Dated   16th October 2018

Subject : ITU Asia Pacific Centre of Excellence Training Program on "IoT Technologies and Applications for Smart Cities: from from 29th October-2nd November 2018 at ALTTC Ghaziabad

An ITU Asia Pacific Centre of Excellence Training Program on IoT Technologies and Applications for Smart Cities is being organized from 29th October-2nd November 2018 at ALTTC Ghaziabad. The invitation letter from ITU and course details are attached.

2. Willing officers may send their nomination through proper channel by 22nd October 2018, 13.00 Hours as per registration proforma in the invitation letter enclosed.

(Vivek Shrivastava)
Director (Training-II), DoT
Tel.23723532(O)

encl : अ।अ

Telecommunication
Development Bureau (BDT)

Ref.: BDT/ROASP/2018-120	15 August 2018
	Administrations of ITU Member States, Regulators, Sector Members, Academia in Asia and the Pacific

Subject: **ITU Asia-Pacific Centre of Excellence Training on "IoT Technologies and Applications for Smart Cities", from 29 October – 02 November 2018, ALTTC, India**

Dear Sir/Madam,

I am pleased to invite your organization to participate in the face-to-face **ITU Asia-Pacific Centre of Excellence (ITU ASP CoE) Training on "IoT Technologies and Applications for Smart Cities"** to be conducted from **29 October – 02 November 2018 at ALTTC, Ghaziabad, INDIA**. This training is organized by International Telecommunication Union and Advanced Level Telecom Training Centre (ALTTC) - CoE, India in association with Ministry of Electronics and Information Technology (MeitY), India; C-DOT (Centre for Development of Telematics) India; and Faculty of Applied Science of Post and Telecommunication (ICT Faculty), Iran. This training is being conducted by ALTTC under the auspices of the ITU Centres of Excellence for Asia-Pacific region. The training will be delivered in English at ALTTC, Ghaziabad (NCR – National Capital Region, near New Delhi), India.

The training course is designed to enhance the understanding of participants in IoT technologies and applications for smart cities. The program will cover various aspects of IoT ecosystem like platform, communication technologies, deployment strategies, ubiquitous connectivity planning and the importance of building horizontal common service layer for smart cities applications. Further, this will discuss about smart governance and citizen services, smart cities use cases, security, privacy and regulatory issues pertaining to IoT based applications including data analytics, and other related aspects.

This training is targeted at executives, managers, engineers and technical staff from smart city project, regulators, policy makers, telecom operators, industry, and academia. Other institutions and individuals who are interested in building their capacity in the field of IoT Technologies and Applications for Smart Cities are also welcome to participate in this training program.

To register for this training, participants are requested to do registration online on ITU Academy platform or through attached form as per details in Annexure-II latest by **14th October 2018.** The training fee for this training program is USD 275 (Tax Inclusive) per participant for international participants. Indian participants can pay the training fee either in USD 275 or INR 18,700/- (Tax inclusive) per participant.

Detailed information of this training program is described in the training outline (Annexure - I), which can also be downloaded from the ITU Academy Portal at http://academy.itu.int/ and http://www.itu.int/itu-d/asp. Annexure – II contains the procedure for registration, training fee payment and other relevant details.

Mr. Ashish Narayan (ashish.narayan@itu.int) from the ITU, and Mr. C B Singh (cbhans1960@gmail.com) and Mr. Anand Kumar (anandkumarbsnl21@gmail.com) from ALTTC (CoE), India, are at your disposal if you need any more information.

I look forward to your active participation in the course.

Yours faithfully,

[Original signed]

Ioane Koroivuki
Regional Director,
ITU Regional Office for Asia and the Pacific

ITU Asia-Pacific CoE Face to Face Training Programme

IoT Technologies and Applications for Smart Cities

29 October – 02 November 2018

ALTTC, Ghaziabad, India

Training Outline

Programme Description

Title	ITU CoE Training on "IoT Technologies and Applications for Smart Cities"
Method of Delivery	Face-to-Face in English
Objectives	• To understand and appreciate the various enabling IoT technologies and their application for smart cities applications. • To understand IoT ecosystem and its linkage with smart sustainable cities. • To understand deployment strategies, ubiquitous connectivity planning and importance of horizontal common service layer for smart cities applications. • To learn about smart governance and citizen services. • To understand about smart cities use cases • To understand security, privacy and regulatory issues pertaining to IoT based applications • To understand data analytics, and other related aspects.
Duration	29th October – 02nd November 2018 (5 Days)
Registration Deadline	14th October 2018
Training Fees	• International participants: USD 275 (Tax Inclusive) per participant. • Indian participants: USD 275 (Tax Inclusive) or INR 18700/- (Tax inclusive) per participant.
Course Code	18DL20733ASP-E

