



**K.D.K.**  
**COLLEGE OF ENGINEERING**

Nandanvan, Nagpur

**NAAC & NBA Accredited Institute**

Organizes

**AICTE Sponsored**

Two Weeks

**Faculty Development Program**

on

**Introduction to Smart Grid  
(ITSG-2020)**

From 23<sup>rd</sup> Nov. to 5<sup>th</sup> Dec., 2020

**REGISTRATION FORM**

1. Name : \_\_\_\_\_
2. AICTE Faculty ID : \_\_\_\_\_
3. Qualification : \_\_\_\_\_
4. Designation : \_\_\_\_\_
5. Department/Organization : \_\_\_\_\_
6. Mobile No.: \_\_\_\_\_
7. Email Id : \_\_\_\_\_
8. Aadhar No. \_\_\_\_\_
9. Experience (Teaching/Industry) : \_\_\_\_\_

Date \_\_\_\_\_ Signature of the Candidate

**SPONSORSHIP CERTIFICATE**

Ms./Mr. \_\_\_\_\_

Designation \_\_\_\_\_

has been authorized to attend all sessions of the FDP  
during the period from 23<sup>rd</sup> Nov. to 05<sup>th</sup> Dec. 2020.

Signature of Head &  
Seal of Institution



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**Dr. G. H. Agrawal**, Professor, Deptt. of Electrical Engineering

**Co-ordinator**

**Dr. Shubhangi Ambekar**

Professor & Head, Deptt. of Electrical Engineering

Email : shubhangi.ambekar@kdkce.edu.in

**Co-coordinators**

**Dr. Sudha Srikanth**

Asso. Professor,

Deptt. of Electrical Engineering

**Er. Sandeep K. Mude**

Asst. Professor,

Deptt. of Electrical Engineering

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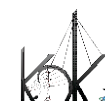
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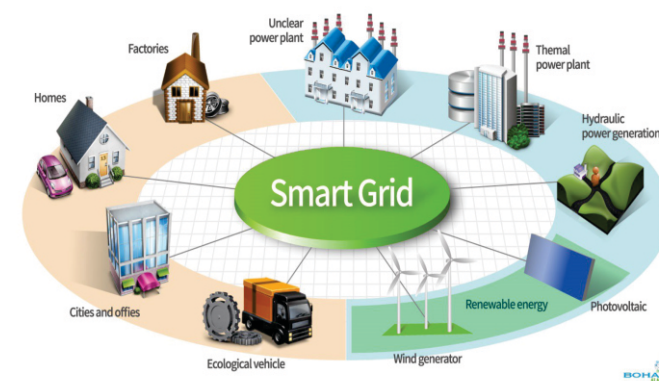
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**CO-ORDINATOR**

**Dr. Shubhangi Ambekar**

**Co-coordinators**

**Dr. Sudha Srikanth**

**Er. Sandeep K. Mude**

**ORGANISED BY**

**DEPARTMENT OF ELECTRICAL ENGINEERING  
K.D.K. COLLEGE OF ENGINEERING, NAGPUR**

Great Nag Road, Nandanvan, Nagpur - 440 024.

## About The Institute

The K.D.K. College of Engineering, Nagpur situated in the heart of India in Nagpur city, established in 1984 by the Backward Class Youth Relief Committee (BCYRC) is one of the leading engineering colleges in Maharashtra State accredited by NAAC. The government of Maharashtra has conferred an 'A' Grade based on excellence & adequate infrastructure as well as the academic achievements of students and faculty. It is approved by AICTE New Delhi and DTE, Government of Maharashtra. The college successfully continues to attract the attention of scholars from all over the subcontinent. The college runs undergraduate and postgraduate programs i. e. six UG programs of Engineering and three PG programs in Mechanical Engineering, Civil Engineering, and Master of Business Administration. The college is also an approved research center for Ph. D. in Civil Engineering and Mechanical Engineering.

