

ZAFAR SAID BE, Ph.D.

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ResearcherID number: C-4086-2016



PERSONAL INFORMATION

Date of Birth: 26-02-1986 **Nationality:** Pakistan

EDUCATION

- **Ph.D.** in Mechanical Engineering, **Universiti Malaya**, Malaysia (*QS world ranking 59th*) (2011 – 2014) (MOHE, UAE Equivalency: 70257)
Ph.D. thesis: Effect of thermophysical properties on the energy & exergy efficiencies of flat plate solar collector using metal oxides and SWCNTs based nanofluids
- **B.E.** in Mechanical Engineering (Hons.), **Universiti Tenaga Nasional**, Malaysia (06.2008. – 09. 2011)
Bachelor thesis: (SPT), Parametric Study of mixed convection heat transfer in a lid-driven square cavity filled with nanofluids

EMPLOYMENT

- **Assistant Professor**, Sustainable and Renewable Energy Engineering (SREE) Department, University of Sharjah (09.2016 – present)
- **Post-Doctoral Research Fellow**, Engineering Systems and Management (ESM) Department, Masdar Institute (04.2014 – 08.2016)
- **Project Lead**, Line Scan Thermography, 09. 2015 – 09.2016. Strata, UAE.
- **Project Lead**, Optimizing the thermal heat signature of vehicles operating in the UAE, Tawazun & Nimr 04. 2014 – 08.2016. Tawazun & Nimr, UAE.
- **Ph.D. Research Fellow**, Universiti Malaya (02.2012 – 04. 2014)
- **Research Engineer**, Universiti Malaya (11.2011 – 02. 2012)
- **Trainee Engineer (QC)**, Al Anwar Ceramics Tiles Company SAOG, Oman (04.2010 – 06. 2010)
- **Freelancer**, SIMPA Marketing Research, Oman (12.2003 – 08. 2010)
- **Consultant**, Incubix, Oman (12.2010 – 01. 2013)
- **Founder & CEO**, MyFoxLab (freelance), UAE (09.2014 – present)

TEACHING EXPERIENCE

- **Instructor**, Engineering Management (2020 Spring)
- **Instructor**, Design for Energy Efficiency (2018 Fall, Spring 2019-present)
- **Instructor**, Fluid Mechanics, University of Sharjah (2016 Fall, Summer 2020)
- **Instructor**, Fluid Mechanics Lab, University of Sharjah (2016 Fall, 2017 Fall-present)
- **Instructor**, Engineering Materials, University of Sharjah (2016 Fall-present)
- **Instructor**, Heat Transfer Lab, University of Sharjah (2017 Spring, 2017 Summer-present)
- **Instructor**, Introduction to Energy Science and Technology, University of Sharjah (2017 Fall-Present)
- **Instructor**, Senior Design Project (SDP), University of Sharjah (2016 Fall-present)
- **Teaching assistant**, Microeconomics (FDN 451), Postgraduate level, Masdar Institute (2015 spring)
- **In charge & Instructor**, iSmart Lab, Masdar Institute (2014 - 2016)
- **Instructor**, Nanofluids Lab. Universiti Malaya (2012-2014)
- **Demonstrator**, Mechanical Lab, Universiti Malaya (SEM 1-2013/2014)
- **Teaching Assistant**, Statistics, Universiti Malaya, (2012-2013)
- **Instructor**, Advance Math, Kumon, Malaysia (2008-2009)

AWARDS

- **Annual Faculty Incentive Award** for Distinguished Researchers (2019) (15000 AED)

- **Sharjah Islamic Bank Award** for Distinguished Researchers (2017-2018) (**6000 AED**)
- **Ph.D. Fellowship** (2500 RM monthly scholarship for full Ph.D. study plus tuition fee), Higher Impact Research (HIR), Universiti Malaya (2011-2014)
- **Included in Who's Who in the World 2016-33rd Edition**, (2016, 2020)
- **Fast track leading to Ph.D.**, Universiti Malaya (2011-2012)
- **Best Final Year Project**, Universiti Tenaga Nasional (2010-2011)
- **Dean List**, Universiti Tenaga Nasional (2008-2011)

ACADEMIC DUTIES

- **Mentor Volunteer for Global Talent Mentoring as a mentor (2020-present)**
- **Drug Delivery Research Group** (Associate Member, October 2019-present)
- **Center for Advanced Materials Research** (Member, October 2017- present)
- **SREE Club supervisor (Academic Year 2019/2020)**
- **Representative of SREE in College Council (Academic Year 2019/2020)**
- **Coordinator of Functional Nanomaterials Synthesis Lab (September 2018-present)**
- **Member of Ph.D. Program and Accreditation committee (SREE Program)**
- **Member of Master Program and Accreditation committee (SREE Program)**
- **ABET accreditation (SREE Program)**
- **MOHSER Accreditation Committee** (To prepare self-study report for MOHSER)
- **Course Coordinator** (Fluid Mechanics, Fluid Mechanics Lab, Engineering Materials, Heat Transfer Lab, Intro. to Renewable Energy Engineering, September 2017-present)
- **Sustainable Energy Development Research Group** (Member, August 2016-present)
- **Functional Materials Research Group** (Member, October 2017-present)
- **UAE Innovation Month** (Representative for SREE Department, August 2017-present)
- **Lab Engineering Hiring Committee** (Member)
- **Research Seminar** (SREE department, UoS, 17th April 2016)
- **6th Annual Sharjah Award for Sustainability** (Member)
- **Judging committee** (SREE Club, Renewable Challenge, May 2017)

