



Indian Energy Exchange (IEX)
and
Indian Institute of Technology Kanpur (IITK)

Jointly Present

July 25-27,
2019
at IIT
KANPUR

A THREE-DAY RESIDENTIAL COURSE ON
EMERGING TRENDS
IN THE INDIAN POWER SECTOR:
MARKET DESIGN AND DIGITALIZATION

Venue: PBCEC Conference Facility, Visitor's Hostel, IIT Kanpur

Organised by:



Knowledge Partner:



ENERGY ANALYTICS LAB

Department of Industrial and Management Engineering
Indian Institute of Technology Kanpur

For registration or further details: Phone: +91-11-43004075 | Email: training@iexindia.com

EMERGING TRENDS

in the Indian Power Sector: Market Design and Digitalization

Course Overview

Indian Energy Exchange (IEX) and Indian Institute of Technology Kanpur (IITK) are organizing a 3-day residential Leadership course on 'Emerging Trends in the Indian Power Sector: Market Design and Digitalization' from July 25-27, 2019. The program will be hosted at IIT Kanpur Campus.

Course Objectives

This Course aims to provide insights into the development of electricity markets in India and provide a platform for discussing the challenges and way ahead. The program would:

- Enable participants grasp the Fundamentals of electricity markets
- Develop insights into the functioning and regulation of power markets.
- Prepare for consolidation of power infrastructure with electric vehicles and renewables

Who Should Attend

The training course has been specifically designed for senior to middle level professionals from industry and practitioners from the entire power sector spectrum including:

- Generation, Transmission and Distribution Companies
- Traders
- Financial Institutions and Banks
- Open Access Consumers
- RE Generators
- Electric Vehicle Manufacturers
- Electric Vehicle Charging Operators
- Consultants
- Academicians
- Officers of Regulatory Commission

Our Value Proposition

The pedagogy of the course aims to synergize theory and practice. The course contents, to be taught by power sector, electric vehicle and renewable energy experts and academicians, are supported by vision of experts, thought leadership from IITK and insights based on IEX's years of successful energy trading experience. IEX and IITK plan to adopt interactive methodology for this program to ensure knowledge advancement and intellectual progression for the participants. The program also includes visit around IIT campus including the Solar Energy Research Enclave (SERE).

COURSE AGENDA

Day 1 – 25 July, 2019 (Thursday)

0830 Hrs. – 0900 Hrs.	Registration
0900 Hrs. – 0915 Hrs.	Inaugural Function Professor Abhay Karandikar, Director, IIT Kanpur (Chief Guest)
0915 Hrs. – 1045 Hrs.	Economics of Power Trade in Regulated Environment & Market development (Indian and International Power Market Experiences) Speaker: Dr. Anoop Singh, Energy Analytics Lab , IIT Kanpur
1045 Hrs. – 1115 Hrs.	Tea / Coffee Break
1115 Hrs. – 1300 Hrs.	Stranded Assets in the Power Sector: Solutions and Strategies Speaker: Mr. Navneeraj Sharma, Sr. Mgr., E & Y
1300 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Derivatives in Power Market Speaker: Mr. Akhilesh Awasthy, Director (M.O), IEX
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1730 Hrs.	Power Market Design – Centralised vs Decentralised Model Speaker: Mr. Jogendra Behera, Advisor, CERC
1930 Hrs. – 2200 Hrs.	Welcome Reception

Day 2 – 26 July, 2019 (Friday)

0900 Hrs. – 1000 Hrs.	Ancillary Services and Intra-Day Power Trading Markets Speaker: Mr. Rohit Bajaj, Sr. VP (B.D.), IEX
1000 Hrs. – 1115 Hrs.	Renewables Energy (RE), Renewable Energy Certificates (REC) and RE Grid Integration – Opportunities and Challenges Speaker: Mr. Rakesh Shah, AVP, Adani Green Energy
1115 Hrs. – 1145 Hrs.	Tea / Coffee Break
1145 Hrs. – 1300 Hrs.	Business of Charging Infrastructure for Electric Vehicles and Energy Storage & Its impact on Power Market Speaker: Mr. Anil Kaushik, AGM (B.D), NTPC
1300 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Functioning of Power Exchanges: Regulation, Development and Products Speaker: Mr. Prasanna Rao, VP (M.O), IEX
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1730 Hrs.	Trading on a Power Exchange: Indian Energy Exchange Speaker: Mr. Prasanna Rao, VP (M.O), IEX

