

## BIODATA



1. Name : Dr. Debasish Basak
2. Date of Birth : 3<sup>rd</sup> January, 1965
3. Current Position and Address (with e-mail id and phone number) : Senior Principal Scientist & HORG, Electrical Design and Safety CSIR-CIMFR, Barwa Road, Dhanbad – 826015, Jharkhand, INDIA  
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### 4. Educational Qualification (Graduation and above):

Degree	Year of Passing	University/ Institute	Subjects	Div./Class/Grade (% marks)
Doctor of Philosophy <b>Ph. D.(Engg.)*</b>	2009	<b>Jadavpur University</b> , Kolkata – 700 032, W.B.	(Instrumentation & Electronics Engg. Deptt.)	---
Master of Business Administration <b>(MBA)**</b> with specialization in <i>Operations Management</i>	2002	School of Management Studies, <b>I G N O U</b> , New Delhi	Total 21 courses of management subjects including the Project work	Overall Point Grade: 3.31 (having completed Diploma in Management/ Advanced Diploma in Management/ Diploma in Operations Management and other requirements)
<b>M.E. (Electrical)***</b> with specialization in <i>System Engg. &amp; Operations Research</i>	1988	<b>Indian Institute of Technology (IIT)</b> , (Formerly, University of Roorkee), Roorkee, India	Optimization Tech., O.R., Reliability Engg., Systems, Microprocessor, etc.	1 <sup>st</sup> Division (71.7%)
<b>B.E. (Electrical)</b>	1982-86	<b>National Institute of Technology (NIT)</b> , (Formerly, Regional Engineering College), Durgapur (W.B.)	Control, Power Systems, Machines (AC, DC), Measurement, Electronics etc.	1 <sup>st</sup> Class [Total Credit Point Average (TCPA) 68.7%]

\* Ph. D. (Engg.) **Dissertation** topic: “**Studies of Stranded and Locked coil Ropes Using Nondestructive Testing Techniques**” under supervision of **Prof. (Dr.) D.C. Patranabis**, Professor (Retd.), Instrumentation and Electronics Engineering Dept., Jadavpur University, Salt Lake Campus, Kolkata – 700098; presently with Applied Electronics & Instrumentation Engg. Deptt, Heritage Institute of Technology, Kolkata – 700107, India and **Dr. Srimanta Pal**, Associate Professor, ECSU, Indian Statistical Institute, 203 B.T. Road, Kolkata - 700108.

\*\* MBA Project topic: "TQM IN R&D INSTITUTE: CMRI A CASE STUDY" under supervision of **Dr. Chiranjib Bandopadhyay**, Scientist "G" of Central Mining Research Institute, Dhanbad.

\*\*\* M.E. Dissertation topic: "Reliability Evaluation of Electronic Circuits" under the supervision of **Prof. (Dr.) J.D. Sharma**, Electrical Engg. Deptt, Indian Institute of Technology, (formerly, University of Roorkee), Roorkee, India.

#### 5. Work experience:

Designation	Institution/Company	From	To	Nature of work
1. Senior Principal Scientist/ Professor at AcSIR-CIMFR, Dhanbad	Director, CSIR-Central Institute of Mining and Fuel Research (erstwhile Central Mining Research Institute), Barwa Road, Dhanbad – 826015.	25.8.2009	Till date	Research and development Work.
2. Scientist "EII"	Director, Central Institute of Mining and Fuel Research (erstwhile Central Mining Research Institute), Barwa Road, Dhanbad – 826015.	25.8.2004	24.8.2009	Research and development Work.
3. Scientist "EI"	Director, Central Mining Research Institute, Barwa Road, Dhanbad - 826001	25.8.1999	24.8.2004	Research and development Work.
4. Scientist "C"	Director, Central Mining Research Institute, Barwa Road, Dhanbad - 826001	25.8.1994	24.8.1999	Research and development Work.
5. Scientist "B"	Director, Central Mining Research Institute, Barwa Road, Dhanbad - 826001	25.8.1989	24.8.1994	Research and development Work.
6. Junior Research Engineer \$	Director, Indian Institute of Technology (IIT), Kharagpur, Dist. Midnapore, West Bengal, Pin 721302.	23.9.1988	31.7.1989	Research and development Work.

\$ During the period from 23.09.1988 to 31.07.1989, the undersigned worked at IIT, Kharagpur (WB) as "**Junior Research Engineer**" in a project sponsored by ISRO, Bangalore, entitled as: "*Study of failure patterns of hi-reliability indigenous electronic components*" which aimed at the following:

- determining the optimum burn-in time of components like resistors, op-amps, transistors, etc. after conducting appropriate burn-in tests.
- conducting extended life test under normal stress for determining the failure patterns.
- conducting accelerated life test for determining the failure.

The project was successfully completed on 31.07.1989.

