

# National Institute of Technology



Durgapur, India

*Narendra Nath Pathak*

*having submitted a thesis entitled  
Synthesis of Thinned Array Antenna using  
Soft Computing Techniques  
in the*

*Department of Electronics & Communication Engineering*

*and having satisfied all the conditions prescribed in this respect*

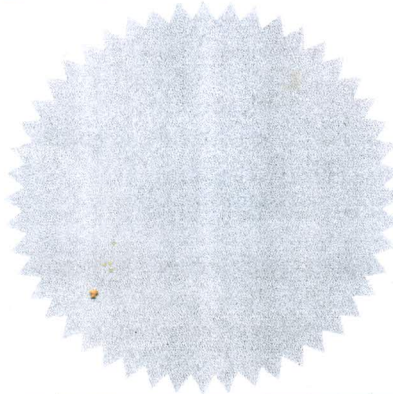
*The Board of Governors of the Institute upon the  
recommendation of the Senate duly admits  
the degree of*

*Doctor of Philosophy in Engineering*

*in  
Electronics & Communication Engineering*

*under the seal of the Institute given at Durgapur on this  
Twenty Fourth day of September Two thousand and Eleven*

*Chairman  
Board of Governors*



*Chairman  
Senate*