* **Reviewer for European Research Council (ERC) (ERC Starting Grant 2019 Call)**

PUBLICATIONS (Total Citations >1972)

(h-index: 23)

Refereed Journal Publications;

Total Impact >250:

1. Sundar, Lingala, E. Venkata Ramana, **Zafar Said**, Antonio Pereira, and Antonio Sousa. "Heat Transfer of rGO/Co3O4 Hybrid Nanomaterial Based Nanofluids and Twisted Tape Configurations in a Tube." *Journal of Thermal Science and Engineering Applications* (2020): 1-41. **(IF: 1.170)**
2. Kumar, A., **Said, Z.**, & Bellos, E. (2020). An up-to-date review on evacuated tube solar collectors. *Journal of Thermal Analysis and Calorimetry*, 1-17. **(IF: 2.471)**
3. Sundar, L. S., Sintie, Y. T., **Said, Z.**, Singh, M. K., Punnaiah, V., & Sousa, A. C. (2020). Energy, efficiency, economic impact, and heat transfer aspects of solar flat plate collector with Al2O3 nanofluids and wire coil with core rod inserts. *Sustainable Energy Technologies and Assessments*, 40, 100772. **(IF: 3.456)**
4. Cakmak, N. K., **Said, Z.**, Sundar, L. S., Ali, Z. M., & Tiwari, A. K. (2020). Preparation, characterization, stability, and thermal conductivity of rGO-Fe3O4-TiO₂ hybrid nanofluid: An experimental study. *Powder Technology*. **(IF: 3.320)**
5. Gupta, Munish, Vinay Singh, and **Zafar Said**. "Heat transfer analysis using zinc Ferrite/water (Hybrid) nanofluids in a circular tube: An experimental investigation and development of new correlations for thermophysical and heat transfer properties." *Sustainable Energy Technologies and Assessments* 39 (2020): 100720. **(IF: 3.456)**

Curriculum Vitae

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6. Khuwaileh, Bassam A., Fatima I. Al-Hamadi, Donny Hartanto, **Zafar Said**, and Muataz Ali. "On the performance of nanofluids in APR 1400 PLUS7 assembly: Neutronics." *Annals of Nuclear Energy* 144 (2020): 107508. **(IF: 1.380)**
7. Rahman, S. M. A., Ahmed Amine Hachicha, Chaouki Ghenai, R. Saidur, and **Zafar Said**. "Performance and life cycle analysis of a novel portable solar thermoelectric refrigerator." *Case Studies in Thermal Engineering* 19 (2020): 100599. **(CiteScore: 3.79)**
8. **Said, Zafar**, Mohammad Ali Abdelkareem, Hegazy Rezk, Ahmed M. Nassef, and Hanin Zeyad Atwany. "Stability, thermophysical and electrical properties of synthesized carbon nanofiber and reduced-graphene oxide-based nanofluids and their hybrid along with fuzzy modeling approach." *Powder Technology* 364 (2020): 795-809. **(IF: 3.413)**
9. Nassef, Ahmed M., Shek Md Atiqure Rahman, Hegazy Rezk, and **Zafar Said**. "ANFIS-Based Modelling and Optimal Operating Parameter Determination to Enhance Cocoa Beans Drying-Rate." *IEEE Access* 8 (2020): 45964-45973. **(IF: 4.098)**
10. Ghodbane, Mokhtar, Evangelos Bellos, **Zafar Said**, Boussad Boumeddane, Ahmed Kadhim Hussein, and Lioua Kolsi. "Evaluating energy efficiency and economic effect of heat transfer in copper tube for small solar linear Fresnel reflector." *Journal of Thermal Analysis and Calorimetry* (2020): 1-19. **(IF: 2.471)**
11. Rahman, Shek, **Zafar Said**, and Salah Issa. "Performance evaluation and life cycle analysis of new solar thermal absorption air conditioning system." *Energy Reports* 6 (2020): 673-679. **(IF: 4.360)**
