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Performance Evaluation of Double Pipe Heat Exchanger by using Nano Fluid

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Abstract: *Heat exchangers have extensive applications across various industries for cooling purposes or heat recovery. The current project involves making model parallel and counter flow heat exchangers to analyse the performance of the Parallel and Counter Flow Heat Exchanger under varying temperature conditions of water and Nano fluid (Al_2O_3), consisting of water and different volume concentrations. (1%, 3.75% and 5.65%) fluid and temperature to temperature by researching various papers. Additionally, we have computed LMTD and effectiveness by adjusting the flow rate and temperature of hot water and cold fluid. The project involves comparing the performance of parallel and counter flow heat exchangers, and evaluating their performance under different operating conditions.*

Keywords: Heat Exchanger, Nano Fluid, LMTD.

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