

# Wahib Owhaib, PhD

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## PROFILE

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Dr Wahib Owhaib received his PhD in 2007 from the Royal Institute of Technology, Stockholm, Sweden, in Energy Technology - Heat Transfer. Dr Owhaib is an assistant professor of mechanical engineering with proven academic and industrial experience. He has designed, delivered, and evaluated engineering courses at the German Jordanian University.

He has a comprehensive background with over 25 years of experience, including projects in the Middle East in the Oil & Gas industry, Refineries, Utilities, and Static Equipment Design. He was exposed to a multicultural work environment and worked with people of different backgrounds.

He has extensive research and development experience in heat exchangers and energy efficiency. He has published more than 30 articles in well-recognized journals and conference proceedings. He has been invited as a reviewer to ASME Heat Transfer conferences as an expert in microchannel heat transfer.

## PUBLICATIONS

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### Technical Journal Papers

- Nimer Murshid, Hasan Mulki, Mahmoud Abu-Samha, **Wahib Owhaib**, S Suresh Kumar Raju, Chakravarthula SK Raju, Macherla JayachandraBabu, Raad Z Homod, Wael Al-Kouz, *Entropy Generation and Statistical Analysis of MHD Hybrid Nanofluid Unsteady Squeezing Flow between Two Parallel Rotating Plates with Activation Energy*, *Nanomaterials*, 12 (14), 2381, 2022.
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- Al-Kouz Wael, **Owhaib Wahib**, *Numerical analysis of Casson nanofluid three-dimensional flow over a rotating frame exposed to a prescribed heat flux with viscous heating*, *Nature, Scientific Reports* 12, 4256, 2022.
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- Alkhalidi Ammar, Kiwan Suhil, Al-Kouz Wael, **Owhaib Wahib**, Alshare Aiman, *Rarefied flow and heat transfer characteristics of rectangular cavities with a heated concave surface*, *Advances in Mechanical Engineering* 11(7) 1-14, 2019.
- Al-Kouz Wael, Ahmad Al-Muhtady, **Owhaib Wahib**, Sameer Al-Dahidi, Montasir Hader, Rama Abu-Alghanam, *Entropy generation optimization for rarified nanofluid flow in a square cavity with two fins at the hot wall*, *Entropy*, 21(2), 103, 2019.
- Al-Kouz Wael, Al-Waked Rafat, Sari Maen, **Owhaib Wahib**, Atieh Anas, *Numerical study of heat transfer enhancement in the entrance region for low-pressure gaseous laminar pipe flows using Al<sub>2</sub>O<sub>3</sub>-air nanofluid*, *Advances in Mechanical engineering journal* 10 (7) 1-11, 2018.

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- **Owhaib Wahib**, Palm Björn, and Martín-Callizo Claudi, *A visualization study of bubble behavior in saturated flow boiling through a vertical mini-tube*, Heat Transfer Engineering Journal 28, 852-860, 2007.
- Martín-Callizo Claudi, Palm Björn, and **Owhaib Wahib.**, *Subcooled flow boiling of R134a in a vertical channel of small diameter*, International Journal of Multiphase Flow 33, 822-832, 2007.
- **Owhaib Wahib**, Palm Björn, and Martín-Callizo Claudi, *Flow boiling visualization in a vertical circular Minichannel at high vapor quality*, Experimental Thermal and Fluid Science 30, 755-763, 2006.
- **Owhaib Wahib**, Martín-Callizo Claudi, and Palm Björn, *Evaporative heat transfer in vertical circular Microchannels*, Applied Thermal Engineering 24, 1241-1253, 2004.
- **Owhaib Wahib** and Palm Björn, *Experimental investigation of single-phase convective heat transfer in circular Microchannels*. Experimental Thermal and Fluid Science 28, 105-110, 2004.

### Technical Conference Papers

- **Wahib Owhaib**, Alberto Boret, Ammar AlKhaldi, Wael Al-Kouz, Montasir Hader, *Design of solar PV plant for Ma'an, Jordan*, The 6th International Conference on Energy and Environmental Science (ICEES2022), IOP Conference Series: Earth and Environmental Science 1008 (1), 012012, Kuala Lumpur, Malaysia, 7-9 January 2022.
- **Wahib Owhaib**, Yousef Qanadah, Hamza Al-Ajal, Ahmad Tuffaha, Wael Al-Kouz, *Photovoltaic Panel Efficiency Improvement by using Direct Water Passive Cooling with Clay Pot*, 12th International Renewable Engineering Conference (IREC2021), IEEE, 1-4, Amman Jordan, 14-15 April 2021.
- Suhil Kiwan, Hisham Ahmad, Ammar Alkhalidi, **Wahib Owhaib**, Wael Al-Kouz, *Photovoltaic cooling utilizing phase change materials*, the 6<sup>th</sup> International Conference on Renewable Energy Technologies (ICRET2020), Perth, Australia, 8-10 January 2020.
- **Owhaib Wahib**, Kiwan Suhil, Ahmad Hisham, Alkhalidi Ammar, *Experimental investigation of photovoltaic cooling using phase change materials*, The International Conference on Energy, Water & Environmental Sciences (ICEWES 2018), Ras Al Khaimah UAE, November 13-15, 2018.
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- **Owhaib Wahib**, Martín-Callizo Claudi, and Palm Björn *Flow boiling visualization and heat transfer in a single vertical microchannel*, 6<sup>th</sup> World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics, Matsushima, Miyagi, Japan, 17-21 April 2005.
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- **Owhaib Wahib** and Palm Björn, *Flow boiling heat transfer in a vertical circular microchannel tube*. Proceeding of Eurotherm Seminar No. 72, Valencia, Spain, pp. 81-85, 31 March 31 – 2 April 2003.
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