

## PROFILE OF THE INSTITUTE

Vasavi College of Engineering is established in the year 1981 under the aegis of Vasavi Academy of Education, The college has been granted autonomy by the University Grants Commission, New Delhi and Osmania University, Hyderabad for all the programmes for a period of six years with effect from 2014-15. The college is currently offering 6 UG and 5 PG Programmes. All the six UG programmes are accredited by the NBA. The college has well qualified and experienced faculty. College has been accredited with A++ Grade by NAAC.

## ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering was started in the year 1999 offering BE programme in EEE. The Department has started PG programme in Power Systems and Power Electronics from 2012. It has well equipped and laboratories, well qualified experienced faculty with a deep sense of commitment towards the students. The department is a recognized research center under Osmania University.

## ABOUT THIS WORKSHOP

The Digital Substation is applied to electrical substations where operation is managed between distributed intelligent electronic devices (IEDs) interconnected by communications networks. It became possible by using computing technology in the substation environment. Microprocessors were introduced into substation products such as protection devices, Communications ports were also incorporated, Communication facilities developed. Significantly, they develop to enable the transmission of data between different substation devices.

As computing power became greater and cheaper, it became possible to integrate multiple functionalities into single devices, resulting in fewer devices being required to implement the same traditional functionality. The digital substation brings major benefits in terms of design and engineering, installation, and operation. Off-the-shelf solutions can be offered, modifications can be easily accommodated, cabling (and hence costs), are reduced, and embedded diagnostics assure system integrity.

A substation automation system is basically automating some repetitive, tedious and error-prone activities to increase the overall efficiency and productivity of the system.

Substation Automation is implemented using the software and hardware components, that involves the deployment of substation functions, in order to optimize and enhance operation of capital assets and maintenance efficiencies, with minimal human intervention.

## RESOURCE PERSON

**Venkatesh Rokkam**  
**Senior Protection Application Engineer,**  
**GE Renewables.**  
**Hyderabad.**

## TOPICS TO BE COVERED

- Topic 1: Digital Substation – Overview and Concepts
- Topic 2: Basics of digital Substations
- Topic 3: Importance of digital Substation
- Topic 4: Explanation of some important concepts in digital Substation
- Topic 5: Substation automation – overview – examples
- Topic 6: Introduction and importance of communications in digital Substation

**Date of Workshop: 21<sup>st</sup> August 2021**

**Online Platform: Microsoft Teams**

**[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_NzhmMmY3NTUtNmVkMy00OGNlWEwMWUtZmRlMDFhN2ZkNmJl%40thread.v2/0?context=%7b%22Tid%22%3a%22f2a009da-b491-4dbb-94e8-5809162549cd%22%2c%22Oid%22%3a%225d133747-05f5-4bd0-9cee-413649c0ff07%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_NzhmMmY3NTUtNmVkMy00OGNlWEwMWUtZmRlMDFhN2ZkNmJl%40thread.v2/0?context=%7b%22Tid%22%3a%22f2a009da-b491-4dbb-94e8-5809162549cd%22%2c%22Oid%22%3a%225d133747-05f5-4bd0-9cee-413649c0ff07%22%7d)**

## PROGRAM SCHEDULE:

09.30 AM to 09.45 AM – Inauguration

09.45 AM to 11.15 AM – Session – 1 (Topics 1 &2)

11.15 AM to 11.30 AM – Break

11.30 AM to 01.00 PM – Session – 2 (Topics 3 &4)

01.00 PM to 02.00 PM – Lunch Break

02.00 PM to 03.00 PM – Session – 3 (Topic 5)

03.00 PM to 03.10 PM – Break

## WHO CAN ATTEND?

The workshop is Open to the Faculty Members of AICTE approved Technical Institutions, Research Scholars, UG, PG Students, Working Professionals from R&D organizations & industry.

## REGISTRATION AND FEE PARTICULARS

Number of participants is limited to Forty. The filled in application should reach the Coordinator on or before 20<sup>th</sup> August 2021.

There is no registration fee for all participants.

