

Curriculum vitae



Personal information

Name : Ali Mohammed Hassan Radwan
Date of birth : June 26th, 1985
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Email : ali.radwan@sharjah.ac.ae; ali_radwan@mans.edu.eg
Current affiliation: Associate professor, College of Engineering, Sustainable and Renewable Energy Engineering Department, University of Sharjah, UAE.
Highest Degree: Ph.D. in Energy Resources Engineering (May 2018), Egypt-Japan University of Science and Technology (E-JUST).
Scopus-indexed publications: (132); H-index: (37); and Citations: (4416). First publication in 2016.
Source: Scopus (Author ID: 57188962945); accessed on 31/12/2025.
Google Scholar: <https://scholar.google.com/citations?user=QDH8Sc8AAAAJ&hl=en>
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57188962945>
Homepage: https://old.sharjah.ac.ae/en/academics/Colleges/eng/dept/sre/Pages/ppl_detail.aspx?mcid=30&clt=en

Engagement in national and international research projects

I have been engaged in multiple collaboration projects, such as: -

- 1- **Main researcher** in **UK-Japan Daiwa Anglo-Japanese** Foundation Grant (Ref: 12549/13360). Title: Development of vacuum-based photovoltaic window (2018-2020).
- 2- **Co-PI** in a funded project by **STDF- Egypt** to develop a prototype for hybrid integration of a high CPV module with a solar still for freshwater production, (2018-2021), (2,000,000 EGP)
- 3- **Co-PI** for a UOS-funded research project. Title: An innovative photovoltaic-biomass/adsorption-based system for cooling, fresh water, and power generation for Sustainable Building, 2022-2024, (120,000AED)
- 4- **PI** for a UOS-funded research project. Title: Fabrication of a new hybrid photovoltaic membrane distillation module for simultaneous freshwater production and electricity generation, 2021-2022 (40,000 AED)
- 5- **PI** for a UOS-funded competitive research project. Title: “Simultaneous electricity generation and freshwater production from a novel bifacial photovoltaic/membrane distillation module design. CFD simulation, design, fabrication, and testing challenges” 2023-2024, (120,000 AED)
- 6- **Co-PI** for UOS-funded competitive research project. Title: “Solar powered thermochemical energy storage system for simultaneous production of cooling and freshwater” 2023-2025, (120,000 AED)
- 7- **Co-PI** for UOS-funded competitive research project. Title: “Energy saving in buildings through retrofitting options for hot and humid climate” 2024-2026, (120,000 AED)

MSc and Ph.D. education history

2018: **Ph.D. in Energy Resource Engineering** from Egypt-Japan University of Science and Technology (E-JUST), Egypt (awarded May 2018).
2012: **MSc** in mechanical power engineering, Mansoura University, Egypt (awarded 2012).
2007: **BSc** from mechanical power engineering, Mansoura University, Egypt (Excellent with an honour degree, ranked **first**).

Academic history

June. 2024- Present: **Associate Professor**, college of engineering, sustainable and renewable energy engineering department, university of Sharjah, UAE.
Sept. 2021- June 2024: **Assistant Professor**, college of engineering, sustainable and renewable energy engineering department, university of Sharjah, UAE.
June 2018- Sept.2021: **Assistant Professor**, Faculty of Engineering, Mechanical Power Engineering Department, Mansoura University, Egypt.
Feb. 2015- May 2018: **PhD student** at E-JUST (30 months) and international exchange PhD student at Tokyo Institute of Technology, Japan (9 months).
Dec. 2007- Feb. 2015: **Teaching assistant** at Mansoura University, Egypt.

Awards

- 2025 University of Sharjah **faculty incentive award** (Research Category).
- 2020 **The First** prize for the best PhD. Thesis awarded from 2016 to 2018 across all Egyptian engineering faculties (**Ranked First**).
- 2020 Best Presentation and Best Paper awards at the 7th International Conference on Power and Energy Systems Engineering (CPESE 2020) held virtually at Fukuoka Institute of Technology, Fukuoka, Japan.
- 2017 **Travel grant** for the best doctorate PhD. student, Egypt-Japan University of Science and Technology, 2017.
- 2015 **Competitive PhD. scholarship**, fully funded PhD. scholarship supported by the Egyptian Ministry of Higher Education, Egypt.

