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List of Journal Publications:

2007-2012
1. Mathematical modeling of the working cycle of oil injected rotary twin screw compressor; Applied thermal engineering; 27; 1; 145-155; 2007; Q1 2. Ghosh, Subrata K; Sahoo, Ranjit K; Sarangi, Sunil K; Experimental performance study of cryogenic turboexpander by using aerodynamic thrust bearing; Applied thermal engineering; 30; 12-Nov; 1304-1311; 2010; Q1 3. Ghosh, Subrata K; Sahoo, RK; Sarangi, Sunil K; Mathematical analysis for off-design performance of cryogenic turboexpander; Journal of fluids engineering; 133; 3; 2011; Q2 4. Ghosh, Subrata; Mukherjee, Parboti; Sarangi, Sunil; Development of bearings for a small high speed cryogenic turboexpander; Industrial Lubrication and Tribology; 64; 3-10; 2012; Q4
2013-2015
1. Rizvi, Imbesat Hassan; Jain, Ayush; Ghosh, Subrata Kr; Mukherjee, PS; Mathematical modelling of thermal conductivity for nanofluid considering interfacial nano-layer; Heat and mass transfer; 49; 4; 595-600; 2013; Q2 2. Jain, Ayush; Rizvi, Imbesat Hassan; Ghosh, Subrata Kumar; Mukherjee, PS; Analysis of nanofluids as a means of thermal conductivity enhancement in heavy machineries; Industrial Lubrication and Tribology; 66/2; 238-243; 2014; Q4 3. Sarkar, Mayukh; Ghosh, Subrata Kumar; Mukherjee, PS; Analysis of wear generation in mine excavator bucket; Industrial Lubrication and Tribology; 67/1; 52-58; 2015; Q4 4. Sarkar, Mayukh; Shaw, Rakesh Kr; Ghosh, Subrata Kr; Numerical analysis of stresses in mine excavator bucket; Journal of Mining Science; 51; 2; 309-313; 2015; Q4 5. Kotia, Ankit; Ghosh, Subrata Kumar; Experimental analysis for rheological properties of aluminium oxide (Al₂O₃)/gear oil (SAE EP-90) nanolubricant used in HEMM; Industrial Lubrication and Tribology; 67/6; 600-605; 2015; Q4 6. Kumar, Vikas; Tiwari, Arun Kumar; Ghosh, Subrata Kumar; Application of nanofluids in plate heat exchanger: a review; Energy conversion and management; 105; 1017-1036; 2015; Q1
2016
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2017
1. Mojumder, Soumyajit; Sikdar, Soumya; Ghosh, Subrata Kumar; Experimental study of wear for implant materials under dry sliding conditions; Industrial Lubrication and Tribology; 69/6; 828-832; 2017; Q4

2. Kotia, Ankit; Borkakoti, Sheeba; Deval, Piyush; Ghosh, Subrata Kumar; Review of interfacial layer's effect on thermal conductivity in nanofluid; Heat and Mass Transfer; 53; 6; 2199-2209; 2017; **Q2**
3. Kotia, Ankit; Ghosh, Subrata Kumar; CFD analysis on natural convective heat transfer of Al₂O₃-gear oil nanolubricant used in HEMM; Industrial Lubrication and Tribology; 69/5; 673-677; 2017; **Q4**
4. Kotia, Ankit; Halder, Abhisek; Kumar, Ravindra; Deval, Piyush; Ghosh, Subrata Kr; Effect of copper oxide nanoparticles on thermophysical properties of hydraulic oil-based nanolubricants; Journal of the Brazilian Society of Mechanical Sciences and Engineering; 39; 1; 259-266; 2017; **Q2**
5. Kumar, Rahul; Azam, Mohammad Sikandar; Ghosh, Subrata Kumar; Khan, Hasim; Effect of surface roughness and deformation on Rayleigh step bearing under thin film lubrication; Industrial Lubrication and Tribology; 69/6; 1016-1032; 2017; **Q4**
6. Kotia, Ankit; Ghosh, Subrata Kumar; Heat Transfer Analysis of Nanofluid Considering the Interfacial Nanolayer; Heat Transfer Research; 48; 6; 2017; **Q2**

