

Industry Oriented Training and
Capacity Building Program on Android Security,
IOS security, Web Security, Cyber Crimes & Cyber
Laws



**IEEE Gujarat Section
In association with**

**CLS- Cyberra Legal Services
announces**



Training and Capacity Building Program on Android Security, IOS Security, Web Security, Cyber Crimes and Cyber Laws

Over the past decade the numbers in the mobile arena are constantly on the rise. There is an upward trend in the number of people using mobile phones, number of mobile phone manufacturers, types of operating systems, number of mobile applications .i.e. mostly everything relating to the mobile technology there is an upward trend. Out of these different trends one peculiar trend that is to be noticed is the rise in number of security issues in terms of mobile. Mobile security is a huge matter of concern now days for organizations considering the amount of trivial information which these devices hold onto them and share amongst them. Also with the introduction of wearable technology and features such as Apple Pay, Application Data sharing etc. the scope of security goes to a new horizon.

This hands-on program is jointly organized by the IEEE Gujarat Section and CLS-Cybererra Legal Services with an aim to extend knowledge of mobile threats, mobile security, web security & cyber laws for amongst upcoming IT, Management and Commerce, Law Students and professionals.

About IEEE

IEEE is the world's largest professional association comprising of over 430,000 members (including 120,000 student members) in more than 160 countries dedicated to advancing technological innovation and excellence for the benefit of humanity. India has nearly 50K members (accounting for ~ 43% of Asia-Pacific region) with an annual growth rate of 9%. IEEE and its members inspire a global community through its highly cited publications, conferences, technology standards, and professional and educational activities.

It has 38 Societies and 7 technical Councils representing the wide range of IEEE technical interests. IEEE publishes more than 148 transactions, journals, and magazines; and sponsors more than 1,450 conferences in 92 countries. With this it manages a digital library of 4 million plus documents in the IEEE Xplore, with more than 10 million downloads each month. IEEE Standards Association has a portfolio of around 1,500 standards and projects under development. This includes the prominent IEEE 802.11® standards for wireless networking. For detail you may visit <http://www.ieee.org/index.html>.

About IEEE GUJARAT SECTION

IEEE Gujarat Section is one of 11 sections in India, completing its 25 years of foundation next year. It has around 1500 members, including 850 student members (spreading in 20 engineering institute campuses). We have 9 chapters (of 12 IEEE societies). We conduct one- and/or two-days workshops, conferences, half day seminars, 90 minute talks on many concurrent technical topics. Recently, in Nov. 2013, we organized National Workshop on Cyber Security. This year we have organized 2-Day Workshop on Emerging Research Trends in Engineering (in July 2014) and have planned to organize the National Seminar on Computer Vision and Image Processing (in Sep 2014) besides other events. Next year we are organizing an International Conference on the theme of Internet of Things, TENSYPMP 2015 (in May 2015). For more details of Gujarat section, <http://ieeegujaratsection.org/> and about the detailed history of Gujarat Section, [http://www.ieeeindia.org/wiki/index.php/IEEE Gujarat Section History](http://www.ieeeindia.org/wiki/index.php/IEEE_Gujarat_Section_History).

About CLS- Cyberra Legal Services

Founded in Ahmedabad (Gujarat) in 2003, Cyberra Legal Services is a premier organization in mobile security/cyber-security/cyber law advisory, consultancy, training and education for IT, BPO, KPO, E-commerce, M-commerce, E-Governance, E-learning, Tele-Medicine, Cloud Computing and other sectors. It is the first of its kind of service venture in Gujarat with Key Personnel who are Technology Graduates, Law graduates, Ethical Hackers having specialization in cyber security and cyber laws. CLS serves its various clients in six cities namely Ahmedabad, Gandhinagar, Baroda, Rajkot, Mumbai and Delhi. CLS, in association with Manan Thakker & Associates (Advocates & Cyber Law Consultants), have filed highest number of cyber fraud compensation matters in the state of Gujarat till November, 2015. CLS holds memberships with three prestigious committees namely Cyber Security Consultant Selection Committee, Govt. of Gujarat; Cyber Security Committee of Raksha Shakti Universtiy and Legal Committee, GESIA.

Objective of this course

- To facilitate understand & critical understanding about mobile computing.
- Understanding mobile threats, BYOD Policy, Web threats, Android threats and IOS threats.
- To provide in-depth knowledge of through hands-on for Web Security, Android Security and IOS security practices.
- To provide in-depth knowledge of Information Technology Act, 2000/Cyber Laws including Information Technology Amendment Act, 2008
- To train and prepare candidate to consider Mobile security, Web security and Cyber Laws as a career option.

Eligibility Criteria

The said program is open for professionals and practitioners of the areas of mobile security, web development, system administrator, mobile app developer, computer networking, cyber laws and allied fields and students of B.E./B.Tech./BCA/MCA/M.Sc.(IT)/M.Tech/LLB/LLM/CS/ICWA/CA/MBA/BBA/PGDCA/B.Com./M.Com./B.A. in India.

Desirable

This course is meant for everyone who has a deep interest in mobiles and internet. Prior knowledge of mobile security is NOT mandatory.

