

Gourab Kar, Ph.D.

Assistant Professor, Department of Design
Indian Institute of Technology Delhi, New Delhi - 110016, INDIA
gourab@iitd.ac.in; +91-947-560-4776

Education

Ph.D. in Human Behaviour & Design May 2019

Cornell University, Ithaca, NY, USA
Dissertation: *Ergonomic Investigations of Sit-Stand Workstations for Computer-based Work*
Committee: Alan Hedge, Khena M. Swallow & Vilma Santiago-Irizarry
Major: Human Factors & Ergonomics; Minors: Cognitive Science, Anthropology

Master of Industrial Design (Universal Design) May 2011

Georgia Institute of Technology, Atlanta, GA, USA
Thesis: *Universal Design of Behind-the-Counter Workspaces*.
Committee: Abir Mullick, Karen Milchus & Kevin Shankwiler

Master of Design (Industrial Design) May 2006

Indian Institute of Technology Delhi, New Delhi, India
Design Project: *Hand-cranked, Backpack-mounted Potable Water Purifier for Emergencies*
Advisor: Lalit Kumar Das

Bachelor of Architecture May 2004

Birla Institute of Technology Mesra, Ranchi, India

Research Interests

Human Factors and Ergonomics; Sedentary Behaviour and Health; Universal/Inclusive Design;
Environmental Design Research; Body-Conscious Design; Social and Cultural Factors in Design.

Research Experience

University of California, Berkeley Berkeley, CA

Post-Doctoral Research 2019 - 2020

Advisor: Cristina Banks

Project: *Comparative Study of Computer Work in Activevs. Static Work Conditions*

The ongoing study compares a static work condition (a traditional fixed-height, chair-seated desk), to an active work condition (a novel, variable-height desk, enabling transitions between floor seated and standing work) on musculoskeletal discomfort, perceived fatigue, physical movement, and heart rate variability. Findings will inform how a combination of evolutionary, floor-seated work postures with intermittent bouts of standing - widens the range of posture and movement choices for people in the workplace; improves health and productivity - compared to static work in the sedentary office.

Cornell University Ithaca, NY

Doctoral Research 2014 – 2019

Advisors: Alan Hedge, Khena M. Swallow & Vilma Santiago-Irizarry

Dissertation: *Ergonomic Investigation of Sit-Stand Workstations for Computer-Based Work*

Developed research protocol and conducted a series of laboratory-based studies with participants in Ithaca, U.S. and Ahmedabad, India (N = 180). A sit-stand-walk intervention combining sit-stand

postural transitions with low-intensity physical activity demonstrated beneficial reductions in musculoskeletal discomfort, physical fatigue and mental fatigue, without adversely impacting productivity in short-duration simulated office tasks. Pilot studies published in HFES 2016, 2017. Journal articles published in *Intl. J. of Industrial Ergonomics* and *Applied Ergonomics*.

National Institute of Design, Ahmedabad

Ahmedabad, GJ

Faculty & Coordinator, Product Design Department

2011- 2014

Advisor: Abir Mullick

Project: *Universal Design of Public Toilets in Urban Slums*.

Conducted ethnographic studies with independent and dependent users of public toilets, investigated spatial requirements through full-scale simulation, developed spatial standards for universal design of public toilets. Full-scale working prototypes installed for field trials. Research led to World Bank grant for Govt. of Tamil Nadu. Research findings published in proceedings of *RESNA 2012*, *HFES 2012*.

Georgia Institute of Technology

Atlanta, GA

Graduate Research Assistant

2008 – 2010

Advisors: Abir Mullick & Karen Milchus

Master's Thesis: *Universal Design of Behind-the-counter Workplaces*

Conducted user research on behind-the-counter (BhC) work in airports, hotels and offices; investigated degree of 'environmental fit'; formulated guidelines for universal design; developed modular workstations that promote safety, usability and inclusion for all users. Results published in proceedings of *RESNA 2012*, *HFES 2013*, and *EDRA 2015 (Awarded Best Student Paper)*.

