

PRABIR MUKHOPADHYAY

Associate Professor & Head, Design Discipline, Indian Institute of Information Technology Design and Manufacturing Jabalpur, Dumna Airport Road, Jabalpur-482005.Madhya Pradesh, INDIA. Phone(0761)-279 4311 . email: prabir@iiitdmj.ac.in, prabirat@gmail.com

EDUCATION

UNIVERSITY OF LIMERICK, IRELAND

PhD in Industrial Ergonomics from the Department of Manufacturing and Operations Engineering (now Design and Manufacturing Technology Department).

Recipient of European Union MIRTH Scholarship (2002-2004).

UNIVERSITY OF CALCUTTA, INDIA

MSc in Physiology with specialization in Ergonomics and Work Physiology (1991-1993)

UNIVERSITY OF CALCUTTA, INDIA

BSc (Honours) in Physiology (1988-1991)

PROFESSIONAL EXPERIENCE

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING
JABALPUR, INDIA

Associate Professor, July 2013 – Present

- Teach Ergonomics to Undergraduate and Postgraduate Design Students
- Guide Bachelors, Masters and PhD students in design towards their thesis
- Conduct research projects
- Consultancy Project management
- Administrative responsibility as the Discipline Head since September 2015 till date

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND
MANUFACTURING JABALPUR, INDIA

Assistant Professor May 2010 – July 2013

- Taught Ergonomics to Undergraduate and Postgraduate Design Students
- Guided Bachelors& Masters students in design towards their thesis
- Consultancy Project management

NATIONAL INSTITUTE OF DESIGN, POST GRADUATE CAMPUS, GANDHINAGAR, INDIA

Associate Senior Faculty, Nov 2004 – April 2010

- Taught Ergonomics to Undergraduate and Postgraduate Design Students
- Guided Bachelors & Masters students in design towards their short and long term projects
- Administrative responsibility as Discipline Head of Software and User Interface Design from 2006 to 2009

DEPARTMENT OF MANUFACTURING AND OPERATIONS ENGINEERING, UNIVERSITY OF LIMERICK, IRELAND,

Research Assistant, Jan 2002 – December 2004

- Taught laboratory and tutorials in work-study and operations management to second year Production Management and Manufacturing Systems students. Taught occupational ergonomics to 4th year Manufacturing Engineering and taught postgraduate students of Safety and Ergonomics.
- Pursue my Doctoral Research

NATIONAL INSTITUTE OF DESIGN, AHMEDABAD, INDIA

Adjunct Faculty, Jan 2000 – Dec 2001

- Taught Ergonomics to Undergraduate and Postgraduate Design Students
- Guided Bachelors & Masters students in design towards their short and long term projects
- Consultancy project management

CONSULTANCY PROJECT MANAGEMENT

IIT KANPUR (2021)

Consultant on the SEG on Rural Craft and Artisans Development & Rural Industrialization and Entrepreneurship Development operating under the larger umbrella of Unnat Bharat Abhiyan. Developed a craft manual for the artisans on ergonomic issues in the craft sector.

INDIAN NAVY (2015)

Classified project for the Indian Navy

INDIAN RAILWAYS (1999)

Provided ergonomics consultancy (as one of the team member) in a project on "Ergonomic and Architectural Design Improvements of Light Machine Shop Floor" of the Diesel Locomotive Works, Varanasi.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)(2000)

Provided Ergonomics consultancy on a project on "Ergonomic Study on the Hand Block Printers of Jaipur".

SELF-EMPLOYED WOMEN'S ASSOCIATION (SEWA), AHMEDABAD, INDIA.(2001)

Worked as Ergonomist and **Project Head** in a consultancy research project on "Ergonomic Study for the improvement of Working Efficiency of the Agarbatti (incense sticks) Workers".

RESEARCH PROJECT***August 2020- ongoing******Indian Institute of Information Technology Design and Manufacturing Jabalpur***

Principal Investigator in the project titled " Ergonomic Intervention in The Classroom Environment for Enhanced Learning, Sponsored by NCERT , New Delhi.

January 2008- December 2009***National Institute of Design, Post Graduate Campus, Gandhinagar, Gujarat***

Project Head in the project titled: Ergonomic analysis of some craft sectors of Jaipur. Sponsored by Ford Foundation-NID research grant.

August 1994- December 1997***Ergonomics Laboratory, Department of Physiology, Calcutta University.***

•Junior Project Fellow on the project titled "Assessment of impact of Hot Hazardous Working Environment on Industrial and Agricultural Workers and Development of Ergonomically Designed Personal Protective Devices". Sponsored By the Ministry of Environment and Forests, Government of India.

•Researcher in the project "A Pilot Study on Ergonomic Evaluation on a Newly Designed Regenerative Break Developed for the Cycle Rickshaw" in collaboration with Mechanical Engineering Department, Indian Institute of Technology (IIT) Kanpur, India.

