

Self-Financed
Short-term Course on

**“Future trends in Wide Area-based Power
Systems Control and Protection (WACP-2020)”**

October 13-17, 2020

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

REGISTRATION FORM

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

**Candidate(s) can register for the course
using following link [online]:**

<https://forms.gle/ekmHoSp8WkM5arP7>



Self-financed
One-Week Online Short-term Course
on

**Future trends in Wide Area-based
Power Systems Control and Protection**

(WACP-2020)

(October 13-17, 2020)

Organized by



Department of Electrical Engineering
Motilal Nehru National Institute of Technology
Allahabad

Prayagraj-211004, UP, India

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Director, MNNIT Allahabad

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Address for Communication

WACP 2020

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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 centers 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 48th place among top engineering colleges in the country as per NIRF-2020 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 widespread 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..

COURSE OBJECTIVES

This course has been structured to familiarize the researchers, academicians, and engineers practicing in WAMS based power system Control and Protection with 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 different control and protection approaches. Researchers will be able to explore revision of numerous control algorithms, estimation theory, a broad mathematical model of isolated or interconnected smart power systems, etc. The prospective investigation will be performed in MATLAB/PSCAD and/or suitable simulation platform. This course may helpful for the students (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 WAMS based power system

- i) Introduction and Components of WAMS
- ii) Intelligent algorithms in WAMS analysis and control
- iii) Swarm intelligence in microgrid operation
- iv) Adaptive Protection Schemes
- v) Model order reduction techniques
- vi) Simulation based study (MATLAB/PSCAD)

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 WAMS (b) Importance of WAMS, (c) Control algorithms for stability and reliable operation of WAMS based Power System, and (d) Various adaptive protection schemes.

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.

RESOURCE PERSONS



Prof. A.K. Pradhan
IIT Kharagpur



Prof. Saikat Chakrabarti
IIT Kanpur



Prof. Biswarup Das
IIT Roorkee



Prof. M.K. Verma
IIT BHU

Registration Details[#]

Delegates from Educational Institutions/Industry Personals	Rs. 1,000/-
Research students (M. Tech/PhD)	Rs. 500/-

#Registration fee is non-refundable [registration link: <https://forms.gle/ekmHoSp8WkM5arP7>]

Registration fee includes course materials, and Certificate. **Considering current epidemic crisis due to outbreak of novel COVID-19 the course is planned over virtual platform. Registration fee is to be paid in advance through Online in Head, EED, MNNIT Allahabad, A/C Name: STCWACP; A/C No.: 39683887891; IFSC: SBIN0002580. Please write the short name WACP 2020 in remarks during online payment.**

Last date for online Registration: 12th October, 2020.