

**Magnetic, Thermodynamic and Electrical Transport Properties  
of Ce-based Intermetallics:  $Ce_{1-x}La_xGe$  ( $x = 0.0-0.76$ ),  
 $Ce_{1-x}Y_xNiGe_2$  ( $x = 0.0-0.4$ ) and  $CeAlGe$**

A Thesis

*submitted by*

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*for the award of the degree*

*of*

**Doctor of Philosophy**



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## Declaration by the Scholar

I hereby declare that the entire work embodied in this Thesis is the result of investigations carried out by me in the *School of Basic Sciences*, Indian Institute of Technology Mandi, India, under the supervision of *Dr. Kaustav Mukherjee*, and that it has not been submitted elsewhere for any degree or diploma. In keeping with the general practice, due acknowledgements have been made wherever the work described is based on finding of other investigators.

Place:

Signature

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## Declaration by the Research Advisor

I hereby certify that the entire work in this Thesis has been carried out by **Karan Singh** under my supervision in *School of Basic Sciences*, Indian Institute of Technology Mandi, and that no part of it has been submitted elsewhere for any Degree or Diploma.

Signature:

Name of the Guide: Dr. Kaustav Mukherjee

Date:



*Dedicated to my dear parents  
and  
my family*





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