

TEQIP – III

Technical Education Quality Improvement Programme

TEQIP-III, BPUT (ATU), Odisha Sponsored

FACULTY DEVELOPMENT PROGRAMME

ON

**POWER QUALITY ISSUES AND ENERGY MANAGEMENT
IN A GRID INTEGRATED WITH RENEWABLE SOURCES**

PQIEMGIRS-2021

24th – 28th February 2021



Organized

By

Department of Electrical Engineering

EINSTEIN ACADEMY OF TECHNOLOGY & MANAGEMENT

(NAAC Accredited B++ Grade Engineering College)

(Approved by AICTE, New Delhi & Affiliated to BPUT, ATU, Odisha)



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Shri Basanta Kumar Bisoi, Chairman, EATM

PATRONS

Prof. (Dr.) Ranjan Ku. Jena, Coordinator, TEQIP-III, BPUT
Shri Krushna Chandra Bisoi, Secretary, EATM

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ABOUT BIJU PATNAIK UNIVERSITY OF TECHNOLOGY

Biju Patnaik University of Technology (BPUT) was founded by an Act of the Odisha State Legislature in November 2002. It is the State Technical University of Odisha and is a premier Affiliating Technical University (ATU) of the country. The domain of BPUT covers the entire Odisha state with its headquarters situated at Rourkela. Since its inception, BPUT has been endlessly contributing towards the promotion of education, training and state-of-the-art research in diversified fields for the progress of knowledge and for betterment of the society. The university has more than 160 affiliated colleges, 06 constituent colleges and the Centre for Advanced Post Graduate Studies (CAPGS) under its jurisdiction. Over the past 17 years of its existence, the university has led the way in strengthening academia, research and industry-institute collaboration activities within the state of Odisha.

ABOUT THE INSTITUTION:

Einstein Academy of Technology & Management (EATM) was established in the year 2009 by our beloved Chairman Shri Basanta Kumar Bisoi and Secretary Shri Krushna Chandra Bisoi. Our campus is situated at a distance of 25 kms towards south from the city of Bhubaneswar. The college is affiliated to Biju Patnaik University of Technology (BPUT) and approved by AICTE, New Delhi. EATM offers six UG programs and two PG programs in engineering.

Excellent strides are being made for contributing top quality technical education and meticulous efforts are being made for chiseling the younger generation. Priority is given to make the students technologically savvy. Today EATM stands as a premier institution for the students who yearn for quality technical education and enhancement of research.

ABOUT THE DEPARTMENT:

The Electrical Engineering Department of EATM was established in the year 2009. The department comprises of a team of highly qualified and motivated faculty members as well as well-equipped laboratories to conduct the UG programs. At present, the department is offering B. Tech (Full time) in Electrical Engineering with an intake of 120 students. The department aims at generating employable Electrical Engineers to lead a successful career and contribute to the society by excelling in their respective fields of endeavor.

OBJECTIVE OF FACULTY DEVELOPMENT PROGRAM:

The faculty development program will give a technical boost to the faculties engaged in research/PhD works with the knowledge of Renewable Energies contribution in the modern Power System. It also helps in gaining knowledge on issues and challenges encountered during Grid integration of different Renewable Energy sources. Some eminent experts from Premier Institutes will

deliver their talk on Power Quality Issues, its possible solutions & energy management in Grid integrated Renewable sources. This talk will definitely inspire & enhance the knowledge of the participants in their teaching and learning process.

COURSE CONTENT:

- Modern Power quality problems and it's solution
- Various approaches and techniques have been used to develop a successful energy management strategy.
- A better understanding of the interdependence of technical and economic aspects.

Target Participants

Faculty members from all disciplines of all Higher Educational Institutions approved by AICTE can apply for this program. Also persons from industries and R&D organizations can attend this program

REGISTRATION DETAILS

(Through online mode only)

Online registration link:

<https://forms.gle/fEKVYH4KBs2BqhdA>

- **There is no registration fee for this event.**
- **Last date of registration: 23rd February 2021**

Note:-E-Certificate will be provided to the participants having attendance of 80% or above.

