

Faculty Research Publications in the year 2022

1. Arshad, A., Jabbal, M., Faraji, H., Talebizadehsardari, P., **Bashir, M.A.** and Yan, Y., 2022. Thermal performance of a phase change material-based heat sink in presence of nanoparticles and metal-foam to enhance cooling performance of electronics. *Journal of Energy Storage*, 48, p.103882.
2. Khan, A., Hadi, F., **Akram, N., Bashir, M.A.**, Ali, H.M., Janjua, M.M., Hussain, A., Pasha, R.A., Janjua, A.B. and Farukh, F., 2022. Review of micro and mini channels, porous heat sinks with hydrophobic surfaces for single phase fluid flow. *Journal of the Taiwan Institute of Chemical Engineers*, 132, p.104186.
3. Riaz, M.T., Cheema, T.A., Tayyab, M., Khan, A.U.A., **Amber, K.P.**, Sajid, M.B. and Park, C.W., 2022. Investigation of free and forced vortex induced thermal energy exchange potential. *Sustainable Energy Technologies and Assessments*, 52, p.102107.
4. **Khan, M.S.**, Mubeen, I., Caimeng, Y., Zhu, G., Khalid, A. and Yan, M., 2022. Waste to energy incineration technology: Recent development under climate change scenarios. *Waste Management & Research*, 40(12), pp.1708-1729.
5. **Khan, M.S.**, Mubeen, I., Jingyi, W., Zhang, Y., Zhu, G. and Yan, M., 2022. Development and performance assessment of a novel solar-assisted multigenerational system using high temperature phase change material. *International Journal of Hydrogen Energy*, 47(62), pp.26178-26197.
6. **Khan, M.S.**, Huan, Q., Yan, M., Ali, M., Noor, O.U. and Abid, M., 2022. A novel configuration of solar integrated waste-to-energy incineration plant for multi-generational purpose: An effort for achieving maximum performance. *Renewable Energy*, 194, pp.604-620.
7. **Khan, M.S.**, Huan, Q., Lin, J., Zheng, R., Gao, Z. and Yan, M., 2022. Exergoeconomic analysis and optimization of an innovative municipal solid waste to energy plant integrated with solar thermal system. *Energy Conversion and Management*, 258, p.115506.
8. Naseer, A., Jamil, F., Ali, H.M., Ejaz, A., Khushnood, S., **Ambreen, T., Khan, M.S., Bashir, M.A.**, Pao, W. and Yan, W.M., 2022. Role of phase change materials thickness for photovoltaic thermal management. *Sustainable Energy Technologies and Assessments*, 49, p.101719.
9. Mubeen, I., Rashid, A., Khan, M.S., Mi, Y.A.N. And Ali, H.M., 2022. Urban Contamination Assessment of Polycyclic Aromatic Hydrocarbons Released From An Oil Refinery In Rawalpindi. *Thermal Science*, 26.
10. **Khan, M.S.**, Yan, M. and Ali, H.M., 2022. Utilization of nanofluids (mono and hybrid) in parabolic trough solar collector: a comparative analysis. In *Advances in Nanofluid Heat Transfer* (pp. 375-402). Elsevier.
11. Hammad, A., **Younis, M.Y., Akram, N.**, Uddin, E. and Javed, A., 2022. Simulation study on flow behavior around a wall-mounted finite height square cylinder with corner chamfer. *Journal of Wind Engineering and Industrial Aerodynamics*, 229, p.105157.
12. Latif, U., Uddin, E., **Younis, M.Y.** and Abdelkefi, A., 2022, April. Wake flow effects on the energy harvesting characteristics of piezoelectric tandem flags. In *AIP Conference Proceedings* (Vol. 2425, No. 1, p. 410008). AIP Publishing LLC.
13. **Akram, N.**, Hosseini, M., Sadri, R., Kazi, S.N., Kasaeian, A., Yarmand, H., Hooman, K. and Ahmad, R., 2022. A facile, green fabrication of aqueous nanofluids containing hydrophilic

functionalized carbon nanotubes toward improving heat transfer in a closed horizontal flow passage. *Powder Technology*, 404, p.117451.

14. Fayaz, H., Afzal, A., Samee, A.M., Soudagar, M.E.M., **Akram, N.**, Mujtaba, M.A., Jilte, R.D., Islam, M.T., Ağbulut, Ü. and Saleel, C.A., 2022. Optimization of thermal and structural design in lithium-ion batteries to obtain energy efficient battery thermal management system (BTMS): a critical review. *Archives of Computational Methods in Engineering*, 29(1), pp.129-194.
15. Ditta, A., Tabish, A.N., ABBAS, M., Amjad, M., Yusuf, A.A., **Chaudhary, G.Q.**, Razzaq, L., Abdelrahman, A. and Kalam, M.A., 2022. Experimental Investigation of Hybrid Configuration of Solar Thermal Collectors and Desiccant Indirect Evaporative Cooling System. *Frontiers in Energy Research*, p.1432.