A brief report about the Online Short Term Training Program on "Python for Pen testing and Web Application Security" under the ISEA Project Phase-II organized by GTU-Graduate School of Engineering and Technology from 8-12 February, 2021.

Gujarat Technological University - Graduate School of Engineering and Technology had organized the **Online Short Term Training Program on "Python for Pen testing and Web Application Security"** under Information Security Education and Awareness (ISEA) Project Phase-II from 8th February 2021 to 12th February 2021.

No. of participants: More than 100 participants.

Coordinators of this event: Prof. (Dr.) S. D. Panchal and Prof. Seema B. Joshi, GTU-GSET.

Chief Guest: Prof. Vipin Pavithran, Assistant Professor, Amrita University, Kollam, Kerala, India.

Invited Resource Persons:

1. Mr. Nishant Sharma, Cyber Security Researcher & Trainer, Pentester Academy
2. Mr. Jeswin Mathai, Cyber Security Researcher & Trainer, Pentester Academy

Objective of this STTP:

- To provide introduction of Python Programming.
- To show the practical for Pen testing using python programming.
- To understanding the concept of web application security.
- To explore the knowledge in the field of cyber security with hands-on experiments.
- To identify the real time case studies and preventive measures of Web application security.

About the STTP:

Web Application Security and Pentesting are crucial part of information security as well Cyber Security. Mr. Nishant Sharma taught and helped students to get familiar with the basis of Python3 and performing various Automation tasks, Network Traffic Analysis, and Recon and Attacks with Python. In other hands, Mr. Jeswin Mathai brought depth insights & attentions towards Web Application Security, within which he taught acquiring the practical skills for Web Application Security and most commonly Tools & Techniques used for same. He also went into each and every topic OWASP Top 10 vulnerabilities. He also shared his depth knowledge regarding various aspects of Web Application Security, which can be very critical for deriving security intelligence and fortify defenses respond to information security incidents.

Event Topics:

- Introduction to Python3, Web Applications, Protocol Basics, Tools of Trade, Automation with Python
- OWASP Top 10: A9 Using Components with Known Vulnerabilities
- OWASP Top 10: A1 Injection, Automation with Python
- OWASP Top 10: A4 XML External Entities (XXE), OWASP Top 10: A6 Security Misconfiguration
- OWASP Top 10: A8 Insecure Deserialization, Network Traffic Analysis
- OWASP Top 10: A3 Sensitive Data Exposure, OWASP Top 10: A2 Broken Authentication
- Recon and Attacks
- OWASP Top 10: A5 Broken Access Control, OWASP Top 10: A7 Cross-Site Scripting (XSS)

Outcome of the STTP:

At the end of this event, participants were able to,

- Understand the concepts of Pen testing and Web Application Security
- Perform the hands on of various labs of Pentester Academy using Python Programming.
- Take various hands on experiments challenges and achieved the badges.

STTP photographs: