

Faculty Research Publications in the year 2021

- 1- **Bashir, M.A.**, Daabo, A.M., **Amber, K.P.**, **Khan, M.S.**, Arshad, A. and Elahi, H., **2021**. Effect of Phase Change Materials on the short-term thermal storage in the solar receiver of dish-micro gas turbine systems: A numerical analysis. *Applied Thermal Engineering*, p.117179.
- 2- **Amber, K.P.**, Akram, W., **Bashir, M.A.**, **Khan, M.S.** and Kousar, A., **2021**. Experimental performance analysis of two different passive cooling techniques for solar photovoltaic installations. *Journal of Thermal Analysis and Calorimetry*, 143, pp.2355-2366.
- 3- Arshad, A., Jabbal, M., Faraji, H., **Bashir, M.A.**, Talebizadehsardari, P. and Yan, Y., **2021**. Thermal process enhancement of HNCPCM filled heat sink: Effect of hybrid nanoparticles ratio and shape. *International Communications in Heat and Mass Transfer*, 125, p.105323.
- 4- **Khan, M.S.**, Abid, M., **Bashir, M.A.**, **Amber, K.P.**, Khan mohammadi, S. and Yan, M., **2021**. Thermodynamic and exergoeconomic analysis of a novel solar-assisted multigenerational system utilizing high temperature phase change material and hybrid nanofluid. *Energy Conversion and Management*, 236, p.113948.
- 5- Arshad, A., Jabbal, M., Faraji, H., Talebizadehsardari, P., **Bashir, M.A.** and Yan, Y., **2021**. Numerical study of nanocomposite phase change material-based heat sink for the passive cooling of electronic components. *Heat and Mass Transfer*, pp.1-15.
- 6- Giovannelli, A., Archilei, E.M., Di Lorenzo, G., Salvini, C., **Bashir, M.A.** and Messina, G., **2021**. Design of power-blocks for medium-scale supercritical carbon dioxide plants. *International Journal of Energy Research*, 45(1), pp.355-378.
- 7- **Khan, M.S.**, Abid, M., **Amber, K.P.**, Ali, H.M., Yan, M. and Javed, S., **2021**. Numerical Performance Investigation of Parabolic Dish Solar-Assisted Cogeneration Plant Using Different Heat Transfer Fluids. *International Journal of Photoenergy*, 2021.
- 8- Abid, M., **Khan, M.S.**, Ratlamwala, T.A.H., Malik, M.N., Ali, H.M. and Cheok, Q., **2021**. Thermodynamic analysis and comparison of different absorption cycles driven by evacuated tube solar collector utilizing hybrid nanofluids. *Energy Conversion and Management*, 246, p.114673.
- 9- Yan, M., Zhou, X., Zhang, S., Liao, W., Zhu, G., Wang, J., Kanchanatip, E. and **Khan, M.S.**, **2021**. Municipal solid waste pyrolysis under circulated pyrolytic gas atmosphere. *Journal of Material Cycles and Waste Management*, 23(3), pp.1141-1151.
- 10- **Khan, M.S.**, Abid, M., Yan, M., Ratlamwala, T.A. and Mubeen, I., **2021**. Thermal and thermodynamic comparison of smooth and convergent-divergent parabolic trough absorber tubes with the application of mono and hybrid nanofluids. *International Journal of Energy Research*, 45(3), pp.4543-4564.
- 11- Mubeen, I., Shengyong, L., Jianhua, Y., **Khan, M.S.**, Yan, M. and Ali, H.M., **2021**. Effect of milling material on characteristics and reactivity of mechanically treated fly ash to produce PCDD/F. *Journal of Thermal Analysis & Calorimetry*, 143(3).
- 12- Mubeen, I., Rashid, A., **Khan, M.S.**, Yan, M. and Ali, H.M., **2021**. Urban contamination assessment of polycyclic aromatic hydrocarbons released from an oil refinery in Rawalpindi. *Thermal Science*, (00), pp.55-55.
- 13- Mubeen, I., Tulaphol, S., Shengyong, L., Pan, D., Zhang, P., **Khan, M.S.**, Yan, M. and Stevens, W.R., **2021**. Online measurement of 1, 2, 4-trichlorobenzene as dioxin indicator on multi-walled carbon nanotubes. *Environmental Pollution*, 268, p.115329.