Day 3 – 27 July, 2019 (Saturday)

0900 Hrs. – 1030 Hrs.	Regulatory Framework for Long-term Demand Forecasting and Power Procurement Planning Speaker: Dr. Anoop Singh, Energy Analytics Lab, IIT Kanpur
1030 Hrs. – 1100 Hrs.	Tea / Coffee Break
1100 Hrs. – 1230 Hrs.	Smart Grids: Relevance to Utilities and Future Outlook Speaker: Mr. Praveen Chorghade, Chief – Core Technology & Diagnostic, Tata Power
1230 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Blockchain for Power Sector – Understanding of New Technology Inclusion, Opportunities and Challenges Speaker: Mr. Dave Martin & Mr. Vinod Tiwari, Power Ledger, Australia
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1630 Hrs.	Presentation on Energy Analytics Lab (EAL) & Centre of Energy Regulation (CER) Activities and Outcomes Speaker: Dr. Anoop Singh, Energy Analytics Lab, IIT Kanpur
1630 Hrs. – 1730 Hrs.	Valedictory Function

DISTINGUISHED FACULTY



Dr. Anoop Singh

Dr. Anoop Singh is Associate Professor at Dept. of IME, Indian Institute of Technology Kanpur. He has over 15 years' experience in academics and industry. His areas of interest include infrastructure regulation & policy, power sector regulation, energy/electricity pricing, renewable energy, energy efficiency, energy economics, climate change, project financing and cross-border energy co-operation. He has a number of research papers and three books to his credit. Prior to joining IIT Kanpur, he worked with Haryana Electricity Regulatory Commission.



Mr. Praveen Chorghade

Mr. Praveen Chorghade has been associated with almost all aspects of the power sector businesses over the last 36 yrs. He is currently responsible for the Tata Power's Core Technology & Diagnostics function, which provides a corporate oversight on Asset performance, O&M, diagnostics & up keep of Tata Power's Generation, Transmission & Renewable assets. He has been a driver of technology adoption, automation and change in the power generation & distribution utility projects, O&M functions and practices. He has 24 years stint in NTPC in various capacities in commissioning, testing, O&M of thermal power plants and at the Power Management Institute for Management Training & Consulting.



Mr. Akhilesh Awasthy

Mr. Akhilesh Awasthy is a professional with long qualitative and enriching techno - commercial experience in the power sector. He has led a multi-disciplinary team for implementation of India's first Power Exchange, Indian Energy Exchange, and presently he is working as Director (Market Operations & IT). He has devised systems and procedures for operations of the exchange which is catering to more than 3000 grid connected entities, flawlessly. Presently he is working on various solutions to address issues affecting implementation of Open Access, non-implementation of which is hampering development of Power Market in the Country. He has done his Master in Electrical Engineering and is a Cost & Management Accountant (CMA).



Mr. Rohit Bajaj

Mr. Rohit Bajaj is currently heading Business Development at IEX. HE is associated with IEX for over five years. He has over 25 years experience in the energy domain especially in the power and oil & gas sector. Prior to IEX, Rohit worked at National Energy Trading & Services (NETS), Lanco Amarkantak, Avantha Power & Infrastructure, Reliance Industries and Jindal Stainless. He has extensive experience in power plant operations, strategic planning, commercial power sale including long-term PPAs and regulatory matters.



Mr. Prasanna Rao

Mr. Prasanna Rao is currently working as Vice President, Market Operations in IEX. He is a graduate in commerce and has an executive MBA degree. He has over 19 years of experience in the relevant field of market operations. He has worked in Equity Exchange and Commodity Exchange in his past endeavors. He is well versed with the entire operations of exchange ecosystem. He has worked in various departments related to Surveillance, Risk Management, Clearing and Settlement. He was also involved in drafting of the Business Rules of the exchange and development of exchange software.



