

**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR-721 302**

PROVISIONAL CERTIFICATE

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

Certified that Ashish Sachan in the Department of Agricultural and Food Engineering 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: September 25, 2007

The title of the thesis submitted is: Bioconversion of 4-Coumaric Acid into 4-Hydroxybenzoic Acid and Caffeic Acid by Selected Microorganisms.

This certificate is issued this day, the October 11, 2007 with approval of the authorities.



Superintendent(PGS&R)



Assistant Registrar(PGS&R)

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

on

Ashish Sachan


*who has successfully completed the prescribed requirements in the
Department of Agricultural and Food Engineering.*

*Given under the seal of the Institute at Kharagpur in the Republic of
India on the Twentyfifth day of July, Two thousand eight.*


Registrar




Director


Chairman
Board of Governors