Sample of the invited talks

- 17 Oct. 2024** **Keynote Speaker:** Engineering Simulation & Innovation Conference organized by Fluid codes and ANSYS, Dubai, talk title: Advancing Sustainability: CFD Innovations in Renewable Energy and Thermal Management.
- 2 Aug. 2023** **Keynote Speaker:** Hokkaido University, Japan, UAE. Talk title: Role of Vacuum Insulation for Energy-efficient Buildings.
- 2 Aug. 2023** **Keynote Speaker:** Hokkaido University, Japan, UAE. Talk title: Thermo-fluids analyses of various renewable energy applications.
- 14 Feb. 2023** **Keynote Speaker:** university of Sharjah, Sustainable and renewable energy department, UAE. Talk title: Role of vacuum insulation and phase change materials in energy-efficient buildings.
- 28 Aug. 2019** **Keynote Speaker:** International Conference on Renewable Energy and Vacuum Insulation for Nearly Zero Energy Buildings (NZEBs), London South Bank University, UK, August 2019.

Commissions of trust and contributions to the research community

- **Associate Editor** for the International Journal of Solar Thermal Vacuum Engineering, ISSN 2716-6953. http://www.akademiabaru.com/stve_editorialboard.html
- **Guest editor** for a special issue titled “Applied Solar Thermal Energy” published in **Energies** journal, MDPI publisher. https://www.mdpi.com/journal/energies/special_issues/Applied_Solar_Thermal_Energy
- **Member of the American Society of Mechanical Engineers (ASME), membership No. (101979529)**
- **Director of the centre of renewable energy**, Mansoura University, since August 2020.
- **Reviewer in** many international journals such as the International Journal of Energy Research, International Journal of Heat and Mass Transfer, Journal of Thermal Engineering, Energy Conversion and Management, Solar Energy Journal, Engineering Applications of Computational Fluid Mechanics, Journal of Thermal Science and Engineering Progress, Journal of Thermal Analysis and Calorimetry, and Journal of Heat Transfer - Asian Research. Some of them are available at <https://publons.com/researcher/1569889/ali-radwan/metrics/>

Academic supervision activities

A. Undergraduate senior design project (SDP) supervision

Academic Year	SDP title	No. of students
2020-2021	An air conditioning system designed for energy saving in a building	7
	Development of a photovoltaic-based energy-efficient window	5
	Development of a photovoltaic-based curtain	6
	Development of a vacuum-based solar thermal collector	6
	Standalone solar-driven membrane distillation system	8
2021-2022	Development of an efficient vacuum-based photovoltaic window	3
	Development of a Photovoltaic-membrane distillation system for hybrid electricity and freshwater production	3
2022-2023	Development of an efficient bifacial hybrid CPV-PV module	3
	Design and fabrication of a hydrogel-cooled PV module.	3
2023-2024	Design of a new hybrid bifacial CPV-PV module for efficient solar energy capturing.	3
	Thermal energy storage in new designs of PCM containers	3
2024-2025	Development of a solar-driven atmospheric water harvesting prototype	3
	Performance comparison of various photovoltaic modules	3

