

Dr. Ovais Gulzar
Assistant Professor

Department of Mechanical Engineering,
Islamic University of Science & Technology J&K

Email: bhatovais@gmail.com, ovais.gulzar@islamicuniversity.edu.in

Mobile: 9797126196

Education Details

Ph.D	NIT Srinagar	2020
M.Tech (Thermal System and Design)	RGTU, MP	2014
B.Tech in Mechanical Engineering	University of Kashmir	2011

Research Areas

Experimental Fluid Science, Nanofluids, Thermal System & Design, Renewable & Sustainable Energy Sources

Sponsored Research Projects

S.No.	Name of the project	Sponsoring/Funding Agency	Amount (INR)	Duration	Role	Status
1	Development and Tribological characterization of self-lubricating Aluminium alloy (AA6061) / nano-Ceramic composite ID: 1-5748457916	TEQIP-III, MHRD GoI	₹13,28,000	12 months	Co-PI	Ongoing

Membership & Recognitions

Organization: The Institution of Engineers (India)

Grade: Associate Member

ASME ID: AM1744685

Publications:

Journal Publications:

1. Anand, R., Raina, A., Ul Haq, M. I., Mir, M. J., **Gulzar, O.**, & Wani, M. F. (2020). Synergism of TiO₂ and graphene as nano-additives in bio-based cutting fluid-an experimental investigation. *Tribology Transactions*, 1-21. <https://doi.org/10.1080/10402004.2020.1842953>
2. **Gulzar, Ovais**, Adnan Qayoum, and Rajat Gupta. "Experimental study on thermal conductivity of mono and hybrid Al₂O₃-TiO₂ nanofluids for concentrating solar collectors." *International Journal of Energy Research* (2020). <https://doi.org/10.1002/er.6105>
3. **Gulzar, Ovais**, Adnan Qayoum, and Rajat Gupta. "Experimental study on stability and rheological behaviour of hybrid Al₂O₃-TiO₂ Therminol-55 nanofluids for concentrating solar collectors." *Powder Technology* 352 (2019): 436-444. <https://doi.org/10.1016/j.powtec.2019.04.060>
4. **Gulzar, Ovais**, Adnan Qayoum, and Rajat Gupta. "Photo-thermal characteristics of hybrid nanofluids based on Therminol-55 oil for concentrating solar collectors." *Applied Nanoscience* 9.5 (2019): 1133-1143. <https://doi.org/10.1007/s13204-018-0738-4>

Book Chapters:

1. Soni, M.K., **Gulzar, O.**, Haq, M.I.U. and Wani, M.F., Metal Matrix Nanocomposites: Physical, Mechanical and Tribological Properties. In *Tribology and Sustainability* (pp. 53-64). CRC Press.
2. Ali, H., **Gulzar, O.**, Karanth, K.V., Hassan, M.A. and Zeeshan, M., 2021. Experimental Analysis of Portable Optical Solar Water Heater. In *Advances in Manufacturing and Industrial Engineering* (pp. 925-937). Springer, Singapore.
https://doi.org/10.1007/978-981-15-8542-5_69
3. **Gulzar, O.**, Qayoum, A. and Gupta, R., 2021. Thermal Performance Investigation of a Single Pass Solar Air Heater. In *Advances in Manufacturing and Industrial Engineering* (pp. 793-805). Springer, Singapore.
https://doi.org/10.1007/978-981-15-8542-5_81

