



Report on Four Weeks Summer Internship on Cyber Security: Attack and Defence

Department of IT under aegis of **ISEA Project** jointly with **Cyber Peace Foundation** conducted Four Weeks Summer Internship on Cyber Security: Attack and Defence from 03rd June 2019 to 28th June 2019. The workshop was attended by **57 participants** from various Universities and Institutions including IGDTUW. During the Internship, hands on experience on various issues pertaining to Cyber security, Honeypot, Block Chain, Malware analysis and Cyber Law and IT Act was given to participants. It also included one week extensive hands on training on Certified Ethical Hacking using various tools such as Footprinting tools (Foca, Maltego), Email Tracking (email Tracker Pro), network scanning (using Nmap, hping, session hijacking using ZAPProxy) and other web application, IOT and cloud computing vulnerability assessment and penetration testing tools (SQL Map, Metasploit, Kali Linux). The various case studies pertaining to cyber crime were also discussed. Students were also allocated Project work on Honey Pot, Malware Analysis and Online Vulnerability Detection Source Game. During the workshop broadly the following topics were covered:

1. Introduction to Cyber Security and Cyber Attacks
2. Introduction to Digital Forensics and its ever increasing Global Scope
3. Malware Analysis using Python Programming
4. Honeypot
5. Block Chain
6. Open Source Intelligence Tools
7. IT Act and Cyber Law
8. Certified Ethical Hacking (CEH v10)
 - (i). Footprinting and Reconnaissance
 - (ii). Network Scanning and System Hacking
 - (iii). Enumeration
 - (iv). Vulnerability Analysis
 - (v). Malware Threats
 - (vi). Session Hijacking
 - (vii). Sniffing, Denial-of-Service, SQL Injection
 - (viii). Social Engineering

- (ix). Evading IDS, Firewalls, and Honeypots
 - (x). Hacking Web Servers, Web Applications, Wireless Networks, Mobile Platforms
 - (xi). Cloud Computing and Internet of Things (IoT)
 - (xii). Cryptography
9. Project Work

The lectures/expert sessions were delivered by the industry experts (Authorized training partner of EC Council, IBM, Voyager), CPF and faculty members from leading institutions/universities and IGDTUW.

25 participants appeared and successfully qualified for EC Council's Certified Ethical Hacking Certification Exam (CEH v10).

Valedictory function and inauguration of Cyber Peace Centre of Excellence at Department of IT, IGDTUW was organized on **01st July 2019**. It was graced by Dr Amita Dev, Hon'ble Vice Chancellor, IGDTUW, Sh. Shekhar Dutt, Former Governor Chhatisgarh, Sh S N Pradhan, Director General, National Disaster Recovery Force, and Capt. Vineet Kumar, Founder, Cyber Peace Foundation.

