

INDIAN INSTITUTE OF TECHNOLOGY  
KHARAGPUR-721 302

PROVISIONAL CERTIFICATE

*for the degree of*  
DOCTOR OF PHILOSOPHY (Ph.D.)

*Certified that Gajendra Prasad Singh in the Materials Science Centre has successfully completed all prescribed requirements for the degree of Doctor of Philosophy(Ph.D.) of the Institute.*

*The date of viva voce examination is: April 27, 2009.*

*The title of the thesis submitted is: Electrical, Giant-magnetoresistance and Optical Properties in Silver Modified Chromium Dioxide of Core-Shell Nanostructure.*

*This certificate is issued this day, the May 05, 2009 with approval of the authorities.*

Superintendent(PGS&R)

Deputy Registrar(Academic)



*Note: Validity of this certificate will expire on the award of the degree in the next convocation.*



# Indian Institute of Technology Kharagpur

*upon the recommendation of the Senate hereby confers the degree of*

## Doctor of Philosophy

*in*

### Materials Science

*on*

**Gajendra Prasad Singh**

*Given under the seal of the Institute at Kharagpur on the eighth day of August, two thousand nine.*

*Handwritten signature in blue ink, possibly 'Sb/S/M'.*

*Handwritten signature in blue ink.*  
Registrar



*Handwritten signature in blue ink.*  
Director