Online Training Program on
CYBER SECURITY FOR
POWER SYSTEMS
21 May - 05 June 2020
A. Introduction

Importance of reliable and uninterrupted power supply is underscored during this COVID-19 lockdown when society is heavily depending on work from home and online collaboration platforms. Nothing works without electricity and no meaningful task could be accomplished without reliable communication networks which again require electricity to function! A cyber-attack on the power grid could result in complete disruption of all activities in the society and it can cause electrical blackouts and pose threat to national security. It is a growing concern and a key success factor for reliable power generation and distribution as security has become a crucial factor for wide deployment of IT and automation and technologies in the power systems. According to an IT Governance Report, there were more than 1.7 billion data breaches and cyber-attacks in January 2019 alone. A cyber-attack can have far-reaching implications including financial losses, theft of intellectual property, and loss of customer confidence and trust. Cybercrime affects society in a number of different ways, both online and offline. The industry and utility managers have raised concerns about the dearth of trained cyber security professionals and there is a critical knowledge gap among the workforce about the need and availability of cyber security resources, assets and solutions. This course has been designed and to create pool in utilities and industry to design and implement state-of-the-art Cyber Security Solutions and maintain them securely. With the mandate to build capacity in electric utilities, India Smart Grid Forum (ISGF) regularly organises training programs on select topics of importance. ISGF, in association with the National Critical Information Infrastructure Protection Centre (NCIIPC) and Veermata Jijabai Technological Institute (VJTI), Mumbai has conducted six editions of the training programs on Cyber Security for Power Systems in the past 5 years.

With this background, ISGF in Collaboration with NCIIPC and VJTI is pleased to announce an Online Training Program on Cyber Security for Power Systems from 21 May - 05 June 2020.

B. Objectives

- To familiarize the Electric Utility Personnel on the importance of Cyber Security and the associated risks
- To identify the Critical Information Infrastructure (CII) and the importance to protect the CII from Cyber Threats
- To understand the attack vectors and identify vulnerabilities in the automation and IT systems, operations and practices followed
- Understand state of the art cyber security solutions and practices followed by leading utilities in the world
C. Modules Covered

- Introduction to Cyber Security for Power System and Cyber Security for Critical Infrastructure and Role of NCIIPC & Understanding Threats and Attacks on Smart Grids
- Basic Concepts of Cyber Security and Digital Grid & Cyber Security and Information Security (Indian and International Case Studies)
- Smart Grid Communications and Network Security
- Building Cyber Attack Resilience for Smart Grid Power Systems, Cyber Security Standards, Audit and Assessment for Smart Utilities
- Indian Manual on Cyber Security for Power Systems
- State of the Art Cyber Security Solutions
- Basic Concepts of Cyber Security and Digital Grid & Cyber Security and Information Security (Indian and International Case Studies)
- Smart Grid Communications and Network Security
- Building Cyber Attack Resilience for Smart Grid Power Systems, Cyber Security Standards, Audit and Assessment for Smart Utilities
- Indian Manual on Cyber Security for Power Systems
- State of the Art Cyber Security Solutions

D. Target Audience/Eligibility

- Engineers from generation, transmission and distribution utilities
- Engineers/Officers from Regulatory Commissions and State Energy/Power Departments
- Engineers/Officers from Technology Companies
- Student/faculties from Research/Academic Institutions
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- Engineers/Officers from Regulatory Commissions and State Energy/Power Departments
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E. Course Schedule

21 May - 05 June
2 Hrs Live Sessions on Following Days:
21 May, 23 May, 25 May, 27 May, 29 May, 30 May, 01 June and 05 June
Daywise session timings will be shared with registered trainees.

F. Training Methodology

Live Lectures on ISGF WebEx Platform
Course Material/ Presentations of the Session will be emailed to the participants a day in advance and will be uploaded on the ISGF Training Portal for reference
Recording of live lectures will be available on ISGF Portal to view or access at anytime
Post session queries can be posted in Google form to be answered by tutors in one document and emailed to all trainees. Group of trainees can schedule interactive (audio/video) sessions with tutors as per mutual convenience to clear their doubts

Assessment & Certification
An online examination will be conducted and Certificate of Merit will be awarded to the trainees. Trainees undergoing Offline Training Course will receive a certificate of completion after examination.

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***ISGF is in consultation with IEE and some universities for academic credit for ISGF Training Courses."
About ISGF

India Smart Grid Forum (ISGF) was established as a Public Private Partnership (PPP) initiative of Government of India for accelerated development of smart grid technologies in the Indian power sector in March 2011. It is registered under Indian Societies Registration Act (Act XXI of 1860). ISGF was set-up to provide a mechanism through which academia, industry, utilities and other stakeholders could participate in the development of Indian smart grid systems and provide relevant inputs to the government’s grid modernization program.

ISGF work closely with the Ministry of Power, Ministry of New and Renewable Energy, Department of Telecom, Ministry of Heavy Industries, Department of Science and Technology and Ministry of Urban Development and NCIIPC. With 180+ members comprising of ministries, utilities, technology providers, academia and students, ISGF has evolved as a globally reputed think tank in smart grids and smart cities.