SELECTED PUBLICATIONS

BOOK

Mukhopadhyay, P. (2019). *Ergonomics for the Layman: Applications in Design*. CRC Press. ISBN 9780367334994.

BOOK CHAPTER

1. Mukhopadhyay, P., & Vinzuda, V. (2019). Ergonomic Design of a Driver Training ` Simulator for Rural India. In *Advanced Methodologies and Technologies in Artificial Intelligence, Computer Simulation, and Human-Computer Interaction* (pp. 293-311). IGI Global.
2. Mukhopadhyay, P. (2017). Investigation of Ergonomic Risk Factors in Snacks Manufacturing in Central India: Ergonomics in Unorganized Sector. In *Handbook of Research on Human Factors in Contemporary Workforce Development* (pp. 425-449). IGI Global.

JOURNALS

1. Patel, G., & Mukhopadhyay, P. (2021). Ergonomic analysis and design intervention in symbols used in hospitals in central India. *Applied Ergonomics*, 94, 103410.
2. Prabir, Mukhopadhyay, Vinzuda Vipul, Govekar Krishnakumar, And S. Nirmay. "Ergonomic Evaluation And Re-Design Of A Camel-Drawn Public Transport System." *Journal Of Human Ergology* 46, No. 2 (2017): 47-58.
3. Mukhopadhyay P, Vinzuda V, Dombale S, Deshmukh B. Ergonomic Analysis and Design of the Console Panel of a Bus Rapid Transit System in a Developing Country. *The Design Journal*. 2016 Jul 3;19(4):565-83.
4. Mukhopadhyay, P., Khan, A, 2015, The evaluation of ergonomic risk factors among meat cutters working in Jabalpur, *International Journal of Occupational and environmental Health*, 21, 192-198.
5. Mukhopadhyay, P., Jhodkar, D., Kumar, P., Ergonomic Risk Factors at Bicycle Repairing Units at Jabalpur,2015, *WORK: A Journal of Prevention, Assessment, and Rehabilitation*. 51, 245-254.
6. Mukhopadhyay P, Vinzuda V, Naik S, Karthikeyan V, Kumar P. Ergonomic Analysis Of A Horse-Drawn Carriage Used For A Joy Ride In India. *Journal of Human Ergology*. 2014;43(1):29-39.
7. Mukhopadhyay, P., Kaur, J., Kaur, L., Anupriya, A., Kajabaje, M., Jyoti, M., Vallerie, V., Gopal, A., Akshan, I., Pochont, R., Chajkravarty, S ,2013, Ergonomic design analysis of

- some road signs in India, , Information Design Journal, 20, 220-227, *John Benjamins Publishing Company*.
8. Mukhopadhyay, P., Sajan, S., 2013, Ergonomic design intervention at an Interactive Voice Response (IVR) system in a developing country, Information Design Journal 20,148–160. *John Benjamins Publishing Company*.
 9. Mukhopadhyay, P., Kaur, J. , Kaur, L.,2013, Ergonomic Design Issues In Icons Used in Digital Cameras in India, International Journal of Art, Culture and Design Technologies, 3,51-62. *IGI Global*.
 10. Mukhopadhyay, P., Vinzuda, V., Sriram, R., Doiphode, A., 2012, Ergonomic analysis of a traditional vehicle plying in rural and semi-urban areas in western India, Journal of Human Ergology, 41, 83-94. *Ergonomics Society Japan*.
 11. Mukhopadhyay, P., Srivastava, S., 2010, Ergonomic risk factors in stone carving units of Jaipur, *WORK: A Journal of Prevention, Assessment, & Rehabilitation*, 35, 87-99, *IOS Press, The Netherlands*.
 12. Mukhopadhyay, P., Srivastava, S.,2010, Ergonomic design issues in some craft sectors of Jaipur, 13,99-124, *The Design Journal, Berg Publishers, UK*.
 13. Mukhopadhyay, P., Srivastava, S.,2010, Ergonomic risk factors in some craft sectors of Jaipur, Ergonomics Australia, 24 ,04-14, *Ergonomics Society of Australia*.
 14. Mukhopadhyay, P., O' Sullivan, L.W., Gallwey, T., 2009, Upper limb discomfort profile due to intermittent isometric pronation torque at different postural combinations of the shoulder arm system. *Ergonomics*, 52,584-600. *Taylor and Francis, UK*.
 15. Mukhopadhyay, P., 2009, Ergonomic design of head gears for use by rural youths in summer, *WORK: A Journal of Prevention, Assessment, & Rehabilitation*, 34,431-438, *IOS Press, The Netherlands*.
 16. Mukhopadhyay, P., Ghosal, S., 2008, Ergonomic design intervention in manual incense sticks manufacturing, *The Design Journal*, 11, 65-80. *Berg Publisher, UK*.
 17. Mukhopadhyay, P., 2008, Risk factors in manual brick manufacturing in India, *Ergonomics Australia*, 22, 16-25. *Ergonomics Society of Australia*.
 18. Mukhopadhyay, P., 2008, Time of day effect on performance at a user interface, *Multi: Journal of Diversity and Plurality in Design*, 1, 36-44. *Rochester Institute of Technology, USA*.
 19. Mukhopadhyay, P., O' Sullivan, L.W., Gallwey, T., 2007, Estimating upper limb discomfort level due to intermittent isometric pronation torque with various combinations of elbow angles, forearm rotation angles, force and frequency with upper arm at 90 degree abduction, *International Journal of Industrial Ergonomics*, 37, 313-325. *Elsevier, UK*.
 20. Mukhopadhyay, P., O' Sullivan, L.W., Gallwey, T., 2007, Effect of upper arm articulations on shoulder arm discomfort profile in a pronation task, *Occupational Ergonomics*, 7,169-181. *IOS Press, The Netherlands*.

