



KIRAN MONDAL

Ergonomics & Human Factors Professional
Completed Doctoral Research in Human
Factors & Ergonomics (Thesis yet to be
submitted)

I am a enthusiastic Human Factors
Specialist with strong background of
Human Factors and Ergonomics having
over 5 years of research and Ergonomics
design experience.

KEY SKILLS

Basic Ergonomics,
Cognitive Ergonomics,
Physical Ergonomics,
Biomechanics & MSD
Environmental Ergonomics,
Organizational Ergonomics,
Product Ergonomics,
Vehicle Ergonomics,
Visual Ergonomics,
Workstation Design,
Design for Aged,
Human Factors in Interaction Design
User Centered/Experience Design
Occupational Health and Safety

CONTACT

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PORTFOLIO

Click here:
https://drive.google.com/open?id=17rm57wDphX7_dru751dWQvKqNKuxyeFj

MEMBERSHIP

- ❖ LIFE MEMBER OF “INDIAN SCIENCE CONGRESS” SINCE DEC, 2014
- ❖ LIFE MEMBERSHIP OF “INDIAN SOCIETY OF ERGONOMICS” SINCE AUG, 2018

AWARDS

- ❖ DRDO-Senior Research Fellowship holder since February 2016 to February 2019.
- ❖ DRDO-Junior Research Fellowship holder from February 2014 to February 2016.
- ❖ Awarded “Merit Cum Scholarship” from the State Government of West Bengal for Higher study on the basis of B.Sc. scores.

RESUME

PROFESSIONAL EXPERIENCE

DURATION	POST HELD	INSTITUTE/ORGANIZATION
Feb, 2016 – Feb, 2019	Senior Research Fellow (SRF)	Defence Institute of Physiology and Allied Sciences (DIPAS), Delhi
Feb, 2014 – Feb, 2016	Junior Research Fellow (JRF)	Defence Institute of Physiology and Allied Sciences (DIPAS), Delhi
Feb, 2013 – Jan, 2014	Project Supervisor	Liver Foundation, West Bengal

MAJORPROJECTS

Duration	2016-Feb, 2019
Project Title	Human Machine Interface in Terms of Physical, Cognitive and Design Ergonomics
Project Brief	With the advancement in technology increase in complexity levels of Displays in different workstations require information processing under time domain constraint, especially in military scenario. Therefore, assessment the human-machine interface (HMI) in any military operation on the basis of ergonomics principles and guidelines becomes mandatory. So our aim is to improve performance of Indian Soldiers in extreme environments and operating high density military workstations including day and night operations incorporating physical and cognitive ergonomics interventions.
Responsibility	Planning of Scientific Experiments, Data collection, Analysis, Statistical Treatment & scientific paper writing
Duration	2016-2017
Project Title	Ergonomic Interventions in Man –Machine Interfacing of ANUSOC (Wearable Computer)
Project Brief	Use of Wrist Wearable computer in Indian Army is in grassroots level. The aim of this study is to Ergonomically assess Indigenously developed Wrist Wearable Computer with special insights on Cognitive and Physical Ergonomics aspects to overcome Human Factor issues.
Responsibility	Planning of Scientific Experiments, Data collection, Analysis, Statistical Treatment, Paper & Project Report Writing
Duration	2014
Project Title	Intervention of Short Term Yoga on Biomechanical Responses of Young Indian Adults
Project Brief	Now a days Yoga is globally accepted beneficial tool to improve quality of life. Our objective is to find out an additional feature of Yoga in terms of balance and stability improvement.
Responsibility	Planning of Scientific Experiments, Data collection, Analysis, Statistical Treatment, Paper & Project Report Writing

TECHNIQUES LEARNED

- ❖ **3D Motion Analysis System** for measurement of integrated Kinematics, kinetics and EMG. This system uses following software for data acquisition, analysis and inference: Cortex64 5.3.1.1543, Ortho Track 6.6.1 and Bioware.
- ❖ **Eye Movement Recorder:** Records movement of eye while performing any task with software iViewETG 2.7for data recording and BeGaze3.7 for data analysis.

