

Indresh Kumar Verma



CONTACT INFORMATION

Ph.D. Research Scholar,
Ergonomics Laboratory,
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INTERESTS

Human Factor Engineering, Driver Distraction, Digital Human Modelling, Cognitive Workload, Usability.

EDUCATION

IIT Guwahati, Guwahati, Assam, India.
Ph.D Research Scholar

July 2014 – present
Course Work (CPI 9.23/10.0)

IIITD&M, Kancheepuram, Tamil Nadu. India.
M.Des (Electronic Systems)

August 2010 – July 2012
(CGPA 8.04/10.0)

Chhatrapati Shivaji Institute of Technology, Durg, Chhattisgarh, India.
B.E. (Electronics & Instrumentation)

July 2006 – July 2010
(CGPA 7.81/10.0)

Delhi Public School, Risali, Bhilai, Durg, Chhattisgarh, India.
Pre-primary, Primary, Senior secondary and Higher secondary School

March 1990 – April 2003

PERSONAL ACHIEVEMENTS

- Winner of Design competition of calendar 2018 of IIT Guwahati.
- Winner of Design competition of calendar 2017 of IIT Guwahati.
- 3rd Position in Badminton during Design Championship 2015, organized by the Department of Design, IIT Guwahati.
- Secured 1st position in EIE department in 2006 session at CSIT Durg.
- Certificate from Indian School of Arts for participating in All India Drawing and Painting Competition.
- Selected among top 3% student in (Graduate Aptitude Test for Engineering) GATE 2010 in Instrumentation Engg. exams conducted by IIT's and IISc.

TECHNICAL SKILLS

Operating Systems: Windows, Linux, Mac OSX
Tools: Adobe InDesign, Adobe Illustrator, Adobe Dreamweaver, Adobe Muse, Adobe Photoshop, Catia – Delmia, Multisim, IBM SPSS v25, \LaTeX 2_ε
Statistical Analysis: ANOVA, t-test, Shapiro–Wilk test, Friedman chi-square test, Parametric and Non-parametric Statistics

PROFESSIONAL EXPERIENCE

IIT Guwahati, Guwahati, Assam. India.
Graduate Research Assistant

[August 2014 – Present]

- Assisted in organising lab sessions for UG/PG courses at Ergonomics laboratory, IIT Guwahati
- Assisted in organising Theoretical lectures/ seminars at Ergonomics laboratory, IIT Guwahati

- Assisted in organisation of International Ergonomics conference ‘HWWE-2014’ at Ergonomics laboratory, IIT Guwahati

Core Committee Member Research Conclave 2016

- Website development and maintained for Research Conclave 2016 at IITG, and actively participated in organising the event.

Chhatrapati Shivaji Institute OF Technology, Durg, Chhattisgarh. India. [July 2012 – July 2014]

Assistant Professor

- Served as Assistant Professor in the Department of Electronics & Instrumentation Engineering at Chhatrapati Shivaji Institute of Technology, Durg

IIITD & M, Kancheepuram, Tamil Nadu. India. [Aug 2010 – June 2012]

Teaching Assistant

- Assisted and Organized Lab sessions for the B.Tech (1st year), the Labs included C programming, Basic Electronic Practices, Electronics Devices and circuits Lab for B.Tech (2nd year).

PROJECTS

- **Optimization Of Energy Harvesting using Piezoelectric Sensor** [May 2011 – July 2012]
The energy being generated from a piezoelectric sensor is very less, and to utilize it we need some special energy harvesting circuits, the project aims at developing a circuit that optimizes the energy available to be used in ultra-low power applications.
- **Design & Development of a Pit Detecting Robot** [Sept 2010 – April 2011]
The Remote operated Robot is able to detect and count the number of pits or depressions on its path by using IR sensors.
- **Monitoring and control of Greenhouse Environment** [July 2009 – July 2010]
Project to monitor and control the environmental conditions (Light, Temperature, Moisture, Humidity) inside a green house.
- **Stepper Motor Interface with Shift Register** [May 2008 – July 2008]
A project to demonstrate the movement of stepper motor with the shifting of bits in a shift register.

WORKSHOPS
ATTENDED

- **Workshop on Systematic Innovation for Design, Engineering and Management** [4th – 9th Sept. 2017]
Participated in ,workshop on Systematic Innovation for Design, Engineering and Management , organized by Department of Design, IIT Guwahati.
- **Workshop on Intellectual Property Right** [30th Nov – 1st Dec 2016]
Participated in Workshop on Statistical Methodologies for Research in Design, Organized by Department of Design, IIT Guwahati.
- **Workshop on Statistical Methodologies for Research in Design** [7th – 12th November 2016]

Participated in Workshop on Statistical Methodologies for Research in Design, Organized by Department of Design, IIT Guwahati.