Employment History

Indian Institute of Technology Delhi, New Delhi, India

Assistant Professor, Department of Design

2020 - Present

University of California, Berkeley, CA, USA

Post-Doctoral Scholar, School of Public Health

2019 - 2020

Cornell University, Ithaca, NY, USA

Instructor, Summer College

Summer 2018

Teaching Assistant, Dept. of Design & Environmental Analysis

2015 - 2018

Research Assistant, Digital Anthropometry & Biomechanics Laboratory

2014 - 2015

National Institute of Design, Ahmedabad, Gujarat, India

Co-ordinator, Product Design Department

2013 - 2014

Faculty (Equivalent to Assistant Professor), Product Design Department

2011 - 2014

Antenna Design New York Inc, NY, USA

Associate Industrial Designer

Spring 2011

Georgia Institute of Technology, Atlanta, GA, USA

Teaching Assistant, School of Industrial Design

2009 - 2010

Research Assistant, Center for Assistive Technology & Environmental Access

2008 - 2010

Pentair Water India Private Limited, New Delhi, India

Industrial Designer, Center for Design & Research

2006 - 2008

Publications in Progress

1. **Kar, G.,** & Hedge, A. (2022) Effects of a sit-stand-walk intervention on musculoskeletal discomfort, physical and mental fatigue, and productivity for a short-duration computer transcription task. *Applied Ergonomics*. (Under Preparation)
2. **Kar, G.,** & Hedge, A. (2022). The impact of a sit-stand-walk intervention on musculoskeletal discomfort, physical and mental fatigue, and productivity: a cross-cultural study of simulated office work. *Human Factors – Journal of the Human Factors & Ergonomics Society*. (Under Preparation)

Peer-Reviewed Publications

1. **Kar, G.** (2021, November). Ergo-Studio – A case-study on teaching and learning ergonomics in a studio mode. In *Proceedings of HWWE Conference, Guwahati*. https://doi.org/10.1007/978-3-030-94277-9_5
2. **Kar, G.,** & Mullick, A (2021, May). Standards to Achieve Social Inclusion: The Case of the Indian Toilet-Bathroom. In *Proceedings of EDRA Annual Meeting, Detroit, MI*.
3. **Kar, G.,** & Hedge, A. (2021). Effect of workstation configuration on musculoskeletal discomfort, productivity, postural risks, and perceived fatigue in a sit-stand-walk intervention for computer-based work. *Applied Ergonomics*. <https://doi.org/10.1016/j.apergo.2020.103211>
4. **Kar, G.,** & Hedge, A. (2020) Effects of a sit-stand-walk intervention on musculoskeletal discomfort, productivity, and perceived physical and mental fatigue, for computer-based work. *International Journal of Industrial Ergonomics*. <https://doi.org/10.1016/j.ergon.2020.102983>
5. Sun, Y., **Kar, G.,** Stevenson Won, A., & Hedge, A. (2019, November). Postural Risks and User Experience of 3D Interface Designs for Virtual Reality-based Learning Environments. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, Los Angeles, CA*. Sage Publications. <https://doi.org/10.1177/1071181319631023>
6. Gupta, S., Chen, S., & **Kar, G.** (2019, May). Graindrop – A biomimicry inspired concept to create resilient food-systems in local communities. In *Proceedings of EDRA Annual Meeting, Brooklyn, NY*.
7. Phirke, N. D., & **Kar, G.** (2018, November). Sparc – Illuminating houses using waste heat. In *Proceedings of Insight 2018 - Design Research Conference, Ahmedabad, Gujarat*.
8. **Kar, G.,** Sun, Y., Celikors, E., Villacreces, P., Misailedes, E., Schatz, M., Kim, J., Shi, Y., Gao, Y., Sun, J., Zhang, J., & Hedge, A. (2018, October). Effects of a dynamic foot movement device on cognitive performance in short-duration computer-based tasks. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting 2018, Philadelphia, PA*. <https://doi.org/10.1177/1541931218621085>
9. **Kar, G.,** Peditto, K, S., Guria, S., Moon, D., Stohler, J., Callan, J, R., Li, M., Fronsman, A, E., Lee, S, H., Cackett, M, A., & Hedge, A. (2017, October). Effects of active sitting chairs on short-duration computer task performance, postural risks, perceived pain, comfort and fatigue. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting 2017, Austin, TX*. <https://doi.org/10.1177/1541931213601590>
10. **Kar, G.,** Guria, S., Peditto, K, S., Moon, D., Stohler, J., Callan, J, R., Li, M., Fronsman, A, E., Lee, S, H., Cackett, M, A., & Hedge, A. (2017, October). Effects of active versus static standing on short-duration computer task performance, postural risks, perceived pain, comfort and fatigue. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting 2017, Austin, TX*. <https://doi.org/10.1177/1541931213601591>
11. **Kar, G.,** & Mullick, A. (2017, June). In-ground Workspaces – A Study in Cultural Ergonomics. In *Proceedings of the Environmental Design Research Association Annual Meeting, Madison, WI*. <http://tinyurl.com/y3bwpo4e>

