

**A THESIS ON  
OPTIMIZATION IN REFRIGERATION SYSTEMS**

**SUBMITTED BY**

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**IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
OF THE DEGREE OF**

**DOCTOR OF PHILOSOPHY**

**OF**

**MECHANICAL ENGINEERING DEPARTMENT  
INDIAN INSTITUTE OF TECHNOLOGY, NEW DELHI**

CERTIFICATE

This is to certify that this thesis "Optimization in Refrigeration Systems" being submitted by Mr. P.L. Dhar to the Indian Institute of Technology, Delhi, for award of the degree of Doctor of Philosophy in Mechanical Engineering is a record of bonafide research work carried out by him under my supervision and guidance for the last three years, and to my knowledge it has reached the standard fulfilling the requirements of the regulations relating to the degree.

The results contained in this work have not been submitted, in part or in full, to any other University or Institute for the award of any degree or diploma.

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#### ACKNOWLEDGEMENT

It is with a sense of deep gratitude that the author wishes to thank Prof. C.P. Arora for his fraternal guidance in steering this work to its completion. The author feels highly indebted for the encouragement received from him from time to time, and especially at the pessimistic fixes during the work.

Thanks are due to Messrs H.M. Pandey, R.S. Mittal and R.S. Sharma of VOLTAS Ltd., and to Messrs K.V. Jog and N.S. Kaiwer, formerly of FRICK India Ltd., for providing the various data regarding the chillers.

The author also wishes to thank his friends, Dr. V.P. Bhatkar, Dr. B.S. Rao, Messrs C.G.P. Narayan, and H.K. Khattar for their help in various stages of the work.

Thanks are also due to the staff of the computer centre for their help in the computer work, to Mr. D.R. Joshi for the excellent typing and to Mr. R.K. Rastogi for preparing the tracings of more than 100 diagrams.

  
( P.L. Dhar )

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