

Thermal Analysis of Automobile Radiator Using Nanofluids

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Abstract : As the technology is emerging day by day, there is a need for some better methodology which will enhance the performance of radiator. Nanofluid is the one area which has promised the enhancement of the radiator performance. Currently, nanofluid has got a well effective solution for enhancing the performance of the automobile radiators. Suspending the nano sized particle in the base fluid, which has got better thermal conductivity value when compared to a base fluid, is preferably considered for nanofluid. In the current work, at first mathematical formulation has been carried out, which will govern the performance of the radiator. Current work is justified by plotting the graph for different parameters. Current work justifies the enhancement of radiator performance using nanofluid.

Keywords : nanofluid, radiator performance, graphene, gamma aluminium oxide (γ -Al₂O₃), titanium dioxide (TiO₂)

Conference Title : ICNB 2017 : International Conference on Nanotechnology and Biosensors

Conference Location : Rome, Italy

Conference Dates : May 04-05, 2017