Jalal A. Assadeg

Lecturer and Researcher

Profile

Jalal A. Assadeg received his Bachelor's degree (B.Sc.) in Energy Engineering from the College of Engineering Technology-Hoon (Libya) in 2006. He earned his Master's degree (M.Eng.) from Universiti Kebangsaan Malaysia in 2009. In 2012, he joined as an assistant lecturer at the Engineering faculty, Sebha University till 2014. In 2023, he successfully completed his PhD in renewable energy at the Solar Energy Research Institute (SERI), Universiti Kebangsaan Malaysia (UKM). In 2024, he joined as lecturer at the Engineering faculty, Sebha University, where he continues to serve to this day.

Employment History

Lecturer at Sebha University, Sebha, Libya
October 2024 — Present (Full time)

Assistant Lecturer at Sebha University, Sebha, Libya
January 2012 — June 2023 (Full time)

Assistant Lecturer at Higher Inst. of comprehensive career, Ubari, Libya
January 2010 — January 2012 (Part time)

Software Engineer at Al-Awael Center, Ubari, Libya
August 2006 — Present (Part time)

Education

Doctor of Philosophy (Renewable Energy), Universiti Kebangsaan Malaysia, Bangi, Malaysia
January 2018 — May 2023

Dissertation PhD [Double-Pass Solar Air Heater with Staggered Fins Absorber and Nano-PCM Integrated Storage System]

Master of Engineering (Energy Engineering), Universiti Kebangsaan Malaysia, Bangi, Malaysia
July 2008 — June 2009

Dissertation M.Eng. [Evaluation of Water Vapour Thickness on Solar Radiation Budget]

Bachelor of Science (Energy Engineering), College of Engineering Technology Hoon, Hoon, Libya
September 2001 — May 2006

Dissertation B.Sc [Grid Connected Renewable Energy Fired Power Plant]

Details

Ubari, Libya.
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+218911276249
Jassadeg@gmail.com

Date / Place of birth

14-May-1984
Libya

Links

ResearchGate
Google Scholar
LinkedIn

Programming Skills

- Visual Basic Pro.
- Visual C++ Pro.
- MATLAB Pro
- Python Pro.

Languages

- Arabic
- English
- Malay

In-class courses (teaching)

(1). Solar Energy Systems
(2). Power Plant Engineering
(3). Engineering Mathematics
(4). Visual Basic Skills
(5). Numerical Methods
(6). Statistics & probabilities
(7). Visual C++ Skills
(8). Engineering Mechanics I & II
(9). Physics I & II
(10). Visual programming I & II
(11). Python Pro.
(12). Advanced Numerical Analysis
(13). Engineering Drawing I & II
(14). Mechanical Drawing I & II
(15). Strength of Materials I & II
(16). Power Plant Engineering
(17). Object-Oriented Pro. I & II
(18). Statistics & Probability

Certifications

- **Assadeg, J**., Sopian, K. & Fudholi, A. 2022. Thermal Performance of Finned Double-Pass Solar Air Collector Integrated with Nanoparticle Enhanced PCM Tubular Storage System. *10th Colloquium 2022*. Universiti Kebangassaan Malaysia, UKM.
- **Assadeg, J**., Sopian, K. & Fudholi, A. 2021. Parametric Studies of Double Pass Solar Air collector with Fins and Phase Change Material (PCM). *9th Colloquium 2021*. Universiti Kebangassaan Malaysia, UKM.
- Advanced MATLAB course contains as following (**I**). Numerical Computation. **(II)**. Simulink. (**III**). Graphic User Interface. (**IV**). Analysis of Mechanical Eng. Signals. on 7-8th March 2019, Universiti Kebangassaan Malaysia, UKM.
- A short course is entitled Advanced Course on Finite Element Method (FEM) for Engineering Applications, University Teknology Malaysia, Malaysia, 10th-15th April 2018.

Recent Publications

- **Assadeg, J.**, Sopian, K., Ibrahim, A., Fudholi, A. & Alwaeli, A. H. 2023. Thermal and Thermo-hydraulic Performance of Finned Double-Pass Solar Air Collector Utilizing Cylindrical Capsules Nano-Enhanced PCM. *International Journal of Renewable Energy Research*. (Accepted).
- **Assadeg, J.**, Al-Waeli, A. H. A., Fudholi, A. & Sopian, K. 2021. Energetic and Exergetic Analysis of a New Double Pass Solar Air Collector with Fins and Phase Change Material. *Solar Energy* 226(260-271).
- **Assadeg, J.**, Alwaeli, A. H., Sopian, K., Moria, H., Hamid, A. & Fudholi, A. 2020. Solar Assisted Heat Pump System for High Quality Drying Applications: A Critical Review. *International Journal of Renewable Energy Research* 10(1): 303-316.
- Abd Hamid, A. S., Ibrahim, A., **Assadeg, J.**, Ahmad, E. Z. & Sopian, K. 2020. Techno-Economic Analysis of a Hybrid Solar Dryer with a Vacuum Tube Collector for Hibiscus Cannabinus L Fibre. *International Journal of Renewable Energy Research (IJRER),* 10(4): 1608-1613.
- **Assadeg, J.**, Sopian, K. & Fudholi, A. 2019. Performance of Grid- Connected Solar Photovoltaic Power Plants in the Middle East and North Africa. International *Journal of Electrical and Computer Engineering* 9(5): 3375.

Patent & Awards

- Sopian, K., Ibrahim, A. & **Assadeg, J**. 2023. Double Pass Solar Air Heater with Discontinuous Fins Absorber and Nano Particle-Enhanced PCM Integrated Storage System (**SOLAR COLLECTOR APPARATUS: PI 2023006159**).

References

- **Prof. Dato' Ts. Dr. Kamaruzzaman Sopian from Universiti Teknologi PETRONAS (UTP)**

  ksopian@utp.edu.my · +60 19-337 5785

- **Prof. Dr. Mohammad Alghoul from King Fahd University of Petroleum and Minerals (KFUPM)**

  Mohammad.alghoul@kfupm.edu.sa · +966 592107773

- **Assoc. Prof. Dr. Adnan Ibrahim from Universiti Kebangsaan Malaysia (UKM)**

  iadnan@ukm.edu.my · +60 19-673 1254

- **Assoc. Prof. Dr. Ahmad Fudholi from Universiti Kebangsaan Malaysia (UKM)**

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