Learning Outcome

Upon completion of this training, participants will be able:

- To understand IoT ecosystem and its application in smart sustainable cities.
- To understand communication technologies for IoT applications, deployment strategies, ubiquitous connectivity planning and importance of horizontal common service layer for smart cities applications.
- To understand smart governance and citizen services and use cases
- To understand security, privacy and regulatory issues pertaining to IoT based applications
- To understand data analytics, and other related aspects.

Target Population:

This training is targeted at executives, managers, engineers and technical staff from smart city projects, regulators, policy makers, telecom operators, industry, and academia. Other institutions and individuals who are interested in building their capacity in the field of IoT Technologies and Applications for Smart Cities are also welcome to participate in this training program.

Draft Training Schedule / Agenda

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

29th October 2018 (Monday)

Session #	Topic	Speaker/Organization
Session 1	Registration, Welcome and Keynote address	ALTTC, ITU, MeitY, C-DoT, ICT Faculty (Iran)
Session 2	Overview of IoT Ecosystem and Smart Sustainable Cities	ITU
Session 3	IoT Standards and Issues	SESEI / BIS
Session 4	IoT platforms: Network architecture, Gateway and Design	MeitY

30th October 2018 (Tuesday)

Session 1	IoT Communication Technologies	TEC
Session 2	M2M Numbering and Addressing Issues	TEC
Session 3	ICT deployment strategies for Smart Cities	C-DOT
Session 4	Ubiquitous Connectivity Planning for Smart Cities	TRAI
Session 5	Interoperability and Regulatory Challenges	TRAI/ ICT Faculty, Iran

31st October 2018 (Wednesday)

Session 1	Quiz #1	ALTTC / ITU
Session 2	Horizontal Common Service Layer in Smart Cities	C-DOT
Session 3	Smart Governance: e-Governance and Citizen Services	MeitY
Session 4	Smart Cities Use Cases 1	Industry / CDAC
Session 5	Smart Cities Use Cases 2	Industry / CDAC
Session 6	Industrial IoT and Applications	MeitY

01st November 2018 (Thursday)

Session #	Topic	Speaker/Organization
Session 1	Distributed Ledger Technology and its applications	ALTTC
Session 2	Digital Payments	MeitY
Session 3	Data Analytics and its usage in Smart Applications	TRAI & MeitY
Session 4	Future Proof Security Algorithm: Quantum Safe Encryption	C-DOT

Session 5	IoT Experience: Case of Iran	ICT Faculty, Iran
Session 6	Group Exercise	ALTTC / ITU

02rd November 2018 (Friday)		
Session 1	Quiz #2	ALTTC
Session 2	Field Visit: NASSCOM: COE-IOT	ITU, ALTTC, MeitY
Session 3	Validation, and Feedback	ALTTC, ITU

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%

Methodology:

The face-to-face program will include Instructor-led presentations, Case Studies, Group Exercises, Assignments and Quizzes
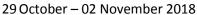
Training Coordination

Institute Head:

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)

Training coordinators:

Mr. Devendra Dwivedi
GM (BB & IT), ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002
gmit.alttc@gmail.com (Email)
+91 120 2755144 (Works)
+91 94298 94398 (Mobile)

Mr. C B Singh
DGM (BB & IT), ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002
cbhans1960@gmail.com (Email)
+91 9412774489 (Mobile)

Mr. Anand Kumar
AGM (Broadband), ALTTC, Raj Nagar, Ghaziabad, UP, INDIA -201002
anandkumarbsnl21@gmail.com(Email)
+91 120 2755052 (Works)
+91 94127 39248 (Mobile)

ITU coordinator:

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)

ITU Asia-Pacific CoE Face to Face Training

IoT Technologies and Applications for Smart Cities

29 October – 02 November 2018

ALTTC, Ghaziabad, India

REGISTRATION AND TRAINING FEE PAYMENT

1. Registration and Fee payment procedure are mentioned below.
2. Training fee for foreign participants is USD 275 (US Dollar Two Hundred and Seventy Five Only) per participant and Indian participants can pay training fee either as USD 275 (US Dollar Two Hundred and Seventy Five Only) or INR 18,700 (Indian Rupees Eighteen Thousand Seven Hundred Only).
3. Boarding and lodging charges for this training are in addition to the above charges. Options for accommodation are mentioned later in this annexure.

