Joint Research Center of **Excellence in Energy Efficiency**



The vision of the Joint Research Center of Excellence in Energy Efficiency (JRC-EEE) is to help buildings, industries and cities become smarter and more energy efficient, and save money by prioritizing the introduction of innovative and new energy solutions, and above all, make Saudi Arabia's vision 2030 a reality.

The Center's mission is to support and advance innovative solutions and economically viable technologies that improve the effectiveness and efficiency of building operations and industrial facilities, and encourage energy efficiency in residential, commercial, and industrial sectors









Dr. Fahad A. Al-Sulaiman IRC-EEE Director



Dr. Fahad A. Al-Sulaiman is the Director of Center of Excellence in Energy Efficiency (CEEE) as well as the Director of Interdisciplinary Research Center for Renewable Energy and Power Systems (IRS-REPS).

Education:

- (2001) BSc. in Mechanical Engineering, KFUPM.
- (2003) MSc in Mechanical Engineering, KFUPM.
- (2010) Ph.D. in Mechanical Engineering with specialty in Energy, University of Waterloo, Canada.
- (2012) Post-Doctoral in Clean Water and Clean Energy, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA.

Experience:

- (2021-Present) Director of IRC-REPS KFUPM.
- (2020-Present) Director of the Office of Cooperation with KACARE.
- (2016-Present) Director of JRC-EEE.
- (2020-2022) Vice President- Association of Energy Engineers, Saudi Chapter.
- (2019 & 2002 (summer) Visiting Consultant at Aramco.
- (2017) Visiting Professor, Oxford University, United Kingdom.

Number of patents: 12 US patents. Number of research papers in peer-reviewed journals: 122+.

The Center of Excellence in Energy Efficiency (CEEE) at King Fahd University of Petroleum and Minerals (KFUPM) was established in October 2016 with the primary objective of improving energy efficiency in Saudi Arabia and the Middle East region. The CEEE was established with support from the Saudi Energy Efficiency Program (SEEP) in response to Saudi Arabia's Vision 2030. The center's aim is to contribute towards sustainable development by focusing on energy efficiency and renewable energy solutions, as well as promoting advanced energy technologies and techniques throughout the country. CEEE aspires to be an interdisciplinary research institute dedicated towards energy efficiency improvement.

The sectors that CEEE aims to target include:

- Energy Productivity for Public and Private Stakeholders.
- Energy consumption improvement for manufacturing facilities and plants.
- Utilities (Electricity and Water).
- Buildings, Industries, Transportations, and Agriculture, and Other Sectors.
- Education, Training and Consultation.

CEEE seeks to tackle the following challenges:

- The assessment of energy consumption practices and conservation opportunities for industrial clients.
- Achievement influenced by economic activity and structural change.
- Energy consumption reduction as per unit of activity and relative to a base year, projection, or benchmark. (Such as GDP)
- Encouraging Policy Progress.