ITU Centres of Excellence Network for Asia-Pacific Region
Advanced Level Telecom Training Centre

Face-to-face Training Course on
Broadband Network Security: Challenges and Solutions
Ghaziabad (Near Delhi), India
26th – 30th August, 2019

COURSE OUTLINE

COURSE DESCRIPTION

Title	ITU CoE Training Programme on "**Broadband Network Security: Challenges and Solutions**"
Objectives	- To understand present and future security challenges of fixed and wireless broadband access networks. - To equip participants for broadband network vulnerability assessment and penetration testing. - To demonstrate different types of attacks in broadband networks. - To understand requirements and implementation of broadband network security policy document (ISMS). - To understand the auditing norms for ensuring broadband network & its components security. - To understand the GSM, UMTS and LTE security features, authentication and encryption procedures.
Dates	26-30 August 2019
Duration	5 days
Registration deadline	5th August 2019
Training fees	International participants: USD 275 per participant. Local participants: USD 275 (Tax excluded) or INR 19100/- (Tax excluded) per participant.
Course code	19WS24391ASP-E

LEARNING OUTCOMES

Upon completion of this training, participants will be able to understand:
- Different types of vulnerabilities persisting in broadband network and their impact.
- Present and future challenges to manage the threats and vulnerabilities.
- Develop secure organizational platform for vulnerability assessment and penetration testing.

- Develop security policy document for realization of auditing norms for ensuring broadband components Security.
- Techniques for developing & implementing VAPT tools and techniques for pre and post cyber-attacks.
- GSM, UMTS and LTE security features, authentication and encryption procedures.

TARGET POPULATION

This training is primarily targeted at executives, managers, engineers and technical staff from regulators, policy makers, telecom operators, academia and government organizations.

TUTORS/INSTRUCTORS

S.No.	NAME OF TUTOR(S)/ INSTRUCTOR(S)	Position	CONTACT DETAILS
1.	Mr. M. K. Seth	Chief General Manager, ALTTC, BSNL, Ghaziabad, India	cgm_alttc@bsnl.co.in +91 94018 44444
2.	Mr. Subhash Chand	PGM, ALTTC, BSNL Ghaziabad, India	subhash.iitr83@gmail.com +91 98682 02123
3.	Mr. Manoj Kumar Mishra	DGM (BB&ERP), ALTTC, BSNL Ghaziabad, India	dgm.bberp.alttc@gmail.com +91 94127 39234
4.	Mr. H K Dixit	DGM(Tx & Mobile), ALTTC, BSNL Ghaziabad, India	dikshithk@rediffmail.com +91 94127 39065
5.	Mrs. Suresh Devi	DGM(IT), ALTTC, BSNL Ghaziabad, India	sureshdevi7009@gmail.com +91 94127 39242
6.	Mr. Abhay Gupta	Assistant General Manager, ALTTC, Ghaziabad, India	abhaybpl@gmail.com +91 94127 39319
7.	Mr. Anand Kumar	Assistant General Manager, ALTTC, Ghaziabad, India	anandkumarbsnl21@gmail.com +91 94127 39248
8.	Mr. Nitin Kumar Garg	Assistant General Manager, ALTTC, Ghaziabad, India	nitinkumargarg@yahoo.com +91 94120 00810
9.	Mr. Naresh Singh	Assistant Director, ALTTC, Ghaziabad, India	nareshsingh@bsnl.co.in +91 94120 00939
10.	Mr. Rajeev Sharma	Assistant Director, ALTTC, Ghaziabad, India	at.rajeev@gmail.com +91 94127 74506

EVALUATION

The assessment of the participants shall be based on the time spent on the training and the following parameters:

Evaluation Parameter	Weightage
Quizzes and Presentations	60%
Attendance	10%
Participation	30%

The minimum passing requirement for certificate is 60%

TRAINING SCHEDULE AND CONTENTS / AGENDA

(Updated information will be available at http://www.itu.int/itu-d/asp or https://academy.itu.int)

Agenda (for face-to-face trainings)

26 August	Topic
Session 1	Registration, welcome and keynote address
Session 2	Broadband Access Technologies
Session 3	Broadband Network Architecture & Components
Session 4	Vulnerability Assessment of Broadband Access Network

27 August	Topic
Session 1	VLAN Security & Traffic Filtering : ACL
Session 2	Router Security & Firewall
Session 3	ISP Core Network Architecture
Session 4	MPLS-VPN Security in Service Provider Network
Session 5	Quiz-01

28 August	Topic
Session 1	WLAN Security
Session 2	Developing Platform & phases for VAPT
Session 3	Case Study on different types of MITM attacks
Session 4	Web Security: Validation and SQL injection

29 August	Topic
Session 1	Broadband Networks: ISMS
Session 2	Broadband Networks Information Security Audit Norms
Session 3	Overview of Mobile Networks (GSM,UMTS,HSDPA,HSUPA,HSPA+,LTE,LTE-Adv)
Session 4	GSM security features, authentication and encryption procedures.

