

At KFUPM, various aspects of sustainability are addressed in academic courses. These courses are offered to our enrolled students. However, to reach a wider community, the university has established various social and environmental sustainability courses to be delivered to students, faculty, staff and the outside community. This report will highlight the previous year's training courses.

## **Social Sustainability Courses:**

When it comes to social sustainability and developing the nonprofit sector in the community KFUPM's [Al-Fozan Academy](#) is a pioneer in the region. The academy developed many training programs to equip students, staff, and the community with the necessary social sustainability aspects and nonprofit management skills. The following are some of the programs offered last year by KFUPM's Al-Fozan Academy:

- 1- [Raed Program](#): Raed Program provides the youth of the Kingdom, male and female, with important concepts and knowledge in the field of non-profit work and community service and gives them an overview of the reality of volunteer work in the Kingdom of Saudi Arabia and what's to come. The program targets higher education students. The program is divided into three main levels (Basic Raed (3 hours), Advanced Raed (20 hours), and Professional Raed (3 hours)). In 2025, 5,374 trainees were enrolled in Basic Raed, 1,065 trainees were enrolled in Professional Raed and 88 were enrolled in Advanced Raed. This amounted to **43,230 training hours**.
- 2- [Rasheed Leaders Program](#): Equips leaders in the education sector with essential skills for organizing and institutionalizing school volunteer work according to a national standard approved by the concerned authorities to increase the efficiency and sustainability of volunteer efforts associated with the Kingdom's schools. In 2026, 9,940 trainees were enrolled. This amounted to **82,903 training hours**.

## **Environmental Sustainability Courses:**

The university holds frequent training sessions about environmental sustainability. These sessions are offered throughout the year and to the whole community. Faculty, staff, and students are eligible to enroll, in addition, the environmental courses are open to the public. Some examples of these courses are:

1. Fundamentals of Solar Energy Utilization
2. Sustainable Hydrogen Technologies
3. Energy Optimization for Sustainable Development



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals



مركز أبحاث نظم الطاقة المستدامة  
INTERDISCIPLINARY RESEARCH CENTER for  
Sustainable Energy Systems



National Industrial  
Development and  
Logistics Program

# SHORT COURSE ON FUNDAMENTALS OF SOLAR ENERGY UTILIZATION

26<sup>th</sup> - 28<sup>th</sup> January 2025



## SUBJECT MATTER EXPERTS



### Dr. Muhammad Khalid

Assoc. Prof. at Department of  
Electrical Engineering, and  
Affiliate of the Interdisciplinary  
Research Center for Sustainable  
Energy Systems, KFUPM



### Dr. Hafiz Muhammad Ali

Assoc. Prof. Department of  
Mechanical Engineering, and  
Affiliate of the  
Interdisciplinary Research  
Center for Sustainable  
Energy Systems, KFUPM.



### Dr. Shafiqur Rehman

Research Engineer II,  
Interdisciplinary Research  
Center for Sustainable Energy  
Systems, KFUPM



### Dr. Ridha Ben Mansour

Research Engineer III,  
Interdisciplinary Research  
Center for Sustainable Energy  
Systems, KFUPM

## Course Outline/Topics

- Solar Energy Fundamentals, Technologies, and Real-World Applications
- Photovoltaic thermal management: Active and Passive Methods
- Renewable Energy Solutions for Water Desalination Applications
- Basic Meteorology, Measurements, and Solar Energy Applications

SCAN ME!



Note: The short course includes hands-on  
exposure through a visit to the Solar  
Energy Thermal Laboratory.

Short course is only for Undergraduate  
students free of charged.

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Development and  
Logistics Program



INTERDISCIPLINARY RESEARCH CENTER for  
Hydrogen Technologies  
and Carbon Management

## SHORT COURSE ON SUSTAINABLE HYDROGEN TECHNOLOGIES

26<sup>th</sup> - 28<sup>th</sup> January 2025



التعليم المستمر  
Continuing Education



### SUBJECT MATTER EXPERTS



#### Dr. Zain Hassan Yamani

Professor of Physics - Director,  
Center for Hydrogen Technologies  
and Carbon Management  
(IRC-HTCM) – King Fahd university  
of Petroleum & Minerals, KFUPM



#### Dr. Tarek Kandiel

Associate Professor, Chemistry  
Department, IRC for Hydrogen  
Technologies and Carbon  
Management (HTCM), KFUPM.



#### Dr. Mohamad Shamsuddin Qamar

Associate Professor, Material Sciences  
& Engineering Dept. Department, IRC  
for Hydrogen Technologies and Carbon  
Management (HTCM), KFUPM



#### Prof. Sulaiman Alturaiifi

Assistant professor of Mechanical  
Engineering – King Fahd university  
of Petroleum & Minerals, IRC for  
Hydrogen Technologies and  
Carbon Management (HTCM),  
KFUPM

### Course Outline/Topics

- An introduction to Hydrogen Economy
- The Role of Hydrogen in Decarbonizing Industrial Sectors
- Green Hydrogen Technologies for a Carbon-Free Future
- Laser-based sensor for energy systems and industrial

SCAN ME!



Note: The short course includes an exciting  
visit to the Air Products Company.  
Short course is only for Undergraduate students  
free of charged.

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Sustainable Energy Systems

National Industrial  
Development and  
Logistics Program

# SHORT COURSE ON ENERGY OPTIMIZATION FOR SUSTAINABLE DEVELOPMENT

26<sup>th</sup> - 28<sup>th</sup> January 2025



## SUBJECT MATTER EXPERTS



**Dr. Atif Saeed AlZahrani**  
Assistant Professor, Director of  
IRC for Sustainable Energy  
Systems (IRC-SES)



**Eng. Mohammad Al  
Wathaifi**  
P.Eng, CEM, LEED AP  
BD+C, Saudi Aramco



**Dr. Binash Imteyaz**  
Research Engineer III,  
Interdisciplinary Research  
Center for Sustainable Energy  
Systems (IRC-SES), KFUPM



**Eng. Meer Abdul Mateen Khan**  
Engineer, Interdisciplinary  
Research Center for Sustainable  
Energy Systems (IRC-SES),  
KFUPM

## Course Outline/Topics

- Energy Efficiency, Energy Management, and Initiatives in the Building Sector
- Performance Standards and Energy Simulation Assessed Design
- Introduction to Energy Audit and Assessments
- Building Energy Simulation with eQUEST: An Introduction

SCAN ME!



Note: The short course includes hands-on exposure through an Energy Auditing Visit to a Plant Site.

Short course is only for Undergraduate students free of charged.

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