B. Postgraduate thesis supervision

	Thesis title	MSc	PhD	Awarded	In progress
1	Flow boiling in porous media (Awarded in Fall 2020-2021)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
2	Effect of design factors on the melting and solidification characteristics of encapsulated PCM (Awarded in Spring 2020-2021)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Heat transfer characteristics of a roof containing phase change material (Awarded in Spring 2021-2022)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
4	Design and Performance of a Multi-stage Sorption Energy Storage System (Awarded in Fall 2022-2023)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5	Performance Investigation of Photovoltaic Thermoelectric Hybrid System (Awarded in Spring 2022-2023)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
6	Development of a vacuum-based photovoltaic thermal collector.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
7	Optimizing the Performance of a Low-Concentrator Photovoltaic Module Using Design of Experiments	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
8	Optimizing the Performance of a High-concentrator Photovoltaic cell with microchannel heat sink Using Design of Experiments (Awarded in Spring 2023-2024)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
9	Optimizing the Performance of Net Zero Energy Building Components through Integrated Experimental Design Approaches in the UAE		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
10	Investigation of Heat Transfer in Circular Tubes with Twisted Tape and Rings Insert: Experimental and Computational Approach (Awarded in Spring 2023-2024)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
11	Sustainable Green Hydrogen Production from Seawater by Solar Energy: Experimental Approach	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
12	Testing a New Cleaning Potential of Solar Photovoltaics using Atmospheric Water Condensation in the UAE	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
13	Enhancing the Thermo-Electrical Performance of Low-Concentrator Photovoltaic Module using Response Surface Methodology	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
14	Optimizing the Performance of High-Concentration Photovoltaic Systems through Stepwise Microchannel Heatsink: A Response Surface Methodology Perspective	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
15	Optimizing Hybrid CPV/PV System through Response Surface Methodology	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
16	Experimental Investigation of a Solar-Powered Multi-Generation System	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
17	Fin Optimization in Vertical Tube for PCM Melting and Solidification Enhancement: An Integrated Experimental and RSM Approach	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
18	Optimizing the Latent Heat Thermal Energy Storage using Response Surface Methodology	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
19	Thermal Performance Enhancement of a Hybrid Cooling System for Lithium-Ion Batteries using Response Surface Methodology		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
20	Machine Learning-based Forecasting and Optimization of Dynamic Bifacial Solar PV System for Improved Hydrogen Production	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
21	Experimental Investigation of a Photovoltaic/Thermal Unit Integrated with a Phase Change Material Storage System and a Solar Still	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
22	Performance Evaluation of Sand as a Sensible Heat Storage Medium: Experimental Analysis Based on Different Pipe Geometries	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>

C. Postgraduate MSc and PhD thesis examiner

	Thesis title	MSc	PhD
1	Assessment of Regulatory Reforms to Enhance the Viability of Waste-to-Energy Systems, UOS	<input checked="" type="checkbox"/>	
2	Rheological Properties of Asphalt Binders Modified with Phase Change Materials, UOS	<input checked="" type="checkbox"/>	
3	Towards Sustainable Manufacturing: A Framework for Resource Conservation and Waste Mitigation, UAEU	<input checked="" type="checkbox"/>	
4	Experimental Investigation of a Multi-Stage Adsorption System for HVAC and Atmospheric Water Harvesting Applications	<input checked="" type="checkbox"/>	
5	Modelling and Simulation for Hydrogen Combustion Engines: A Study on the Use of Hydrogen Fuel in a K24 Honda Engine	<input checked="" type="checkbox"/>	

