


Faculty Vitae

General Information:

Name	Nationality	Photo
Ahmad Aljabr	Saudi	

Education:

Degree	Discipline	Institution	Year
PhD	Mechanical Engineering	University of Dayton	2021
MSc	Mechanical Engineering	University of Dayton	2015
Bachelor	Mechanical Engineering	Qassim University	2010

Academic Record:

Institution	Title	Period	FT/PT
Qassim University	Lecturer	2010 - 2012	FT
University of Dayton	Lecturer	2014 - 2021	FT
Majmaah University	Assistant Professor	2021 -	FT

Awards and Honors

#	Award / Honor	Year

Scientific and professional membership

#	Membership
	ASME

Selected publications

Journal publications	
1	A. Alhajjaji, A. Chiasson, and A. Aljabr, "Simulation-Based Analysis of a Novel CO ₂ Ground Source Heat Pipe (GSHP) to Reduce Temperature Fluctuations in Pavements in Different Climatic Conditions," <i>Energies (Basel)</i> , vol. 15, no. 9, p. 3343, May 2022.
2	A. Aljabr, A. Chiasson, and A. Alhajjaji, "Numerical Modeling of The Effects of Micro-Encapsulated Phase Change Materials Intermixed with Grout in Vertical Borehole Heat Exchangers," <i>Geothermics</i> , vol. 96, no. May, pp. 102–197, 2021.
3	A. Aljabr and A. Chiasson, "Numerical modeling of the effects of the radial and axial location of added micro-encapsulated phase change materials in vertical borehole heat exchangers," <i>Geothermics</i> , vol. 110, p. 102684, May 2023.
4	A. Aljabr, "Investigation on the influence of mixed borehole depths in vertical ground heat exchanger systems," <i>Geothermics</i> , vol. 119, p. 102971, May 2024.
5	A. Aljabr and S. Almoatham, "The potential of utilizing vertical borehole heat exchangers in residential buildings for the various climate zones of Saudi Arabia," <i>Geothermics</i> , vol. 122, p. 103087, Sep. 2024.
6	M.A. Sharaf, S.A. Marzouk, A. Aljabr, F.A. Almehmadi, T. Alam, D.A. Teklemariyem, Effects of multi-spring wires on hydrothermal performance of double tube heat exchanger, <i>Case Stud. Therm. Eng.</i> 60 (2024) 104689.
7	Alwatban, A., Aljabr, A. Thermo-flow behavior of air-channel heat exchanger with nonidentical baffle lengths: computational analysis. <i>J Therm Anal Calorim</i> 149, 3593–3603 (2024).
8	A.R. Al-darraj, S.A. Marzouk, A. Aljabr, F.A. Almehmadi, S. Alqaed, A. Kaood, Enhancement of heat transfer in a vertical shell and tube heat exchanger using air injection and new baffles: experimental and numerical approach, <i>Appl. Therm. Eng.</i> 236 (2024) 121493.
9	S.A. Marzouk, M.A. Sharaf, A. Aljabr, E.M.S. El-Said, Assessing the effects of different finned absorbers with swirl flow on the performance of solar air heater, <i>Energy Sources, Part A Recovery, Util. Environ. Eff.</i> 46 (2024) 3245–3262.
10	S.A. Marzouk, A. Aljabr, F.A. Almehmadi, S. Alqaed, M.A. Sharaf, Numerical study of heat transfer, exergy efficiency, and friction factor with nanofluids in a plate heat exchanger, <i>J. Therm. Anal. Calorim.</i> (2023).
11	Elfadeel, S.M.A., Hassan, M.A., Aljabr, A. <i>et al.</i> Performance characterization of a novel integrated radiant wall system for sustainable heating. <i>J Therm Anal Calorim</i> 149, 7665–7687 (2024).
12	
13	
14	
15	
16	