

INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR  
KHARAGPUR-721302

**PROVISIONAL CERTIFICATE**

*for the degree of*

**DOCTOR OF PHILOSOPHY**

*Certified that Sri Debasis De of the Department of Metallurgical & Materials Engineering has successfully completed all the prescribed requirements for the degree of Doctor of Philosophy of the Institute.*

*The date of the Ph.D. Viva-Voce examination is 13/01/2012 .*

*The title of the Ph.D. thesis is*

**Structural, Magnetic, Magnetoresistance and Optical Properties of Chemically Synthesized Rare-Earth Manganites of Granular Nanostructure**

*This certificate is issued this day, the January 19, 2012 , with the approval of the authorities.*



**Superintendent (PGS and R)**



**Deputy Registrar (Academic) / Assistant Registrar (PGS and R)**

*Note: Validity of this certificate will expire after the degree is awarded in the next convocation.*