D. List of the taught courses in the past 5 years

	Course title	Semester	UG	PG	No. of students
1	Refrigeration and Air Conditioning (MU)	Fall 2020-2021	<input checked="" type="checkbox"/>		242
2	Heat and Mass Transfer (MU)	Spring 2020-2021	<input checked="" type="checkbox"/>		239
3	Numerical simulation for chemical engineering (E-JUST)			<input checked="" type="checkbox"/>	4
4	Transport Phenomena (E-JUST)			<input checked="" type="checkbox"/>	5
5	Solar thermal energy systems (UoS)	Fall 2021-2022	<input checked="" type="checkbox"/>		32
6	Fluid Mechanics Lab. (UoS)		<input checked="" type="checkbox"/>		30
7	Energy Storage Lab. (UoS)		<input checked="" type="checkbox"/>		26
8	Energy storage Lab. (UoS)		<input checked="" type="checkbox"/>		6
9	Solar thermal energy systems (UoS)	Spring 2021-2022	<input checked="" type="checkbox"/>		40
10	Energy Storage course (UoS)		<input checked="" type="checkbox"/>		26
11	Fluid Mechanics Lab. (UoS)		<input checked="" type="checkbox"/>		27
12	Fluid Mechanics Lab. (UoS)	Fall 2022-2023	<input checked="" type="checkbox"/>		15
13	Solar thermal energy systems (UoS)		<input checked="" type="checkbox"/>		16
14	Solar thermal energy systems (UoS)		<input checked="" type="checkbox"/>		30
15	Energy Storage Lab (UoS)	Spring 2022-2023	<input checked="" type="checkbox"/>		15
16	Fluid Mechanics course (UoS)		<input checked="" type="checkbox"/>		43
17	Fluid mechanics course (UoS)		<input checked="" type="checkbox"/>		11
18	Energy storage Lab (UoS)	Fall 2023-2024	<input checked="" type="checkbox"/>		3
19	Energy storage Lab (UoS)		<input checked="" type="checkbox"/>		5
20	Energy storage Lab (UoS)		<input checked="" type="checkbox"/>		8
21	Numerical methods in energy systems (UoS)			<input checked="" type="checkbox"/>	5
22	Fluid Mechanics Lab (UoS)	Spring 2023-2024	<input checked="" type="checkbox"/>		14
23	Fluid Mechanics Lab (UoS)		<input checked="" type="checkbox"/>		20
24	Fluid mechanics course (UoS)		<input checked="" type="checkbox"/>		44
25	Fluid mechanics course (UoS)		<input checked="" type="checkbox"/>		14
26	Numerical methods in energy systems (UoS)			<input checked="" type="checkbox"/>	14
27	Numerical methods in energy systems (UoS)	Fall 2024-2025		<input checked="" type="checkbox"/>	6
28	An introduction to energy science and technology (UOS)		<input checked="" type="checkbox"/>		44
29	An introduction to energy science and technology (UOS)		<input checked="" type="checkbox"/>		34
30	An introduction to energy science and technology (UOS)	Spring 2024-2025	<input checked="" type="checkbox"/>		34
31	Numerical methods in energy systems (UoS)			<input checked="" type="checkbox"/>	10
32	An introduction to energy science and technology (UOS)	Fall 2025-2026	<input checked="" type="checkbox"/>		60
33	An introduction to energy science and technology (UOS)		<input checked="" type="checkbox"/>		60
34	Numerical methods in energy systems (UoS)			<input checked="" type="checkbox"/>	6

Selected List of Publications

(1) Journal Papers [79], [Q1 or Q2 journals only till 2024]

