



Email: alsharafi@kfupm.edu.sa

Contact: +966-590580367

Dr. Abdullah Al-Sharafi

Assistant Professor

Mechanical Engineering Department

Interdisciplinary Research Center for Renewable Energy and Power Systems (IRC-REPS)

King Fahd University of Petroleum & Minerals, Saudi Arabia

Executive Summary:

Sustainable utilization of renewable energy resources becomes vital for future energy sector in the Kingdom. Therefore, my research interests extends to include optimization of hybrid solar and wind renewable energy systems, self-cleaning processes in relation to solar energy applications, thermoelectric generators for waste heat recovery, and advancement in mechanical engineering applications. The outcomes include more than 80 papers published in ISI reputable journals and a coauthored book published by Elsevier in relation to self-cleaning applications for solar energy harvesting devices. Moreover, I contributed in training undergraduate and graduate students, new courses development as well as program quality assurance and ABET Accreditation.

Education:

- ❑ Post Doctorate Fellow, ME, KFUPM, KSA, 2018.
- ❑ Ph.D., ME, KFUPM, KSA, 2016.
- ❑ M.Sc., ME, ME, KFUPM, KSA, 2011.
- ❑ B.Sc. ME, Sana'a University, Yemen. 2003.

Distinguished Projects

- ❑ Project title "Droplet Sliding/Rolling on Replicated Micro-Post Array Surfaces: Thermal Analysis in Relation to Droplet Transport" High Quality/Impact Research Publication Initiative. Funded by Ministry of Education, Riyadh, Saudi Arabia, Role: PI.
- ❑ Project title "Solar and Wind Renewable Energy Potential Assessment and Pertinent Systems Optimization" Funded By King Abdullah City for Atomic and Renewable Energy, Riyadh, Saudi Arabia, Role: PI.
- ❑ Project title "Investigation and Improvement of Some Properties of Thermoplastic-Lined Tubing for downhole Applications" Funded By Saudi Aramco, Dhahran, Saudi Arabia, Role: Co-PI.
- ❑ Project title "Self-Cleaning of Surfaces and Water Droplet Mobility" Book writing project Funded By DSR-KFUPM, Dhahran, Saudi Arabia, Role: Co-PI.
- ❑ Project title "Solar Volumetric Receiver with the Presence of Thermoelectric Generator" Funded By DSR-KFUPM, Dhahran, Saudi Arabia, Role: Co-PI.
- ❑ Project title "Environmental Dust Removal from Hydrophobic Surfaces Relevant to self-cleaning" Funded By DSR-KFUPM, Dhahran, Saudi Arabia, Role: Co-PI.

Research Summary

- ❑ Number of Published Papers: 86
- ❑ Book: 1
- ❑ Citations : 1000
- ❑ H-Index : 19
- ❑ Book Chapters: 9
- ❑ Article Reviewed (Elsevier, Springer, Wiley): >50

Award and Recognitions

- ❑ Received King Abdullah City for Atomic and Renewable Energy Research Fellowship award for the Academic Year 2018-2019.
- ❑ Received King Abdullah City for Atomic and Renewable Energy Research Fellowship award for the Academic Year 2019-2020.

Skills and Expertise

- ❑ Computational Fluid Dynamics – Multi-physics Modeling;
- ❑ Optimization of Renewable Energy Systems.
- ❑ Sizing of Hybrid Renewable Energy Systems Using Overall Performance Index;
- ❑ Self-cleaning applications in relation to solar energy harvesting devices.