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EDUCATION

- Ph.D. (1991) Mining Engineering and Operations Research (Dual-Title Degree),
The Pennsylvania State University, USA
- M.S. (1985) Operations Research, Florida Institute of Technology, USA
- M.Tech. (1983) Industrial Engineering and Management, Indian Institute of
Technology (ISM), Dhanbad, India
- B.Tech. (1980) Mining Engineering, IIT (ISM), Dhanbad, India

PROFESSIONAL EXPERIENCE

- June 2003 - Present Professor and former Head of Department (during 2003-2006),
Department of Mining Engineering and Joint Faculty of CoE
in Safety Engg. and Data Analytics, Indian Institute of
Technology Kharagpur
- February 1998 – May 2003 Associate Professor, Department of Mining Engineering, Indian
Institute of Technology Kharagpur
- January 1994 – January 1998 Assistant Professor, Department of Mining Engineering, Indian
Institute of Technology Kharagpur
- December 1992 – December 1993 Visiting faculty, Department of Mining Engineering, Indian
Institute of Technology Kharagpur
- October 1991 – November 1992 Postdoctoral Research Fellow, The Pennsylvania State
University, University Park, Pennsylvania, USA
- August 1985 – September 1991 Graduate Research Assistant, The Pennsylvania State University,
University Park, Pennsylvania, USA
- September 1984 – August 1985 Graduate Teaching Assistant, Florida Institute of Technology
Melbourne, Florida, USA
- July 1983 – July 1984 Research Associate, Indian School of Mines, Dhanbad
- August 1980 - June 1981 Junior Executive Trainee, Coal India Limited, Kolkata

TEACHING EXPERIENCE

Undergraduate: Operations Research, Engineering Statistics, Data Analytics, Safety Engineering, Reliability and Quality Engineering, Systems Simulation

Graduate: Advanced Operations Research, Applied Statistics in Engineering, Systems Engineering, Systems Simulation, Risk and Reliability Engineering, Injury Epidemiology
Guided over 75 graduate students including 10 doctoral students.

Continuing Education: Principal coordinator (Director) of over 15 short term courses in the following areas: Management, Accident Prevention and Safety Management, Risk Assessment and Safety Management, and Safety Engineering and Data Analytics

RESEARCH ACTIVITIES

Occupational health and safety; Injury epidemiology; Safety data analytics; Ergonomics; Human Vibration; Operations Research; and Quality engineering.

Involved in several funded research projects as a Principal and Co-principal Investigator (Sponsors: Ministry of Human Resource Development, Govt. of India; Tata Steel; Coal India Limited; Department of Science and Technology, Govt. of India; Bhushan Steel Limited, French National Institute of Health and Medical Research, France; National Institute of Occupational Safety and Health, USA)

PROFESSIONAL ACTIVITIES, HONOURS AND AWARDS

- 1) 125th Anniversary Fellow of the college of EMS of Penn State, USA, 2021.
- 2) Invited Speaker at the International Vision Zero Conference on OSH 2019, Mumbai, India (Invited by ISSA Mining, Germany)
- 3) Professor S.K. Bose memorial award for the year 2016 by the Mining, Geological and Metallurgical Institute of India (MGMI).
- 4) Member of the Governing Body of International Centre of Excellence in Mine Safety and Automation, C/o of Gujrat Mineral Development Corporation Limited, Ahmedabad during 2016-2019.
- 5) Speaker at the First Thailand Vision Zero Conference 2017 on an Invitation from International Social Security Association, Mining (ISSA Mining, Germany)
- 6) Keynote speaker at the Sudan Mining Summit 2016 in Khartoum on an invitation from the Ministry of Minerals, Government of Sudan.
- 7) Invited speaker at the BRICS Global University Summit 2015 in Moscow on an invitation from the Ministry of Foreign Affairs of the Russian Federation.
- 7) Council member of the MGMI during 2010-2013, 2013-2016, 2016-2018, 2019-2022.
- 8) Keynote speakers at the 7th China International Work Forum on Safety 2014 in Beijing and the 5th China International Work Forum on Safety 2010 in Beijing on an invitation from the State Administration of Work safety, People's Republic of China
- 9) Felicitated as Eminent Engineering Personality for valuable contribution in Mining Engineering by the Institution of Engineers (India) in 2012.
- 10) Served on the expert panels of several central Government ministries and departments including Ministry of Labor (2004-2010), Ministry of Coal (2006),