REGISTRATION PROCEDURE

Registration for this training program

Please complete the form in annexure-II A and II B and submit through email to Mr. C B Singh (cbhans1960@gmail.com), Mr. Anand Kumar (anandkumarbsnl21@gmail.com) and to Mr. Ashish Narayan (ashish.narayan@itu.int) with copy for information to Ms. Tanittta Virayavanich (tanitta.virayavanich@itu.int).

Registration on ITU Academy Portal

As the course evaluation will be carried out online, participants are also requested to register online at the ITU academy platform by following the steps below:

Skip Step 1, *If you already have a username and password*

Step 1: Create an account in the ITU Academy portal at the following address:
https://academy.itu.int/index.php?option=com_hikashop&view=user&layout=form&Itemid=559&lang=en
After completing the registration form, a message will be sent to you to your email address inviting you to log in to the platform.

Step 2: Once you are logged in, you can search for the course in the training catalogue or directly proceed to the course through the following link.
https://academy.itu.int/index.php?option=com_joomdle&view=coursecategoryextended&cat_id=:&course_id=1322:iot-technologies-and-applications-for-smart-cities&Itemid=476&lang=en

Please note that registration should be done before 14th October 2018.

FEE PAYMENT PROCEDURE

1. **Online payment in USD**

Training fee of USD 275 (Tax Inclusive) in US Dollar can be made directly at the ITU portal using the following link:

https://academy.itu.int/index.php?option=com_joomdle&view=coursecategoryextended&cat_id=:&course_id=1322:iot-technologies-and-applications-for-smart-cities&Itemid=476&lang=en

2. **Payment by Bank Transfer**

Where it is not possible to make payment via the online system, a bank transfer may be done on the ITU Bank account shown below. In this case, the participant should select the offline payment option using the link mentioned above:

https://academy.itu.int/index.php?option=com_joomdle&view=coursecategoryextended&cat_id=:&course_id=1322:iot-technologies-and-applications-for-smart-cities&Itemid=476&lang=en

The participant will be redirected to a page where an invoice is generated. On the basis of such invoice, the participant will transfer the training fees to the ITU bank account. When the bank transfer has been made, it is IMPERATIVE that the applicant uploads the proof of payment to the ITU Academy, under the "Offline Invoices" tab in the main menu. The participant is advised to notify the Human Capacity Building (HCB) Division at hcbmail@itu.int and the ALTTC CoE Coordinator at cbhans1960@gmail.com after he/she has uploaded the proof of payment.

3. **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 20733 – P.40593.1.04**

4. **Online payment / Bank Transfer in Indian Rupee** (Indian Participants only)

Training fee of INR 18,700 (Tax Inclusive) in INR 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**
5. IFSC code: **SBIN0000642**

The participant is also advised to notify the Human Capacity Building (HCB) Division at hcbmail@itu.int and the ALTTC CoE Coordinator at cbhans1960@gmail.com after he/she has made the payment.

BOARDING AND LODGING

1. Pick up and Drop arrangement from / to the Indira Gandhi International Airport, New Delhi shall be at the cost of INR 10,000 (Indian Rupees Ten Thousand Only). This payment can be made at ALTTC, Ghaziabad.