12. **Kar, G.**, & Hedge, A. (2016, September). Effects of Sitting and Standing Work Postures on Short-Term Typing Performance and Discomfort. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting* (Vol. 60, No. 1, pp. 460-464). Sage Publications. <https://doi.org/10.1177/1541931213601104>
13. **Kar, G.**, Vu, A., Nehme, B. J., & Hedge, A. (2015, September). Effects of Mouse, Trackpad and 3d Motion and Gesture Control on Performance, Posture, and Comfort. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting* (Vol. 59, No. 1, pp. 327-331). Sage Publications. **Nominated for Best Paper Award in Computer Systems Technical Group.** <https://doi.org/10.1177/1541931215591068>
14. **Kar, G.**, & Mullick, A. (2015, May) Designing for Diversity: A Research Informed Design Study on Universal Workspaces. In *Proceedings of the Environmental Design Research Association Annual Meeting, Los Angeles, CA. Winner of the Best Student Paper Award.* <http://tinyurl.com/y5hulljw>
15. Vadaliya, P., Laroia, M., & **Kar, G.** (2014, December). InterCARE: A Cloud Computing Patient Care System. In *Proceedings of India HCI 2014 Conference on Human Computer Interaction* (p. 96). New Delhi, India. ACM. <https://doi.org/10.1145/2676702.2676714>
16. Mullick, A., & **Kar, G.** (2014, June). Research_Design: Inclusive Indoor Play. In Caltenco, H. A., Hedvall, P. O., & Larsson, A. (Eds.). (2014). *Universal Design 2014: Three Days of Creativity and Diversity: Proceedings of the International Conference on Universal Design, UD 2014 Lund, Sweden, June 16-18, 2014* (Vol. 35). IOS Press. http://ud2014.se/wp-content/uploads/submissions/ud2014_submission_117.pdf
17. **Kar, G.**, & Mullick, A. (2014, June). Designing Universal Workspaces. In Caltenco, H. A., Hedvall, P. O., & Larsson, A. (Eds.). (2014). *Universal Design 2014: Three Days of Creativity and Diversity: Proceedings of the International Conference on Universal Design, UD 2014 Lund, Sweden, June 16-18, 2014* (Vol. 35). IOS Press. <http://tinyurl.com/y5asfc47>
18. Khare, R., Sankat, S., Arora, S., Chaurasia, D., & **Kar, G.** (2014, June). Exploring Issues for Indian Elderly through Intense User Centric Design Studio. In Caltenco, H. A., Hedvall, P. O., & Larsson, A. (Eds.). (2014). *Universal Design 2014: Three Days of Creativity and Diversity: Proceedings of the International Conference on Universal Design, UD 2014 Lund, Sweden, June 16-18, 2014* (Vol. 35). IOS Press. <http://tinyurl.com/y5asfc47>
19. Mullick, A. & **Kar, G.** (2013, October). People, Places and Potentialities in Design: Research Tools to Examine Challenges in Behind-the-Counter Work. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting*. (Vol. 57, No. 1, pp. 541-545). Sage Publications. <https://doi.org/10.1177/1541931213571116>
20. Bhatt, B. M., **Kar, G.**, Shashank, S., & Somarajan, S. (2013, September). Designing interfaces for healthcare workers: a case study of the electronic partogram. In *Proceedings of the 11th Asia Pacific Conference on Computer Human Interaction* (pp. 187-191). Bangalore, India. ACM. <https://doi.org/10.1145/2525194.2525268>
21. **Kar, G.**, & Mullick, A. (2012, June). Learning from People – A human-centered approach to universal design of workspaces In *Proceedings of the Rehabilitation Engineering & Assistive Technology Society of North America Annual Conference*. <http://tinyurl.com/yy97mdtw>
22. **Kar, G.**, & Mullick, A. (2012, September). Designing with Users: A case study for design of dental workspace. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting* (Vol. 56, No. 1, pp. 652-655). Sage Publications. Retrieved from, <https://doi.org/10.1177/1071181312561136>
23. **Kar, G.**, & Mullick, A. (Spring 2012). Universal Design at Work: A Case Study of Behind-the-Counter Workspaces. In *Spandrel: Journal of School of Planning & Architecture Bhopal*. (Vol. 2, Issue. 4. pp. 39-52). <http://tinyurl.com/y6glottk>