- 14- Khan, M.Z.U., Akbar, B., Sajjad, R., Rajput, U.A., Mastoi, S., Uddin, E., Hussain, A., **Younis, M.Y.**, Márquez, F.P.G. and **Akram, N.**, **2021**. Investigation of heat transfer in dimple-protrusion micro-channel heat sinks using copper oxide nano-additives. *Case Studies in Thermal Engineering*, p.101374.
- 15- Latif, U., Uddin, E., Younis, M.Y., Aslam, J., Ali, Z., Sajid, M. and Abdelkefi, A., **2021**. Experimental electro-hydrodynamic investigation of flag-based energy harvesting in the wake of inverted C-shape cylinder. *Energy*, 215, p.119195.
- 16- Mujtaba, A., Latif, U., Uddin, E., **Younis, M.Y.**, Sajid, M., Ali, Z. and Abdelkefi, A., **2021**. Hydrodynamic energy harvesting analysis of two piezoelectric tandem flags under influence of upstream body's wakes. *Applied Energy*, 282, p.116173.
- 17- Latif, U., Ali, E., Uddin, E., Ali, Z., Sajid, M., Shah, S.R. and **Younis, M.Y.**, **2021**. Experimental investigation of energy harvesting eel in the wake of bluff body under ocean waves. *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment*, 235(1), pp.81-92.
- 18- Uzair, M., **Chaudhary, G.Q.**, ur Rehman, N., Anwer, M.Z., Hassan, S.H., Siddiqui, H. and Hussain, M.S., Numerical Investigation to Determine the Optimized Solar Cavity Shape. *GMSARN International Journal 16 (2021) 55-65*
- 19- Kousar, R., **Chaudhary, G.Q.** and Amjad, M.K., **2021**. Energy, economic, and environmental (3E) feasibility study of desiccant integrated multistage efficient indirect evaporative air conditioning system configurations in the subtropical climate. *Heat and Mass Transfer*, pp.1-15.
- 20- Ahmed, W., Kazi, S.N., Chowdhury, Z.Z., Johan, M.R.B., **Akram, N.**, Mujtaba, M.A., Gul, M. and Oon, C.S., **2021**. Experimental investigation of convective heat transfer growth on ZnO@TiO₂/DW binary composites/hybrid nanofluids in a circular heat exchanger. *Journal of Thermal Analysis and Calorimetry*, 143(2), pp.879-898.
- 21- Ahmed, W., Chowdhury, Z.Z., Kazi, S.N., Johan, M.R., **Akram, N.**, Oon, C.S. and Abdelrazek, A.H., **2021**. Characteristics investigation on heat transfer growth of sonochemically synthesized ZnO-DW based nanofluids inside square heat exchanger. *Journal of Thermal Analysis and Calorimetry*, 144(4), pp.1517-1534.
- 22- Akkoli, K.M., Banapurmath, N.R., Shivashimpi, M.M., Soudagar, M.E.M., Badruddin, I.A., Alazwari, M.A., Yaliwal, V.S., Mujtaba, M.A., **Akram, N.**, Goodarzi, M. and Safaei, M.R., **2021**. Effect of injection parameters and producer gas derived from redgram stalk on the performance and emission characteristics of a diesel engine. *Alexandria Engineering Journal*, 60(3), pp.3133-3142.
- 23- Arzpeyma, M., Mekhilef, S., Newaz, K.M.S., Horan, B., Seyedmahmoudian, M., **Akram, N.**, Stojcevski, A., Alnaimat, F. and Mathew, B., **2021**. Numerical simulation of the effect of chimney configuration on the performance of a solar chimney power plant. *Journal of Thermal Analysis and Calorimetry*, pp.1-15.
- 24- Khalid, M.Y., Rashid, A.A., Arif, Z.U., **Akram, N.**, Arshad, H. and García Márquez, F.P., **2021**. Characterization of Failure Strain In Fiber Reinforced Composites: Under On-Axis and Off-Axis Loading. *Crystals*, 11(2), p.216.
- 25- Khalid, M.Y., Imran, R., Arif, Z.U., **Akram, N.**, Arshad, H., Rashid, A.A. and García Márquez, F.P., **2021**. Developments in Chemical Treatments, Manufacturing Techniques and Potential Applications of Natural-Fibers-Based Biodegradable Composites. *Coatings*, 11(3), p.293.

- 26- Harari, P.A., Banapurmath, N.R., Yaliwal, V.S., Soudagar, M.E.M., Khan, T.Y., Mujtaba, M.A., Safaei, M.R., **Akram, N.**, Goodarzi, M., Elfasakhany, A. and EL-Seesy, A.I., **2021**. Experimental investigation on compression ignition engine powered with pentanol and thevetia peruviana methyl ester under reactivity controlled compression ignition mode of operation. *Case Studies in Thermal Engineering*, 25, p.100921.
- 27- **Akram, N.**, Montazer, E., Kazi, S.N., Soudagar, M.E.M., Ahmed, W., Zubir, M.N.M., Afzal, A., Muhammad, M.R., Ali, H.M., Márquez, F.P.G. and Sarsam, W.S., **2021**. Experimental investigations of the performance of a flat-plate solar collector using carbon and metal oxides based nanofluids. *Energy*, 227, p.120452.
- 28- 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., **2021**. 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*, pp.1-66.
- 29- Ahmed, W., Chowdhury, Z.Z., Kazi, S.N., Johan, M.R.B., Abdelrazek, A.H., Fayaz, H., Badruddin, I., Mujtaba, M.A., Soudagar, M.E.M., **Akram, N.** and Mehmood, S., **2021**. Experimental evaluation and numerical verification of enhanced heat transportation by using ultrasonic assisted nanofluids in a closed horizontal circular passage. *Case Studies in Thermal Engineering*, 26, p.101026.
- 30- Khalid, M.Y., Al Rashid, A., Abbas, Z., Akram, N., Arif, Z.U. and Márquez, F.P.G., **2021**. Stacking Sequences 에 따른 Glass/Sisal 과 Glass/Jute Fiber 로 강화된 복합체의 연신 특성 평가. *Polymer (Korea)*, 45(3), pp.390-397.
- 31- Khalid, M.Y., Al Rashid, A., Abbas, Z., Akram, N., Arif, Z.U. and Márquez, F.P.G., **2021**. Evaluation of Tensile Properties of Glass/Sisal and Glass/Jute Fibers Reinforced Hybrid Composites at Different Stacking Sequences. *플라스틱*, 45(3), pp.390-397.