21. Mukhopadhyay, P., 2007, Heat stress in industry: A problem in India, Asian-Pacific Newsletter on Occupational Health and Safety, 14, 12-13. *Finish Institute of Occupational Health.*
22. Mukhopadhyay, P., 2006, Beyond the horizon, Ergonomics in Design, 14, 4-5. *Human Factors Ergonomics Society, USA.*
23. Mukhopadhyay, P., 2006, User study: Some problems in India, Ergonomics Australia, 20, 14-17. *Ergonomics Society of Australia.*

PAPERS PRESENTED AT CONFERENCES

1. Mukhopadhyay, P., Vinzuda, V., Suvarnam, T., Lakhtar, N., 2018. Use of Low Cost Tools in Ergonomic Research of Mobile Restaurants in Western India. Paper presented at the VIII European Congress of Methodology, University of Jena, Germany, 25-27 July, 2018.p 206.
2. Mukhopadhyay, P., Nigam, S. 2016, Humanizing the digital sphygmomanometer interface for rural India. Paper presented at the 2nd International Conference on Control Science and Systems Engineering (ICCSSE), Nanyang Technological University, Singapore, 27-29 July.
3. Mukhopadhyay, P. 2015, User-study some problems in India, Paper presented at the VI Conference of the European Survey Research Association (ESRA), University of Iceland, Reykjavik, ICELAND.
4. Mukhopadhyay, P., 2014, Challenges of collecting data from human subjects in India, Paper presented at the VI European Association of Methodology (EAM) Congress, University of Utrecht, The Netherlands, 156.
5. Mukhopadhyay, P., Vinzuda, V., Gohil, S., Sonavaria, M., 2012, Systems Ergonomic analysis of a women's special bus in India, Paper presented at the European Meeting of Cybernetics and Systems Research, University of Vienna. 226-227
6. Mukhopadhyay, P., Das, S., 2005, Pilot ergonomic study on fabric washing in textile hand block printing unit in Jaipur, Paper presented at the International Conference on Humanizing Work and Work Environment (HWWE2005), Indian Institute of Technology Guwahati. 698-703.
7. Mukhopadhyay, P., 2005, Postural issues in hand block printing, Proceedings of the seminar, " Indian craft, future in a globalizing world", held at National Institute of Design, Paldi, Ahmedabad, p36. Abstract only.
8. Mukhopadhyay, P., Das, S., 2005, Pilot ergonomic study on fabric washing in textile hand block printing unit in Jaipur, in Proceedings of the International Conference on Humanizing Work and Work Environment (HWWE2005), held at Indian Institute of Technology, Guwahati, 698-703.
9. Mukhopadhyay, P., Gallwey, T. and O'Sullivan, L.W., 2003, Effect of grip force and shoulder abduction angles in repetitive clockwise forearm pronation/supination

movements, in Proceedings of the International Annual Occupational Ergonomics and Safety Conference, 7th - 9th May, Munich, 81-88.

10. Mukhopadhyay, P., Gallwey, T. and O'Sullivan, L.W., 2003, Effect of combined grip force and forearm supination torque on discomfort for abduction at prone/supine angles, in Proceedings of Irish Ergonomics Review, 12 June, NUI Galway, Ireland, 7-12.
11. Sen, R.N., Das, S., Muphopadhyay, P., Sen, A., 1995, A new Ergonomic Head Gear for the Agricultural workers to protect against solar radiations and rains. Proceedings of the First Congress of Federation of Indian Physiological Societies (FIPS), held at CGO complex, New Delhi, 1-3 March, p59. Abstract only.
12. Sen, R.N., Das, K., Basu, K., Mukhopadhyay, P., 1996, ergonomically designed anti-mosquito clothing for agricultural workers. Proceeding of the Second International Symposium on Ergonomics, Occupational Health, Safety and Environment, (2nd ISE-OH-SE) held at CGO Complex, New Delhi, 25-28 Nov, P6 (4). Abstract only.

O T H E R S

Member, Advisory Board, Centre for Creative Cognition, SR University, Warangal,

Delivered expert lectures at:

- National Institute of Design, Ahmedabad, Gandhinagar, Kurukhsetra and Amravati
- National Institute of Fashion Technology, Jodhpur
- Delhi Technological University