24. Endicott, S., Mullick, A., **Kar, G.**, & Topping, M. (2010, September). Development of the Inclusive Indoor Play Design Guidelines. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting* (Vol. 54, No. 20, pp. 1822-1826). Sage Publications. <https://doi.org/10.1177/154193121005402017>
25. Mullick, A., **Kar, G.**, & Endicott, S. (2010, June). The Fun in Play: Independence, Assistance, Effort and Difficulty. In *Proceedings of the Rehabilitation Engineering & Assistive Technology Society of North America Annual Conference*. <http://tinyurl.com/y3ttpjv9>
26. Topping, M., Mullick, A., Endicott, S., Sung, W., & **Kar, G.** (2010, September). Children as Research Subjects: Methodologies for Collecting Data in Inclusive Indoor Play. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting* (Vol. 54, No. 9, pp. 703-707). Sage Publications. Retrieved from, <https://doi.org/10.1177/154193121005400904>
27. Endicott, S., **Kar, G.**, & Mullick, A. (2009, October). Inclusive Indoor Play: Children at Play. In *Proceedings of the Human Factors & Ergonomics Society Annual Meeting* (Vol. 53, No. 19, pp. 1527-1531). Sage Publications. <https://doi.org/10.1177/154193120905301913>

Non-Refereed Publications

1. "Ergonomic Investigations of Sit-Stand Workstations for Computer-Based Work." Doctor of Philosophy Dissertation, Cornell University (2019). Accessed from <https://doi.org/10.7298/d94z-dh20>
2. "Translation Guide for Workplace Design." (with Rana Sagha Zadeh, Hessam Sadatsafavi and Amy Vu). Report for Workplace Design Professionals. Synthesized peer-reviewed literature on workplace design to create a translational guide that informs evidence-based design practice (2015).
3. "Innovation 2015 – Evidence based Design Directions for Neurological Intensive Care Unit." (with Rana Sagha Zadeh, Mardelle McCuskey Shepley, Jeffrey Neo, and Giyoung Park). Report for Weill Cornell Medicine. Synthesized evidence from literature to inform design directions for proposed Neurological Intensive Care Unit at the New York Presbyterian Hospital (2015).
4. "Indian Railways Design Center at the National Institute of Design – Research Proposal" (with Abir Mullick and Jignesh Khakhar). Report for the Ministry of Railways, Govt. of India. Co-authored proposal to establish the Railway Design Center at NID, Ahmedabad (2013). Secured a grant of ₹10 crores (\$1.6 Million) for 10-year period. Accessed from <http://pib.nic.in/newsite/mbErel.aspx?relid=122493>
5. "Universal Design of Behind-the-Counter Workspaces." Master of Industrial Design Thesis, Georgia Institute of Technology (2011). Accessed from <https://smartech.gatech.edu/handle/1853/39476>

Awards & Honors

Teaching Fellow, Center for Teaching Innovation, Cornell University	2017
Honorable Mention, Biomimicry Global Design Challenge, Biomimicry Institute	2017
Visiting Research Fellow, National Institute of Design, Ahmedabad, India	2016
Student Author Presentation Support Award, Human Factors & Ergonomics Society	2015
Best Student Paper Award, EDRA Annual Conference, Los Angeles	2015
First Prize, Cardboard Seat Competition, American Institute of Architects, Atlanta Chapter	2009
16 th Rank, Common Entrance Examination for Design, Indian Institute of Technology Bombay	2004
First Prize, National Architectural Quiz Award (Eastern Region), Archumen	2003
Best Design Award, National Association of Students of Architecture (NASA) Convention	2002
First Prize, Auditorium Design Competition, Ranchi Regional Development Authority	2001

