

***Bio – Data***

***of***

***Chandan Bhar. Ph. D.***  
***Department of Management Studies***  
***Indian School of Mines***  
***Dhanbad - 826004***

## **BIO-DATA**

1. **Name** : **Chandan Bhar.**
2. **Designation** : Associate Professor & Head,  
Department of Management Studies,  
Indian School of Mines,  
Dhanbad - 826 004.
2. **Address for correspondence** : Department of Management Studies,  
Indian School of Mines,  
Dhanbad - 826 004.  
Telephone: (0326) 2296676 (Residence)  
Email: chandanbhar@hotmail.com
3. **Nationality** : Indian.
4. **Date of Birth** : April 23, 1955.
5. **Educational qualifications** :
  - a) Ph. D. (Industrial Engineering & Management) (I.I.T., Kharagpur).
  - b) M. Tech. (Industrial Engineering & Management) (I.S.M., Dhanbad).
  - c) B. Tech. (Honours) (Mining Engineering) (I S. M., Dhanbad)
6. **Employment Record** :
  - a) November 1978 to January 1986 at Coal India Limited as Junior Executive Trainee (Mining) and Under Manager.
  - b) January 1986 to January 1994 at Indian School of Mines, Dhanbad as Lecturer, Department of Industrial Engineering & Management.
  - c) January 1994 to September 2004 at Indian School of Mines, Dhanbad as Assistant Professor, Department of Management Studies.
  - d) September 2004 onwards at Indian School of Mines, Dhanbad as Associate Professor, Department of Management Studies.
- 6.a) **Additional Responsibilities:**
  - a) Heading the Department of Management Studies, Indian School of Mines, Dhanbad since February 2008.
  - b) Functioning as a Part-time Director in the Board of Directors for Jharkhand State Mineral Development Corporation, Ranchi since August 2009.
7. **Research Experience** :  
More than 24 years research experience in Industrial Engineering and Management at Indian School of Mines, Dhanbad.
8. **Publications**

- 8.1.1 Purbey, S, K. Mukherjee, and C. Bhar, **Performance Measurement System for Healthcare Processes**, published in the journal **International Journal of Productivity and Performance Management**, Vol. 56 Issue 3, pp. 241 – 251, 2007.
- 8.1.2 Prasad, G. and C. Bhar, **Accreditation system for technical education programmes in India: A critical review**, published in the journal **European Journal of Engineering Education**, Vol. 35, No. 2, pp.187–213, May 2010.
- 8.2.1 Bhar, C., C. R. Reddy, and P. Mandal, **Manpower Estimation and Scheduling in Longwall Mining**, published in the journal **PRODUCTIVITY**, Vol. 33, No. 2, pp. 282 - 288, 1992.
- 8.2.2 Bhar, C. and S Srinivasan, **Long-Range Planning Model for the Indian Coal Industry**, published in the journal **PRODUCTIVITY**, Vol. 39, No.1, pp.67-74, 1998.
- 8.2.3 Mukherjee, K. and C. Bhar, **Performance Analysis of Opencast Mines- a Heuristic based Approach**, published in the journal **PRODUCTIVITY**, Vol. 43, No.2, pp.290-296, 2002.
- 8.2.4 Mishra, B, C. Bhar, and P. Sen, **Determination of Optimum Cut-off Grade for Metalliferous Deposit using Mathematical Programming Technique** published in the **Journal of Mines, Metals and Fuels**, Vol. 52, No. 12, pp. 405-409, December 2004.
- 8.2.5 Saxena, A. and C. Bhar, **Development of Vehicle Route Scheduling Software for Distribution Planning of Milk for a Dairy** published in **PRODUCTIVITY**, Vol. 45, No.3, pp. 427-433, October-December 2004.
- 8.2.6 Saxena, A. and C. Bhar, **Forecasting of Milk Sales and Retailer Growth of a Dairy using Statistical Technique**, published in **SYNTHESIS**, Vol.3, No.1, July-Dec 2005
- 8.2.7 Yadav, M. K. and C. Bhar, **Productivity Assessment of an Opencast Coal Mine – A Case Study**, published in the **Journal of Mines, Metals and Fuels**, Vol.54, no.1&2, 2006.
- 8.2.8 Saxena, A. and C. Bhar, **Development of Statistical Models for Forecasting Milk Sales and Retailer Growth of a Dairy**, published in **Siddhant: A journal of decision making**, Vol.6, No.1, January-March, 2006
- 8.2.9 Mishra, B, C. Bhar, and P. Sen, **Development of a Computer Model for Determination of Cutoff Grade for Metalliferous Deposits** published in the **Journal of Mines, Metals and Fuels**, Vol. 54, No. 6&7, pp. 147-152, June-July, 2006.
- 8.2.10 Bhar, C, P. C. Pal, and Anamika Kumari, **Identification of Stakeholders Expectations in Technical Education Sector in India for Designing Quality Management System**, published in **SYNTHESIS**, Vol.4, No.1, January-June 2007, pp.1-8.
- 8.2.11 Bhar, C. and Ajoy Kumar Bhattacharya, **Identification of Factors Affecting Performance of Indian Coal Industry – A Delphi Technique Approach**, published in **Bhavishya – Journal of Future Business School**, Vol. 1, No. 2, October 2007, pp. 109-120.
- 8.2.12 Bhar, C, **Development of Optimum Transportation Plan from Raw Coal Feed to Washeries of a Coal Producing Company Using Stochastic**

