Self-Sponsored

Five-Day STTP

on
Modern Power System Optimization: Techniques, Tools, and Applications (MPSOTTA)
(3rd -7th May 2021)

Organized By

Department of Electrical and Electronics Engineering
National Institute of Technology, Tiruchirappalli, Tamil Nadu

(Virtual Mode)

Objective of the Course

Optimization is inevitable in any of the real-world problems in contemporary society, especially in the electrical sector, which has become the lifeline of the current era. Optimization is the procedure of finding the optimal solution to a problem. The optimality of a solution is evaluated in terms of an objective which is constrained by respective problem considerations. Even though there has been a significant amount of research dealing with a single objective, the real-world problem involves multiple objectives which mostly conflict with each other.

This course's main objective is to explore the need for optimization in various power system operation and controls. The course also provides the idea of various system studies where it necessitates optimization process before commissioning of the system. Additionally, it also comprehends various tools and techniques that are available to optimize the power system operation. Finally, it throws some light on the research trends followed in various modern power system applications.

Course Highlights

➢ Introduction to Optimization
➢ Optimization techniques:
    ✓ Conventional
    ✓ Meta-Heuristic
➢ Multi objective optimization
➢ Game theory:
    ✓ A solution for Decision Making in Regulatory Markets
➢ Application of Optimization in Modern Power System:
    ✓ Frequency Regulation
    ✓ State Estimation
    ✓ Optimal Placement of FACTS devices
➢ Optimization Tools:
    ✓ MATLAB
    ✓ HOMER
    ✓ GAMS
➢ Hands on Sessions

Who May Be Benefitted

Technical faculty, Industry professionals, Research Scholars, Post graduate and Under graduate students from academic institutes would be benefitted from this course.

Resource Person

Resource persons with rich expertise in optimization from leading research and academic organizations will be handling the sessions.

About NIT Trichy

The National Institute of Technology Tiruchirappalli (NIT-T), formerly known as Regional Engineering College, Tiruchirappalli (REC-T) is one of the technical institutes started by the Government of India. REC-T was imparting quality education since its inception. In 2003, the institute has been granted "Deemed to be University" status with the approval of UGC/ AICTE. The college has been conferred with autonomy in financial and administrative matters to achieve rapid development. NIT-T was registered under Societies Registration Act XXVII of 1975. The College has a total campus area of 800 acres. With the cream of engineering and management talent, encompassing exuberant students and inspiring faculty, integrated with state-of-the-art infrastructure facilities, NIT-T today has emerged as one of the premier institutions in the country.

About EEE Department

The department of Electrical and Electronics Engineering, National Institute of Technology Tiruchirappalli offers an undergraduate program, post-graduate programs (power systems and power electronics) and research degrees (M.S and Ph.D.) in various fields of Electrical Engineering. The department is recognized for excellence in teaching, research and service to the profession. The department has very well-established laboratories with sophisticated equipment supplementing the academic and research needs of students and research scholars.

Registration Procedure

1. Go to the SBI-collect using the link https://www.onlinesbi.com/sbicollect/icollecthome.htm
2. Select the state as 'TamilNadu', and category as 'Educational Institutions'.
3. Select "conference and workshop NIT Trichy".
4. Select payment category as "**MPSOTTA-2021-EEE**".
5. Make payment through UPI/ Net Banking/ Credit card/ NEFT.
6. Once the fees is paid, fill up your details and upload the payment receipt in – https://forms.gle/iZ9mPC89LPc6uefa9

Upon successful completion of STTP digital certificate will be given to the participants.

Registration Fee

Category	Amount
Faculty/Academicians participants	**Rs. 826**
Researchers Scholars (PhD, PDF, JRF, SRF)	**Rs. 472**
Students (UG, PG) participants	**Rs. 354**

Important Dates

Start date for registration	**09/04/2021**
Last date for payment and registration	**01/05/2021**

Coordinators

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