12. Rahman, Shek, Salah Issa, **Zafar Said**, Mamdouh El Haj Assad, Rashed Zadeh, and Yazan Barani. "Performance enhancement of a solar powered air conditioning system using passive techniques and SWCNT/R-407c nano refrigerant." *Case Studies in Thermal Engineering* 16 (2019): 100565. **(CiteScore: 3.79)**
13. Sohani A, Naderi S, Torabi F, Sayyaadi H, Akhlaghi YG, Zhao X, Talukdar K, **Said Z**. Application based multi-objective performance optimization of a proton exchange membrane fuel cell. *Journal of Cleaner Production*. 2020 Apr 10; 252:119567. **(IF: 6.395)**
14. Allagui A, Alnaqbi H, Elwakil AS, **Said Z**, Hachicha AA, Wang C, Abdelkareem MA. Fractional-order electric double-layer capacitors with tunable low-frequency impedance phase angle and energy storage capabilities. *Applied Physics Letters*. 2020 Jan 6;116(1):013902. **(IF: 3.521)**
15. Aamir Mehmood, Adeel Waqas, **Zafar Said**, Shek Mohammad Atiqure Rahman, Muhammad Akram. Performance evaluation of solar water heating system with heat pipe evacuated tubes provided with natural gas backup. *Energy Reports*. 5, November 2019, Pages 1432-1444. **(IF: 3.830)**
16. **Said, Zafar**, Mohammad Ali Abdelkareem, Hegazy Rezk, and Ahmed M. Nassef. "Dataset on fuzzy logic based-modelling and optimization of thermophysical properties of nanofluid mixture." *Data in Brief* (2019): 104547. **(Cite Score: 0.98)**
17. Saeed, Numan, Nelson King, **Zafar Said**, and Mohammed A. Omar. "Automatic Defects Detection in CFRP Thermograms, using Convolutional Neural Networks and Transfer Learning." *Infrared Physics & Technology* (2019): 103048. **(IF: 2.313)**
18. **Said, Zafar**, Mokhtar Ghodbane, Ahmed Amine Hachicha, and Boussad Boumeddane. "Optical performance assessment of a small experimental prototype of linear Fresnel reflector." *Case Studies in Thermal Engineering* (2019): 100541. **(Cite Score: 3.79)**
19. **Zafar Said**, Munish Gupta, Hussien Hegab, Neeti Arorab, Aqib Mashood khan, Muhammad Jamil, Evangelos Bellos. A comprehensive review on minimum quantity lubrication (MQL) in machining processes using nanofluid based cutting fluids". *The International Journal of Advanced Manufacturing Technology*. 2019. (DOI: 10.1007/s00170-019-04382-x). **(IF: 2.496)**
20. Atabani, A. E., H. Ala'a, Gopalakrishnan Kumar, Ganesh Dattatraya Saratale, Muhammad Aslam, Hassnain Abbas Khan, **Zafar Said**, and Eyas Mahmoud. "Valorization of spent coffee grounds into biofuels and value-added products: Pathway towards integrated bio-refinery." *Fuel* 254 (2019): 115640. **(IF: 5.128)**
21. Mohammad A Abdelkareem, Anis Allagui, **Zafar Said**, Ahmed S Elwakil, Rawan Zannerni, Waqas Hassan Tanveer, Khaled Elsaid. Frequency-Dependent Effective Capacitance of Supercapacitors Using Electrospun Cobalt-Carbon Composite Nanofibers. *Journal of The Electrochemical Society* 166.12 (2019): A2403-A2408. **(IF: 3.590)**
22. **Said, Zafar**, Mohammad Ali Abdelkareem, Hegazy Rezk, and Ahmed M. Nassef. "Fuzzy modeling and optimization for experimental thermophysical properties of water and ethylene glycol mixture for Al₂O₃ and TiO₂ based nanofluids." *Powder Technology* (2019). **(IF: 3.320)**