- Programming Approach**, published in **The ICFAI Journal of Operations Management**, Vol. 7, No. 1, pp. 32-42, February 2008
- 8.2.13 Prasad, G. and C. Bhar, **Improvement in Quality of Education of Engineering Education in India – Some Important Guidelines**, published in **The Journal of Engineering Education**, Vol. XXII, No. 3, pp.36-46, January 2009.
- 8.2.14 Kumari, Anamika, Bhar, C., and Pal, P. C. (2009), **An Approach to Improve Consistency of Analytic Hierarchy Process Matrices**, Bhavishya – Journal of Future Business School, Vol. 3, No. 2, October 2009, pp. 101-117.
- 8.3.1 Bhar, C, **Computer Aided Maintenance Planning for HEMM**, Proceedings of the seminar on **Application of Modern Management Techniques in Mineral Based Industries**, organised by MGMI, at Indian School of Mines, Dhanbad, February 1989, pp. 75-81.
- 8.3.2 Bhar, C., P. Mandal, and S. Srinivasan, **A System Dynamics Model for Coal Industry in India - Preliminary Findings**, published in **System Dynamics for Management Support** edited by Sushil, Wiley Eastern Limited, New Delhi, pp. 334 - 344, 1993.
- 8.3.3 Bhar, C., **Management of Technology in Underground Coal Mine**, published in **Proceedings of First National Seminar on Underground Mine Mechanisation**, edited by Prof. S. N. Mukherjee and Dr. N. C. Karmakar, Lovely Prakashan, Dhanbad, pp 155-159, 2001.
- 8.3.4 Bhar, C. and S. Chatteraj, **Computerised Performance Assessment of Coal Mines – A Case Study of Large Public Sector Undertaking** published in **Computer Applications in Mineral Industry** edited by C. Bandopadhyay and P R Sheorey, Oxford & IBH Publishing Co. Private Ltd., New Delhi, pp. 177-185, 2001.
- 8.3.5 Mukherjee, K. and C. Bhar, **Empirical Analysis for Coal Mine Productivity Modeling**, published in **Proceedings of First Mineral Congress** held at Indian School of Mines Dhanbad from February 28 to March 1, 2005, pp. 409-413.
- 8.3.6 Vishwakarma, K. L. and C. Bhar, **Analysis of Flue Gas Emission in Thermal Power Plant for Efficient Management of Pollutants**, Published in the book **Management Challenges – The Road Ahead** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Allied Publishers Private Ltd., New Delhi, pp.170-178, 2006.
- 8.3.7 Gupta, N. and C. Bhar, **Forecasting of Number of Patients Availing the Facilities of a Hospital Managed by a PSU**, Published in the book **Management Challenges – The Road Ahead** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Allied Publishers Private Ltd., New Delhi, pp.153-161, 2006.
- 8.3.8 Purbey, S, C. Bhar, and K. Mukherjee, **Healthcare Sector – A Study of Operational Issues**, Published in the book **Management Challenges – The Road Ahead** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Allied Publishers Private Ltd., New Delhi, pp.162-169, 2006.
- 8.3.9 Yadav, M. K. and C. Bhar, **Productivity Assessment of an Opencast Coal Mine - A Case Study**, Published in the book **Management Challenges – The Road Ahead** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Allied Publishers Private Ltd., New Delhi, pp.128-140, 2006.

