QIP SHORT TERM COURSE

On

MODELING ANALYSIS AND CONTROL OF MICROGRID

(MACMG-2018)

25th JUNE 2018 – 7th JULY 2018

COORDINATORS

Prof. P. K. Hota

Dr. M. Tripathy

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Organised By

Department of EE and EEE Engg.

Veer Surendra Sai University of Technology

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BACKGROUND

Interconnection of small and modular generation systems to low voltage distribution systems form a new type of power system, known as **the Micro-grid**. Micro-grids can be connected to the main power network or be operated in an islanded, coordinated and controlled manner.

The Faculty Development Program "**Modeling Analysis and Control of Micro-grid (MACMG-2018)"** aims to provide a strong understanding of power systems, their operation and control particularity of issues related to the integration of distributed renewable generation systems into the network. The course MACMG-2018 will inculcate the knowledge of electrical power system operations and control, to analyze the challenges and opportunities for distributed renewable generation in both large interconnected grid and micro-grid environment. The participants get a chance to augment their information of renewable energy application and projects in the context of their integration into both the physical and economic electricity markets. It provides knowledge of the principles, power and limitations of computer modeling of complex power network incorporating distributed generation and storage.

COURSE CONTENT

- Different types of A.C and D.C micro-grid and smart grid
- Control issues in micro-grid operations.
- Adaptive intelligent techniques for control of micro-grid.
- Modeling and simulations of micro-grid.
- Power quality analysis of micro-grid with balanced and unbalanced load.
- Load flow/ Optimal power flow of wind/solar integrated micro-grid systems
- Distributed generations.
- Modeling and simulations of autonomous PV/fuel cell hybrid power systems.
- Multi stage frequency control for micro-grids and stability analysis of micro-grid.
- Control of grid connected renewable energy sources in LABVIEW platform.
- Application of NI make CRIO, other control cards and sensors for effective control of grid connected renewable energy sources.
- Laboratory demonstration of Hardware control of grid connected renewable energy.

Sponsorship

For applicants from AICTE approved institutions

Prof./ Dr./ Mr./ Ms. _____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course **"MODELING ANALYSIS AND CONTROL OF MICROGRID (MACMG-2018)"** at VSSUT, Burla to be held from **25th JUNE 2018 – 7th JULY 2018**

Date: Signature of sponsoring authority

Office Seal: Designation

Prof. P. K.. Hota/Dr. Manish Tripathy / Mrs. Nutan.Sa

Coordinator, QIP STC on "MACMG 2018" Department of Electrical Engineering, Veer Surendra Sai University of Technology, Odisha, P.O:- Engineering College, Burla, Sambalpur–768018, Odisha, India

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About The University/Department

Veer Surendra Sai University of Technology(VSSUT), Odisha formerly known as University College of Engineering, (UCE) Burla was upgraded to a Unitary State University which came into force from 1st day of July 2009 by Odisha Act 9 of 2009. VSSUT is located at the foothill of famous Hirakud Dam, the longest dam in Asia. This legendary university is named after Veer Surendra Sai, the great Indian freedom fighter. Burla is famous as Intellectual Capital of Odisha (Vidya Nagari) with VSSUT, Veer Surendra Sai Institute of Medical Sciences and Research (VIMSAR), Sambalpur University, MCL, WESCO, IIM Sambalpur, Hirakud Dam circle, etc. It is at a distance of 12 km away from Sambalpur railway station and 3 km away from Hirakud railway station. VSSUT, Odisha has carved a niche for itself among the best technical institutes in India and is a dream institute for many budding engineers. The University offers B.Tech., M.Tech., Dual Degree, M.Sc, MCA and PhDs courses. The University is surrounded by a large number of Government, public and private industrial sector organizations such as OHPC, Hindalco, NALCO, NTPC, OPTCL, Vedanta Aluminium Ltd, Bhusan Steel Plant, etc. The institute has an excellent placement record with a number of top ranking companies visiting the campus every year.

The department of Electrical Engineering, VSSUT, Burla established in 1956. The department is adorned with rich heritage of academic excellence, innovative teaching/ learning activities, well equipped laboratories and updated workshop, excellent placement record and the faculty members with outstanding research abilities.

Expert lectures

Eminent faculty members of technical institutions of India such as IITs/NITs/VSSUT and Industry experts will deliver talks on the theoretical aspects and demonstrate practical knowledge related to the topic.

Eligibility

The course is open for all faculties of B.Tech/M.tech degree level technical/engineering colleges/institutions approved by AICTE. No course fee is charged for participants sponsored by AICTE approved institutions. However, caution money deposit of Rs.1000/- has to be deposited by the selected participants, which will be returned at the end of the course. The payment is to be made through DD, drawn on any Nationalized Bank and in favor of "MACMG 2018", payable at Burla.

Financial Assistance

Limited number of participants from the AICTE recognized institutions will be eligible up to III AC to and fro railway fares (via shortest route from the place of work). Only the candidates attending the full course will be eligible for TA and DA.

Course Duration/Venue

The course is of two weeks duration from 25th June 2018 – 7th July 2018. All the lecture classes will be held at Room No.- D 220, Seminar Hall, Department of Electrical Engineering Veer Surendra Sai University of Technology

Boarding and Lodging

Boarding and lodging facilities will be provided for candidates from AICTE approved institutions in the university guest house

Important Dates

The last date for receipt of duly filled applications is 10th June, 2018. Intimation of selection of candidature will be communicated through e-mail by 15th June, 2018.

Note: Interested candidates may send an advance copy of the completed application by email to avoid procedural/postal delay.

Veer Surendra Sai University of Technology, Odisha Siddhi Vihar,Burla-768018

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On

MACMG-2018

25th JUNE 2018 – 7th JULY 2018

Application Form

1. Name (Block letters):
2. Designation:
3. Organization (with detailed address):
4. Date of Birth:
5. Address for communication:

Pin Code: Mobile:

E-mail:

6. Academic Qualification (Please tick mark)

(a) B.Tech. (b) M.Tech. (c) Ph.D.

7. Specialization:

8. Experience (in years):

(a) Teaching ☐ (b) Industrial ☐

(c) Research ☐

9. Amount of TA requirement as per entitlement mentioned in the brochure (only for AICTE approved colleges) Rs.:

Please register for the course entitled "**MODELING ANALYSIS AND CONTROL OF MICROGRID**" to be held at VSSUT, Burla during **25th JUNE 2018 – 7th JULY 2018**.

Place:

Date: Signature of the applicant