IREEDER NEWSLETTER



In the issue of IREEDER Newsletter, recent activities of IREEDER projects will be explored. Mainly, the e-learning modules that have been developed by IREEDER team will be reported. Also, the training activities conducted in the recent period will be explored with some statisiics.

e-learning Modules

IREEDER project has developed three e-learning modules for the developed teaching materials within the framework of the project. The modules have been built based on Google Classroom platform. In the following, we explore the three e-learning modules.

CS e-learning Module

The CS e-learning course presents the fundamental concepts in cybersecurity in order to understand the basic techniques for optimizing security on personal computers and small networks, and to learn how to design and code secure applications. CS e-learning course contains 13 chapters and a quiz for each chapter.

- Chapter 1: Security and Risk Management
- Chapter 2: Security Engineering. Indroduction
- Chapter 3: Security Engineering. Cryptography & Key Management
- Chapter 4: Security Engineering. Cryptography Services
- Chapter 5: Communications & Network Security. Introduction
- Chapter 6: Communications & Network Security. Securing network
- Chapter 7: Communication & Network Security. Securing communication channels

- Chapter 8: Security Operations. Logging & Monitoring & Access Control
- Chapter 9: Security Operations. Intrusion detection & Prevention
- Chapter 10: Security Operations_Recovery & Incident Response
- Chapter 11: Security Assessment and Testing
- Chapter 12: Software Development Security
- Chapter 13: Impact of new technologies on cybersecurity

Link to access the CS e-learning course:

https://classroom.google.com/u/1/c/MzYxOTg2MzA5MjU2



IoT e-learning Module

The IoT e-learning course aims to introduce the fundamental principles and architecture of IoT, and to discuss, examine and evaluate the key technology components on which IoT is based. Other objectives are to learn how to design, code and build IoT solutions in a practical way

and to review key IoT technology applications. IoT e-learning course contains 13 chapters and a quiz for each chapter.

- Chapter 1: Introduction to IoT
- Chapter 2: Revision of Basic Programming and IoT IDE
- Chapter 3: Software Development for IoT Embedded Systems
- Chapter 4: IoT architecture and components (1 of 2)
- Chapter 5: IoT architecture and components (2 of 2)
- Chapter 6: IoT Microcontrollers, Sensors for Data Acquisition and Actuators
- Chapter 7: IoT Connectivity Technologies
- Chapter 8: IoT Connectivity Protocols
- Chapter 9: Data Storage and Cloud Systems
- Chapter 10: Data Analytics and Applications
- Chapter 11: IoT Security and security standards
- Chapter 12: Ethics in IoT Networks and Applications
- Chapter 13: Key-Enabling Technologies and Applications in IoT

<u>Link to access the IoT e-learning course:</u>

https://classroom.google.com/c/NTEzOTQ1MjIwMjAw?cjc=cn2zjsy



RE e-learning Module

The RE e-learning course aims to present the fundamental principles and architecture of renewable energy systems as well as to discuss, examine and evaluate the key technological components of renewable energies. Another objective is to review the main technological



Co-funded by the Erasmus+ Programme of the European Union applications of renewable energies. RE e-learning course contains 13 chapters and a quiz for each chapter.

- Chapter 1: Introduction and Overview of Renewable Energy Resources (1/2)
- Chapter 2: Introduction and Overview of Renewable Energy Resources (2/2)
- Chapter 3: Physics of sunlight and photovoltaics
- *Chapter* 4: Photovoltaic system components
- Chapter 5: Photovoltaic system calculation and aspects
- Chapter 6: Solar thermal systems
- Chapter 7: Wind Energy Fundamentals
- Chapter 8: Wind Turbines operation and Control (1/2)
- Chapter 9: Wind Turbines operation and Control
- *Chapter 10*: Energy storage (1/2)
- Chapter 11: Energy storage (2/2)
- *Chapter* 12: OFF-grid/ Stand-alone systems
- Chapter 13: Integrating of Renewable Energy into electrical grid (Challenges, Solutions and Grid Code)

Link to access the RE e-learning course:

https://classroom.google.com/c/NTExMzcwOTcyMTEz?cjc=5p5jm23

Training Workshops at Partners' Students

Within the framework of the project, IREEDER partner has held 13 training workshops for the students of the partners institutions in the three IREEDER topics. A total of 250 students have attended these training workshops, among them 50 are famel students.

In the following, we show some statistics and photos of the conducted training workshops at the partners.



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RE Training Workshop at TTU 23/5/2022



RE Training Workshop at AHU 20/07/2022



RE Training Workshop at PU 2/8/2022



RE Training Workshop at MU 17/8/2022





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RE Training Workshop at IU 18/9/2022



IoT Training Workshop at PU 1/8/2022



IoT Training Workshop at MU 16/8/2022



IoT Training Workshop at AHU 5/9/2022



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CSTraining Workshop at IU 20/9/2022



Training workshops Outside **Partners**

IREEDER has been able to held several training workshops for target groups outside the project partnership, aiming at widening the impact of the project to reach several target groups. These training wworkshops have been held in collaboration with the Jordan Engineers Association (JEA) in its different branches distributed in the cities of Jordan.

In the following, we show some statistics and photos of the conducted training workshops.



RE Training Workshop MVC-Maan (7/12/2021)



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JEA-Aqaba (29/9/2022)



IoT Training Workshop JEA-Aqaba (28/9/2022)



IoT Training Workshop JEA -Maan (8/9/2022)



CS Training Workshop JEA -Maan (15/9/2022)





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RE Training Workshop



RE Training Workshop JEA-Tafila (4/9/2022)

RE Training Workshop JEA-Maan (5/9/2022)



RE Training Workshop JEA-Karak (17/9/2022)



RE Training Workshop JEA-Amman (15/10/2022)



CS Training Workshop JEA-Aqaba (27/9/2022)



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Contact us

ireeder@ahu.edu.jo



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