- 8.3.10 Prasad, G., C. Bhar, and J. K. Pattanayak, **An Appraisal of Technology Transfer through Community Polytechnic in Jharkhand**, Published in the book **Management Challenges – The Road Ahead** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Allied Publishers Private Ltd., New Delhi, pp.79-90, 2006.
- 8.3.11 Bhar, C., **IT Application in Materials Management – A Case Study**, Invited paper published in the Souvenir of national seminar on **Supply Management: Vision 2020**, organized by Indian Institute of Materials Management, Bilaspur Branch, held at Ravindra Bhavan, Vasant Vihar, Bilaspur during April 15 & 16, 2006.
- 8.3.12 Bhar, C and K. Mukherjee, **An Approach Towards Performance Assessment of Underground Coal Mines**, Published in the book **Underground Coal Mining** edited by M. Jawed and P. K. Behera, Department of Mining Engineering, Indian School of Mines, Dhanbad, pp.159-169, 2006.
- 8.3.13 Prasad. G, C. Bhar, and V Srivastav, **A Critical Review of Examination Related Problems in Technical Education in India**, Proceedings of the International Conference on **Higher Education** held at Centre for Continuing Education, Indian Institute of Science, Bangalore from July 12-14, 2007, pp. 245-256.
- 8.3.14 Prasad, G., C. Bhar, and J. K. Pattanayak, **Contribution of Community Polytechnic vis-à-vis Satisfaction level of Beneficiary-A case study of Jharkhand**, Published in the book **Managing in the New Global Order** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Excel Books, New Delhi, pp.49-64, 2008.
- 8.3.15 Yadav, M. K. and C. Bhar, **Productivity Measurement – Case Study of an Opencast Coal Mine**. Published in the book **Managing in the New Global Order** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Excel Books, New Delhi, pp. 185-197, 2008.
- 8.3.16 Purbey, S., C. Bhar, and K. Mukherjee, **Service Sector: Growth and Challenges**, Published in the book **Managing in the New Global Order** edited by Kampan Mukherjee, Chandan Bhar, Pramod Pathak, and J K Pattanayak, Excel Books, New Delhi, pp. 83-95, 2008.
- 8.3.17 Kumari, A., C. Bhar, P. C. Pal, **Ranking of Stakeholders for Technical Education Sector in India -An Analytic Hierarchy Process Approach**, published in Proceedings of the **National Conference on Systems Thinking and System Dynamics** organized by Dept. of Mechanical Engineering, Banaras Hindu University, Varanasi and System Dynamics Society of India during February 29 and March 1, 2008 at BHU, Varanasi, pp.247 – 256.
- 8.3.18 Prasad G. and C. Bhar, **Building Effective Learning Culture in Engineering Institutions**, published in Proceedings of **National Conference on Quality Assurance in Technical Education** organized by Saheed Udham Singh College of Engineering and Technology, Tangori, Mohali on August 22, 2008, pp. 35-41.
- 8.3.19 Prasad, G, C. Bhar, and J. K. Pattanayak, **Popularizing Energy and Environment related Technologies: A Mission for New Age Management**, Published in the book **Management Education: The Environmental Dimensions** edited by Pramod Pathak, J K Pattanayak, Chandan Bhar, and Niladri Das, Excel Books, New Delhi, pp.201-207, 2008.

