Training course outline
ITU and IoT Academy

Title	Digital Transformation: Enhancing IoT-driven Solutions for Smart Islands
Modality	Online instructor-led
Dates	18-31 July 2022
Duration	14 Days
Registration deadline	17 July 2022
Training fees	USD 100
Description	Smart Islands is a Programme that adopts an innovative approach to deliver connectivity and scalable and sustainable services to disadvantaged island communities. The Smart Islands Programme aims at transforming rural and coastal communities and improving their well-being and livelihood by connecting them to a range of digitally enabled services. Considering the IoT and Blockchain solutions as key elements of digital transformation can help to achieve the goals of smart islands.
Code	2OI27817ASP-E

1.LEARNING OBJECTIVES

In this online training course, participants while identifying the concepts of digital transformation and its role in enhancing IoT solutions to emerging digital technologies will be familiar with IoT concepts, trends, and different verticals related to smart islands. Also, they will be identified IoT verticals such as smart grid, smart transportation, smart health, smart tourism and etc., and understand the infrastructure of the smart island. The concepts of security, blockchain, and smart industries will also be trained in this course.

2. LEARNING OUTCOMES

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

- comprehend the concept of “Digital Transformation” and its role in enhancing IoT-driven solutions to emerging digital technologies.
- identify different IoT concept, pillars, trend and the different IoT verticals related to smart islands;
- understand concepts, goals, and frameworks related to a smart island, including key aspects and KPIs required to develop a smart island;

- identify different IoT verticals for smart islands;
- identify big data solutions and strategies related to data analytics services for smart islands.
- review the various case studies in smart islands.

3. TARGET POPULATION

Governments, municipalities, organizations, industries, ICT experts, policymakers, regulators, service & solution providers and academia that are involved in the Internet of Things and related technologies to smart islands.

4. ENTRY REQUIREMENTS

Those interested in the field of digital transformation, and IoT-driven solutions for smart islands can participate in this training course.

5. TUTORS/INSTRUCTORS

Experts from the IoT Academy and the invited international experts.

6. TRAINING COURSE CONTENTS

Course Topics in a view	
The first week	
Week 1-1	Digital transformation concept: emerging digital technologies (IoT, AI, AR and etc.) and their role in transformation
Week 1-2	IoT concept, trend and verticals related to smart islands
Week 1-3	Smart islands infrastructure framework and KPIs
Week 1-4	Big data solutions and strategies such as open data and data analytics services for smart islands
Week 1-5	Security considerations for smart islands
Week 1-6	IIoT and Industrial developments in smart islands
The second week	
Week 2-1	Smart Island and its capability for smart agriculture
Week 2-2	The role of sustainable tourism in enhancing the smart islands
Week 2-3	Developing smart products and achieve sustainable Island through island digital ecosystem
Week 2-4	Smart grid, green energy and energy transition in the smart islands
Week 2-5	Applied use cases in the implementing smart islands – use case 1
Week 2-6	Applied use cases in the implementing smart islands – use case 2

7. TRAINING COURSE SCHEDULE

Week	Topic	Exercises and interactions
Week 1	**- Week 1-1** Digital transformation concept: emerging digital technologies (IoT, AI, AR and etc.) and their role in transformation **- Week 1-2** IoT concept, trend and verticals related to smart islands **- Week 1-3** Smart islands infrastructure framework and KPIs **- Week 1-4** Big data solutions and strategies such as open data and data analytics services for smart islands **- Week 1-5** Security considerations for smart islands **- Week 1-6** IIoT and Industrial developments in smart islands	**This week, each participant has to:** - Read of the PDF slides uploaded in the course page for week 1 - Post their questions or ideas to the discussion forum - Attend a live zoom session scheduled for Saturday on 14 May 2022 - 14:00hrs-15:00hrs (GMT+4.30) - Complete a self-test quiz 1 **Note:** Participants should pay attention to the course announcements they receive in their panel and email.
Week 2	**- Week 2-1** Smart Island and its capability for smart agriculture **- Week 2-2** The role of sustainable tourism in enhancing the smart islands **- Week 2-3** Developing smart products and achieve sustainable Island through island digital ecosystem **- Week 2-4** Smart grid, green energy and energy transition in the smart islands **- Week 2-5** Applied use cases in the implementing smart islands – use case 1 **- Week 2-6** Applied use cases in the implementing smart islands – use case 2	**This week, each participant has to:** - Read of the PDF slides uploaded in the course page for week 2 - Post their questions or ideas to the discussion forum - Attend a live zoom session scheduled for Saturday on 21 May 2022 - 14:00hrs-15:00hrs (GMT+4.30) - Upload an assignment in the course panel that considered by the tutors - Complete a self-test quiz 2 **Note:** Participants should pay attention to the course announcements they receive in their panel and email.

8. METHODOLOGY (Didactic approach)

Course Materials: The relevant course material will be made available on the website.
Online Discussion Forums: Participants are expected to participate actively in discussion forums on selected topics throughout the week.
Chat Sessions: Online chat sessions with the tutors will take place Saturday on 14 May 2022 and Saturday on 21 May 2022 from 14:00– 15:00 Hrs. Iran Time (GMT+4.30). All participants are expected to join the chat sessions as they will be graded.
Quizzes: Two mandatory online quiz will be held at the end of each week.
Assignment: There will be a mandatory assignment for the course.

9. EVALUATION AND GRADING

Besides the tests 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. The evaluation details and criteria for certificates is as follows.

Quiz #1:	30%
Quiz #2	30%
Individual Assignment:	20%
2 Chat Sessions (5% per session)	10%
2 Discussion Forum (5% per forum)	10%
Total Evaluation:	**100%**

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

10. TRAINING COURSE COORDINATION

Course coordinator:	**ITU coordinator:**
Name: Mr. Hamid Naghizadeh Email address: edu@iotaci.com	Name: Mr. Sean Doral Email address: sean.doral@itu.int