RAJARAJESWARI COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
"TRANSFORMERZ"
ASSOCIATION OF ELECTRICAL AND ELCTRONICS ENGG

REPORT

1. **Name of event: A** 3 - Day FDP on "Teaching and Research Development Techniques in EEE-2 –hands on Experience for DSP Lab Programmes using MATLAB and webinar on Micro grid controller related to research and development techniques.
2. **Duration**: 3 DAYS (23rd-25th Jan 2018)
3. **Venue:** PSS Lab and Seminar Hall, EEE dept., RRCE.
4. **Chief Guests:** Dr.A.Sri Ramachandra Murty and Prof Vidya Shree.K-DSP lab programmes.

   Webinar:S.S.(Mani) Venkata,GE Grid solutions,Principal Scientist/Director of Distributed Energy Resources Management Systems at Alstom Grid Inc.
5. **Sponsorship(if Any):**Honorable Management
6. **Topics covered:** Twelve experiments related to VTU DSP Lab Programmes and Micro grid basics and Hardware prototype related to Micro grid.
7. **Target audience:** For Faculties.
8. **Number of Audience:** 10 Internal Faculty

9. Outcome of Event:

(a)DSP: A digital signal processor (DSP) is a specialized microprocessor (or a SIP block), with its architecture optimized for the operational needs of digital signal processing.

The goal of DSPs is usually to measure, filter or compress continuous real-world analog signals. Most general-purpose microprocessors can also execute digital signal processing algorithms successfully, but dedicated DSPs usually have better power efficiency thus they are more suitable in portable devices such as mobile phones because of power consumption constraints.[3] DSPs often use special memory architectures that are able to fetch multiple data or instructions at the same time.

DSP using MATLAB: MATLAB is a software package for high performance numerical computation and visualization provides an interactive environment with hundreds of built in functions for technical computation, graphics and animation.

(b)Micro grid controller: Micro grid is a localized group of electricity sources and loads that normally operates connected to and synchronous with the traditional centralized electrical grid (mIcro grid), but can also disconnect to "island mode" — and function autonomously as physical and/or economic conditions dictate.

In this way, a micro grid can effectively integrate various sources of distributed generation (DG), especially Renewable Energy Sources (RES), and can supply emergency power, changing between island and connected modes. Hawaii is itself a micro grid and always unintentionally islanding because it is indeed an island. If the AEPS allows a micro grid may be a small net used to catch sardines in deep sea fishing ventures.

10. Feedback from Participants:

- Overall the FDP is appreciated by the participants.
- Course coverage was very good however participants expressed has they didn’t have continuous practice in Matlab programming they could not utilize fully.

We thank the management for encouragement and support.

PHOTO GALLERY

Dr.A.S.R Murty discussing about DSP Lab programmes with the faculties.

Webinar on Microgrid controller

Webinar on Hardware prototype Micro grid controller

Faculties doing hands on experience on DSP lab experiments

HoD, EEE