- 8.3.20 Prasad, G, Amarjeet Singh, C. Bhar, and J. K. Pattanayak, **Environmental Impact Assessment of Mining Operations – A New Dimension in Management Education**, Published in the book **Management Education: The Environmental Dimensions** edited by Pramod Pathak, J K Pattanayak, Chandan Bhar, and Niladri Das, Excel Books, New Delhi, pp.81-90, 2008.
- 8.3.21 Purbey, S, C. Bhar, and K. Mukherjee, **Waste Management in Hospital - its Efficacy in Management Education**, Published in the book **Management Education: The Environmental Dimensions** edited by Pramod Pathak, J K Pattanayak, Chandan Bhar, and Niladri Das, Excel Books, New Delhi, pp.91-100, 2008.
- 8.3.22 Prasad, G. and C. Bhar, **Role of Finishing School Programme in Technical Education System in India**, Published in Proceedings of National Seminar on **Finishing School for Engineering Education– Concept, Design and Impact** held at NITTTTR, Chandigarh during October 21 & 22, 2008.
- 8.3.23 Balamurugan, T, Gugaliya, A, and Bhar, C, (2010) **Six Sigma: A Powerful Strategy for Success**, published in “Core Sector Management for Global Competitiveness” edited by K. Mukherjee, S. Mondal, P. Pathak, C. Bhar, and G. S. Pathak, Excel Books, New Delhi
- 8.4.1 Bhar, C. and P. Mandal, **Coal Planning - Need for a Systematic Approach**, presented in the **Fourth National Conference on System Dynamics** held at S.V.U. College of Engineering, Tirupati, December 1990.
- 8.4.2 Bhar, C., **Development of Demand Assessment Model for Indian Coal Sector Using System Dynamics Approach**, presented in the National Seminar on **Business Strategies and Tactics in Competitive Environment** held at Indian School of Mines, Dhanbad, February 2000.
- 8.4.3 Purbey, S., C. Bhar, and K. Mukherjee, **Performance Measurement System for Healthcare Processes**, Presented in the **11<sup>th</sup>. International Conference on Productivity and Quality Research** held at Indian Institute of Technology, Delhi from December 12-15, 2005.
- 8.4.4 Mrityunjay, M. & C. Bhar, **Failure Mode and Effect Analysis – a Technique for Reliability Evaluation**, Presented in the national conference on **Management in the New Global Order - Quest for Excellence** held at Indian School of Mines, Dhanbad during February 24 & 25, 2006
- 8.4.5 Prasad, G, C. Bhar, and J.K. Pattanayak, **Jharkhand’s Tryst with Destiny in Watershed Management**, Presented in the National Workshop on **Technological Challenges of 21<sup>st</sup>. Century – The Road Ahead** held at B. I. T. Sindri on February 8 & 9, 2008
- 8.4.6 Anamika Kumari, C. Bhar & P C Pal, **Application of Group Fuzzy Preference Programming Approach for consolidation of data in Analytic Hierarchy Process**, Presented in National Seminar on **Recent Advances in Theoretical and Applied Seismology** held at Indian School of Mines, Dhanbad during March, 27-28, 2009.

8.4.7 Purbey, S, K. Mukherjee, and C. Bhar, **Performance Measurement Framework in Indian Healthcare Sector**, Presented in Doctoral Student Paper Competition organized in Seventh AIMS International Conference on Management (AIMS-7) in Indian Institute of Management Bangalore, India during December 20-23, 2009

9. Books Published:

- Mukherjee, K., C. Bhar, P. Pathak, and J K Pattanayak, **Management Challenges – The Road Ahead**, Allied Publishers Private Ltd., New Delhi, 2006.
- Mukherjee, K., C. Bhar, P. Pathak, and J K Pattanayak, **Managing in the New Global Order**, Excel Books, New Delhi, 2008.
- P Pathak, J K Pattanayak, C. Bhar, and N. Das, **Management Education: The Environmental Dimensions**, Excel Books, New Delhi, 2008.
- Mukherjee, K., Mondal, S., Pathak, P., Bhar, C., and Pathak, G. S. **Core Sector Management for Global Competitiveness**, Excel Books, New Delhi, 2010.

