



ITU Centres of Excellence Network for Asia-Pacific Region

Advanced Level Telecom Training Centre Online Training Course on

“Blockchain, AI & SDN: Opportunities, Challenges and Solutions for Smart Cities”

10 - 21 May 2021

TRAINING COURSE OUTLINE

COURSE DESCRIPTION

Title	Online training course on “Blockchain, AI & SDN: Opportunities, Challenges and Solutions for Smart Cities”
Objectives	To develop a proper understanding of emerging technologies like blockchain, AI & SDN and while their implementation is concern in smart cities what are the challenges we face and how to overcome these challenges in more effective way.
Dates	10 - 21 May 2021
Duration	Two Weeks
Registration deadline	8 May 2021
Training fees	USD 100
Course code	21OI26533ASP-E

DESCRIPTION OF THE TRAINING COURSE

In today’s advanced digital era, the smart city can enable an intelligent society by utilizing emerging technologies. The rapid adoption of blockchain technology has led to a paradigm shift to a new digital smart city ecosystem. A broad spectrum of blockchain applications promises solutions for problems in areas ranging from risk management and financial services, including cryptocurrency, the Internet of Things (IoT), to public and social services. Furthermore, the convergence of Artificial Intelligence (AI) and blockchain technology is revolutionizing the smart city network architecture to build sustainable ecosystems.

The course aims to equip participants with the understanding of emerging technology, such as blockchain, AI and SDN based network technologies, and how these technologies complement

and supports the implementation and deployment of smart cities, including system automation, decentralization, democracy, and trust and security.

LEARNING OUTCOMES

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

- Blockchain concept & architecture
- Need Of sustainable smart cities
- Smart cities implementation & deployment challenges
- Smart cities: blockchain/DLT Solutions
- Blockchain-based digital governance in AI smart cities
- SDGs for AI & blockchain in AI smart cities
- Security solutions with blockchain & AI in smart cities.

TARGET POPULATION

This training is primarily targeted at regulators, policymakers, telecom operators, executives, managers, engineers, academia and technical staff involved in AI & blockchain in smart cities.

ENTRY REQUIREMENTS

No specific qualification needed to join this course. Participants who have prior knowledge or understanding of the concept of smart cities deployment will be helpful.

TUTORS/INSTRUCTORS

S.No.	NAME OF TUTOR(S)/ INSTRUCTOR(S)	Position	CONTACT DETAILS
1.	Mr. Arun Kumar Sharma	CGM,ALTTC,BSNL Ghaziabad	cgm_alttc@bsnl.co.in +91 9414001101
2.	Mr. Mohan Singh	GM(Tech), ALTTC, BSNL Ghaziabad, India	mohanbagrana2872@bsnl.co.in +91 9416010053
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5.	Mr. H K Dixit	DGM(Tx & Mobile), ALTTC, BSNL Ghaziabad, India	dikshithk@rediffmail.com +91 94127 39065
6.	Mr. Nitin Kumar Garg	Assistant General Manager, ALTTC, Ghaziabad, India	mail.garg77@gmail.com +91 94120 00810
7.	Mr. Anand Kumar	Assistant General Manager, ALTTC, Ghaziabad, India	anandkumarbsnl21@gmail.com +91 94127 39248
8.	Mr. K.K.S Yadav	Assistant Director ALTTC, Ghaziabad, India	krishnadev25@rediffmail.com +91 9411892744

TRAINING COURSE SCHEDULE

Week / Session	Topic	Exercises and interactions
Week 1	<ul style="list-style-type: none"> Blockchain Concept & Architecture Smart Cities Implementation & Deployment Challenges Smart Cities:Blockchain/DLT Solutions Use Cases of BlockChain in Smart Cities Chat session#1 	<p>This week, each participant are expected to:</p> <ul style="list-style-type: none"> Read of the PPT slides/PDF Document uploaded on the course page for week 1 Respond to posts made by experts and other participants in the forum at the latest by Thursday of each week Attend a live zoom session scheduled for Friday - 11:30hrs-12:30hrs Complete a self-test quiz1 by Sunday - 18:00hrs Course assignment will be opened for participants from Saturday 18:00 Hrs
Week 2	<ul style="list-style-type: none"> Artificial Intelligence with Blockchain& SDN: Need & Concept IoT with Blockchain Ref.Architecture for Smart City Blockchain-based Digital Governance in AI Smart City Security Solutions with Blockchain & AI in Smart Cities. Chat session#2 	<p>This week, each participant has to:</p> <ul style="list-style-type: none"> Read of the PPT slides/PDF Document uploaded on the course page for week 2 Respond to posts made by Experts other participants in the forum at the latest by Thursday of each week Attend a live zoom session scheduled for Friday - 11:30hrs-12:30hrs Complete a self-test quiz2 by Sunday - 18:00hrs Course assignment deadline will be on Sunday 23:30 Hrs

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 Friday from 11:30 – 12:30 hours 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.

EVALUATION AND GRADING

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%

TRAINING COURSE COORDINATION

<p>Institute Head: Mr. Arun Kumar Sharma Chief General Manager ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002</p> <p>cgm_alttc@bsnl.co.in (Email) +91 120 2755121 (Works) +91 120 2710494 (Works) +91 120 2756985 (Fax) +91 9414001101 (Mobile)</p> <p>Institute Coordinator: Mr. Mohan Singh General Manager (Tech) ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002</p>	<p>Training coordinators: Ms. Suresh Devi DGM (IT) ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002</p> <p>sureshdevi7009@gmail.com (Email) +91 9412739242 (Mobile)</p> <p>Mr. Nitin Garg AGM (IT) ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002</p> <p>mail.garg77@gmail.com (Email) +91 120 2755625 (Works) +91 9412000810 (Mobile)</p>	<p>ITU coordinator: Mr. Sean Doral Program Officer, ITU Regional Office for Asia- Pacific 5th Floor, Thailand Post Training Centre, 111 Moo3 Chaengwattana Road, Laksi Bangkok 10210, Thailand</p> <p>sean.doral@itu.int (Email) +41 2273 05438 (Works) +66 257 535 07 (Fax)</p>
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mohanbagrana2872@bsnl.co.in (Email) +91 120 2704628 (Works) +91 9416010053 (Mobile)		
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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 course 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/blockchain-ai-sdn-opportunities-challenges-and-solutions-smart-cities>

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. Payment should be made via the online system using the link mentioned above for training registration at <https://academy.itu.int/training-courses/full-catalogue/blockchain-ai-sdn-opportunities-challenges-and-solutions-smart-cities>

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-21OI26532ASP-E - P.40593.1.04

4. Other method of payment

If due to national regulations, there are restrictions that do not allow for payment to be made using options 1 & 2 above, please contact the ITU coordinator for further assistance.