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Fabrication and Characterization of Silicon Carbide and Epoxy Matrix Radiator: A Study Approaches the Experimental Setup

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Abstract : The recent advancement in engineering has invented the forced engine cooling system to develop new strategies to improve its performance of engine efficiency and also reduces the specific fuel consumption along with controlling of engine emission abiding environmental pollution control norms. This paper involves on the parameters which influence efficient heat transfer in radiators by modifying Universal Aluminum Radiator in to Silicon Carbide and Epoxy Matrix Radiator. As silicon carbide has higher thermal conductivity and lower thermal expansion than Aluminum. A high thermal conductive Epoxy resin is mixed at the ratio of 20wt% of epoxy resin 80% of Silicon Carbide.

Keywords : Silicon Carbide, Epoxy resin, Epoxy matrix, Radiator and Heat Transfer.

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