

**HEAT AND MASS TRANSFER EFFECTS ON  
CONVECTIVE MAGNETOHYDRODYNAMIC FLOWS  
WITH THERMAL RADIATION**

*Thesis submitted to*

**ACHARYA NAGARJUNA UNIVERSITY**

*In partial fulfillment of the requirements*

*for the award of the degree of*

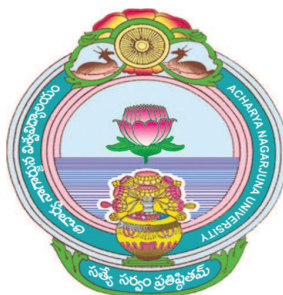
**DOCTOR OF PHILOSOPHY  
IN  
MATHEMATICS**

*By*

**VENKATESWARLU MALAPATI**

*Research Supervisor*

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## **DECLARATION**

I declare that the research thesis entitled, “**HEAT AND MASS TRANSFER EFFECTS ON CONVECTIVE MAGNETOHYDRODYNAMIC FLOWS WITH THERMAL RADIATION**”, submitted to Acharya Nagarjuna University, is the record of original research work done by me under the supervision of **Dr. D. Venkata Lakshmi** in partial fulfillment for the award of the Degree of Doctor of Philosophy in Mathematics and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or similar title.

Bapatla

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**CERTIFICATE**

This is to certified that the thesis entitled, “**HEAT AND MASS TRANSFER EFFECTS ON CONVECTIVE MAGNETOHYDRODYNAMIC FLOWS WITH THERMAL RADIATION**”, submitted to Acharya Nagarjuna University, is the bonafide record of research work done by **Mr. Venkateswarlu Malapati** under my supervision and guidance for the award of the Degree of Doctor of Philosophy in Mathematics and that the thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or similar title to the candidate.

Bapatla

Date:

**(Dr. D. Venkata Lakshmi)**

Research Supervisor

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*Venkateswarlu Malapati*