

LIST OF TABLES

Table No	Title	Page No
Table 2.1	Summary of experimental thermal conductivity correlations of hybrid nanofluids	11
Table 2.2	Summary of dynamic viscosity correlations of hybrid nanofluids	14
Table 2.3	Heat transfer characteristics of double tube heat exchanger using nanofluids	19
Table 2.4	Summary of the pressure drop for double pipe heat exchanger	24
Table 2.5	Studies on heat transfer characteristics for shell and tube heat exchanger	29
Table 2.6	Summary of the pressure drop for shell and tube Heat exchanger	33
Table 3.1	Thermo-physical properties of nanoparticles and PCM at ambient temperature.	45
Table 3.2	Thermo-physical properties of the base fluid and different mono/hybrid nanofluid (0.01 vol.%) in equal proportion at ambient temperature (30°C).	46
Table 3.3	Thermo-physical properties of different mono/hybrid nanofluid (0.1 vol.%) in equal proportion at ambient temperature.	47
Table 4.1	Details of the experimental setup	51
Table 4.2	Details of twisted tape and its geometry	52
Table 4.3	Details of the tapered wire coil and its geometry	54
Table 4.4	Details of operating conditions when mono and hybrid nanofluids as a coolant	54
Table 4.5	Details of operating conditions when mono and hybrid nanofluids as a hot fluid	57
Table 4.6	Uncertainty of parameters	58
Table 4.7	Maximum improvements of various parameters by using twisted tape and nanofluids at the mean operating condition.	108
Table 4.8	Maximum improvements of various parameters by using tapered wire coil & nanofluids at the mean operating condition.	108

Table 4.9	Comparison of presently obtained Nu values with previous studies	110
Table 5.1	Details of the experimental setup and operating condition	114
Table 6.1	Thermophysical properties of base fluid and nanoparticles.	131
Table 6.2	Specifications of shell and tube condenser and operating conditions	132