Conferences

1. Presented a paper on *Rheology of nanofluids used in solar collectors* in 91st Annual Meeting of Society of Rheology Raleigh, North Carolina USA held on October 20-24, 2019.
2. Presented a paper on *Rheological Behaviour of Copper Oxide Nanofluids for Use in Solar Collectors* in 7th International Conference & 45th National Fluid Mechanics and Fluid Power Conference at IIT Bombay held on 10-12 Dec 2018
3. Attended and presented a paper on *Application of Nanofluids in Solar Collectors: Overview and Future Prospectus* in International conference on mechanical engineering & allied sciences-2018 held on Sept 2018 14-15 Sept. 2018.
4. Attended and presented a paper on *Characterization of TiO₂-H₂O Nanofluids for Use in Solar Collectors* in 13th Session of Jammu and Kashmir Science Congress (JKSC-2018) held on 2nd April to 4th April 2018.
5. Attended and presented a paper on *Potential of Nanofluids for use in Solar Collectors* in 2nd National Conference on Innovative Trends in mechanical Engineering (NCITME-2018) held on 23rd - 24th March 2018.
6. Attended and presented a paper on *Characterization Techniques of Nano Based Thermal fluids for Solar Collectors* in National conference on emerging trends in materials science-2018 held on 07th -08th February 2018.
7. Attended and presented a paper on *Heat Transfer Enhancement using Aqueous CuO Nanofluids* in 4th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET-2017) held on 03-04 Nov 2017.
8. Attended and presented a paper on Performance of *Flat Plate Collector for Al₂O₃-H₂O Nanofluid using Hamilton-Crosser Model* in 6th International and 43rd Conference on Fluid Mechanics and Fluid Power (FMFP-2016) held on December 15-17, 2016.
9. Attended and presented a paper on *Heat Transfer Enhancement in Concentrated Solar Power Technologies using Nanofluids – A Review* in National Research Scholars Conclave on Innovation and Recent Trends in Science and Technology held on 02-03rd April 2016.
10. Attended and presented poster on *Analytical Modeling and Simulation of Solar Cell Modules for Different Temperature Variations Prevalent in Jammu and Kashmir* in 11th JK Science Congress 2015 held on 12-14 October 2015.
11. Attended and presented a paper on in Ninth JK Science Congress 2013 & Regional Science Congress held on 1-3 October 2013.
12. Attended and presented a paper on Design and development of *Low-cost Automation pneumatic Based Cap Hammering Unit with Quality Weigh Check* in 3rd International Conference on Production & Industrial Engineering (CPIE-2013) held on March 29-31, 2013.

Workshops/ Seminars/FDP's attended

1. Attended FIP on 5th Faculty Induction programme held on 10 August to 08th September organised by UGC-HRDC Jamia Millia Islamia New Delhi

2. Attended Webinar on Energy Conservation held on 17th April 2021 organised by NIDM, Ministry of Home Affairs, Govt. of India in collaboration with The Institution of Engineers (India) J&K State Centre Srinagar
3. Attended FDP on Online FDP on "Advances in Thermo-fluids and Turbo-machine held on June 06-June 10, 2020 organised by Satyug Darshan Institute of Engineering & Technology Faridabad.
4. Attended Webinar on Webinar on Exploring web of science, End Note X9, Journal citation reports and incites for Promoting excellence in Research held on 28-30 May, 2020 organised by IUST J&K.
5. Attended 3-Days Online FDP on "Hands on with Creating & Managing Online Teaching Tools for Teachers held on (28th -30th May 2020) organised by IUST J&K.
6. Attended 5 days Skill Development Program on Solar-PV system using PVSYST & PVSOL software with cost economic and policies at National Institute of Solar Energy Gurgaon held on (03-07 Feb 2020) organised by NISE, Gurgaon.
7. Attended STC/FDP on AICTE Sponsored Short Term Course Modern Measurement and Diagnostic Applications in Fluid and Thermal Engineering at IIT Roorkee. held on 09.11.2019 to 13.11.2019 organised by IIT Roorkee and AICTE.
8. Attended Workshop on Two-Day National Workshop on nanoscience-Opportunities and Challenges held on 04th and 05th September 2018. organised by IUST J&K
9. Attended Workshop on NPTEL Awareness Workshop held on 30-11-2018 organised by IUST
10. Attended Workshop on Three days workshop on "A Roadmap to growth of Teaching, Learning and Research" held on 16th to 18th August 2018 organised by IUST.
11. Attended Workshop on Scientific and Technical Documentation Using Latex held on 21-22 April 2017 organised by NIT Srinagar
12. Attended Workshop on Awareness Cum Training Centre on Concentrated Solar Thermal (CST) Technology under UNDP-GEF CSH Project of the Ministry of New and Renewable Energy, Government of India held on 08-10 April 2016 organised by UNDP-GEF CSH Project of the MNRE,GoI
13. Attended Workshop on Two-Week ISTE Workshop on Database Management Systems held on 21 to 31 May 2013 organised by IIT Bombay, MHRD, NIELIT Sgr.

Conferences/Workshops/ Seminars Organised

Resource Person

1. **Member Organizing Committee**, International Tribology Research Symposium Theme: Impact of Tribology on Society organised by School of Mechanical Engineering SMVDU, SRM Institute of Science and Technology Chennai and Centre of Advanced Studies, AKTU Lucknow from 5th to 7th November 2020
2. **Session chair** in TEQIP-III Sponsored International Conference on Mechanical Engineering and Allied Sciences 2018 organised by the School of Mechanical Engineering, SMVDU Katra from 14th and 15th September 2018.

Courses Taught

Undergraduate Level

- Basic Thermodynamics
- Applied Thermodynamics
- Power Plant Engineering

Postgraduate Level

Research Guidance

PhD

M.Tech

B.Tech ----- 03

Dr. Ovais Gulzar