Registration for participating in the FDP may be done by sending the application (soft/hard copy) in the prescribed format duly signed by the concerned Head of the institution. Application forms may be downloaded from the college website: [www.vce.ac.in](http://www.vce.ac.in)

**Registration can be done online at:**

**[https://docs.google.com/forms/d/1rdFm\\_kX9lkfwCNHOJgq0\\_8X6mM63HTOq8xBrXIUjkq0/edit](https://docs.google.com/forms/d/1rdFm_kX9lkfwCNHOJgq0_8X6mM63HTOq8xBrXIUjkq0/edit)**

## CONTACT:

**Dr.K.Ravi Kumar, 8639517714, 040-23146031/39**  
**Email:k.ravikumar@staff.vce.ac.in,**  
**ravikadali12345@rediffmail.com**

## REGISTRATION FORM

1. Name: \_\_\_\_\_  
(As to be printed in the Certificate)
2. Designation: \_\_\_\_\_
3. Institute / Organization: \_\_\_\_\_
4. Address for Communication: \_\_\_\_\_  
\_\_\_\_\_
5. E-mail ID: \_\_\_\_\_
6. Telephone /Mobile No: \_\_\_\_\_

Date : \_\_\_\_\_ (Signature of Applicant)

Seal and Signature  
Head of the Institute

#### PROGRAM EDUCATIONAL OBJECTIVES (PEOS):

- **PEO 1:** Graduates will acquire technical competence to analyze, design and solve engineering problems in the field of Electrical and Electronics engineering and use modern engineering tools, techniques and software.
- **PEO 2:** Graduates will be able to acquire necessary skills and obtain employment and will be productive in the professional practice of Electrical and Electronics Engineering and related fields.
- **PEO 3:** Graduates will be sensitive to professional and social contexts, committed to ethical action and engaged in lifelong learning skills.

#### PROGRAM OUTCOMES (PO'S)

- **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **Conduct investigations of complex problems:** : Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

#### PROGRAM SPECIFIC OUTCOMES (PSOs)

- EEE students will be able to design, analyze Power Systems & Electrical Machines to solve complex engineering problems.
- EEE students will be able to design and analyze Electrical and Power Electronic Circuits.
- EEE students will be able to use and apply modern software tools and techniques related to Electrical Engineering.

#### CHIEF PATRONS

Sri. P. Ram Mohan Rao  
President, Vasavi Academy of Education  
Sri. M. Krishna Murthy  
Secretary, Vasavi Academy of Education

#### PATRON

Sri. P. Balaji,  
CEO, Vasavi College of Engineering

#### CHAIRMAN

Dr. S.V. Ramana, Principal

#### CO-CHAIRMAN

Dr. M. Chakravarthy, Professor & HOD-EEE

#### PROGRAMME COORDINATOR

Dr. K. Ravi Kumar  
Professor, EEE Department

#### COORDINATION COMMITTEE

Dr. Ch.V.S.S.Sailaja, Assoc. Prof.  
Mrs. G.Sandhya Rani, Sr Asst. Prof  
Mr. M. Sreenivasulu, Sr Asst. Prof  
Mr. G. Mahesh, Asst. Prof  
Mr. U.Elisha, Asst. Prof  
Mr. N.Uday Kumar, Asst. Prof  
Mr. P.Ravi, Asst. Prof  
Mr. P.Rajasekhar Reddy, Asst. Prof  
Dr. Kasi Ramakrishna Reddy Ch, Asst. Prof  
Dr. C.Srinivasaratnam, Asst. Prof.  
Ms. Shiek Ruksana Asst. Prof.

#### **Department Vision:**

Excellence in quality education by keeping pace with rapidly changing technologies and to create man power of global standards in the field of Electrical and Electronics Engineering.

#### **Department Mission:**

To impart knowledge to electrical engineering students so that they have the skills to innovate, excel and lead in their professions with values for the benefit of the society.

## One day online workshop on "Latest Trends in Digital Substations"

21<sup>st</sup> August 2021



Organized by

Department of  
**Electrical & Electronics Engineering**  
Vasavi College of Engineering  
(Autonomous)

(Sponsored by Vasavi Academy of Education Regd.)  
(Approved by AICTE)

(Affiliated to Osmania University)

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Website: <http://www.vce.ac.in>

**Coordinator**

**Dr. K. Ravi Kumar**

**Professor, EEE Department**

**Mobile: +918639517714**

**Email: [ravikadali12345@rediffmail.com](mailto:ravikadali12345@rediffmail.com) (P)**

#### **College Vision:**

"Striving for a symbiosis of technological excellence and human values."

#### **College Mission:**

"To arm young brains with competitive technology and nurture holistic development of the individuals for a better tomorrow."