



**IREEDER**  
Introducing Recent Electrical Engineering Developments into undergraduate curriculum

**IREEDER NEWSLETTER**  
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## IREEDER Training Workshops

One of the ultimate goals of IREEDER is to empower the skills of the staff of the Jordanian universities in the field of Renewable Energy (RE), Internet of Things (IoT), and Cyber Security (CS), where the teaching.

IREEDER Consortium finalized the preparation of the teaching materials and the training of the Jordanian academic staff taken place from June to November 2021. This training has been done by EU partners and later by Jordanian partners. For each course, a training workshop was assigned online or in face-to-face mode. The trained staffs were prepared to train on the IREEDER courses for other staff in Jordanian Universities from Al-Hussein Bin Talal University, Mutah University, Tafila Technical University, Isra University, and Philadelphia University.

A total of 9 training workshops have been conducted from June 2021 to June 2022. Three of these workshops were organized by EU partners, while the rest were organized by the Jordanian staff who already trained in the EU workshops.

In this issue of IREEDER Newsletter, we explore the training workshops held within the IREEDER project framework.

### IoT Training By UCLAN

An IoT training course was organized by University of Central Lancashire (UCLAN), Cyprus to train academic staff from the Jordanian partners. The training has been done online for five days (17-28 June 2022); each day covers a part of the teaching materials of the IoT course. On each day, different presenters from the EU partners introduced the topics for 8 hours a day. The 13 topics of the IoT course are explained in detail in order to enable the trainers to teach and train the course for students and other target groups in Jordan.



Trainees from AHU, MU, TTU, IU, and PU have participated in the training workshop. The

training was started by a welcoming message from the project coordinator, then the schedule and the rules of the training are explained by the course leader Dr. Marios from UCLAN. At the end of training, certifications of the participations are signed by UCLAN and distributed among the participants.

### CS Training By Vigo

During 20-30 September 2021, an online training workshop for CS has been done in 10 days. The training is assigned to the academic staff from Jordanian Universities. The University of Vigo was the organizer of the training workshop, where the 13 chapters of the CS course are explained to the audience. 33 participants are academic staff and they participate for 5 hours a day.



Dr. Felipe, from UVigo, started the training workshop and explained the schedule and the rules of attending the workshop. A team from the EU partners participated in the training where they are experts in the field of CS. Certifications of participation are distributed among the trainees.

## RE Training By UPAT

During 22-26 November 2021, the RE training workshop was conducted at the University of Patras (UPAT), Greece. The training workshop was focused on the teaching materials of the RE course. 20 trainees from the Jordanian partners participated in the training workshop. Prof. Andreas, UPAT, organized the workshop where the topics of each day and the speakers for each topic are assigned and the workshop agenda was distributed among the participants. An introduction about IREEDER was presented by Dr. Saud Althunibat, and then the training was started by Dr. Andreas.



During the five days of training, different expert speakers in RE were introduced different topics of RE course. In addition, a brief about RE lab at MU was introduced by Dr. Ziyad Altarawneh.

## IoT Training Workshop at AHU

During 14-15 February 2022, an IoT training workshop was held at Al-Hussein bin Talal University. The training workshop was focusing on covering IoT course topics for 13 technicians from Jordanian partners, Mutah University, Tafila Technical University, Isra University, and Philadelphia University. At the beginning, a brief about IREEDER project was introduced by Dr. Saud Althunibat. Then, a presentation about IoT course materials and lab was introduced by Dr. Moath Alsafafseh.



The Training has been done by speakers who are trained by EU partners on the IoT courses. The training was divided into two parts; the first part was theoretical where the IoT topics are explained depending on the contents of the IoT course that has been developed by IREEDER. The second part was practical, where 6 experiments have been explained and covered for the trainers. The remote access to the IoT lab at AHU was explained to the trainees which enables them to get remote access for the students from their universities to the IoT lab and make the experiments remotely.

