Hydro- Electric System
- WR- 546: Modelling and Simulation of Hydro-Electric Energy System

Laboratory Courses

- WR-547: Synchronous and Asynchronous Generators Laboratory
- WR-548: Power Electronics Laboratory
- WR-549: Control and Instrumentation Laboratory

Equipment Procured

Under Plan Grant

- DS1104 Controller – 02 No.
- Power Quality Analyser – 02 Nos.
- AC Programmable Power Supply -01 No.
- DSO – 02 Nos.

Under Sponsored Projects

- **MHRD**
 - DSP with Emulator- 01 No
 - Wound Rotor Induction Machine coupled with DC Machine – 01 No.
 - Intelligent power module- 01 No.
- **DST Projects**
 - Salient Pole Synchronous Machine with DC Machine – 01 No.
 - Squirrel Cage Induction Machine coupled with DC Machine – 01 No.
 - Wound Rotor Induction Machine coupled with DC Machine- 01 No.
 - DS1104 Controller – 01 No.
 - Power Quality Analyser – 01 No.
 - Intelligent Power Module- 01 No.
- **THDC Project**
 - Intelligent Power Module- 02 Nos.

Research

Research Areas

- Power Electronics Application in Variable Speed PSP
- Microgrid

Publications (See Fig: 1)

- Journals - 08
- International Conferences – 13

Fund Generated (See Fig: 2)

- National Projects :04
 - Total amount:-65.37 lakh
- International Project:01
 - Indo- Austria (Submitted for funding)

M.Tech / Ph.D Produced

- M.Tech – 17
- Ph.D - 08 (On-going)

Other Activities

Workshop Organized

- Advanced Control and Computing Technology for Reliable Industrial Electricity Saving (2014).

STC Organized

- Power Electronics in Mini/ Micro Hydro Generation (2012).
- Power Electronics Application in Lager Pumped Hydropower Plant (2014).

CAI Developed

- Energy Free Experimentation on Induction Motor on for Energy Saving Studies (2013).
- Directional Overcurrent Relay Coordination (2014).

Lab Members:

Officer In-Charge:

Dr. Thanga Raj Chelliah 9456593798

Lab superintendent:

Mr. Chamkaur Singh 9719759743

Ph.d Scholars:

Mr. Arun Dominic 7579079205

Mr. Raja Singh 9456333695

Mr. B Anil Kumar 7060467119

Mr. Carunaiselvane 8265804594

Mr. R. R Semwal (Part Time) 9412922700

Mr. Navneet Kumar (Part Time)

Project Staff:

Mr. Anto Joseph 9557506886

Ms. Shruthi Singh 9410193646

M.Tech

Ms. Akanksha Shukla 8447159688

Number of Publications

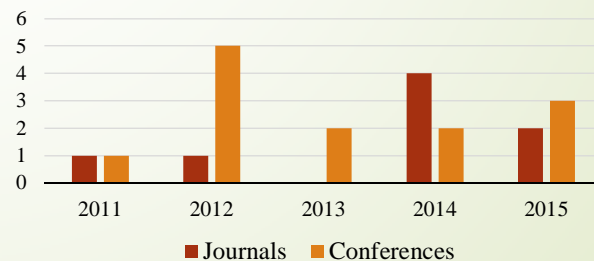


Fig: 1

Funds Generated

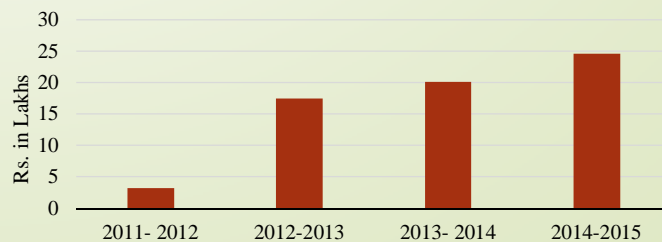


Fig: 2