23. Ghodbane, Mokhtar, Boussad Boumeddane, **Zafar Said**, and Evangelos Bellos. "A numerical simulation of a linear Fresnel solar reflector directed to produce steam for the power plant." *Journal of Cleaner Production* (2019). (IF: 6.395)
24. Ehyaei, M. A., A. Ahmadi, M. El Haj Assad, A. A. Hachicha, and **Z. Said**. "Energy, exergy and economic analyses for the selection of working fluid and metal oxide nanofluids in a parabolic trough collector." *Solar Energy* 187 (2019): 175-184. (IF: 4.374)
25. Hachicha, Ahmed Amine, Bashria AA Yousef, **Zafar Said**, and Ivette Rodríguez. "A review study on the modeling of high-temperature solar thermal collector systems." *Renewable and Sustainable Energy Reviews* 112 (2019): 280-298. (IF: 10.556)
26. **Said, Zafar**, M. El Haj Assad, Ahmed Amine Hachicha, Evangelos Bellos, Mohammad Ali Abdelkareem, Duha Zeyad Alazaizeh, and Bashria AA Yousef. "Enhancing the performance of automotive radiators using nanofluids." *Renewable and Sustainable Energy Reviews* 112 (2019): 183-194. (IF: 10.556)
27. Hachicha, Ahmed Amine, Israa Al-Sawafta, and **Zafar Said**. "Impact of dust on the performance of solar photovoltaic (PV) systems under United Arab Emirates weather conditions." *Renewable Energy* 141 (2019): 287-297. (IF: 5.439)
28. **Said, Zafar**, et al. "Modulating the energy storage of supercapacitors by mixing close-to-ideal and far-from-ideal capacitive carbon nanofibers." *Electrochimica Acta* (2019). (IF: 5.116)
29. **Said, Z.**, et al. "Heat transfer enhancement and life cycle analysis of a Shell-and-Tube Heat Exchanger using stable CuO/water nanofluid." *Sustainable Energy Technologies and Assessments* 31 (2019): 306-317. (IF: 3.456)
30. Altan, H., Alshikh, Z., Belpoliti, V., Kim, Y. K., **Said, Z.**, & Al-chaderchi, M. (2019). An experimental study of the impact of cool roof on solar PV electricity generations on building rooftops in Sharjah, UAE. *International Journal of Low-Carbon Technologies*. (IF: 1.054)
31. Bellos, Evangelos, **Zafar Said**, and Christos Tzivanidis. "The use of nanofluids in solar concentrating technologies: a comprehensive review." *Journal of cleaner production* 196 (2018): 84-99. (IF: 6.395)
32. Anis Allagui, Ahmed S Elwakil, **Zafar Said**, Mohammad Ali Abdelkareem, Di Zhang. Band-pass Filter and Relaxation Oscillator using Electric Double-Layer Capacitor. September 2018, *ChemElectroChem*. DOI: 10.1002/celec.201800872. (IF: 4.446)
33. Anis Allagui, Todd J Freeborn, Ahmed S Elwakil, Mohammed E Fouda, Brent J Maundy, Ahmad G Radwan, **Zafar Said**, Mohammad Ali Abdelkareem. Review of fractional-order electrical characterization of supercapacitors. *Journal of Power Sources* 400, 457-467. (IF: 6.945)
34. **Zafar Said**, Sahil Arora, Evangelos Bellos. A review on performance and environmental effects of conventional and nanofluid-based thermal photovoltaics. *Renewable and Sustainable Energy Reviews* 94, 302-316. (IF: 10.556)
35. MA Abdelkareem, A Allagui, ET Sayed, MEH Assad, **Z Said**, K Elsaid. Comparative analysis of liquid versus vapor-feed passive direct methanol fuel cells. *Renewable Energy* (2018). (IF: 5.439)
36. Gupta, Munish, Vinay Singh, Satish Kumar, Sandeep Kumar, Neeraj Dilbaghi, and **Zafar Said**. "Up to date review on the synthesis and thermophysical properties of hybrid nanofluids." *Journal of Cleaner Production* (2018). (IF: 6.395)
37. **Zafar Said**, Anis Allagui, Mohammad Ali Abdelkareem, Hussain Alawadhi, Khaled Elsaid, Acid-functionalized carbon nanofibers for high stability, thermoelectrical and electrochemical properties of nanofluids, *Journal of Colloid and Interface Science*, Available online 3 March 2018, ISSN 0021-9797, <https://doi.org/10.1016/j.jcis.2018.02.042>. (IF: 6.361)
38. **Said, Zafar**, Abdulla A. Alshehhi, and Aamir Mehmood. "Predictions of UAE's renewable energy mix in 2030." *Renewable Energy* 118 (2018): 779-789. (IF: 5.439)
39. **Said, Z.**, and Aamir Mehmood. "Standalone photovoltaic system assessment for major cities of United Arab Emirates based on simulated results." *Journal of Cleaner Production* 142 (2017): 2722-2729. (IF: 6.395)
40. **Said, Z.**, and Aamir Mehmood. Theoretical Energy Conserved Heating Cooling Load Calculations for an Academic Hall. (Selected for *Arabian Journal for Science and Engineering (AJSE)* **Impact Factor: 0.728**).
41. M Gupta, V Singh, R Kumar, **Z Said**. A review on thermophysical properties of nanofluids and heat transfer applications. *Renewable and Sustainable Energy Reviews* 74 (2017): 638-670. (IF: 10.556)
42. Anis Allagui, **Z. Said**, Mohammad A. Abdelkareem, Ahmed S. Elwakil, Minghui Yang, Hussain Alawadhi. DC and AC Performance of Graphite Films Supercapacitors Prepared by Contact Glow Discharge Electrolysis. *Journal of The Electrochemical Society* 164.12 (2017): A2539-A2546. (IF: 3.662)
43. Aamir Mehmood, **Z. Said**, Adeel Waqas, Peter W. TSE, Waseem Arshad. Techno-economic Performance Assessment of Central-grid Wind Turbines at Major Geographical Locations of Pakistan." *Journal of Energy*

