

**Reliability Assurance of Process Equipment through  
Predictive Maintenance**

**Thesis to be Submitted in Partial Fulfillment  
of the Requirements for the Award of the Degree of**

**Doctor of Philosophy**

**by**

**Dokiburra Edwin Vijay Kumar**

**under the supervision of**

**Professor S. K. Chaturvedi**



**Reliability Engineering Centre  
Indian Institute of Technology, Kharagpur**

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## Certificate of Approval

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Certified that the thesis entitled **Reliability Assurance of Process Equipment through Predictive Maintenance** submitted by **Dokiburra Edwin Vijay Kumar** to **Indian Institute of Technology, Kharagpur**, for the award of the degree of **Doctor of Philosophy** has been accepted by the external examiners and that the student has successfully defended the thesis in the viva-voce examination held today.

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## CERTIFICATE

*This is to certify that the thesis entitled, “Reliability Assurance of Process Equipment through Predictive Maintenance”, which is being submitted by Dokiburra Edwin Vijay Kumar for the award of the degree of Doctor of Philosophy in Engineering to the Indian Institute of Technology Kharagpur, is a record of bonafide research work carried out by him under my guidance and supervision. The thesis has fulfilled the requirements according to the regulations of this Institute and in my opinion has reached the necessary standards for submission. The results presented in this thesis have not been submitted to any other University or Institute for award of any degree or diploma.*

**(Dr. S. K. Chaturvedi)**

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## Declaration by the Scholar

I certify that

- a. the work contained in the thesis is original and has been done by me under the guidance of my Supervisor;
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Name of the Scholar: **Dokiburra Edwin Vijay Kumar**

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