Mr. Navneeraj Sharma

Mr. Navneeraj Sharma is a Senior Manager with Tax and Economic Policy based in Gurgaon, India. Prior to joining EY, he was a part of the Office of Chief Economic Advisor and assisted on research and data analysis in the areas of finance, infrastructure, social and economic development. He has contributed towards producing policy notes and Economic survey chapters on issues of economic development in India. In his role, he engaged with various ministries and senior government officials. He has also worked with the Central Electricity Regulatory Commission (CERC), where worked in the areas of market structures, policy and regulatory issues in the sector.

INDIAN ENERGY EXCHANGE (IEX)

INDIAN ENERGY EXCHANGE LIMITED (IEX) is India's premier power trading platform. Providing an automated platform for physical delivery of electricity, IEX enables efficient price discovery and offers participants the opportunity to trade in a variety of energy products. Our exchange platform increases the accessibility and transparency of the power market in India and enhances the speed and efficiency of trade execution.

Today, more than 6400 participants are registered on our exchange and are located across utilities from 29 States, 5 Union Territories (UTs). Over 4,600 registered participants were eligible to trade electricity contracts and over 4,200 registered participants were eligible to trade RECs, as of March 2019.

DEPARTMENT OF INDUSTRIAL AND MANAGEMENT ENGINEERING (IME), INDIAN INSTITUTE OF TECHNOLOGY KANPUR

The Dept. of IME aims to provide quality management education through MBA, M.Tech. and Ph.D. programs. Power sector reform and regulation is one of the key research and teaching areas in the department. The department provides regulatory and policy inputs to relevant electricity regulatory commissions and ministries. It also conducts regular program related to power sector regulations, renewable energy and power markets. Details of Energy Analytics lab can be accessed from <https://eal.iitk.ac.in/> and Regulatory Skill Mapping from <https://cer.iitk.ac.in/RSM>.



Department of IME,
IIT Kanpur

Solar Energy Research
Enclave, IIT Kanpur



Registration Form

Name & Designation:		
Organization/Company (For Invoice):		
Address (For Invoice):		
City:	Pincode:	Country:
Fax:	Mobile:	Phone:
E-mail:		

Details of Delegates

S.No.	Name	Designation	Email ID	Mobile No.

Registration Fees

FEES	INR
For Delegate	60,000*

* GST extra (18%) on registration fee mentioned above.

A limited number of academic participants may be given a 20% fee discount on base fee (GST applicable).

Registration would be confirmed on receipt of the payment on first-come-first-serve basis. There are limited seats for the course, therefore it is suggested that you book your seats early.

The Registration Fee includes:

- » The participation fee and course material
- » 3-Nights single AC accommodation at IIT Kanpur
- » 3-Days boarding charges including all meals, tea/coffee
- » Pick-up and drop from/to airport/railway station in Kanpur or in Lucknow

Payment Details

Via Cheque/Demand Draft

Cheque/DD should be drawn in favor of Indian Energy Exchange Limited, payable at New Delhi.

Transfer Online

Beneficiary: Indian Energy Exchange Limited | **Bank Name:** HDFC Bank Limited | **Branch:** Fort, Mumbai
Bank Account Number: 15770340006939 | **Account Type:** Current A/c | **IFSC Code:** HDFC0000060

(Please email/fax the duly filled in form to: Mr. Manish Arya at training@iexindia.com/+91-11-43004015)

IEX Course Co-ordinator

Mr. Manish Arya, INDIAN ENERGY EXCHANGE LTD., Unit No. 3-6 Fourth Floor, Plot No. 7, TDI Center, District Centre, Jasola, New Delhi (India) - 110025. Tel No.: +91-11-43004075 | www.iexindia.com

IITK Course Co-ordinator

Dr. Anoop Singh, Associate Professor, Department of Industrial & Management Engineering

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Kanpur (India) - 208 016 | www.iitk.ac.in/ime/anoops