- **Workshop on Visual Display Design: Scientific way of Representation** [14th – 16th March 2016]
Participated in National Workshop on Visual Display Design: Scientific way of Representation, Organized under TEQIP, conducted by Department of Design, IIT Guwahati.
- **Workshop on Technical Communication and writing** [13th – 17th April 2015]
Participated in Technical Communication and writing Workshop, organized by Students' Affair section, IIT Guwahati.
- **Short-term Course on Design: Education, Research & Innovation** [2nd – 6th February 2015]
Participated in AICTE Sponsored Short-term Course on "Design: Education, Research & Innovation (DERI)" conducted by Department of Design, IIT Guwahati.

EXTRA CURRICULAR ACTIVITIES

- **General Secretary, Married Scholars' Hostel, IIT Guwahati** [April 2017 – April 2018]
Served as General Secretary of Married Scholars' Hostel (MSH), IIT Guwahati. I was actively involved in taking decisions and heading the Hostel Management Committee, of MSH.
- **Core Committee Member in Research Conclave 2017** [16th – 19th March, 2017]
Worked as Core Committee Member in Research Conclave 2017 organized by Students' Academic Board, IIT Guwahati.
- **Core Committee Member in Research Conclave 2016** [17th – 20th March, 2016]
Worked as Core Committee Member in Research Conclave 2016 organized by Students' Academic Board, IIT Guwahati.
- **Web Coordinator, Students' Academic Board, IIT Guwahati** [2016 – 2018]
Worked as Web coordinator, and was actively involved in Website development and maintenance of Students' Academic Board, IIT Guwahati.
- **Participated in Research Conclave 2015** [23rd – 26th March, 2015]
Actively participated in Research Conclave 2015 organized by Students' Academic Board, IIT Guwahati.

PUBLICATIONS

- **Verma, I.K., & Karmakar, S. (2020).** Positioning of the Mobile Phone to Minimize Driver's Biomechanical Effort During Navigation: DHM-Based Approach. *Journal of The Institution of Engineers (India): Series C*. <https://doi.org/10.1007/s40032-020-00580-9>
- **Verma, I., Nath, S., & Karmakar, S. (2018).** Research in Driver-Vehicle Interaction: Indian Scenario. In G. G. Ray, R. Iqbal, A. K. Ganguli, & V. Khanzode (Eds.), *Ergonomics in Caring for People* (pp. 353–361). Singapore: Springer Singapore. http://doi.org/10.1007/978-981-10-4980-4_43
- **Verma, I. K., & Karmakar, S. (2017).** Subjective evaluation of driver-distraction caused during use of mobile phone for navigation purpose. In M. Muzammil, A. A. Khan, M. Farooq, & F. Hasan (Eds.), *15th International Ergonomics Conference on Humanizing Work and Work Environment*. Aligarh: Excel India Publishers.
- **Verma, I. K., & Karmakar, S. (2017).** Driver Distraction: Methodological Review. In A. Chakrabarti & D. Chakrabarti (Eds.), *Research into Design for Communities, Volume 1. ICoRD 2017* (Vol. 65, pp. 849–859). Springer, Singapore. https://doi.org/10.1007/978-981-10-3518-0_73
- **Nath, S., Verma, I., Tiwari, R., & Karmakar, S. (2016).** Exposure to Vibration, its Impact on Occupational

Health and Intervention Strategies Adopted in Indian Informal Sectors: A Designer's Perspective. In A. Bhardwaj, L. P. Singh, & S. Singh (Eds.), *14th International Conference on Humanizing Work and Work Environment HWWE-2016* (pp. 53–56).

PATENT FILLED

Design Patent

- Self-balancing mobile holder for steering wheels. **[FER Issued]**
Design Registration Number: 329864-001, Class: 08-08, Filed on 08th June, 2020.
Members: **Mr. Indresh Kumar Verma**, Dr. Sougata Karmakar, Mr. Gurdeep Singh

Utility Patent

- Design of steering wheel-hub mounted self-balancing universal mobile phone holder for reducing biomechanical effort for display-navigation by vehicle drivers. **[Published]**,
Application No.: 202031030298
Date of Filing: 16th July, 2020, Kolkata
Published on: 14th August, 2020.
The Patent Office Journal No. **33/2020**
Members: **Mr. Indresh Kumar Verma**, Dr. Sougata Karmakar, Mr. Gurdeep Singh.

PROFESSIONAL MEMBERSHIP

Life member of Indian Society of Ergonomics (ISE) [L-428]

REFERENCES

Dr. Sougata Karmakar

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Department of Design,
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Dr. Urmi R. Salve

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