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CERTIFICATE

This is to certify that the thesis entitled “*SYNTHESIS AND CHARACTERIZATIONS OF COPPER-BASED HYBRID COMPOSITES*” being submitted by **Mr. Manvandra Kumar Singh** (Roll No. 13131007) for the partial fulfillment of the requirement for the award of *Doctor of Philosophy in Mechanical Engineering* has been carried out under my supervision and guidance. Certificated that the report embodies the results of the work carried out by him within the prescribed period under the ordinances governing the master’s degree in Department of Mechanical Engineering in Indian Institute of Technology (Banaras Hindu University) Varanasi.

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