Resource Persons:

- Prof. (Dr.) Ranjan Kumar Jena
Associate Professor, CET, Bhubaneswar,
Coordinator, TEQIP-III, BPUT
- Prof(Dr) Sivkumar Mishra, Associate
Professor, CAPGS, BPUT, Rourkela
- Prof (Dr.) Sisir Kumar Nayak
Department of Electronics & Electrical
Engineering, IIT, Guwahati
- Prof. (Dr.) Chandrashekhar Na. Bhende
Associate Professor, School of Electrical
Sciences, IIT, Bhubaneswar
- Prof (Dr.) Prakash Kumar Ray
Associate Professor, CET, Bhubaneswar
- Prof (Dr.) Ranjan Kumar Behera, Associate
Professor, School of Electrical Sciences
IIT, Patna
- Prof (Dr.) Soumya Ra. Mohanty
Electrical Engineering, IIT, BHU
Varanasi, Uttar Pradesh
- Prof(Dr) Binod Kumar Sahu
Associate Professor, Department of Electrical
Engineering, SOA University, Bhubaneswar
- Prof(Dr) P K Hota, Professor, Department of
Electrical Engineering, VSSUT, Burla, Odisha
- Prof (Dr.) A. K. Tripathy, Ex Director
General, Central Power Research Institute
(CPRI), Bangalore.

Roadmap to EATM





TEQIP-3

Technical Education Quality Improvement Programme



TEQIP-III, BPUT Odisha (ATU) Sponsored Five Days Online Short Term Training Program

On

Power Quality Issues and Energy Management in a Grid Integrated with Renewable Sources (PQIEMGIRS-2021)

(24th - 28th February 2021)

Organized by

Department of Electrical Engineering,

**EINSTEIN Academy of Technology and Management,
Khordha, Bhubaneswar**

Program Schedule:

| Day / Dates | Time | Scheduled Programs |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DAY – 1 24.02.2021 (WEDNESDAY) | 10.00 AM – 10.30 AM | Inaugural Ceremony <ul style="list-style-type: none">• Welcome address by the Convener• Address by the Principal, EATM• Address by the Chief Guest• Vote of thanks by Dean, Academics, EATM |
| | SESSION – I (10.30AM - 12.30 PM) | SESSION –II (14.00PM- 16.00 PM) |
| DAY – 1 24.02.2021 (WEDNESDAY) | Prof (Dr.) Prakash Kumar Ray Associate Professor, CET, Bhubaneswar TOPIC: Impact of Integration of Renewable Energy Sources in Future Power System | Prof. (Dr.) Ranjan Kumar Behera Associate Professor, School of Electrical Sciences, IIT, Patna TOPIC: Advanced Power Converter control for Solar and Wind Applications. |

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|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>DAY - 2 25.02.2021 (THURSDAY)</p> | <p>Prof (Dr.) A. K. Tripathy Ex Director General Central Power Research Institute (CPRI), Bangalore. TOPIC: Towards a sustainable energy solution for India with Renewable Energy options: power quality and other issues.</p> | <p>Prof. (Dr.) Sisir Kumar Nayak Associate Professor, Department of Electronics & Electrical Engineering, IIT, Guwahati. TOPIC: MPP Estimation and Maximizing the Power Generation of a PV Array under Partial Shading Conditions</p> |
| <p>DAY - 3 26.02.2021 (FRIDAY)</p> | <p>Prof (Dr.) Soumya Ra. Mohanty Associate Professor Electrical Engineering,IIT, BHU Varanasi, Uttar Pradesh TOPIC: Grid Integration of Renewable Sources Challenges and Possible Solutions</p> | <p>Prof (Dr.) Prakash Kumar Hota Professor Department of Electrical and Electronics Engineering,VSSUT, Burla TOPIC: Power Quality Enhancement of Renewable based Distributed Generation System</p> |
| <p>DAY - 4 27.02.2021 (SATURDAY)</p> | <p>Prof. (Dr.) Chandrashekhar Na. Bhende Associate Professor School of Electrical Sciences IIT, Bhubaneswar TOPIC: Cooperative Control of Photovoltaic (PV) Systems</p> | <p>Prof. (Dr.) Ranjan Kumar Jena Associate Professor CET,Bhubaneswar, Coordinator, TEQIP-III, BPUT TOPIC: Issues in grid integration of Renewable energy</p> |
| <p>DAY - 5 28.02.2021 (SUNDAY)</p> | <p>Prof(Dr) Binod Kumar Sahu Associate Professor Department of Electrical Engineering SOA University,Bhubaneswar TOPIC: Microgrid Planning and Energy Management</p> | <p>Prof(Dr) Sivkumar Mishra Associate Professor CAPGS,BPUT,Rourkela TOPIC: Power Quality issues in smart power distribution system planning</p> |
| <p>DAY - 5</p> | <p>3.30 PM – 4.00 PM</p> | <p>Valedictory Function</p> |

NB: The entire program will be conducted on Google Meet platform and the link is
<https://meet.google.com/jwe-krms-tug>

Convener (PQIEMGIRS-2021)