Ministry of External Affairs (2006), Ministry of Information Technology (2006-2008), Ministry of Human Resource Development (2009 onwards), All India Council of Technical Education (2007 onwards), Union Public service Commission (2012 onwards) and Department of Science and Technology (2005-2006).

- 11) International Collaboration : (i) Collaboration with the French National Institute for Health and Medical Research (INSERM), France since 2000; (Michigan Technological University since 2017 and Penn State since 2018
- 12) Collaboration with National Institute of Science and Technology (MISIS), Russia since 2016.
- 13) Principal Coordinator from IIT Kharagpur of MOU between DONG-A University, Busan, South Korea and IIT Kharagpur during 2010-2015.
- 14) Initiated a new dual degree program in Mine Safety Engineering at IIT Kharagpur from the academic year 2005-2006. A new undergraduate laboratory in Safety Engineering and Human Factors was developed by Dr. A. Bhattacharjee.
- 15) Served on the expert panels in the academic institutions, research institutions and Government regulatory bodies including CIMFR (Research Council member during 2010-2016); ISM Dhanbad (member of faculty selection committee and member of Research Council during 2010 -2013): IEST Shibpur (member of faculty selection committee); NIT Surathkal (member of faculty selection committee: AICTE (member of National Board of Accreditation of AICTE); IIT BHU(External examiner), NIT Nagpur (member of NBA of AICTE), Anna University Madras (member of NBA of AICTE); Directorate General of Mines Safety (Board of Mining Examinations for Coal as per the Coal Mines Regulations 1957).
- 16) Invited speaker on safety and health at several technical forums in India and abroad including NIOSH, USA
- 17) Vice-Chairman at IIT, Kharagpur for the Joint Entrance Examination for all the IITs for the years 2002 and 2003 (JEE 2002 and JEE 2003).
- 18) Life member of Mining, Geological and Metallurgy Institute of India and The Institution of Engineers (India); Member of International Social Security Association (ISSA Mining) from 2014; Member of American Institute of Mining, Metallurgy, and Petroleum Engineers (1986-1996); Operation Research Society of America (1985-1991); Decision Sciences Institute (1988-1991), and Society of Phi Kappa Phi (1991-1992).
- 19) Awarded John Dunn Medal award for the year 2003-2004 by the Mining Geological and Metallurgical Institute of India (MGMI) for outstanding contributions to the Indian Mineral industry.
- 20) Awarded Smt. Bala Tandon Award for the year 2000-2001 by the MGMI.
- 21) Awarded MGMI Bronze medal for 1998-99 for a technical paper.
- 22) Awarded MGMI Silver Medal for 1996-97 for a technical paper.
- 23) Awarded Indian School of Mines (ISM) Gold Medal in 1984.

PUBLICATIONS

- I) Over 150 research papers in technical journals and conference proceeding ; Editor of several International Conference proceedings including the Proceedings of the 34th International Conference of Safety in Mines Research Institutes (Published in 2011 by MACMILLAN Publishers, Delhi, ISBN: 978-935-059-042-3, 860 pp).
- II) Over 25 technical reports including the technical reports of NIOSH, USA (the former U.S. Bureau of Mines) which are the outcomes of the funded project on “Coal Mine Injury Analysis” (1986-1993).
- III) Research Monograph on “Risk Analysis of Coal Mine Injuries” published in 2014 (Publisher: LAP, Germany; ISBN Number: 978-8383-4263-4, 93 pp.)
- IV) Co- author of a Chapter of the Handbook on Mine Health and Safety published by the Society of Mining Engineers, USA, in 1992.