ITU Centres of Excellence Network for Asia-Pacific Region

Advanced Level Telecom Training Centre
Online Training Course on
IoT Advanced Applications: Smart City & Industry 4.0
ITU Academy

14 - 25 September 2020

COURSE OUTLINE

COURSE DESCRIPTION

Title	Online training course on **"IoT Advanced Applications: Smart City & Industry 4.0"**
Objectives	- To understand and appreciate the various enabling IoT concepts, technologies and its applications for smart cities. - To understand the IoT ecosystem and various advanced applications. - To understand the communication technologies for IoT applications - To understand the deployment strategies, ubiquitous connectivity planning for various applications. - To understand the concept of blockchain in IoT & IIoT. - To understand concepts, deployment and model of Industry 4.0. - To understand the use of artificial intelligence in Industry 4.0. - To understand security aspects & issues in Industry 4.0. - To understand Industry 4.0 in COVID19.
Dates	14 - 25 September 2020
Duration	2 Weeks
Registration deadline	10th Sep 2020
Training fees	USD 100
Course code	20WS24870ASP-E

LEARNING OUTCOMES

Upon completion of this training, participants will be able to:

- Understand the IoT ecosystem
- Understand the communication technologies and the relevant components for IoT applications
- Understand deployment strategies and advanced applications in Smart City.
- Understand the concept and technological development in Industry 4.0.
- Explain Blockchain concepts and architecture & use cases in IoT applications.
- Explain the security aspects & issues in Industry 4.0
- Overview of Industry 4.0 in the context of COVID19
- Identify the relevant ITU-T standards that are relevant to the course.

TARGET POPULATION

This training is primarily targeted at executives, managers, engineers and technical staff from regulators, policymakers, telecom operators, and 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.	Mrs. Suresh Devi	DGM(IT), ALTTC, BSNL Ghaziabad, India	sureshdevi7009@gmail.com +91 94127 39242
4.	Mr. H K Dixit	DGM(Tx & Mobile), ALTTC, BSNL Ghaziabad, India	dikshithk@rediffmail.com +91 94127 39065
5.	Mr. Nitin Kumar Garg	Assistant General Manager, ALTTC, Ghaziabad, India	nitinkumargarg@yahoo.com +91 94120 00810
6.	Mr. Anand Kumar	Assistant General Manager, ALTTC, Ghaziabad, India	anandkumarbsnl21@gmail.com +91 94127 39248

EVALUATION

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

Besides the weekly quiz and their assignment score, participants will be evaluated according to their substantive posts on the discussion forum, active participation in the online chat sessions and other course activities, reflecting both the quantity and quality of time spent on the course. Below are the evaluation schemes:

Quiz # 1	30%
Quiz # 2	30%
Individual Assignment:	20%
2 Chat Sessions (10% per session)	20%
Total Evaluation:	**100%**

Important: A passing mark of 35% is required for obtaining a completion certificate.

TRAINING SCHEDULE AND CONTENTS / AGENDA

Agenda

Week	Module Title	Topics
1	**Module 1:** **IoT: Concept & Architecture Smart City Applications**	• Introduction • IoT ecosystem and various advanced applications • Communication technologies for IoT applications • Deployment strategies, ubiquitous connectivity planning for various applications
		Discussion / Forum
		Chat Session
		Quiz 1
2	**Module 2:** **IoT/IIoT:** **Industry 4.0**	• Concepts, deployment and model of Industry 4.0. • Concept of Block-chain in IoT & IIoT • Artificial Intelligence in Industry 4.0 • Security aspects & issues in Industry 4.0 • Industry 4.0 in Covid-19
		Discussion / Forum
		Chat Session
		Quiz 2

METHODOLOGY

PDF documents will be made available each week. These will constitute the main source of material for the course. Each week discussion topics will be provided and a discussion forum opened for participants to participate, to exchange views and share information. All participants are expected to participate in the discussion forum.

Online chat sessions with the Tutor will take place every Wednesday from 11:00 – 12:00 Hrs. Indian Standard Time (IST). All participants are expected to join the chat sessions, as they will be graded.

Review Quizzes will be held twice during the course. Each quiz will have 15 (fifteen) multiple choice questions.

One individual assignment will be assigned to each participant.
Important:
During the course, participants are expected to check their mailboxes for new messages on a daily basis.

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)	**Ms. Suresh Devi** DGM (IT) ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002 sureshdevi7009@gmail.com (Email) +91 9412739242(Mobile) **Mr. Nitin Garg** AGM (IT) ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002 mail.garg77@gmail.com +91 120 2755625 (Works) +91 9412000810 (Mobile)	**Mr. Sean Doral** Program Officer, ITU Regional Office for Asia-Pacific 5th Floor, Thailand Post Training Centre, 111 Moo3 Chaengwattana Road,Laksi Bankok 10210,Thailand sean.doral@itu.int (Email) +41 2273 05438 (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/iot-advanced-applications-smart-city-and-industry-40

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.   Online payment
A training fee of USD 100 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

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 100
Payment Reference:	CoE-ASP- 20WS24870ASP-E-P.40593.1.04