2018

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2. Kumar, Ashwani; Ghosh, Subrata K; Size distribution analysis of wear particles in the transmission system of mining equipment; Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology; 232; 8; 921-926; 2018; **Q3**
3. Bhowmik, Subrata; Paul, Abhishek; Panua, Rajsekhar; Ghosh, Subrata Kumar; Debroy, Durbadal; Performance-exhaust emission prediction of diesosenol fueled diesel engine: An ANN coupled MORSM based optimization; Energy; 153; 212-222; 2018; **Q1**
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7. Kotia, Ankit; Kumar, Ravindra; Halder, Abhisek; Deval, Piyush; Ghosh, Subrata Kumar; Characterization of Al₂O₃-SAE 15W40 engine oil nanolubricant and performance evaluation in 4-stroke diesel engine; Journal of the Brazilian Society of Mechanical Sciences and Engineering; 40; 1; 38; 2018; **Q2**
8. Kotia, Ankit; Borkakoti, Sheeba; Ghosh, Subrata Kumar; Wear and performance analysis of a 4-stroke diesel engine employing nanolubricants; Particuology; 37; 54-63; 2018; **Q2**
9. Gupta, Naveen Kumar; Tiwari, Arun Kumar; Ghosh, Subrata Kumar; Heat transfer mechanisms in heat pipes using nanofluids—A review; Experimental Thermal and Fluid Science; 90; 84-100; 2018; **Q1**
10. Kumar, Vikas; Tiwari, Arun Kumar; Ghosh, Subrata Kumar; Exergy analysis of hybrid nanofluids with optimum concentration in a plate heat exchanger; Materials Research Express; 5; 6; 65022; 2018; **Q3**
11. Bhowmik, Subrata; Panua, Rajsekhar; Ghosh, Subrata K; Paul, Abhishek; Debroy, Durbadal; Prediction of performance and exhaust emissions of diesel engine fuelled with adulterated diesel: An artificial neural network assisted fuzzy-based topology optimization; Energy & Environment; 29; 8; 1413-1437; 2018; **Q3**
12. Manna, Saurav; Halder, Subhas C; Ghosh, Subrata K; Effect of an axial hole on natural convection heat transfer from a cylindrical pin fin attached to a horizontal plate; Thermal Science; 22; 6 Part A; 2493-2502; 2018; **Q4**
13. Kotia, Ankit; Rajkhowa, Pranami; Rao, Gogineni Satyanarayana; Ghosh, Subrata Kumar;

Thermophysical and tribological properties of nanolubricants: A review; Heat and Mass Transfer; 54; 11; 3493-3508; 2018; **Q2**

14. Singh, Jyoti Prakash; Nandi, T; Ghosh, SK; Srivastava, J; Tripathi, SK; Prasad, N Eswara; Carbon nanoparticle synthesis, separation, characterization, and tribological property evaluation; Separation Science and Technology; 53; 14; 2314-2326; 2018; **Q3**
15. Kumar, Rahul; Azam, Mohammad Sikandar; Ghosh, Subrata Kumar; Yadav, Sanjay; 70 years of Elastohydrodynamic Lubrication (EHL): A Review on Experimental Techniques for Film Thickness and Pressure Measurement; Mapan; 33; 4; 481-491; 2018; **Q4**
16. Kumar, Rahul; Ghosh, Subrata Kumar; Azam, Mohammad Sikandar; Khan, Hasim; Numerical Simulation of rough thrust pad bearing under thin-film lubrication using variable mesh density; Iranian Journal of Science and Technology, Transactions of Mechanical Engineering; 22-Jan; 2018; **Q2**