10. Number of M. Tech. Theses guided : 50

11. Number of Ph. D. guidance : two Status: awarded  
seven Status: On-going

12. Topic of the Ph. D. Thesis :

**Long-Range Planning for the Indian Coal Industry - Some Quantitative Approaches.**

13. Areas of specialisation:

- i) System Dynamics
- ii) Production Management
- iii) Materials Management
- iv) Project Management

14. Experiences in Research and Consultancy Projects:

- a) Investigator in Consultancy Project entitled **Detailed Mine Planning and Computerised Management System Development for Meghahatuburu Iron Ore Mine** funded by Bokaro Steel Limited.
- b) Co-coordinator in Minor Research Project entitled **Development of a Computerised Safety Management System for Equipment Safety - a Colliery Reporting Module**, funded by Indian School of Mines, Dhanbad.
- c) Investigator in Research Project entitled **Productivity Improvement in Coal Mining Industry**, funded by AICTE.
- d) Investigator in Consultancy Project entitled **Assessment of Performance of Opencast Projects of NCL**, funded by Northern Coalfields Limited.

- e) Co-Chief Investigator in Consultancy Project entitled **Management of Industrial projects with Special Reference to Coal Mining Industry** funded by Bharat Coking Coal Limited.
- f) Investigator in Consultancy Project entitled **Restructuring of Coal Controller's Office at Kolkata**, funded by Coal Controller's Organization, Kolkata.
- g) Co-Chief Investigator in Consultancy Project entitled **Impact Assessment on Initiatives Taken by CMPFO**, funded by Coal Mines Provident Organization, Dhanbad.
- h) Chief Investigator in Consultancy Project entitled **Work Study for Assessment of Organizational Strength of DGMS**, funded by Directorate General of Mines Safety, Dhanbad – 826 001.
- i) Co-Principal Investigator in Research Project entitled **Development of Model for Determination of Optimum Cut-off Grade for Surface Mining of Metalliferous Ore Deposits** funded by Department of Science & Technology, Government of India.
- i) Co-Chief Investigator in Consultancy Project entitled **Project Management and its Application in Coal Mining Industry** funded by Bharat Coking Coal Limited.
- k) Chief Investigator in Consultancy Project entitled **Overall Project Planning**, funded by NHPC Limited, Faridabad during September 2009..

15. Executive Development Programmes Coordinated:

- a) Co-coordinator in the EDP on **Computer Application for Maintenance of Mine Equipments**, held at I.S.M., Dhanbad from November 14 - 19, 1988.
- b) Co-coordinator in the EDP on **Improvement of Productivity through Quality Management**, held at I.S.M., Dhanbad from November 20 - 25, 1995.
- c) Delivered lectures in MDP for the Scientists of Department of Atomic Energy, Government of India on February 13, 2007 at Narwa Pahar Mines, Uranium Corporation of India Limited.

16. Short Courses Attended:

- a) Attended a short-term course on **Longwall Face Operation** at I.S.M., Dhanbad from August 4 - 9, 1986.
- b) Attended a short-term course on **Technology Forecasting and Assessment** at I.I.T., Kharagpur from February 22 - 27, 1988.
- c) Attended QIP sponsored short-term course on **Decision Making Through System Dynamics : Some Applications** at I.I.T., Kharagpur from June 5 -16, 1989.

17. Membership of the Professional Bodies:

- a) Life Fellow of the Institution of Engineers (India).
- b) Life Member of the System Dynamics Society of India.
- c) Life Member of the Society of Operations Management
- d) Member of International Association of Engineers (IAENG)

18. Foreign visit:

Attended a course on **Coal Mining: Mechanisation for Senior Managers** at U.K. provided by British Government as part of its Technical Co-operation programme from January 1987 to March 1987.

19. Additional Information

- a) Vice-President of Indian School of Mines Teachers' Association for the year 2005-06 and 2009-10.
- b) Vice-President of Indian School of Mines Alumni Association for the year 2008-09 and 2009-10.
- c) General Secretary of System Dynamics Society of India for the year 2008-09.