



ITU Centres of Excellence Network for Asia-Pacific

IoT Academy

Face-to-Face Training Course on

Building IoT Solutions for Energy and Water Resource Management

Tehran, Iran

30 November – 4 December 2019

COURSE OUTLINE

COURSE DESCRIPTION

Title	Building IoT Solutions for Energy and Water Resource Management
Objectives	This face-to-face training course aims to introduce participants to Internet of Things (IoT) concept, pillars, standards, trends, markets, architecture and IoT verticals related to energy and water. The training will take into account ITU work in the areas of IOT, Smart Cities and Communities. It will specifically focus on topics that address IoT usage for Supply Management, IoT Solutions for Energy and Water Resource Management.
Dates	30 Nov – 4 Dec 2019
Duration	5 Days
Registration deadline	5 November 2019
Training fees	USD 500
Course code	19WS24421ASP-E

LEARNING OUTCOMES

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

- IoT concept, trends, market, standards, pillars and architecture
- Internet of Things verticals related to energy and water
- IoT usage for supply management
- IoT solutions from energy resource management
- IoT solutions for water resource management
- ITU standards and programs in relation to IoT, Smart Cities and Communities

- Some case studies in verticals related to energy and water

TARGET POPULATION

The course is targeted at organizations, industries, IT professionals, ICT engineers, policy makers, regulators, service & solution providers and academia, who are interested in understanding the IoT solutions for energy and water resource management.

TUTORS/INSTRUCTORS

IoT Academy instructors and industry experts.

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%
Total Evaluation:	100%

IMPORTANT: A PASSING MARK OF 60% IS REQUIRED FOR OBTAINING A COMPLETION CERTIFICATE.

TRAINING SCHEDULE AND CONTENTS

Day1: Saturday, 30 Nov 2019

08:30	Reception 1h0'
09:30	Opening 30'
10:00	Group Photo and Coffee break 30'
10:30	Internet of Things concept, trends, standards and market 1h0'
11:30	Internet of Things architecture and pillars 1h0'
12:30	Lunch 1h0'
13:30	IoT verticals related to energy and water 2h0'
15:30	Coffee break 30'
16:00	IoT and smart agriculture 1h30'

Day2: Sunday, 1 Dec 2019

09:00	Implementation of IoT in agriculture industry 1h0'
10:00	Coffee break 30'
10:30	Smart agriculture with IoT – case study 2h0'
12:30	Lunch 1h0'
13:30	IoT usage for supply management 2h0'
15:30	Coffee break 30'
16:00	Implementation of IoT for supply management - Case Study 1h30'

Day3: Monday, 2 Dec 2019

09:00	IoT solutions for energy resource management 1h0'
10:00	Coffee break 30'
10:30	IoT and smart grid in smart city 2h0'
12:30	Lunch 1h0'
13:30	Implementation of IoT in smart city for energy management – case study 2h0'
15:30	Coffee break 30'
16:00	Smart city, security challenges & solutions 1h30'

Day4: Tuesday, 3 Dec 2019

09:00	Powering and solar energy 1h0'
10:00	Coffee break 30'
10:30	IoT and water management in agriculture 2h0'
12:30	Lunch 1h0'
13:30	IoT solutions for water resource management 2h0'
15:30	Coffee break 30'
16:00	Implementation of IoT for water resource management – Case Study 1h30'

Day5: Wednesday, 4 Dec 2019

09:00	Implementation of IoT for smart village – case study 1h0'
10:00	Coffee break 30'
10:30	Integrated IoT solutions for energy and water management 2h0'
12:30	Lunch 1h0'
13:30	Closing ceremony 1h0'
14:30	Industrial visit 3h30'

METHODOLOGY

The face-to-face program will include:

- Instructor-led presentations
- Case Studies
- Group Exercises
- Assignments
- Industrial Visit

COURSE COORDINATION

Mr. Ashish Narayan (ashish.narayan@itu.int) from the ITU and Mr. Naghizadeh (Edu@IoTAcademy.ir) from the IoT Academy, is at your full disposal should you require any additional information.

REGISTRATION AND PAYMENT

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>.

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/building-iot-solutions-energy-and-water-resource-management>

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

*Please note that online registration should be done **before 5 November 2019**.*

Payment

1. On-line payment

A training fee of USD 500 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/building-iot-solutions-energy-and-water-resource-management>.

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.

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 500
Payment Reference:	CoE-ASP 19WS24421ASP-E-P.40593.1.08

4. Other method of payment

For local participants, who would like to pay in local currency, please contact Mr. Naghizadeh (Edu@IoTAcademy.ir) the IoT Academy coordinator for further assistance.