1. Yousef B.A.A., Obaideen K., AlMallahi M.N., Alajmi N., **Radwan A.**, Al-Shihabi S., Elgendi M., “On the contribution of concentrated solar power (CSP) to the sustainable development goals (SDGs): A bibliometric analysis”, (2024) *Energy Strategy Reviews*, 52, art. no. 101356, Cited 18 times, DOI: 10.1016/j.esr.2024.101356
2. **Radwan A.**, Abdelrehim O., Arıcı M., Soliman A.S., “Thermal-hydraulic performance of various designs of microchannel heat sink with internal bifurcations” (2024) *International Journal of Heat and Fluid Flow*, 107, art. no. 109369, Cited 5 times., DOI: 10.1016/j.ijheatfluidflow.2024.109369
3. Abo-Zahhad E.M., Hachicha A.A., **Radwan A.**, Said Z., Rahman S.M.A., Haridy S., “Comprehensive Performance Evaluation of New Photovoltaic/Serpentine Collectors using Response Surface Methodology: Energy, Exergy, and Environmental Perspectives”, (2024) *Solar Energy*, 268, art. no. 112258, Cited 6 times, DOI: 10.1016/j.solener.2023.112258
4. El-Sharkawy I.I., Gado M.G., Sabouni H., Abd-Elhady M.M., Radwan A., Abo-Khalil A.G., Dawoud B., “Material characteristics and selection criteria for adsorption-based atmospheric water harvesting: An overview”, (2024) *Solar Energy*, 283, art. no. 112996, Cited 1 times, DOI:10.1016/j.solener.2024.112996
5. Abo-Zahhad E.M., Haridy S., **Radwan A.**, El-Sharkawy I.I., Esmail M.F.C., “Thermal management of ultra-high concentrator photovoltaic cells: Analysing the impact of sintered porous media microchannel heat sinks, (2024) *Journal of Cleaner Production*, 465, art. no. 142649, Cited 2 times, DOI: 10.1016/j.jclepro.2024.142649
6. Mahmoud M., Yousef B.A.A., **Radwan A.**, Alkhalidi A., Abdelkareem M.A., Olabi A.G., “Thermal assessment of lightweight building walls integrated with phase change material under various orientations”, (2024) *Journal of Building Engineering*, 85, art. no. 108614, Cited 6 times, DOI: 10.1016/j.job.2024.108614
7. Yousef B.A.A., **Radwan A.**, Haridy S., Alajmi N., “Performance evaluation of a sand energy storage unit using response surface methodology”, (2024) *Energy*, 289, art. no. 129885, Cited 3 times, DOI: 10.1016/j.energy.2023.129885
8. Mohammed R.H., **Radwan A.**, Rezk A., Olabi A.G., Sharma V., Kalam Hossain A., Alaswad A., Abdelkareem M.A., “Energy and exergy study of the integrated adsorption-absorption system driven by transient heat sources for cooling and desalination”, (2023) *Energy Conversion and Management*, 277, art. no. 116614, Cited 7 times, DOI: 10.1016/j.enconman.2022.116614
9. Abo-Zahhad E.M., Haridy S., Syarif J., **Radwan A.**, Ghenai C., Amine Hachicha A., Esmail M.F.C. “Analysis of ultra-high concentration solar cells integrated with a confined microjet impingement cooling”, (2024) *Applied Thermal Engineering*, 257, art. no. 124314, Cited 0 times, DOI: 10.1016/j.applthermaleng.2024.124314
10. Radwan A., Abo-Zahhad E.M., El-Sharkawy I.I., Said Z., Abdelrehim O., Memon S., Cheng P., Soliman A.S. “Thermal analysis of a bifacial vacuum-based solar thermal collector”,(2024) *Energy*, 294, art. no. 130748, Cited 1 times, DOI: 10.1016/j.energy.2024.130748
11. El-Sharkawy I.I., Haridy S., Hassan M., **Radwan A.**, Abd-Elhady M.M. ”Optimization of atmospheric water harvesting cycles for sustainable water supply in arid regions”,(2024) *International Journal of Thermofluids*, 24, art. no. 100977, Cited 0 times, DOI: 10.1016/j.ijft.2024.100977
12. **Radwan, A.**, Abo-Zahhad, E.M., I. El-Sharkawy, I, Said, Z., Abdelrehim, O., Memon, S., Cheng, P., Soliman, A.S., Thermal analysis of a bifacial vacuum-based solar thermal collector, (2024) *Energy*.
13. Mahmoud, M., Yousef, B.A.A., **Radwan, A.**, Alkhalidi, A., Abdelkareem, M.A., Olabi, A.G. Thermal assessment of lightweight building walls integrated with phase change material under various orientations, (2024) *Journal of Building Engineering*.
14. **Radwan, A.**, Mdallal, A., Haridy, S., Abdelkareem, M.A., Alami, A.H., Olabi, A.G. Optimizing the annual energy yield of a residential bifacial photovoltaic system using response surface methodology, (2024) *Renewable Energy*.
15. Said, Z., Rahman, S.M.A., Sohail, M.A., Bahman, A.M., Alim, M.A., Shaik, S., **Radwan, A.M.**, El-Sharkawy, I.I. Nano-refrigerants and nano-lubricants in refrigeration: Synthesis, mechanisms, applications, and challenges (2023) *Applied Thermal Engineering*.
16. **Radwan, A.**, Abdelrehim, O., Salem, M.S., Abo-Zahhad, E.M., Elmarghany, M.R., Shouman, M.A., Khater, A. A modified support pillar design for a flat vacuum-based solar thermal collectors, (2023) *Sustainable Energy Technologies and Assessments*.
17. Rabie, M., Ali, A.Y.M., Abo-Zahhad, E.M., Elkady, M.F., El-Shazly, A.H., Salem, M.S., **Radwan, A.**, Rajabzadeh, S., Matsuyama, H., Shon, H.K. New hybrid concentrated photovoltaic/membrane distillation unit for simultaneous freshwater and electricity production, (2023) *Desalination*.
18. Said, Z., Ahmad, F.F., Radwan, A.M., Hachicha, A.A., New thermal management technique for PV module using Mist/PCM/Husk: An experimental study, (2023) *Journal of Cleaner Production*.

