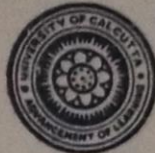


## UNIVERSITY OF CALCUTTA



This is to certify that

*Barun Raychaudhuri*

obtained the degree of **Doctor of Philosophy**  
(Science) in *Electronic Science*  
in this University in the year 1997.

Senate House,

Thu 27<sup>th</sup> May 1998

*R. Basu*  
Vice-Chancellor.