30 August	Topic
Session 1	UMTS security features, authentication and encryption procedures.
Session 2	LTE security features and authentication procedures.
Session 3	Visit to BB/MPLS/Mobile Labs
Session 4	Quiz 2 and presentation
Session 5	Validation, and Feedback

METHODOLOGY

The face-to-face program will include
- Instructor-led presentations,
- Case studies,
- Group exercises
- Assignments
- Visit to BB/MPLS and Mobile labs.

COURSE COORDINATION

Institute Head:	**Training coordinators:**	**ITU coordinator:**
Mr. MK Seth Chief General Manager ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002 cgm_alttc@bsnl.co.in (Email) +91 120 2755121 (Works) **Institute Coordinator:** **Mr. Subhash Chand** Principal General Manager ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002 subhash.iitr83@gmail.com (Email) +91 120 2755122 (Works) +91 9868202123 (Mobile)	**Manoj Kumar Mishra** DGM(BB), Room No. 2103, Academic Building, ALTTC, Raj Nagar, Ghaziabad(U.P), INDIA-201002 dgm.bberp.alttc@gmail.com +91 120 2755620 (Works) +91 94127 39234 (Mobile) **Anand Kumar** AGM (BB), Room No. 2101, Academic Building , ALTTC , Raj Nagar, Ghaziabad(UP), INDIA -201002 anandkumarbsnl21@gmail.com +91 120 275 5040 (Works) +91 941 273 9248 (Mobile)	**Mr. Ashish Narayan** Program Co-ordinator, ITU Regional Office for Asia-Pacific 5th Floor, Thailand Post Training Centre, 111 Moo3 Chaengwattana Road,Laksi Bankok 10210,Thailand ashish.narayan@itu.int (Email) +66 257 500 55 (Works) +66 257 535 07 (Fax)

REGISTRATION AND PAYMENT

ITU Academy portal account

Registration and payment should be made online at the ITU Academy portal. To be able to register for the course you **MUST** first create an account in the ITU Academy portal at the following address: https://academy.itu.int/index.php/user/register..

Training registration
When you have an existing account or created a new account, you can register for the course online at the following link: https://academy.itu.int/training-courses/full-catalogue/broadband-network-security-challenges-and-solutions

You can also register by finding your desired course in our training catalogue https://academy.itu.int/index.php/training-courses/full-catalogue.

Payment:

1. On-line payment
A training fee of USD 275 per participant is applied for this training. Payments should be made via the online system using the link mentioned above for training registration at https://academy.itu.int/training-courses/full-catalogue/broadband-network-security-challenges-and-solutions

2. Payment by bank transfer
Where it is not possible to make payment via the online system, select the option for offline payment to generate an invoice using the same link as above. Download the invoice to make a bank transfer to the ITU bank account shown below. Then send the proof of payment/copy of bank transfer slip and the invoice copy to Hcbmail@itu.int and copy the course coordinator. **All bank transaction fees must be borne by the payer**. **Failure to submit the above documents may result in the applicant not being registered for the training.**

3. Group payment

Should you wish to pay for more than one participant using bank transfer and need one invoice for all of them, create an account as **Institutional Contact. Institutional Contacts** are users that represent an organization. Any student can request to be an institutional contact or to belong to any existing organization.

To do this, head to your profile page by clicking on the **"My account"** button in the user menu. At the bottom of this page you should see two buttons:

a. If you want to **become an institutional contact**, click on the "**Apply to be an Institutional Contact"** button. This will redirect you to a small form that will ask for the organization name. After you fill the name of the organization you want to represent, click on **"continue"** and a request will be created. An ITU Academy manager will manually review this request and accept or deny it accordingly.

b. If you want to **belong to an existing organization**, click on the **"Request to belong to an Institutional Contact"** button. This will redirect you to a small form that will ask you to select the organization you want to join from an organization list. After you select the correct organization, click on **"continue"**, a request will then be created. The Institutional Contact that represents that organization will manually accept or deny your request to join the organization.

ITU BANK ACCOUNT DETAILS:	
Name and Address of Bank:	UBS Switzerland AG Case postale 2600, CH 1211 Geneva 2 Switzerland
Beneficiary:	Union Internationale des Télécommunications
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	USD 275
Payment Reference:	CoE-ASP- 19WS24391ASP-E-P.40593.1.04

4. Other methods of payment

For local participants, who would like to pay in local currency, training fee of INR 19,100 (Tax Excluded) can be made directly to the ALTTC bank account. The details are as follows:
ALTTC Bank Account Details

1.	Name of Account Holder: AO Cash, BSNL ALTTC
2.	Account Type: Current
3.	Account no: 10888625814
4.	Bank Name: State Bank of India, Main Branch, Ghaziabad, INDIA IFSC code: SBIN0000642