19. Alami, A.H., Olabi, A.G., Mdallal, A., Rezk, A., **Radwan, A.**, Rahman, S.M.A., Shah, S.K., Abdelkareem, M.A. Concentrating solar power (CSP) technologies: Status and analysis (2023) *International Journal of Thermofluids*.
20. Abo-Khalil, A.G., Sayed, K., Radwan, A., El-Sharkawy, I.A. Analysis of the PV system sizing and economic feasibility study in a grid-connected PV system, (2023) *Case Studies in Thermal Engineering*.
21. Elmarghany, M.R., Radwan, A., Abdelhay, Y., Samir, N., Samir, M., Hares, E. Experimental study of a standalone membrane water desalination unit fully powered by solar energy, (2023) *Desalination*.
22. **Radwan, A.**, Mahmoud, M., Olabi, A.-G., Rezk, A., Maghrabie, H.M., Abdelkareem, M.A. Thermal comparison of mono-facial and bi-facial photovoltaic cells considering the effect of TPT layer absorptivity, (2023) *International Journal of Thermofluids*.
23. **Radwan, A.**, Olabi, A.G., Abo-Khalil, A.G., Yousef, B.A.A., Serageldin, A.A., Maghrabie, H.M., Abdelkareem, M.A. Thermoelectric analysis of different vacuum-based photovoltaic semitransparent skylights, (2023) *Energy and Buildings*.
24. Katsura, T., Miyata, T., Memon, S., **Radwan, A.**, Nagano, K. Experimental analysis of vacuum pressure and gas flow rate in structured-core transparent vacuum insulation panels, (2023) *Energy Reports*.
25. Mohammed, R.H., **Radwan, A.**, Rezk, A., Olabi, A.G., Sharma, V., Kalam Hossain, A., Alaswad, A., Abdelkareem, M.A. Energy and exergy study of the integrated adsorption-absorption system driven by transient heat sources for cooling and desalination, (2023) *Energy Conversion and Management*.
26. ElBahloul, A.A., Zeidan, E.-S.B., El-Sharkawy, I.I., Hamed, A.M., **Radwan, A.** Experimental and numerical investigation of multistage sorption energy storage system, (2023) *Applied Thermal Engineering*.
27. Abo-Khalil, A.G., El-Sharkawy, I.I., **Radwan, A.**, Memon, S. Influence of a Hybrid MPPT Technique, SA-P&O, on PV System Performance under Partial Shading Conditions, (2023) *Energies*.
28. Haridy, S., Alnaqbi, K., **Radwan, A.**, Arab, M.G. Optimizing the thermal performance of energy piles using response surface methodology, (2023) *Case Studies in Thermal Engineering*.
29. Alami, A.H., Orhan, M., Al Rashid, R., Yasin, A., **Radwan, A.**, Ayoub, M., Abdelkareem, M.A., Alashkar, A. Cooling potential for hot climates by utilizing thermal management of compressed air energy storage systems, (2022) *Scientific Reports*.
30. Abo-Zahhad, E.M., Ghenai, C., **Radwan, A.**, Abdelrehim, O., Salem, M.S., Elmarghany, M.R., Khater, A., Shouman, M.A. A Micro-Metal Inserts Based Microchannel Heat Sink for Thermal Management of Densely Packed Semiconductor Systems, (2022) *Sustainability*.
31. Badr, F., **Radwan, A.**, Ahmed, M., Hamed, A.M. Performance assessment of a dual-axis solar tracker for concentrator photovoltaic systems, (2022) *International Journal of Energy Research*.
32. Abo-Zahhad, E.M., Memon, S., **Radwan, A.**, Elmarghany, M.R., Khater, A., Ghenai, C., Abdelrehim, O. A new fusion-edge sealed vacuum for concentrated photovoltaic/thermal solar collector in comparison to a conventional system, (2022) *Case Studies in Thermal Engineering*.
33. Elmarghany, M.R., **Radwan, A.**, Shouman, M.A., Khater, A.A., Salem, M.S., Abdelrehim, O. Year-long energy analysis of building brick filled with phase change materials, (2022) *Journal of Energy Storage*.
34. Soliman, A.S., **Radwan, A.**, Xu, L., Dong, J., Cheng, P. Energy harvesting in diesel engines to avoid cold start-up using phase change materials, (2022) *Case Studies in Thermal Engineering*.
35. Elawady, N., Bekheit, M., Sultan, A.A., **Radwan, A.** Energy assessment of a roof-integrated phase change materials, long-term numerical analysis with experimental validation, (2022) *Applied Thermal Engineering*.
36. Badr, F., **Radwan, A.**, Ahmed, M., Hamed, A.M. An experimental study of the concentrator photovoltaic/thermoelectric generator performance using different passive cooling methods, (2022) *Renewable Energy*.
37. ElBahloul, A.A., Zeidan, E.-S.B., El-Sharkawy, I.I., Hamed, A.M., **Radwan, A.** Recent advances in multistage sorption thermal energy storage systems, (2022) *Journal of Energy Storage*.
38. Shaker, M.Y., Sultan, A.A., El Negiry, E.A., Radwan, A. Melting and solidification characteristics of cylindrical encapsulated phase change materials, (2021) *Journal of Energy Storage*.
39. Serageldin, A.A., Ye, M., **Radwan, A.**, Sato, H., Nagano, K. Numerical investigation of the thermal performance of a radiant ceiling cooling panel with segmented concave surfaces, (2021) *Journal of Building Engineering*.
40. Ahmed, M.M.S., **Radwan, A.**, Serageldin, A.A., Abdeen, A., Abo-Zahhad, E.M., Nagano, K. The thermal potential of a new multifunctional sliding window, (2021) *Solar Energy*.
41. Elqady, H.I., Abo-Zahhad, E.M., **Radwan, A.**, El-Shazly, A.H., Elkady, M.F. Thermal and electrical performances of actively cooled concentrator photovoltaic system, (2021) *Applied Thermal Engineering*.
42. Ye, M., Serageldin, A.A., **Radwan, A.**, Sato, H., Nagano, K. Thermal performance of ceiling radiant cooling panel with a segmented and concave surface: Laboratory analysis, (2021) *Applied Thermal Engineering*.
43. **Radwan, A.**, Katsura, T., Ding, L., Serageldin, A.A., EL-Seesy, A.I., Nagano, K. Design and thermal analysis of a new multi-segmented mini channel based radiant ceiling cooling panel, (2021) *Journal of Building Engineering*.

