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## PRINCIPAL RESEARCH OF INTEREST:

- Solar Thermal Engineering

## PUBLICATIONS:

1. **Muthu, G.**, T. Sathish, V. Dhinakaran, M. D. Vijayakumar, and K. P. Vignesh. "Performance enhancement and emission control of diesel engine." Materials Today: Proceedings (2020).
2. Vijayakumar, M. D., V. Dhinakaran, T. Sathish, and **G. Muthu**. "Experimental study of chemical composition of aluminium alloys." Materials Today: Proceedings (2020).
3. Dhinakaran, V., M. D. Vijayakumar, **G. Muthu**, and T. Sathish. "Experimental investigation of hybrid fibre reinforced polymer composite material and its microstructure properties." Materials Today: Proceedings (2020).
4. Sathish, T., **G. Muthu**, M. D. Vijayakumar, V. Dhinakaran, and PM Bupathi Ram. "Mechanical properties and microstructural analysis of friction stir processed AA6056-zirconium dioxide (ZrO<sub>2</sub>)." Materials Today: Proceedings (2020).
5. Thulasi, S., **G. Muthu**, G. Karthikeyan, and V. Thirumaran. "Thermal performance in a modified header solar water heating system using salt hydrate technology with twisted tape insert." Materials Today: Proceedings (2020).
6. **Muthu, G.**, S. Thulasi, V. Dhinakaran, and T. Mothilal. "Performance of solar parabolic dish thermoelectric generator with PCM." Materials Today: Proceedings (2020).
7. **Muthu, G.**, S. Shanmugam, and A. R. Veerappan. "Theoretical and experimental study on a thermoelectric generator using concentrated solar thermal energy." Journal of Electronic Materials 48, no. 5 (2019): 2876-2885.
8. **Muthu, G.**, S. Shanmugam, and A. R. Veerappan. "Numerical modeling of year-round performance of a solar parabolic dish thermoelectric generator." Journal of Electronic Materials 44, no. 8 (2015): 2631-2637.
9. **Muthu, Gunalan**, Subramaniam Shanmugam, and Arunachalam Veerappan. "Mathematical Modeling of Thermoelectric Generator with Solar Parabolic Dish."

In Applied Mechanics and Materials, vol. 699, pp. 558-563. Trans Tech Publications Ltd, 2015.

10. **Muthu, Gunalan**, Subramaniam Shanmugam, and Arunachalam R. Veerappan. "Energy and exergy analysis of solar parabolic dish thermoelectric generator." In Applied Mechanics and Materials, vol. 592, pp. 2437-2441. Trans Tech Publications Ltd, 2014.
11. **Muthu, G.**, S. Shanmugam, and A. R. Veerappan. "Solar parabolic dish thermoelectric generator with acrylic cover." Energy Procedia 54 (2014): 2-10.
12. **Muthu, G.**, S. Thulasi, and T. Mothilal. "Heat transfer analysis of thermoelectric generator at the focus of solar parabolic dish."