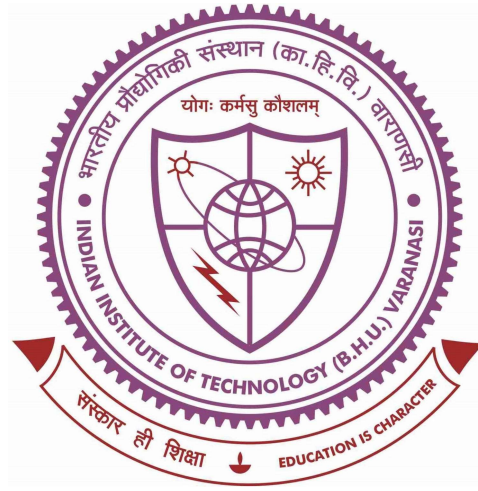


Anomalous Hall and Topological Properties of Co-based Heusler Alloys



Thesis submitted in partial fulfilment

for the Award of

DOCTOR OF PHILOSOPHY

in

MATERIALS SCIENCE

by

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SCHOOL OF MATERIALS SCIENCE AND TECHNOLOGY

INDIAN INSTITUTE OF TECHNOLOGY

(BANARAS HINDU UNIVERSITY)

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I, **Gaurav Kumar Shukla**, certify that the work embodied in this thesis is my own bona fide work and carried out by me under the supervision of **Dr. Sanjay Singh** from **January 2019** to **February 2024**, at the **School of Materials Science and Technology**, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in this thesis has not been submitted for the award of any other degree/diploma. I declare that I have faithfully acknowledged and given credits to the research workers wherever their works have been cited in my work in this thesis. I further declare that I have not willfully copied any other's work, paragraphs, text, data, results, *etc.*, reported in journals, books, magazines, reports dissertations, theses, *etc.*, or available at websites and have not included them in this thesis and have not cited as my own work.

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