PERSONAL INFORMATION

S/O: Sh. Santosh Mondal
Date of Birth:- 14/01/1989
Sex:- Male
Marital Status:- Single
Nationality:- Indian

CORRESPONDING ADDRESS

33/35 (3rd Floor) Tagore Marg,
Kewal Park, Azadpur,
Delhi-110033

PERMANENT & MAILING ADDRESS

S/O: Sh. Santosh Mondal
Piasala, Purandarpur, Birbhum,
West Bengal, 731129

LANGUAGES KNOWN

English (Read, Write & Speak)
Bengali (Read, Write & Speak)
Hindi(Read, Write & Speak)

EXTRA CURRICULAR ACTIVITIES

Completed the course of **Diploma in Computer Applications (DCA)**
Duration: 2009-2010

WORKSHOP ATTENDED

- ❖ “Ergonomics and Design Issues” organized by Design Innovation Centre, Department of Design, IIT, Guwahati, December, 2014.

CONFERENCE ATTENDED/PRESENTED

- ❖ International Conference of FIPSPHYSIOCON 2017, organised by Defence Institute of Physiology and Allied Sciences (DIPAS), Delhi during November 5-7, 2017.
- ❖ Int. Conf. on Humanizing Work and Work Environment (HWWE) 2016 hosted by Dr BR Ambedkar National Institute of Technology, Jalandhar, India during 8-11 Dec 2016.
- ❖ 102nd Indian Science Congress held at University of Mumbai, Mumbai during January 3-7, 2015.
- ❖ International Conference of Humanizing Work and Work Environment (HWWE) 2014 organised by Department of Design, Indian Institute of Technology Guwahati, December 3-5, 2014.
- ❖ UGC Sponsored National Seminar on “Emerging Issues in Physiology and Allied Sciences” held at Department of Human Physiology and Community Health, Vidyasagar University, Medinipore, 26th March, 2010.

- ❖ **Simulation and Human Modeling Software Jack 8.2** for ergonomic evaluation of digital prototypes of workstations.

- ❖ **ErgoMaster Software with videography:** Ergonomics evaluation Software for real-time evaluation of awkward postures using 2D photography or 3D videography (Sony 3CCD) while the subject continues activities in field situation

- ❖ **Breathe by breathe gas analysis system (K⁴B² and Metamax3B).** These systems record breathe by breathe oxygen uptake and carbon-di-oxide exhale.

- ❖ **Zypher:** Physiological status monitoring during any activity with the help of biosensors and bio-harness with the recording software OmniSense Live and analysis software OmniSense Analysis.

- ❖ **SPSS version 21** for statistical treatment.

ACADEMIC QUALIFICATION

Examination	Year of Passing	Board/University	Marks Secured
PhD	Pursuing	Panjab University, Chandigarh	NA
B.Ed	2013	Vidyasagar University	61.7%
M.Sc (Human Physiology)	2011	Vidyasagar University	68.66%
B.Sc (Physiology)	2009	University of Burdwan	60.87%
H.S(XII)	2006	West Bengal Council of Higher Secondary Education	56.7%
M.P(X)	2004	West Bengal Board of Secondary Education	73%

PUBLICATION

Patent:

1. Indian Patent, 295633. “School Bag”. 12th July, 2017. (Design Registration).

Full Paper:

- ❖ Kiran Mondal¹, Deepti Majumdar², Madhu Sudhan Pal³, Tammanna R Sahrawat⁴, Bhuvnesh Kumar⁵. **Association of Manual Weight Lifting Tasks with Low Back Pain: A Pilot Study.** Journal of Clinical and Diagnostics Research, 2019 Feb, Vol. 13(2): LC10-LC15. DOI: 10.7860/JCDR/2019/39691.0000
- ❖ Kiran Mondal, Dhurjati Majumdar, Anilendu Pramanik, Subhojit Chatterjee, Manish Darmora, Deepti Majumdar. **Application of Yoga as an Effective Tool for Improving Postural Balance in Healthy Young Indian Adults.** International Journal of Chinese Medicine. Vol. 1, No. 2, 2017, pp. 62-69. doi: 10.11648/j.ijcm.20170102.14.
- ❖ Mondal, K., Soin, S., Chatterjee, S., Sen, S., Majumdar, D., **Biomechanical responses of young Indians during performing manual weight lifting tasks.** 14th International Conference on Humanizing Work and Work Environment HWWE-2016. ISBN Number: 978-93- 83006-81- 6.
- ❖ Majumdar, D., Mondal K., Chatterjee, S., Sen, S., 2016. **Realtime Versus Virtual Reality Studies: Validation of Human Motion Data.** 14th International Conference on Humanizing Work and Work Environment HWWE-2016. ISBN Number: 978-93-83006-81-6.

Technical Report:

- ❖ **Ergonomic Interventions in Man-Machine-Interfacing of ANUSOC (Wearable Computer).** Report No. DRDO/DIPAS/DGLS/TR/01/2019

Abstract:

- ❖ Deepti Majumdar, Kiran Mondal, Tirthankar Chatterjee, Debojyoti Bhattacharyya and Madhusudan Pal. **Proactive ergonomics intervention in designing of Driver’s Instrument Panel for Armoured Fighting Vehicle.** National Technical Seminar on Future Technologies for Combat Vehicle Electronics. CVRDE, Chennai, 23rd February 2018.
- ❖ Deepti Majumdar, Kiran Mondal, D. Bhattacharya and M.S. Pal. **Effect of Background Illumination on Saccade Responses while Operating a Wrist Wearable Computer.** 15th Int. Conf. On Humanizing Work and Work Environment (HWWE), 8-10th Dec 2017, Department of Mechanical Engineering, Aligarh Muslim University, Aligarh, 177. ISBN Number: 978-93-86724-25-0.

REFERENCES

Dr Deepti Majumdar (Supervisor) Scientist 'E'

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Mr. Debojyoti Bhattacharyya Scientist 'D'

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Mr. Tirthankar Chatterjee Scientist 'D'

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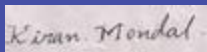
Mr. Amar Kundu

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Onsite at Bombardier Transportation,
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DECLARATION

I hereby declare that the above statements
are true, complete and correct to the best of my
knowledge and belief.



KiranMondal
22.05.2019

❖ Kiran Mondal, Deepti Majumdar, Subhojit Chatterjee, Suranjana Sen and Madhusudan Pal. *Kinematics and Kinetics of Manual Weight Lifting Tasks: A 2D Photogrammatic Analysis*. FIPSPHYSIOCON, November 5-7, 2017.

❖ Suranjana Sen, Subhojit Chatterjee, Kiran Mondal, Debojyoti Bhattacharyya and Madhusudan Pal. *Effect of Shock Absorbing In Socks on Balance and Stability during Quiet Standing*. FIPSPHYSIOCON, November 5-7, 2017.

❖ Mondal, K., Soin, S., Chatterjee, S., Sen, S., Majumdar, D., 2016. *Biomechanical responses of young Indians during performing manual weight lifting tasks*. Proc. 14th Int. Conf. On Humanizing Work and Work Environment (HWWE), 8-11 Dec 2016, NIT, Jalandhar, 405-411. ISBN Number: 978-93-83006-81-6.

❖ Kiran Mondal, Deepti Majumdar, Anilendu Pramanik, Subhojit Chatterjee, Manish Darmora and Dhurjati Majumdar. *Effect of Yoga Training on Kinetic Work and Power Responses of Indian Young Adults*. Indian Science Congress, January 3-7, 2015.

❖ Kiran Mondal, Deepti Majumdar, Anilendu Pramanik, Subhojit Chatterjee, Manish Darmora and Dhurjati Majumdar. *Effect of Yoga Training on Sway Responses of Indian Young Adults*. International Conference of Humanizing Work and Work Environment (HWWE), December 3-5, 2014.

REVIEWER

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- ❖ **International Journal of Industrial Ergonomics**
 - ❖ **International Journal of Forensic Engineering and Management**
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