Grants & Fellowships

Institute of Eminence Research Grant, IIT Delhi (<i>with Jay Dharival</i>)	2021
Young Faculty Incentive Fellowship, IIT Delhi	2020
Home Economics Extension Fellowship, Cornell University	2018
Jean Failing & Virginia F. Cutler Fellowships, Cornell University	2018
Dissertation Research Grant, Dept. of Design & Environmental Analysis, Cornell University	2017
College of Human Ecology Summer Fellowship, Cornell University	2016
Graduate School Conference Travel Grant, Cornell University	2015-17
Einaudi Center International Research Travel Award, Cornell University	2016
Human Ecology Alumni Association Research Grant, Cornell University	2016
Conference Travel Grant, Dept. of Design & Environmental Analysis, Cornell University	2015, 2017
Irving Lebowski Furniture Design Fellowship, Georgia Institute of Technology	2010
Anne Robinson Clough Conference Grant, Georgia Institute of Technology	2010
Government of India - MHRD Fellowship, Indian Institute of Technology Delhi	2004-06

Selected Presentations

1. *"Sitting is the New Smoking! And, what you can do about it"* Invited Talk at the School of Planning and Architecture, Bhopal, India, October 2021 (Online).
2. *"Stand Up and Make a Move - Taking steps towards better health and productivity in the sedentary office."* Invited Talk at the National Institute of Design, Ahmedabad. Ahmedabad, India, July 2021 (Online).
3. *"Human Factors in Industrial Design."* Invited Talk for TEQIP III Course at the Department of Design, Indian Institute of Technology Delhi. New Delhi, India, December 2020 (Online).
4. *"Designing Healthy Workplaces - What design can learn from research on sedentary behaviour."* Invited Talk for the Design Webinar Series at the Department of Design, Indian Institute of Technology Delhi. New Delhi, India October 2020 (Online).
5. *"Postural Risks and User Experience of 3D Interface Designs for Virtual Reality-based Learning Environments."*(with Yilu Sun). Paper presented at 63rd Annual Meeting of the Human Factors & Ergonomics Society. Seattle, WA, October 2019.
6. *"Design as Research – Research as Design."* Invited talk at the Department of Design, Indian Institute of Technology Delhi. New Delhi, India, August 2019 (Online).
7. *"Graindrop – A biomimicry inspired concept to create resilient food-systems in local communities."* (with Sukruti Gupta). Paper presented at 50th Conference of Env. Design Research Association. Brooklyn, NY, May 2019.
8. *"Sit, Stand and Walk – Taking Steps Towards Better Health & Productivity in the Sedentary Office."* Invited talk at the Interdisciplinary Center for Healthy Workplaces, U.C. Berkeley, March 2019.
9. *"Stand Up & Make a Move – Taking Steps Towards Better Health & Productivity in the Sedentary Office."* Invited talk at the Cornell University Graduate School, Ithaca, NY, February 2019.
10. *"Sparc – Illuminating houses using waste heat".* (with Namrata Phirke) Paper presented at Insight 2018 - Design Research Conference, National Institute of Design, Ahmedabad. Ahmedabad, October 2018.
11. *"Ergo Studio - An experiential approach to teaching and learning ergonomics"*. Paper presented at Insight 2018 - Design Research Conference, National Institute of Design, Ahmedabad. Ahmedabad, October 2018.
12. *"Active Work - Designing for Physical Activity in the Workplace."* Invited talk at the Department of Design, Indian Institute of Technology Delhi, New Delhi, India, June 2018.
13. *"Design Futures – Exploring Opportunities in the Design Spectrum."* Invited talk at the Dept. of Architecture &

Regional Planning, Indian Institute of Technology Kharagpur. Kharagpur, India, January 2018.