Systems 1.1 (2017): 43-55.

44. Y. A. Y. A. Abdulrahman; Mohammed A. Omar, **Z. Said**,; F. Obeideli; A. Abusafieh; G. N. Sankaran . "A Taguchi Design of Experiment Approach to Pulse and Lock in Thermography, Applied to CFRP Composites." *Journal of Nondestructive Evaluation* 36.4 (2017): 72. **(IF: 2.279)**
 45. M. A. Omar, **Z. Said**, Ammar Al Raisi, A., Abu-Safieh, G., Sankaran. "The Calibration and Sensitivity Aspects of a Self-Referencing Routine When Applied to Composites Inspection: Using a Pulsed Thermographic Setup." *Journal of Nondestructive Evaluation* 35.3 (2016): 51. **(IF: 2.279)**
 46. **Said, Z.**, R. Saidur, and N. A. Rahim. "Energy and exergy analysis of a flat plate solar collector using different sizes of Aluminium oxide based nanofluid." *Journal of Cleaner Production* (2016). **(IF: 6.395)**
 47. **Said, Z.**, et al. "Energy and exergy efficiency of a flat plate solar collector using pH treated Al₂O₃ nanofluid." *Journal of Cleaner Production* 30 (2015): 1e12. **(IF: 6.395)**
 48. **Z. Said**. Thermophysical and Optical Properties of SWCNTs Nanofluids. *International Journal of Heat and Mass Transfer*. 78 (2016): 207-213. **(IF: 4.346)**
 49. **Z. Said**, A. M. Sabiha, R. Saidur, N.A. Performance enhancement of a Flat Plate Solar collector using TiO₂ nanofluid and Polyethylene Glycol dispersant. *Journal of cleaner production* 92 (2015): 343-353. **(IF: 6.395)**
 50. **Z. Said**, R. Saidur, N.A. Rahim. Thermophysical properties of single wall carbon nanotube and its effect on thermal efficiency of a flat plate solar collector. *Solar Energy*, 115 (2015): 757-769. **(IF: 4.674)**
 51. **Said, Z.**, Sajid, M. H., Saidur, R., Mahdiraji, G. A., & Rahim, N. A. (2015). Evaluating the Optical Properties of TiO₂ Nanofluid for a Direct Absorption Solar Collector. *Numerical Heat Transfer, Part A: Applications*, 67(9), 1010-1027. **(IF: 1.975)**
 52. Sajid M, **Said Z**, Saidur R. Spotlight on available optical properties and models of nanofluids: A review. *Renewable & Sustainable Energy Reviews*, 43 (2015): 750-762. **(IF: 9.184)**
 53. **Z. Said**, R. Saidur, M. A. Sabiha, A. Hepbasli, N.A. Rahim. Energy and exergy efficiency of a flat plate solar collector using pH treated Al₂O₃ nanofluid. *Journal of Cleaner Production* (2015). DOI: 10.1016/j.jclepro.2015.07.115. **(IF: 6.395)**
 54. M. A. Sabiha, R. Saidur, **Z. Said**, Saad Mekhilef. "Energy performance of an evacuated tube solar collector using single walled carbon nanotubes nanofluids." *Energy Conversion and Management* 105 (2015): 1377-1388. **(IF: 7.181)**
 55. **Said, Z.**, M. A. Alim, and Isam Janajreh. "Exergy efficiency analysis of a flat plate solar collector using graphene based nanofluid." *IOP Conference Series: Materials Science and Engineering*. Vol. 92. No. 1. IOP Publishing, 2015.
 56. M.H. Sajid, **Z. Said**, R. Saidur, MFM Sabri, A time variant experimental investigation on optical properties of water based Al₂O₃ nanofluid, *International Communications in Heat and Mass Transfer*. 50, (2014): 108-16. **(IF: 4.127)**
 57. **Said, Z.**, M. H. Sajid, R. Saidur, N. A. Rahim, and M. H. U. Bhuiyan. "Rheological behaviour and the hysteresis phenomenon of Al₂O₃ nanofluids." *Materials Research Innovations* 18, no. S6 (2014): S6-47. **(IF: 1.140)**
 58. **Z. Said**, M. A. Alim, R. Saidur, N.A. Rahim. Analyses of exergy efficiency and pumping power for a conventional flat plate solar collector using SWCNTs based nanofluid. *Energy and Buildings*. 78 (2014): 1-9. **(IF: 4.495)**
 59. **Said Z**, Saidur R, Rahim N. New Thermophysical properties of water based TiO₂ nanofluid-The Hysteresis Phenomenon Revisited. *International Communications in Heat and Mass Transfer*. 58 (2014): 85-95. **(IF: 4.127)**
 60. **Said, Z.**, R. Saidur, and N. A. Rahim. "Optical properties of metal oxides based nanofluids." *International Communications in Heat and Mass Transfer* 59 (2014) 46–54. **(IF: 4.127)**
 61. **Said, Z.**, H. Sajid, R. Saidur, N.A. Rahim. Radiative properties of nanofluids. *International Communications in Heat and Mass Transfer*, (2013); 46(0):74-84. (2013). **(IF: 4.127)**
 62. **Said, Z.**, H. A. Mohammed, and R. Saidur. "Mixed convection heat transfer of nanofluids in a lid driven square cavity: a parametric study. " *International Journal of Mechanical and Materials Engineering (IJMME)*, Vol. 8 (2013), No. 1, Pages: 48-57. **(IF: 0.604)**
 63. **Z. Said**, M.H. Sajid, M. A. Alim, R. Saidur, N.A. Rahim. Experimental investigation of the thermophysical properties of Al₂O₃-nanofluid and its effect on a flat plate solar collector. *International Communications in Heat and Mass Transfer*; 48(0):99-107 (2013). **(IF: 4.127)**
 64. Saidur, R, T C Meng, **Z Said**, M Hasanuzzaman, and A Kamyar., Evaluation of the effect of nanofluid-based absorbers on direct solar collector. *International Journal of Heat and Mass Transfer*, 55, no. 21-22 (2012): 5899-907. **(IF: 4.346)**
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Refereed International Conferences:

1. M. E. Assad, M. AlShabi, A. Khosravi, A. Hamida and **Z. Said**, "Energy and Economic Analysis of Flash Steam Geothermal Power Plants in Lebanon," 2020 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, United Arab Emirates, 2020, pp. 1-6, doi: 10.1109/ASET48392.2020.9118255.
2. M. Raza, A. Inayat, B. Al Jaber, **Z. Said** and C. Ghenai, "Simulation of the pyrolysis process using blend of date seeds and coffee waste as biomass," 2020 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, United Arab Emirates, 2020, pp. 1-5, doi: 10.1109/ASET48392.2020.9118292.
3. Fatima I Alhamadi, Rana Sadek, Amal Abdalla, Ahmed Ababneh, **Zafar Said**, Bassam A Khuwaileh. Performance of Nano-Fluids as Coolants/Moderator in APR1400–Neutronics Case Study. Transactions. American Nuclear Society.2019, 120 (1): 524-527
4. **Zafar Said**, Shek Rahman, Salah Issa. Performance Evaluation of an Evacuated Tube Solar Collector Using Al₂O₃ Based Nanofluids. 22nd Conference on Process Integration for Energy Saving and Pollution Reduction - PRES'19, 20–23 October, Agios Nikolaos, Crete, Greece
5. Shek Rahman, Salah Issa, **Zafar Said**, Yazan Barani and Rashed Zadeh. Performance enhancement of a solar-powered air conditioning system using passive techniques and SWCNT /R-407c nano refrigerant. 6th International Conference on Power and Energy Systems Engineering (CPSE 2019). September 20-23, 2019 | Okinawa, Japan
6. Mamdouh El Haj Assad; **Zafar Said**; Ali Khosravi; Tareq Salameh; Mona Albawab. Parametric study of geothermal parallel flow double-effect water-LiBr absorption chiller. 2019 Advances in Science and Engineering Technology International Conferences (ASET). DOI: 10.1109/ICASET.2019.8714434
7. Shekh Rahman, **Zafar Said**, Salah Issa. Performance enhancement and Life Cycle analysis of a novel HVAC system using underground water and energy recovery technique assisted by solar energy. International Conference on Innovative Applied Energy (IAPE'19), Venue: Oxford city, United Kingdom.
8. Abrar Inayat, Mohsin Raza, Chaouki Ghenai, **Zafar Said**, Sari Samman, Ali Al Mansori and Ahmed Lazkani. Simulation of Anaerobic Co-Digestion Process for the Biogas Production using ASPEN PLUS. 2019 Advances in Science and Engineering Technology International Conferences (ASET) 26th - 28th March 2019. Higher Colleges of Technology, Dubai- UAE. DOI: 10.1109/ICASET.2019.8714403
9. Mamdouh El Haj Assad; Ali Khosravi; **Zafar Said**; Mona Albawab; Tareq Salameh. Thermodynamic analysis of geothermal series flow double-effect water/LiBr absorption chiller. 2019 Advances in Science and Engineering Technology International Conferences (ASET) 26th - 28th March 2019. Higher Colleges of Technology, Dubai- UAE. DOI: 10.1109/ICASET.2019.8714468
10. **Z. Said**, Hanin Zeyad, Tasnim Eisa and Mamdouh Assad. Nano-enhanced PCM for energy storage. 2019 Advances in Science and Engineering Technology International Conferences (ASET) 26th - 28th March 2019. Higher Colleges of Technology, Dubai- UAE. DOI: 10.1109/ICASET.2019.8714218
11. **Zafar Said**, Duha Alazaizeh. Performance enhancement of an automotive radiator using metal oxide based nanofluids. 11th International Conference on Computational Heat, Mass and Momentum Transfer (ICCHMT2018). 28-30 October 2018, in Sousse, Tunisia.
12. Hasim Altan, Zahraa Al Shikh, Vittorino Belpoliti, Young Ki Kim, **Zafar Said**, and Monadhel Alchadirchy. The Impact of Cool Roof on the Solar PV Applications on Building Rooftops. SET 2018 will be hosted by the Hubei University of Technology, in collaboration with the World Society of Sustainable Energy Technologies (WSSET), 2018.
13. Allagui A., **Said Z.**, Abdelkareem M. A., Elwakil A.S., Yang M. Alawadhi H, DC Energy Storage and AC Line Filtering of Graphene Micro-Sheets Prepared with Plasma Micro-discharges. International Conference on Advances in Functional Materials (AFM) in the University of California, Los Angeles, USA, Aug 14–17, 2017.
14. Aamir Mehmood, **Zafar Said**. Theoretical Energy Conserved Heating Cooling Load Calculations for an Academic Hall. ICAF 2-4th December 2016. Turkey.
15. Mehmood, A., **Said, Z.**, Waqas, A., & Arshad, W. Techno-economic Performance Assessment of Central-grid Wind Turbines at Major Geographical Locations of Pakistan. IV. European Conference on Renewable Energy Systems (ECRES), 2016.
16. **Said, Z.**, Alim, M. A., & Janajreh, I. (2015). Exergy efficiency analysis of a flat plate solar collector using graphene-based nanofluid. In *IOP conference series: materials science and engineering* (Vol. 92, No. 1, p. 012015). IOP Publishing.

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17. **Said, Z.**, A. Kamyar, and R. Saidur. Experimental investigation on the stability and density of TiO₂, Al₂O₃, SiO₂, and TiSiO₄. In IOP Conference Series: Earth and Environmental Science. 2013: IOP Publishing.
18. **Said Z**, Sajid M, Alim M, Saidur R, Rahim N.A. Efficiency Analysis of A Flat Plate Solar Collector Using Water-Based Titanium Oxide (TiO₂) Nanofluid. ICHT, 2-3rd Dec'13, Muscat, Oman.
19. **Z. Said**, M. A. Alim, R. Saidur, N.A. Rahim. Thermophysical properties and exergy analysis of Al₂O₃ nanofluid and its effect on A Flat Plate Solar Collector. UM RESEARCHERS' CONFERENCE 2013: HIR PROJECTS - 19 & 20 November 2013.
20. M.H. Sajid, **Z. Said**, R. Saidur, MFM Sabri, Applicability of alumina nanofluid for DASC, ICE- SEAM (2013), 30-31st Oct'13, Melaka, Malaysia.
21. **Z. Said**, M.H. Sajid, M. A. Alim, R. Saidur, M.H.U. Bhuiyan. Viscosity Data of Al₂O₃/Water and Al₂O₃/(Eg/Water) Mixture Nanofluids and the Hysteresis Phenomenon. International Conference on the Science and Engineering of Materials 2013 (ICoSEM2013).

Patents:

1. Dr. Zafar Said and Dr. Ahmed Hachiha US – Regular Patent Application for “Cooling System for Solar Panels using Misting Nozzles” (UOS-007/2019) [Ref.: EAT 140781]. UOS-007/2019. Filed on 23 December 2019 at the USPTO.

Featured Articles:

1. *Featured Article in Applied Physics Letters:*

<https://aip.scitation.org/doi/10.1063/1.5138243>

Under Review:

