

**Self-Financed
Short-term Course on**

**“Resilient Operation and Control of
Microgrid (ROC- μ G)”
January 6-10, 2020**

Organized by
**Department of Electrical Engineering
Motilal Nehru National Institute of
Technology Allahabad**

REGISTRATION FORM

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Institution/Department

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(Signature of Head of the Department / Section /
School / Institute with Seal)



**Self-Financed
One-Week Short-term Course
on**

**Resilient Operation and Control of
Microgrid
(ROC- μ G 2020)**

(January 6-10, 2020)

Organized by



**Department of Electrical Engineering
Motilal Nehru National Institute of
Technology Allahabad
Prayagraj-211004, UP, India**

Patron

Prof. Rajeev Tripathi
Director, MNNIT Allahabad

Chairman

Prof. Asheesh Kumar Singh
Head, EED, MNNIT Allahabad

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Dr. Saumendra Sarangi
Dr. Indrajit Sarkar
Dr. Suman M.
Dr. Deepak M.
EED, MNNIT Allahabad

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Prof. Richa Negi, MNNIT Allahabad
Prof. Nand Kishor, MNNIT Allahabad
Dr. Nitin Singh, MNNIT Allahabad

Address for Communication

ROC- μ G 2020

Department of Electrical Engineering
Motilal Nehru National Institute of
Technology Allahabad, Prayagraj-211004,
UP, India

Email: rocug2020@gmail.com
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MNNIT Allahabad

Motilal Nehru National Institute of Technology Allahabad, Prayagraj (MNNIT) is an Institute with total commitment to quality and excellence in academic pursuits. It was established as one of the 17th RE Colleges of India in the year 1961 as a joint enterprise of Government of India and Government of Uttar Pradesh, and was an associated college of University of Allahabad, which is the third oldest university in India. With over 45 years of experience and achievements in the field of technical education, on June 26, 2002 MNREC was transformed into NIT and Deemed University fully funded by Government of India. With the enactment of NIT Act-2007(29 to 2007), the Institute has been granted the status of institution of national importance w.e.f. 15.08.2007. The first Master's Programme of the Institute was introduced by the Mechanical Engineering Department in the year 1966 and in all other Engineering Departments, were introduced in the 1970-71. To add a new dimension to itself the Institute established School of Management studies in 1996, which offers a two year/four semester post graduate degree programme in Management (MBA). The Institute has been recognized by the Government of India as one of the centres for the Quality Improvement Programme for M.Tech. and Ph.D. The Institute has a very progressive policy towards extending all possible facilities to its faculty members to acquire higher degrees and receive advanced training. The Institute was selected as a lead institution in the Design theme under Indo-UK REC Project (1994-99). The Institute has been selected as a Lead Institution under World Bank funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP) (2002-2007). Today it stands 42nd place among top engineering colleges in the country as per NIRF-2019 announced by MHRD.

Department of Electrical Engineering

The graduate course in Electrical Engineering was started in 1961. Subsequently post graduate programmes in Electrical Machine/Power System/Control System were introduced in the year 1970-71. The Department has well qualified and experienced faculty members in all the related fields of Electrical Engineering and well equipped laboratories. There is wide spread interaction between the Electrical Engineering Department and various other departments like Electronics Engineering and Computer Science and Engineering in the field

of teaching and research. Ph.D started in the year 1971, established PhD program under QIP in 2002. Present intake for PhD are: regular 6, QIP-2, TEQIP-3. Currently, the total number of students enrolled in the department of EE is UG 319, PG 108 and PhD 57.

COURSE OBJECTIVES

This course has been structured to familiarize the researchers, academicians, and engineers practicing in power system area, especially in micro-grid (μ G) operation and control with the concepts of artificial intelligence, evolutionary computation, power converters design and operation, power flow control, voltage control, etc. This course emphasizes the methods and methodologies formulation to address the stability problem of micro-grid in the wake of load variation and/or transients of renewable energy resources. Researchers will be able to explore revision of numerous control algorithms, estimation theory, a broad mathematical model of isolated or interconnected micro-grid systems, etc. The prospective investigation will be performed in MATLAB and/or suitable simulation platform. This course may helpful for the students (UG and PG level), and researchers for the study and analysis of power system small-signal stability, control applications, soft computing in particular.

The course aims to discuss the following issues, but not limited to, regarding power system

- Problems of renewable energy integration
- Viability of modern control system
- Artificial intelligent control in μ G
- Frequency instability problem
- Swarm Intelligence
- Power Electronic interfaces, BESS and dc-dc converters
- Model order reduction techniques

COURSE JUSTIFICATION

Electricity is the third most important commodity, next only to Air and water for survival of human beings. The course on microgrid: control, operation, and protection identify as an important area for energy policy planners and from global warming perspective. Every graduate/researchers in broad area of Electrical Engineering/Power Engineering/Control Engineering needs to have a detailed exposure to (a) Elements

of microgrids (b) Importance of Renewables, (c) Control algorithms for stability and reliable operation of microgrid, and (d) Various protection schemes of microgrid.

RESOURCE PERSON

- Prof. Subrata Banerjee, NIT Durgapur
- Dr. Swagatam Das, ISI Kolkata

Who can attend?

Faculty members/ research scholars/ students from academic institutes approved by the AICTE/ UGC/ MHRD and Scientists/ Engineers working in Private/ Public/ Govt. organizations/ industries etc. can attend the course. The application should be made on the registration form and should accompany registration fee as given below.

Registration Details

Delegates from Industry/R&D Units	Rs. 3000+18% GST
Delegates from Educational Institutions	Rs. 2500+18% GST
Research students (M.Tech/PhD)	Rs. 2000+18% GST

Registration fee is non-refundable

Registration fee includes the registration kit, course material, lunch and refreshments. No TA/DA will be offered to the participants. **Participants may be provided lodging (on sharing basis) & boarding facility on payment basis, subject to availability. Participants can deposit the registration fee online in the Account No. 718401013000026 of Vijaya Bank MNNIT Allahabad (Branch Code: 007184; MICR Code: 211029004; IFSC Code: VIJB0007184). Please write ROC - μ G 2020 in remarks during online payment.**

Spot payment is also admissible but only after prior approval from the organizers.

Last date for Registration: 30th December, 2019

Venue:

Seminar Hall, Department of Electrical Engineering
MNNIT Allahabad
Prayagraj-211004, UP, India

REGISTRATION FORM
Self Financed Short Term Course on
Resilient Operation and Control of Microgrid (ROC- μ G 2020)
(January, 06-10, 2020)

Title (Dr./Mr./Mrs./Ms.) :
Name (in BLOCK LETTER) :
Sex (M/F) :
Date of Birth (dd/mm/yyyy) :
Designation :
Organization :
Address for correspondence :
Phone : E-mail :
Qualification :
Category of Registration (Students/Academicians/Industry) :
Accommodation required (Y/N) :
If yes, please write to the convener for details.

Payment details:

Transaction Reference No. (NEFT/RTGS/IMPS) :
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Issuing Bank :
Amount (with 18% GST) : Rs.
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Endorsement from Institution (or Sponsoring Authority)

Name :
Organization :
Recommended :

(Signature of Head of the Department / Section / School / Institute with Seal)