2019

1. Kotia, Ankit; Ghosh, Gaurab Kumar; Srivastava, Isha; Deval, Piyush; Ghosh, Subrata Kumar; Mechanism for improvement of friction/wear by using Al₂O₃ and SiO₂/Gear oil nanolubricants; Journal of Alloys and Compounds; 782;592-599; 2019; **Q1**
2. Kumar, Rahul; Azam, Mohammad Sikandar; Ghosh, Subrata Kumar; Khan, Hasim; Thermo-elastohydrodynamic lubrication simulation of the Rayleigh step bearing using the progressive mesh densification method; SIMULATION; 95; 5; 395-410; 2019; **Q4**
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4. Kumar, Rahul; Azam, Mohammad Sikandar; Ghosh, Subrata Kumar; Influence of stochastic roughness on performance of a Rayleigh step bearing operating under Thermo-elastohydrodynamic lubrication considering shear flow factor; Tribology International; 134; 264-280; 2019; **Q1**
5. Manna, S; Ghosh, SK; Haldar, SC; Optimum fin parameters of radial heat sinks subjected to natural convection; Journal of Thermal Science and Engineering Applications; 11; 5; 2019; **Q4**
6. Ranjan, Rakesh; Ghosh, Subrata Kumar; Kumar, Manoj; Modelling of wear debris in planetary gear drive; Industrial Lubrication and Tribology; 2019; **Q4**
7. Singh, Jyoti Prakash; Nandi, Tandra; Ghosh, Subrata Kumar; Prasad, N Eswara; Preparation and Isolation of Carbon Nanorods and “Carbon Nanoflowers” through Combustion of Candle Wax for Heat Transfer Application; Combustion Science and Technology; 22-Jan; 2019; **Q3**
8. Kumar, Rahul; Azam, Mohammad Sikandar; Ghosh, Subrata Kumar; Khan, Hasim; Performance evaluation of rough thrust pad bearing under thermo-elastohydrodynamic lubrication using an improved iterative method; Mechanics & Industry; 20; 1; 110; 2019; **Q2**
9. Gupta, Naveen Kumar; Tiwari, Arun Kr; Verma, Sujit Kr; Rathore, Pushpendra Kr Singh; Ghosh, Subrata Kr; A Comparative Study of Thermal Performance of a Heat Pipe using Water and Nanofluid, and a Nanoparticle-Coated Wick Heat Pipe using Water; Heat Transfer Research; 50; 18; 1767-1779; 2019; **Q2**
10. S Bhowmik, A Paul, R Panua, S K Ghosh, D Debroy; Artificial intelligence-based gene expression programming (GEP) model prediction of Diesel engine performances and exhaust emissions under Diesosenol fuel strategies; Fuel; 235, 317-325; 2019; **Q1**

2020

1. Kotia, Ankit; Chowdary, Krishna; Srivastava, Isha; Ghosh, Subrata Kumar; Ali, Mohamed Kamal Ahmed; Carbon nanomaterials as friction modifiers in automotive engines: Recent progress and perspectives; Journal of Molecular Liquids; 113200; 2020; **Q1**
2. Kumar, Santosh; Ghosh, Subrata Kumar; Particle emission of organic brake pad material: A review; Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering; 234; 5; 1213-1223; 2020; **Q4**
3. Yadav, Devendra; Dansena, Prabhat; Ghosh, Subrata Kumar; Singh, Pawan Kumar; A unique multilayer perceptron model (ANN) for different oxide/EG nanofluid's viscosity from the experimental study; Physica A: Statistical Mechanics and its Applications; 124030; 2020; **Q2**
4. Ranjan, Rakesh; Ghosh, Subrata Kumar; Kumar, Manoj; Fault diagnosis of journal bearing in a

hydropower plant using wear debris, vibration and temperature analysis: A case study; Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering; 234; 3; 235-242; 2020; **Q3**

5. Halder, Abhishek; Chatterjee, Sankhadeep; Kotia, Ankit; Kumar, Niranjana; Ghosh, Subrata Kumar; Analysis of rheological properties of MWCNT/SiO₂ hydraulic oil nanolubricants using regression and artificial neural network; International Communications in Heat and Mass Transfer; 116; 104723; 2020; **Q1**
6. More, S; Kotiya, A; Kotia, A; Ghosh, SK; Spyrou, LA; Sarris, IE; Rheological Properties of Synovial Fluid due to Viscosupplements: A Review for Osteoarthritis Remedy; Computer Methods and Programs in Biomedicine; 105644; 2020; **Q1**
7. Bhowmik, Subrata; Paul, Abhishek; Panua, Rajsekhar; Ghosh, Subrata Kumar; "Performance, combustion and emission characteristics of a diesel engine fueled with diesel-kerosene-ethanol: A multi-objective optimization study"; Energy; 2020; Pergamon; **Q1**
8. Srivastava, Isha; Singh, Fateh; Kotia, Ankit; Ghosh, Subrata Kumar; "MWCNT and graphene nanoparticles additives for energy efficiency in engine oil with regression modeling; Journal of Thermal Analysis and Calorimetry" 2020; Springer; **Q1**
9. Kumar, Santosh; Ghosh, Subrata Kumar; "Porosity and tribological performance analysis on new developed metal matrix composite for brake pad materials"; Journal of Manufacturing Processes; 59186-204; 2020; Elsevier; **Q2**
10. Sharma, Gaurav, Ankit Kotia, Subrata Kumar Ghosh, Prashant Singh Rana, Seema Bawa, and Mohamed Kamal Ahmed Ali. "Kinematic Viscosity Prediction of Nanolubricants Employed in Heavy Earth Moving Machinery Using Machine Learning Techniques." *International Journal of Precision Engineering and Manufacturing* 21, no. 10 (2020): 1921-1932; **Q3**

