LIST OF PUBLICATIONS

Faculty: Dr Lakshmi Sirisha Maganti

Department of Mechanical Engineering

JOURNAL PUBLICATIONS

Particle and Thermo-Hydraulic Maldistribution of Nanofluids In Parallel Microchannels - **S. Maganti,** P. Dhar, T. Sundararajan and S. K. Das- *Microfluidics and Nanofluidics*, 20 (7), 109 (2016).

Thermally Smart Characteristics of Nanofluids in Parallel Microchannel Systems for Mitigating Hot-spots in MEMS - **S. Maganti**, P. Dhar, T. Sundararajan and S. K. Das-IEEE Trans*. Components, Packaging and Manufacturing Technology*, 6 (12), 1834 – 1846 (2016).

Smart Viscoelastic and Self-Healing Characteristics of Graphene Nano-gels- P. Dhar, A. Katiyar and **S. Maganti**- *Journal of Applied Physics,* 120, 214304 (2016).

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Heat spreader with parallel microchannel configurations for near-active cooling of MEMS- **S. Maganti**, P. Dhar, T. Sundararajan and S. K. Das- *International Journal of Heat and Mass Transfer*, 111, 570-581 (2017).

Selecting optimal parallel microchannel configuration(s) for active hot spot mitigation of realistic multicore microprocessors- **S. Maganti**, P. Dhar, T. Sundararajan and S. K. Das- *Transactions of the ASME Journal of Heat Transfer*, 139 (10), 102401 (2017).

Consequences of flow configuration and nanofluid transport on entropy generation in parallel microchannel cooling systems- **S. Maganti,** P. Dhar- *International Journal of Heat and Mass Transfer*, 109, 555–563 (2017).

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Mitigating Non Uniform Heat Generation Induced Hot Spot (S) in Multicore Processors Using Nanofluids in Parallel Microchannels- **S. Maganti,** P. Dhar, T. Sundararajan and S. K. Das- *International Journal of Thermal Sciences*, 125, 185-196 (2018).

Electrohydrodynamic fibrillation governed enhanced thermal transport in dielectric colloids under field stimulus- Dhar, **L. S. Maganti** and A. R. Harikrishnan- *Soft Matter*, 14(21), 4278-4286 (2018).

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Analytical and numerical prediction Of hydrodynamic characteristics of microchannel- Mathiyazhagan S and **Sirisha Maganti**- *Lecture notes of mech engg,* (2021).

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Multi-objective optimization of parallel microchannel heat sink with inlet/outlet U, I, Z type manifold configuration by RSM and NSGA-II- Mathiyazhagan S and **Lakshmi Sirisha Maganti**- Journal of Physics: Conference Series, (2022).

Influence of competitive electro- and ferro-hydrodynamics on droplet vaporization phenomenology- Purbarun Dhar, Vivek Jaiswal, Hanumant Chate & **Lakshmi Sirisha Maganti**- *Microfluidics and Nanofluids*, (2022).

Improvement of uniformity of irradiance on truncated compound parabolic concentrator by introducing the homogenizer ratio- **Lakshmi Sirisha Maganti** and Mathiyazhagan Shanmugam - *Renewable Energy*, (2023).

INTERNATIONAL CONFERENCES

Flow and Concentration Maldistribution of Nanofluid In Parallel Microchannels- **S. Maganti**, T. Sundararajan and S.K. Das, Proceedings of The 1st International And 23rd National ISHMT-ASTFE Heat And Mass Transfer Conference, Trivandrum, India (2015).

Thermal Performance Of Nanofluids In Parallel Microchannel Systems – U,I,Z- **S. Maganti**, T. Sundararajan and S. K. Das, 3rd International Conference On Nanotechnology For Better Living, Srinagar, India, , May (2016).

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S. Maganti, T. Sundararajan and S. K. Das, Mitigation of non-uniform hot spots in Intel i7 processor using microchannels and nanofluids, International Conference on Fluid Mechanics and Fluid Power (FMFP), NIT Allahabad, Allahabad (2016).

Lakshmi Sirisha Maganti, Effect of rim angle and dish diameter on the heat flux distribution characteristics of a concentrated solar dish collector - Springer lecture note in mech engg, (2021).

PATENTS

Title: A SYSTEM AND METHOD FOR COOLING A HOT-SPOT DETECTED IN A MICROPROCESSOR
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