Benefits of completing this program

You will get an edge over your peers for employment opportunity in

- ✓ Software, IT, Security and Consulting Companies
- ✓ BPO Companies
- ✓ LPO/KPO Companies
- ✓ Internet Service Providers
- ✓ Mobile Service Providers
- ✓ Corporate Business Houses
- ✓ Banks and Financial institutions
- ✓ Data Centers
- ✓ Certifying Authorities for Digital Signature Certificates
- ✓ Cyber Crime Cells
- ✓ Chartered Accountant Firms
- ✓ Law Firms

- ✓ Bio-Tech Companies
- ✓ Pharmaceutical companies
- ✓ Clinical Research Organizations
- ✓ Life Science Companies and Hospitals.
- ✓ Colleges.

Course Contents

A. Android Threats & Security

Android Overview

- Android framework
- Android file System
- Dalvik Virtual Machine
- Application Sandboxing
- Android SDK in depth
- Permission model of android
- Know your android application
- ADB and power of ADB commands
- Where to find Application

Android Past Exploitation

- Android Malwares
- Hack the private data stored on Android
- Exploiting USB connections with Android
- Capture the data from the network
- Malicious SMS attack
- User information / Password theft

Setting up Android development environment

- Setup the OS and tools for attack and protection

Attack the Android

- Network Analysis
 - Sniff the traffic
 - SSL sniffing
 - DNS attack
- Application analysis
 - Unsecure storage
 - Unencrypted databases
 - Privacy issues
 - Application Permissions
- Reverse Engineering
 - Hack the source code of the application
 - Source code signature bypass
- Android OS Attacks
 - By Pass screen lock
 - Fetch the Application data
 - Attack over internet
 - Android Spoofing
 - Android and Money

Secure the Android

- Android and BYOD
- Securing Android binary

Check list for Android assessment

B. IOS Threats & Security

IOS Overview

- IOS framework
- IOS file System
- IOS Application Sandboxing
- Permission model of IOS application
- Know your IOS application
- Where to find Application

IOS Past Exploitation

- IOS Malwares and Trojans
- User information stealing
- Capture the data from the network
- Unauthorized dialling attack
- Malicious SMS attack

JailBreaking

- What is Jailbreak?
- How to perform Jailbreak
- Pros & cons of Jailbreak

Assessing the Device

- Access With Jailbreaking
- Access Without Jailbreaking
- Remote Access via Command Line

Setting up IOS attack environment

- Installing the application offline
- Setup the OS and tools for attack and protection

Attack the IOS

- Network Analysis
 - o Sniff the traffic
 - o SSL sniffing
 - o DNS attack
- Application analysis
 - o Unsecure storage
 - o Unencrypted databases
 - o Privacy issues
 - o Application Permissions
- IOS Attacks
 - o Privacy attack
 - o Fetch the Application data
 - o Monitoring Attack over internet
 - o Keychain Dumper
 - o System Amendment
 - o IOS and Money
 - o IOS Server Side attacks

Secure the IDevice

- IOS and BYOD
- Securing IOS application
- Check list for IOS application assessment

C. Web Security

- Web technology basics

- Infrastructure & Server security
- Authentication & Authorization security
- Configuration issues
- Hijacking databases & its security
- Cross site request forgery & its security
- Business logic flaws
- Injection attacks & its security
- Web 2.0
- Art of web App defense

D. Cyber Crimes & Cyber-Laws

- Introduction to Information technology & Cyber Law
- Basics of E-commerce and Computer Fraud Techniques
- Cyber Security Fundamentals, Techniques and Core Principles
- Cyber Space, Technology & Issues
- Regulating Cyber Space: International
- Regulating Cyber Space: National
- E-contract & Electronic Data Interchange
- E-signature and E-governance legality under I.T.Act, 2000
- Cyber Contraventions, Compensation & Crimes under I.T.Act, 2000
- ISPs and Websites Legal Liability under I.T.Act, 2000
- Corporate Legal Liability under I.T.Act, 2000
- Adjudication Process For Recovery of Losses under I.T.Act, 2000
- IPR & Cyber Space
- Taxation Issues in Cyber Space
- Case Studies and Case Laws

Study Material

Specially compiled exclusive study material will be provided along with copy of the Information Technology Bare Act.

Duration of the program

Week end program (only Sundays-5 hours including break) for 2 months @ Ahmedabad (Gujarat)

Evaluation

The candidates will be evaluated for maximum of 100 marks for which one MCQ (Multiple Choice Questions) Exam will be conducted at the end of program. The candidate needs to score at least 40% marks to complete the course and get the certificate of participation.

Fee Structure

- Tuition Fees: Rs. 8,500/- for selected applications
- Application Charges: Rs. 150/-

How to Apply

The application form can be downloaded from www.cyberralegalservices.com or <http://ieeegujaratsection.org/> or write to Program Coordinator.

Candidate should write “**Certificate Program on Android Security, IOS Security, Web Security, Cyber Crimes & Cyber Laws**” on the envelope containing Application.

Contact Us

Ms. C M Thakker (Cyber Security & Cyber Law Advisor)

Coordinator IEEE – CLS Programs

CLS - 2nd Floor, Asha Complex,

Bh. Navarangpura Police Station, Navarangpura,

Ahmedabad – 380009 (Gujarat)

M: +91 095101 22995

Landline: 079- 400 300 31

Website: <http://iecegujaratsection.org>

Website: www.cyberralegalservices.com