

## TEQIP -III Sponsored 6-Day

### Short Term Course

on

### RECENT ADVANCEMENTS IN HVDC AND FACTS (RAHF-2019)

[Sept 23 – 28, 2019]



Organized by:

**Department of Electrical Engineering**  
*National Institute of Technology*  
*Jamshedpur, Jamshedpur*



### Organizing Committee

Patron: **Prof. Karunesh Kumar Shukla**  
Director, NIT Jamshedpur  
Chairperson: **Prof. R. N. Mahanty**  
HOD, EED, NIT Jamshedpur  
Coordinators: Dr. Sanjay Kumar, Dr. K. Namrata

### Advisory Committee

Prof. Vijay K. Sood, UOIT, Oshawa, Canada  
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Dr. Om Hari Gupta, EED, NIT Jamshedpur  
Dr. A. Bhattacharya, EED, NIT Jamshedpur  
Dr. Jitendra Kumar, EED, NIT Jamshedpur

### Resource Persons:

The speakers will be from IITs, NIT Jamshedpur and other reputed organizations.

### Course will be useful for:

Faculty members & Students of Science/Engineering,  
Industry personnel and Scientists.

### Important dates:

Registration/Payment Closes on : **13.09.2019**  
Acceptance of Registration Form : **16.09.2019**

Notes:

- ✓ Registration fee is non-refundable.
- ✓ No TA/DA will be provided for attending the course.
- ✓ To avoid postal delay, it is advised to send scanned copy of duly signed registration form by email to [stc.ee.nitjsr@gmail.com](mailto:stc.ee.nitjsr@gmail.com).

### Registration Form

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Name: .....  
Department: .....  
Institute: .....  
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Address: .....  
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Email: .....  
Phone No: .....  
Mobile No: .....  
Qualification: .....  
Area of specialization: .....  
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### Payment Details:

Amount ₹ .....  
Online Transaction ID: .....  
Date of Transaction: .....  
(Please enclose transaction slip)  
Sponsored by: .....  
Name: .....  
Organization: .....

Signature of applicant

Recommendation

Signature of Head of the Institution/ Head of the  
Department with seal

### About the Institute

The National Institute of Technology Jamshedpur (NIT Jamshedpur), is an Institute of National Importance located at Jamshedpur, Jharkhand, India. Established as a Regional Institute of Technology in 1960, it was upgraded to National Institute of Technology (NIT) on 27 December 2002 with the status of Deemed University. It is one of the 31 NITs in India, and as such is directly under the control of the Ministry of Human Resource Development (MHRD). It is the third in the chain of eight NITs established as a part of the Second Five Year Plan (1956–61) by the Government of India. The Institute has twelve departments including engineering, science and humanities. The institute offers a 4-year Bachelor of Technology degree in the various streams. The institute also offers Master and Ph.D degrees in various streams. The institute is bound to the quest for academic excellence and good governance, growth of institute, admired and respected institute for students, employees and industry, innovative leader.

### About the Department

The Department of Electrical Engineering was started in 1960. The Department has been consistently producing quality Engineers since its inception and is also involved in research and development activities. The alumni of the department are well placed in both public and private sectors. In addition to the UG programme the department runs PG programme in Power Systems and Power Electronics and Drives and Ph.D. program in different areas of specialization.

### Course Objective

To fulfill the increasing electric power demands, one of the ideal ways is to use FACTS devices to push more power through existing transmission structure. Adding FACTS to the transmission network poses new challenges such as control, operation and management, and protection of transmission system. Moreover, for the transmission of bulk power over a very long distance, HVDC systems are preferred due to various advantages. Other than that, stability enhancement and power modulation are also possible by using HVDC systems. So the aim of RAHF-2019 is to provide thorough knowledge and understanding about the topic and to equip with new ideas related to research and development.

### Short term course topics:

- Basics of FACTS & HVDC
- Concept of transmission line compensation
- Pros and cons of different FACTS devices
- Operation and control of FACTS & HVDC
- Challenges in implementing HVDC systems
- Impact of FACTS on power flow & stability
- Protection against fault in HVDC system
- Protection of FACTS-compensated line

**Number of Seats** : 50

**Accommodation:** The participants may be provided accommodation in the institute hostels depending on the availability and on a nominal payment basis as per actual on first-cum-first serve basis. Accommodation can also be booked in nearby hotels directly or through prior information to organizers

\* Lunch can be arranged for non-resident candidates on a nominal payment basis

### Registration Fee:

Student/Scholar	:	₹1000
Academicians	:	₹3000
Industry person/Scientist	:	₹4000

**Registration fees includes:** Program kit, tea & snacks

### Mode of payment:

Participants can make payment by depositing the registration fee online in Account No. 33117999641 (NIT Jamshedpur) of SBI, NIT Jamshedpur (IFSC Code: SBIN0001882).

***Spot payment (through DD) is also admissible but only after prior approval from the organizers.***

### Address for correspondence:

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#### Dr. Kumari Namrata

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STC email: [stc.ee.nitjsr@gmail.com](mailto:stc.ee.nitjsr@gmail.com)

STC URL: <https://sites.google.com/view/stc-eed-nitjsr>

Institute website: <http://www.nitjsr.ac.in/>

### How to reach the Institute:

NIT Jamshedpur is well connected by Rail and Bus.  
NIT Jamshedpur Campus is about 12 km from TATA railway station.