1. **Z. Said** et al. Recent advances in physical phenomena and thermophysical properties of nanofluids for low to medium temperature solar collectors: energy, exergy, economic analysis, and environmental impact. Progress in Energy and Combustion Science. (Under Review)
2. **Zafar Said et al.** Optimizing Density, Dynamic Viscosity, Thermal Conductivity and Specific Heat of a Hybrid Nanofluid obtained experimentally via ANFIS-based Model and Modern Optimization. Journal of Molecular Liquids. (Under Review)
3. **Z. Said** et al. “Combination of Co₃O₄ deposited rGO hybrid nanofluids and longitudinal strip inserts: Thermal properties, heat transfer, friction factor, and thermal performance evaluations. International Journal of Thermal Sciences. (Under review)
4. **Z. Said** et al. Impact of surfactant, sonication time and pH on the stability and thermal conductivity of hybrid nanofluid: An experimental assessment. Journal of Molecular Liquids. (Under Review)
5. H. Qureshi, **Z. Said**. Review on energy analysis and environmental impact assessment of microalgae-derived biodiesel production in the UAE. Renewable & Sustainable Energy Reviews. (Under review)
6. Aamir Mehmood, **Z. Said**, Adeel Waqas, Peter W. TSE. A new model for evaluating the performance of heat pipe evacuated tubes installed in hybrid solar water and natural gas heaters. Journal of Cleaner Production (Under Review).
7. Aamir Mehmood, **Z. Said**, Adeel Waqas, Peter W. TSE, Waseem Arshad. Techno-Economic Performance Assessment of Central-Grid Wind Turbines at Major Geographical Locations of Pakistan.
8. M. H. Farhad, M.S. Hossain, **Z. Said**. A review of global biomass-based power generation. (Under preparation)

Book:

1. **Z. Said**. “Nanofluid Heat and Mass Transfer in Engineering Problems” **Chapter title:** “Thermophysical properties of metal oxides nanofluids”
2. **Said, Z.**, H. A. Mohammed, and R. Saidur. Mixed Convection Heat Transfer in lid-driven square cavity: Nanofluids. LAP Lambert Academic Publishing. Category: Mechanical engineering, manufacturing technology. ISBN-13: 978-3-659-48015-7.

European Commission:

1. **Z. Said** et al. Titanium dioxide-water nanofluids enhance the performance of solar collectors. Science for Environment Policy. 29th October 2015. Issue 433.
http://ec.europa.eu/environment/integration/research/newsalert/pdf/titanium_dioxide_water_nanofluids_enhance_the_performance_of_solar_collectors_433na4_en.pdf

Committee member for international Conferences:

Curriculum Vitae

ZAFAR SAID

1. Sharjah International Conference on Physics of Advanced Materials (SICPAM). Physics Department and Center of Advance Materials Research (CAMR), University of Sharjah. 23– 25 March 2020, Sharjah, UAE
2. 12th International Conference on Sustainable Energy & Environmental Protection “SEEP 2019”, Organizing committee.
3. 6th International Conference on Material Science & Smart Materials “MSSM 2019” Organizing committee.
4. The World Congress on Petrochemistry and Chemical Engineering (Petrochemistry-2018), June 28-30, 2018, Dubai, UAE.
https://biocoreconferences.com/petrochemistry2018/organizing_committee.php
5. International Conference on Alternative Fuels & Energy - ICAFE 2017, October 23-25, Daegu, South Korea. <http://icaf-e.com/organsing-committee.php>
6. The 9th Asia-Pacific Power and Energy Engineering Conference (APPEEC 2017) will be held from April 15 to 17, 2017 in Chengdu, China.
<http://www.engji.org/conference/APPEEC/19s2201.html>
7. 1st International Conference on Alternative Fuels and Energy- ICAFE 2016. Kayseri, Turkey.
8. PEOCO 2016. 10th International Power Engineering and Optimization Conference. Shah Alam, Malaysia. 26-27 March 2016.
9. International Conference on New Energy and Future Energy System (NEFES 2016). August 19-22, Beijing, China

Project Lead:

1. **PI.** Performance enhancement of evacuated tube solar collector using different nanomaterials-based fluid. **(2018-ongoing) Grant (80,000 AED)**
2. **Co-PI.** Numerical and experimental study of an innovative solar absorber - parabolic trough collectors' case. **(2018-ongoing) Grant (180,000 AED)**
3. **PI.** Stability and thermophysical properties of Hybrid nanofluids for heat transfer enhancement and energy efficiency. (2017-ongoing) **Grant (40,000 AED)**
4. **Co-PI.** Energy Efficiency enhancement of PV/T using nanofluids. (2017-ongoing) **Grant (80,000 AED).**
5. Faculty member and advisor. Solar Decathlon Middle East 2018 Dubai. (2016-ongoing)
6. Thermography Inspection for Composite Parts. Collaborative research between Masdar Institute, Mubadala and Strata Manufacturing, U.A.E. **Grant USD \$ 220 K On going.** (2017-ongoing)
7. “Optimizing the thermal heat signature of vehicles operating in the UAE”. **From May 2014- to September 2015.**
8. “Thermography Inspection for Composite Parts”. **From September 2015- Current.**
9. “NDT&E of Composites C/GFRP, Manufacturing and Usage related defects”, Collaborative research between Masdar Institute, Mubadala and Strata Manufacturing, U.A.E. (2014-2015). **Complete.**
10. Solar Energy Group Leader “Nano-fluids in Enhancing the performances of Heat Exchangers”, University Malaya, Fund (HIR), Solar group Leader under supervision of Prof. Dr. Saidur Rahman. (2012-2015). **Complete.**
11. “Investigation on fundamental optical properties of nanofluids”, University Malaya funded by Ministry of Higher Education, Malaysia. (2011-2012) **Complete.**

Editor

1. **Cogent Engineering (2017-present)**

<https://www.cogentoa.com/>

Editorial Board Member

2. **Colloid and Surface Science**

<http://www.sciencepublishinggroup.com/journal/editorialboard?journalid=607>

3. **Current Nanomaterials**

<https://benthamscience.com/journals/current-nanomaterials/editorial-board/>

4. **International Journal of Sustainable and Green Energy (IJSGE)**

<http://www.sciencepublishinggroup.com/j/ijsge>

5. **International Journal of Advanced Materials Research, ISSN: 2381-6813**

<http://www.aiscience.org/journal/editorialboard/ijamr.html>

6. *Journal of Nanoscience and Nanoengineering*

<http://www.aiscience.org/journal/editorialboard/jnn.html>

Supervision**Post Graduate Level**

(Name of Degree), (Name of Candidates), (Title of Thesis), (Academic Session)