6. Area of specialization: (1) Nondestructive Testing (NDT) of wire ropes  
(2) System Engineering  
(3) Testing of electric and telephone cables

7. Honors /Awards received: Received the **Third prize** on the basis of the Quality of Research Papers Published in the year 2007-08 in the field of Mining Technology, Safety & Engineering and was presented with the citation and a cash prize of Rupees Five Hundred only on Institutional Mining Day, 10<sup>th</sup> May, 2008 observed by CIMFR, Dhanbad,

#### 8. Fellowship/Scholarships:

- P&T scholarship during graduation (1982-86)
- GATE fellowship during post graduation (1986-88)

9. No of research publications: **63**

- Papers in journals: (a) International journal - 35 (b) National journal - 06
- In conference proceedings: (a) International conference - 04 (b) National conference - 18
- Invited/key-note addresses: Nil
- List of best 05 publications:
  1. Debasish Basak and Bubun. Das,“Performance evaluation of track ropes using two nondestructive testing instruments”, *International Journal of Mechanical Engineering Research and Development (IJMERD)*, Volume 3, Number 2, April - May (2013), pp.05-11 (**Impact Factor – 4.8867**)
  2. NehaNiharika, Debasish Basak and Bubun Das, “Comparative Study of Power Cables and Testing as per Indian Standards”, *International Journal of Electrical Engineering and Technology (IJEET)*, Volume 4, Issue 2, March – April (2013), pp 219-228(**Impact Factor – 5.5028**)
  3. Debasish Basak, Srimanta Pal, Prantik Basak, DipannitaPalit and Dipak Chandra Patranabis, “A Connectionist Model for Lock Coil Rope Fault Prediction”, *Insight*, Vol. 50, No. 9, Sept. 2008, pp 501-505(**Impact Factor – 0.451**)
  4. Debasish Basak,Srimanta Pal and Dipak Chandra Patranabis, “Support Vector Regression (SVR)”, *International Journal of Neural Information Processing- Letters and Reviews*, Vol. 11, No. 10, Oct. 2007, pp 203-224(**Cited by more than 326**)
  5. Debasish Basak, “Non-destructive Evaluation of Drive Rope: A Case Study”, *Nondestructive Testing and Evaluation*, Taylor & Francis, UK, Vol. 20, No. 4, Dec. 2005, pp 221-229(**Impact Factor – 0.628**)

10. Number of Books authored/edited: Nil

11. (a) No. of Patents granted/applied for: Nil.

(b) Technologies developed, Licensed and/or commercialized: Nil.

12. Foreign visits:

1. WAI International Wire & Cable Conference, **WIRE Bologna 07**at Bologna, **ITALY** during 5-7 Nov. 2007.
2. Aerial ropeway installation in **Nepal** several times for the project work at site.

13. Details of professional memberships:

- (1) **Fellow (FIETE)** of The Institution of Electronics & Telecommunication Engineers (IETE),
- (2) **Fellow (FIE)** of The Institution of Engineers (India),
- (3) **Fellow (FISEEE)** of The Indian Society of Electrical & Electronics Engineers,
- (4) **Fellow (FISBM)** of The Indian Society of Business Management,
- (5) **Member** of The International Association of Engineers (**IEANG**),
- (6) **Senior (Life) Member** of Computer Society of India (CSI),
- (7) **Senior (Life) Member** of Operational Research Society of India (ORSI),
- (8) **Life Member (MMGI)** of The Mining, Geological & Metallurgical Institute of India(MGMI),

- (9) **Life Member** of Instrument Society of India (ISI),
- (10) **Life Member** of The Indian Mining & Engineering Journal Reader's Forum (IMEJRF),
- (11) **Life Member** of Indian Society for Non-destructive Testing (ISNT),
- (12) **Life Member** of Indian Society for Technical Education (ISTE),
- (13) **Member** of National Research & Technology Consortium (NRTC), Govt. of H.P.
- (14) **Chartered Engineer** of The Institution of Engineers (India).

14. Major contributions (Max 150 words):

- (a) Nondestructive evaluation and advice on the condition and behavior of steel wire ropes in mining and aerial ropeway installations is the basic area of interest of the candidate. The input, exclusively provided by the undersigned as **Project Leader** and **Head of Electrical Laboratory** since last 15 (fifteen) years, specifically in the study of ropes in mining/aerial/material handling ropeway installations, has rendered yeomen service in undertaking research activities as well as generating ECF (external cash flow) to the present institute. This may be considered as a significant contributory endeavor on the part of the candidate.

The approximate number of projects handled as **Project Leader** and electric cable samples tested till date is mentioned below:

Consultancy projects	Service-to-industry Projects	Sponsored projects	Number of cable samples tested as per IS
135	30	10	80 (approx.)

- (b) *“Third Party Inspection and Monitoring of Projects under RGGVY (Rajib Gandhi Grameen Vidyutikaran Yojana) for 10 (ten) districts of Nagaland”* has been carried out successfully by the undersigned as **‘Project Leader’**. The cost of the said project is **Rs.6.07 crores**. CIMFR, Dhanbad as Third Party Inspecting Agency (TPIA) has carried out the inspection with respect to quality and quantity audit of the rural electrification work on behalf of owner for all villages covered in RGGVY as per the REC QUALITY CONTROL MANUAL FOR RGGVY WORKS dated 7<sup>th</sup> April, 2008.
- (c) Presently guiding 02(two) Ph.D.(Engg) students.
- (d) Guided 06 (six) M.Tech students for their Dissertations.
- (e) Guided one AMIE student.
- (f) Coordinator of (1) Electrical Maintenance Section and (2) Engg. Workshop during the period from Aug., 2015 to May, 2016.

15. Technologies and Products/Services

- 1. Developed: Nil
- 2. Licensed: Nil
- 3. Commercialized: Nil

16. Design and Prototype developed: Nil

17. Honors and awards won for technological contributions or sociological impact of R&D: Nil.

Signature