44. Serageldin, A.A., **Radwan, A.**, Katsura, T., Sakata, Y., Nagasaka, S., Nagano, K. Parametric analysis, response surface, sensitivity analysis, and optimization of a novel spiral-double ground heat exchanger, (2021) *Energy Conversion and Management*.
45. Hesham I. Elqady, **Radwan, A.**, Abdallah Y.M. Ali, Mohammed Rabie, Essam M. Abo-Zahhad, Shinichi Ookawara, M.F. Elkady, A.H. El-Shazly, Concentrator photovoltaic thermal management using a new design of double-layer microchannel heat sink, (2021) *solar energy*.
46. A.A. Hawwash, Ahamed, M., S.A. Nada, **Radwan, A.**, Abdel Rahman, A.K. Thermal Analysis of Flat Plate Solar Collector Using Different Nanofluids and nanoparticles percentages, (2021) *IEEE access*.
47. Essam M. Abo-Zahhad, Shinichi Ookawara, **Radwan, A.**, Saim Memon, Yue Yang, M. F. El-Kady, A. H. El-Shazly, Flow boiling in a four-compartment heat sink for high-heat flux cooling: A parametric study (2021), *Energy conversion and management*.
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(III) International Conferences and meetings [21]

1. **Ali Radwan**, the 6th IEEE international conference on technology management, operations and decisions, American University of Sharjah, 4-6 Nov. 2024, Sharjah, UAE. Talk title: Development of a Predictive Model

for Evaluating the Performance of Low-Concentrator Photovoltaic Thermal Module Using Design of Experiments

2. **Ali Radwan**, Sustainable transportation through energy harvesting from diesel engine, COP-28, Dubai, UAE, 5-6 December 2023.
3. **Ali Radwan**, the role of vacuum insulation and for energy-efficient buildings, summer institute, Hokkaido University, Japan, August 2023.
4. **Ali Radwan**, **Thermo**-fluids analyses of various renewable energy applications, summer institute, Hokkaido University, Japan, August 2023.
5. **Ali Radwan**, Thermal performance analysis of a new design of bifacial solar thermal collector, 10th Global Conference on Global Warming (GCGW 2022) 7-10 November 2022, Sharjah, UAE.
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