Completed

1. *Masters Degree, Ammar Alrasisi, Calibration aspects of a thermographic self-referencing routine applied to polymer composites inspection. 2014/2015*
2. *Masters Degree, Abdullah Al Ali, Thermal study of the heat exchanger within heavy-duty vehicles using Finite Difference Approach, under idle conditions, 2014/2015*
3. *Masters Degree, Noora Abdulrahman, Improving the Quality of 3D Printing Using Data Mining, 2014/2015.*
4. *Masters Degree, Jasem Ali Al Shehhi, Network Architecture and Safety Issues for a Connected 3D Printer Platform, a Vulnerability Assessment, 2013/2014.*
5. *Masters Degree, Abdulla Alshehhi, Plume Effect Analysis Applied to Thermal Camouflage Studies, 2014/2015.*
6. *Masters Degree, Sultan Al Ali, Thermal modeling of heavy-duty vehicle exhaust system using finite differencing approach, under idle conditions, 2014/2015*
7. *Masters Degree, Yusra Abdulrahman, A Taguchi-based Design of Experiment Applied to Pulse and Lock in Thermography Routines when Applied to Polymer-based Composites, 2014/2015*
8. *Masters Degree, Fatima Al Obeidli, Using lock in Thermography for inspection of composites structures, 2015/2016*
9. *Masters Degree, Abdullah Al Ali, Thermal study of the heat exchanger within heavy-duty vehicles using Finite Difference Approach, 2014/2015*

Undergraduate

1. *Heat transfer enhancement of heat exchanger using nanofluids. Fall 2015/2016 (Complete)*
2. *Thermophysical properties of nanofluids and its effect on a car radiator. Spring 2015/2016 (Complete)*
3. *Increasing efficiency of district cooling using encapsulated PCM as TEST. Spring 2015/2016 (Complete)*
4. *Solar Decathlon. Spring 2015/2016 (Complete)*
5. *Design and performance analysis of an energy efficient evacuated tube solar collector for heating applications using nanofluids. Spring 2015/2016 (Complete)*

NEWSPAPER ARTICLES

1. *1st June 2015: "Defect detection made easier." Gulf Industry in cooperating exporters\Importers*
Link: <http://www.gulfindustryonline.com/news/12944-Defect-detection-made-easier.html>
2. *19th May 2015: "Abu Dhabi's Strata, Masdar Institute showcase breakthrough prototype to rapidly test aerospace structures." Emirates News Agency.*
3. *19th May 2015: "Strata & Masdar Institute showcase breakthrough prototype to rapidly test aerospace structures", Masdar Institute*

Link:

<https://www.zawya.com/story/Strata-Masdar-Institute-prototype-to-test-aerospace-structures-ZAWYA20150519112740/>

4. *26th February 2015: "Collaborative research at Masdar Institute has enhanced the performance of Tawazun vehicles displayed at IDEX2015", Masdar Institute News*

Link: <https://www.facebook.com/MasdarInst/photos/pb.199481122226.-2207520000.1438604503./10152685876947227/?type=3&theater>

Curriculum Vitae**Academic Profiles**

1. *Google Scholar*: <https://scholar.google.com/citations?hl=en&user=7sJfroUAAAAJ>
2. *ResearchGate Profile*: https://www.researchgate.net/profile/Zafar_Said2
3. *ORCID ID*: <http://orcid.org/0000-0003-2376-9309>

Reviewer

1. Progress in Energy and Combustion Science
2. International Journal of Heat and Mass Transfer,
3. Applied Energy,
4. Renewable & Sustainable Energy Reviews,
5. Desalination
6. International Journal of Green Energy
7. International J. of Mech. and Materials Engineering,
8. Chemical Engineering Journal,
9. African Journal of Agricultural Research,
10. Journal of Renewable and Sustainable Energy,
11. Renewable Energy,
12. Ain Shams Engineering Journal, etc.

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Short research summary

Dr. Zafar Said is currently working as an Assistant Professor in the Department of Sustainable Renewable Energy Engineering, University of Sharjah. Dr. Zafar completed his Ph.D. from the University of Malaya, Malaysia. He has graduated with B.S. in Mechanical Engineering (Hons.), University Tenaga Nasional, Malaysia. He worked as a post-doctoral researcher in the iSmart group in the Department of Engineering Systems and Management, Masdar Institute, U.A.E. Since 09/2016; he has been with the Department of Sustainable Renewable Energy Engineering, where he is currently an Assistant Professor. He is also working with industrial collaborative projects which are confidential with Masdar Institute. He works in the field of Renewable Energy, Energy and Exergy Analysis, Solar Energy (Solar Collectors, Energy Efficiency, Efficiency Improvement), Heat Transfer (Heat Transfer, Cooling and Heating), Nanofluids (Thermophysical properties, optical properties, Application of nanofluids), Under-hood Thermal Management (RadTherm, HyperMesh, Radiator, exhaust system and vehicle simulation model) and Active Thermography (Pulse Thermography, Lock-in Thermography, Composite Structures) and 3D printing. He is the author and co-author of more than 61 research papers and 21 international conference proceedings. Dr. Zafar has 1972 citations with an h-index of 23. Dr. Zafar is also serving as the Editor and Editorial Board Member for several ISI Journals.