2. Rates for Lodging and Boarding at ALTTC, Ghaziabad are as follows.

   ALTTC Hostel Accommodation- J.C. Bose Hostel (within ALTTC Campus)

   The charge of JC Bose hostel is as follows:

Name of the Hostel	Per Day charges (Inclusive of taxes)
JC Bose Hostel ALTTC Campus Ghaziabad, UP - 201 002	With all meals included
	INR 3300 per day

3. **Hotel Accommodation**:

   a. **Fortune Inn Grazia** *(around 500 m from training venue)*
      (https://www.fortunehotels.in/ghaziabad-fortune-inn-grazia.dh.3)
      Address: Plot No.1, ALT Road, Sector-23, Ghaziabad, UP 201002.
      Phone: +91 120 398 8442

   b. **Citrus Hotel** *(around 2 Km from training venue)*
      Address: C - 2, Mahaluxmi Mall, Raj Nagar District Centre, UP 201002
      Phone: +91 120 450 1050*.*

   c. **Country Inn and Suites**– *Sahibabad (around 15 Km from training venue)*
      (https://www.countryinns.com/hotels/rates/indsahi/new)
      Address: 64/6, Site-Iv, Sahibabad, Ghaziabad, Uttar Pradesh 201010
      Phone: +91 120 418 0000

   d. **Radisson Blu –** *Kaushambi (around 20 km from training venue)*
      (https://www.radissonblu.com/en/hotel-kaushambi)
      Address: H-3, Modipon Vihar, Sector 14, Kaushambi, Ghaziabad, Uttar Pradesh 201010
      Phone: +91 120 473 6200

Participants are requested to make reservation in hotels suggested above or any other hotel of their choice and convenience. In case any assistance is required, the training coordinators may be contacted.

ITU CoE Face to Face Training

IoT Technologies and Applications for Smart Cities

29th October – 02nd November 2018

ALTTC, Ghaziabad, India

REGISTRATION FORM

To be returned through email to:

Mr. C B Singh (cbhans1960@gmail.com) and

Mr. Anand Kumar (anandkumarbsnl21@gmail.com)

Cc: Ms. Tanittta Virayavanich (tanitta.virayavanich@itu.int)

Before 14th October 2018

Please complete the form below using CAPITAL LETTERS

Name: (As per Passport)	TITLE FIRST NAME			
	MIDDLE NAME			
	LAST NAME			
Designation / Position Title				
Date of Birth		Gender	☐ MALE ☐ FEMALE	
Passport No. (If applicable)		Nationality		
Email ID				
Contact No.				
Name of the Organisation				
Organisation Address	Country: Telephone No.: Fax No.: Email ID:			
Accommodation Arrangement	JC Bose Hostel, ALTTC	Hotel		own arrangement
Pick / Drop from Airport	Required		Not Required	

Note: International participants are requested to provide scanned copy of Passport along with registration form.

ITU CoE Face to Face Training

IoT Technologies and Applications for Smart Cities

29th October – 02nd November 2018

ALTTC, Ghaziabad, India

FEE PAYMENT DETAIL

To be returned through email to:

Mr. C B Singh (cbhans1960@gmail.com) and

Mr. Anand Kumar (anandkumarbsnl21@gmail.com)

Cc: Ms. Tanittta Virayavanich (tanitta.virayavanich@itu.int)

Before 14th October 2018

Name: (As per Passport)	TITLE FIRST NAME MIDDLE NAME		
	LAST NAME		
Passport No. (If applicable)		Nationality	
Email ID			
Fee Paid	☐ US Dollar 275	☐ Indian Rupee 18,700	
Mode of Payment	☐ Online	☐ Bank Transfer	
Transaction Reference No.			
Date and Time of Transaction			

ITU CoE Face to Face Training

IoT Technologies and Applications for Smart Cities

29th October – 02nd November 2018

ALTTC, Ghaziabad, India

ACCOMMODATION / PICKUP-DROP ARRANGEMENT RESERVATION FORM

To be returned through email to:

Mr. C B Singh (cbhans1960@gmail.com) and

Mr. Anand Kumar (anandkumarbsnl21@gmail.com)

Cc: Ms. Tanittta Virayavanich (tanitta.virayavanich@itu.int)

Before 14th October 2018

Please complete the form below using CAPITAL LETTERS

Name: (As per Passport)	TITLE	FIRST NAME		MIDDLE NAME	
	LAST NAME				
Date of Birth	DD / MM / YYYY		Gender	☐ MALE ☐ FEMALE	
Passport No. (If applicable)			Nationality		
Email ID					
Contact No.					
Name of the Organisation					
Accommodation Reservation	☐ JC Bose Hostel, ALTTC			☐ Hotel / Own Arrangement	
Date of Arrival	DD/MM/YYYY	Flight No.		Time	
Date of Departure	DD/MM/YYYY	Flight No.		Time	
Pick / Drop from Airport	Required			Not Required	