2021

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2. Singh, Jyoti Prakash, Tandra Nandi, and Subrata Kumar Ghosh. "Structure-property relationship of silver decorated functionalized reduced graphene oxide based nanofluids: Optical and thermophysical aspects and applications." *Applied Surface Science* 542 (2021): 148410; **Q1**
3. Singh, Shiva, Sumit Kumar, and Subrata Kumar Ghosh. "Development of a unique multi-layer perceptron neural architecture and mathematical model for predicting thermal conductivity of distilled water based nanofluids using experimental data." *Colloids and Surfaces A: Physicochemical and Engineering Aspects* (2021): 127184; **Q2**
4. Pare, Ashutosh, and Subrata Kumar Ghosh. "Surface qualitative analysis and ANN modelling for pool boiling heat transfer using Al₂O₃-water based nanofluids." *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 610 (2021): 125926; **Q2**
5. Kumar, Vikas, Ashutosh Pare, Arun Kumar Tiwari, and Subrata Kumar Ghosh. "Efficacy evaluation of oxide-MWCNT water hybrid nanofluids: An experimental and artificial neural network approach." *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 620 (2021): 126562; **Q2**
6. Singh, Jyoti Prakash, Shiva Singh, Tandra Nandi, and Subrata Kumar Ghosh. "Development of graphitic lubricant nanoparticles based nanolubricant for automotive applications: Thermophysical and tribological properties followed by IC engine performance." *Powder Technology* 387 (2021): 31-47; **Q1**
7. Kumar, Santosh, and Subrata Kumar Ghosh. "Statistical and computational analysis of an environment-friendly MWCNT/NiSO₄ composite materials." *Journal of Manufacturing Processes* 66 (2021): 11-26; **Q2**
8. Singh, S., Verma, P. and Ghosh, S.K., 2021. Numerical and experimental analysis of performance in a compact plate heat exchanger using graphene oxide/water nanofluid. *International Journal of Numerical Methods for Heat & Fluid Flow*; **Q1**
9. Kumar, Ashwani, Piyush Deval, Ekta Singh Shrinet, and Subrata Kumar Ghosh. "Investigation on tribological properties of used engine oil with graphene." *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology* (2021): 1350650120960996. **Q3**
10. Kumar, Ashwani, T. V. K. Gupta, Rajib Kumar Jha, and Subrata Kumar Ghosh. "Wear analysis of

abrasive waterjet nozzle using suprathreshold stochastic resonance technique." *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering* 235, no. 2 (2021): 499-504; **Q3**

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13. Kumar, Santosh, Rohith Goli, and Subrata Kumar Ghosh. "Performance analysis of SiC-Ni-P nanocomposite electroless coated brake pad." *Materials and Manufacturing Processes* (2021): 1-18. **Q2**
14. Pare, Ashutosh, and Subrata Kumar Ghosh. "The empirical characteristics on transient nature of Al₂O₃-water nanofluid pool boiling." *Applied Thermal Engineering* (2021): 117617.; **Q1**
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2. K Mausam, S Singh, SK Ghosh, RP Singh, AK Tiwari, “Experimental analysis of the thermal performance of traditional parallel tube collector (PTC) and cutting-edge spiral tube collector (STC): A comparative study for sustainable solar energy harvesting”, Thermal Science and Engineering Progress 47, 102295 **Q1**
3. I Srivastava, A Kotia, SK Ghosh, “Molecular dynamics simulation on engine oil nanolubricant boundary lubrication conditions”, Heat Transfer 53 (1), 199-224 **Q2**
4. Ritesh Kumar Patel, Sidhant Kumar Sabar, Subrata Kumar Ghosh, “The heating effect on tribological behaviour in the hot rolling process using TiO₂ oil-in-water emulsion-A comparative study”, Powder Technology, 432, 119112 **Q1**
5. S Bhowmik, R Panua, SK Ghosh, “Investigation of performance, combustion and exhaust emission characteristics of a compression ignition engine fuelled with diesel-kerosene-ethanol-hydrogen strategies”, International Journal of Hydrogen Energy 49, 697-712 **Q1**
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