

Major Project-II

FIRST AND SECOND LAW ANALYSIS OF AMMONIA WATER ABSORPTION REFRIGERATION SYSTEM USING WASTE HEAT OF AUTOMOBILE'S EXHAUST: A THERMODYNAMIC STUDY

Submitted in partial fulfillment of the requirement

for the award of the degree of

Master of Technology

In

Thermal Engineering

Submitted By

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DECLARATION

I hereby declare that the work, which is being presented in this dissertation, entitled “**First and second law analysis of ammonia water absorption refrigeration system using waste heat of automobile’s exhaust: A Thermodynamic Study**” towards the partial fulfillment of the requirements for the award of the degree of Master of Technology with specialization in Thermal Engineering, from Delhi Technological University Delhi, is an authentic record of my own work carried out under the supervision of **DR. RAJESH KUMAR** Associate Professor, Department of Mechanical Engineering, at Delhi Technological University, Delhi.

The matter embodied in this dissertation report has not been submitted by me for the award of any other degree.

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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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CERTIFICATE

It is certified that **Rahul Singh** Roll no. 2K12/THR/17, student of M.Tech Thermal Engineering, Delhi Technological University, has submitted the dissertation titled “**First and second law analysis of ammonia water absorption refrigeration system using waste heat of automobile’s exhaust: A Thermodynamic Study**” under my guidance towards the partial fulfillment of the requirements for the award of the degree of Master of Technology.

He has developed a mathematical computational model for performing the energy and exergy analysis of the single effect ammonia water absorption refrigeration system using EES software. His work is found to be satisfactory and his discipline impeccable during the course of the project. His enthusiasm, attitude towards the project is appreciated.

I wish him success in all his endeavors.

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Generally, individuals set aims, but more often than not, their conquest are by the efforts of not just one but many determined people. This complete project could be accomplished because of contribution of a number of people. I take it as a privilege to appreciate and acknowledge the efforts of all those who have, directly or indirectly, helped me achieving my aim.

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