## Vision of the Institute

**“Service to the Society through Quality Technical Education”**

## About the Department

Electrical Engineering Department, approved by Govt. of Maharashtra and AICTE, New Delhi has been established in 1984 and runs an undergraduate program B.E (Electrical Engineering) with an intake capacity of 120. The Department is accredited by NBA, New Delhi for three years. Institution of Engineers (IE), India has approved the Department as a center for AMIE.

The Department is headed by Dr. Shubhangi Ambekar. The Department has well-equipped laboratories and excellent computing facilities.

The Department has highly qualified, experienced, and dedicated faculty. The faculty member is recognized Supervisors for Ph.D., M.Tech of R.T.M Nagpur University, Nagpur, and actively involved in research and consultancy in the field of electrical engineering.

## Vision of the Department

**“To Impart Quality Technical Education for Developing Competent Electrical Engineers Capable of Accepting Challenges of The Modern Society”.**

## Mission of the Department

1. To provide an adoptive academic environment with a continuous motivation to budding electrical engineers for making them academically excellent and technically competent having good managerial skills to fulfill the expectations of industries for developing sustainable solutions.
2. To work for all round growth of students having good moral values in a dedicated manner.
3. To inculcate a sense of responsibility among the students for well being of the society.

## About Nagpur

Nagpur is the second capital of Maharashtra famous for oranges and also known as the Orange city and city of historical status. Situated in the center of country “Zero Mile” is located in Nagpur. The largest industrial estate in Asia of approx 6,000 hectares is being developed at Butibori close to Nagpur. The Nagpur airport has been upgraded as an international Cargo Hub. Presently Nagpur is Growth Engine City.

## About the Faculty Development Program

The conventional notion of the electrical power grid is undergoing a quick paradigm shift. In this internet era, most of the technology is digitally enabled. The integration of distributed energy resources, intelligent electronic systems, communication protocols with the conventional energy generations and their interoperability has to be understood in the right perspective. The energy market is expected to be highly dynamic and bound to throw newer challenges to cope with. Internet vulnerabilities and cybersecurity are the newer areas power engineers have to become familiar with power engineers are expected to develop multiple power electronic equipment/devices for sustainable, reliable operation and control of the smart grid. Hence understanding dynamic entities associated with the smart grid becomes inevitable. Newer and newer measurement techniques will be in vogue. Protection philosophies are to develop so that the grid operates in a self-healing mode. Knowledge about various components of the smart grid and their intricacies opens up newer research topics in the field of electrical engineering. This FDP aims at disseminating the fundamental knowledge related to smart grid.

## Objectives

1. To familiarize the participants to the changes in the grid topology and various components of the smart grid and their interoperability.
2. To provide an overview of the various standards and regulations associated with smart grids.
3. To make the participants become familiar with DERs and their integration to the grid.
4. To give an insight to communication aspects of smart grid and importance network security.
5. To provide idea about protection aspects of smart grids.

## Topics to be Covered

1. Smart grid overview and challenges
2. Smart grid topology and interoperability
3. Distributed energy resources and their integration to the grid.
4. Advanced Metering Infrastructure
5. Communication aspects of smart grid and importance network security.
6. Various standards and regulations associated with smart grids
7. Role of open access energy market and dynamic tariff.
8. Challenges in service provider domain.
9. Protection aspects of smart grids.
10. Research opportunities in Smart grid technology.

## Intended Participants

The faculty members of AICTE approved institutions, research scholars, PG students, practicing professionals from various Government/private organizations/industries.

## Speakers

Faculty members from reputed institutions like IITs, NITs, Govt. colleges and industry experts will be delivering the sessions.

## Registration Detail

- **Registration Fees:** No registration fee
- **Link for Registration :** <https://forms.gle/Pm68y6TezpT8CBXY8>
- All sessions will be conducted on Online Platform
- **Last date of registration : 25/10/2020 upto 11.59pm**
- Participation in FDP will be subjected to a confirmation mail from the organizers.

**For any query :**

**Dr. Sudha Srikanth**

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**Er. Sandeep K. Mude**

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