Engineer Yusra Alsarairah, from Mutah University, said that the topics of the IoT course are state of the art and they are very helpful to prepare the students for the labor market. Engineer Samer Sartawi, from Philadelphia University, expressed that the IoT has recent microcontrollers and platforms which enable their students to practice more IoT concepts. At the end of two days of training, certificates of participation are delivered to the trainees.

## RE Training Workshop at MU

A training workshop about RE was held during 22-23 February 2022 at Mutah University. 12 trainees from Jordanian universities participated in the workshop. This workshop covers the topics of RE that are designed by IREEDER in the RE course. In addition, the workshop covers the experiments that can be done using the RE lab at MU.



The workshop started with a presentation about the IREEDER by the project coordinator, Dr. Saud Althunibat. The trainers cover the main topics of the RE course to the audience where the theoretical part is explained, then a set of experiments have been done in the RE lab where the remote access was explained to the technicians.

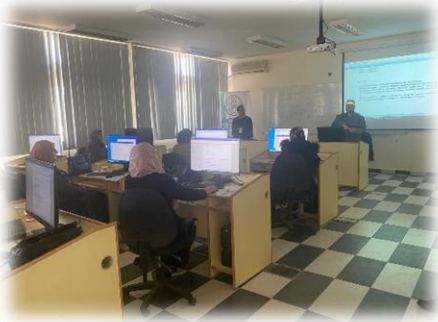


Engineer Mohammad Alarni, from TTU, mentioned that the RE course materials are very rich which cover all the concepts that to be in the hand of the students. Engineer Suhaib Almaasfeh, from AHU, said the RE lab has powerful equipment which able the students to simulate the operations of the RE systems.

## CS Training Workshop at TTU

At Tafila Technical University, a CS training workshop was held during 2-3 March 2022. The goal of the training workshop is to empower

the skills of the technicians in the Jordanian university if in the field of the CS. The training was focused on the teaching materials that have been done by IREEDER for the CS course. Dr. Ahmad Aljaafreh, the co nctact person of IREEDER at TTU, started the



training by welcome a message to the audience, then a presentation about IREEDER was introduced by Dr. Moath Alsafseh. The training was done in two modes; the first one was theoretically where the main topics of CS are covered. Then practical sessions were assigned to the trainers to enable them to use the installed platforms in the CS lab at TTU.



The training has been done for 12 technicians from Jordanian partners. Engineer Samiha Alfalahat mentioned that the used platforms in the CS lab are powerful and they can provide a solid stage for the students to improve their skills in CS. Engineer Taghred Altarawneh said that the CS course covers all the concepts of CS and it connects the concepts with the state of the art in the CS field.

### RE Training Workshop at Maan Vocational Center

Dr Ahmad Salah from IREEDER Team at Al-Hussein Bin Talal University has conducted a workshop in Renewable Energy to attendees from Ma'an Vocational Training Center in 7 December 2021 as a part of IREEDER training and dissemination activities. The attendees

have been invited for next training workshops to gain more skills in the field of renewable energy.



### RE Training Workshop at TTU

On 23 May 2022, IREEDER team in Tafila Technical University led by Dr Ahmad Aljaafreh, Dr Eyad Maitah and Dr Jumana Shawawreh, has held a Training workshop in Renewable Energy for the students in their university as a part of IREEDER activities.



### CS Training Workshop at TTU in cooperation with JEA

As a main objective of IREEDER project is to widen the impact of the project to include target groups outside the project partnership, TTU has held a training workshop on 6 June 2022 in Cyber security in cooperation with the Jordanian Engineers Association (JEA) at Tafila. The main objective of the training was to train fresh engineers on the basic skills required at the Cyber security job market.



IREEDER website:

<http://ireeder.ahu.edu.jo/>

Contact us

[ireeder@ahu.edu.jo](mailto:ireeder@ahu.edu.jo)