

Knowledge Partners



ISGF
India Smart Grid Forum

Online (Recorded) Training Program on **CYBER SECURITY FOR POWER SYSTEMS**



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. Cyber crime 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 to create a talent 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 (Recorded) Training Program on Cyber Security for Power Systems**.

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

State of the Art Cyber Security Solutions

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

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

E. Registration

All Online (Recorded) Trainees will register following this link at ISGF Training Portal <https://indiasmartgrid.org/onlinetrainingprogram/>

F. Training Methodology

Register as per your comfort

Study at any point anywhere, pause reading and restart as per your suitability.

Recording of Training Session by experts/speakers will be available on ISGF Portal to view or access at any time and any number of times for reference.

Course Material/Presentations of all the Sessions will be emailed to the participants as soon as they are registered and Course Fee is paid.

- At the end of the course an assessment will be conducted of Multiple -Choice Questions (MCQs)
- Trainees undergoing Online (Recorded) Training Courses will be awarded **Certificate of Completion** through Email.

Banking Details

All Types of Debit Card / Credit Card, Net banking and Paytm/Google Pay/UPI Linked Payments will be accepted for registration at ISGF Training Portal

Bank details of ISGF for NEFT / Fund Transfer of ISGF as below Account Name: India Smart Grid Forum

Address: CBIP Building Malcha Marg New Delhi – 110021

Account Number: 00031110005017

Bank Name: HDFC Bank Ltd RTGS/NEFT/IFSC Code: HDFC0000003

Bank Address: 209-214 Kailash Building, 26 K G Marg, New Delhi – 110001

Fee : INR 5000+ 18% GST

25% DISCOUNT



25% discount for current ISGF Members

25% discount for Bonafide Students and Faculties

25% discount on Group Registration formore than 4 persons from the same organization

- ✦ **Two discount offers cannot be clubbed together**
- ✦ **Valid identity proof of Bonafide Students/Faculties has to be mailed to ronkini.shome@indiasmartgrid.org to avail the discount**
- ✦ **ISGF Members have to email to ronkini.shome@indiasmartgrid.org to avail the discount**



H. List of Tutors



Andrew Ginter
Waterfall Security



Ajoy Rajani
CyanConnode



Anurag Kuthiala
IBM



Dharmendra Kumar
Tata Power
Distribution Company
Ltd



Faruk Kazi
VJTI



Ganesh Kumar Sahu
JDD, NCIIPC



N Murugesan
ISGF



Reji Kumar Pillai
ISGF & GSEF



Reena Suri
ISGF



RK Singh
Director, NCIIPC



Vijayan SR



Abhijeet Raj Shrivastava
JDD, NCIIPC

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.