14. "Effects of active versus static standing on short-duration computer task performance, postural risks, perceived pain, comfort and fatigue." (with Justine Stohler and Jacqueline Callan). Paper presented at the 61st Annual Meeting of the Human Factors & Ergonomics Society. Austin, TX, October 2017.
15. "Effects of active sitting chairs on short-duration computer task performance, postural risks, perceived pain, comfort and fatigue." (with Megan Cackett, Seo Hyon Lee and Dan Moon). Paper presented at the 61st Annual Meeting of the Human Factors & Ergonomics Society. Austin, TX, October 2017.
16. "In-ground Workspaces - A Study in Cultural Ergonomics." Paper presented at 47th Conference of the Environmental Design Research Association. Madison (EDRA), WI, May 2017.
17. "Effects of Sitting and Standing Work Postures on Short-Term Typing Performance and Discomfort." Paper presented at the 60th Annual Meeting of the Human Factors & Ergonomics Society. Washington D.C., Sept. 2016.
18. "Effects of Mouse, Trackpad and 3D Motion and Gesture Control on Performance, Posture, and Comfort." (with Amy Vu and Begona Julia Nehme). Paper presented at the 59th Annual Meeting of the Human Factors & Ergonomics Society. Los Angeles, CA, September 2015.
19. "Designing for Diversity: A Research Informed Design Study on Universal Workspaces." Paper presented at 46th Conference of the Environmental Design Research Association (EDRA). Los Angeles, CA, May 2015.
20. "Universal Design - the Other?" (with Abir Mullick). Invited talk presented at the School of Planning & Architecture, Bhopal, India. November 2012.
21. "The Fun in Play: Independence, Assistance, Effort and Difficulty". Paper presented at the 54th Annual Meeting of the Human Factors & Ergonomics Society. San Francisco, CA, September 2010.
22. "Children as Research Subjects: Methodologies for Collecting Data in Inclusive Indoor Play". Paper presented at the 54th Annual Meeting of the Human Factors & Ergonomics Society. San Francisco, CA, September 2010.
23. "Inclusive Indoor Play: Children at Play" (with Abir Mullick). Paper presented at the 53rd Annual Meeting of the Human Factors & Ergonomics Society. San Antonio, TX, October 2009.
24. "Inclusive Indoor Play – Learnings from the Play Lab" (with Abir Mullick & Sarah Endicott). Presentation at the National Institute on Disability and rehabilitation Research (NIDRR), U.S. Department of Education, Washington D.C., February 2009.

Workshops & Symposia

1. 2nd Design Education Symposium - Antaaya 2021 hosted by the Department of Design, IIT Guwahati. (Guwahati, October 2021). *Invited Panelist for 'Thoughts on Design' Education (Online)*.
2. Department of Design, IIT Delhi. (New Delhi, June 2021)
Convenor for *Workshop on Envisioning Our Collective Vision for the Department of Design, IIT Delhi(Online)*
3. 26th Conference of International Association of People-EnvironmentStudies. (Quebec City, Canada, June 2020) Co-convenor with Galen Cranz (U.C. Berkeley) and Chelsea Ruston (U. Calgary) for workshop titled: *It's About Time: Body Conscious Design (Online)*.
4. 51st Conference of the Environmental Design Research Association. (Tempe, AZ, April 2020)
Co-convenor with Galen Cranz (U.C. Berkeley) and Chelsea Ruston (U. Calgary) for *Workshop on Body Conscious Design - Transforming Sedentary Behavior, Environments, and Culture through Education (Online)*.
5. B.Arch. Program, Department of Architecture, BIT Mesra. (Ranchi, Jharkhand, January 2020)
Body Conscious Design – An Experiential Workshop for Bachelor of Architecture Students at BIT Mesra.
6. American Institute of Architects (AIA) SF NEXT 2019 (San Francisco, CA, June 2019)

- Co-Convener with Karina Andrevia & Erika Dikson (EDKA Studio) for *Workshop on Somatic Design*.
7. Center for Teaching Innovation, Cornell University. (Ithaca, NY, November 2017).
Co-Convener with Ashley Earle (Cornell University) for *Workshop on Universal Design for Learning*.
 8. 46th Conference of the Environmental Design Research Association. (Raleigh, NC, May 2016)
Co-Convener with Galen Cranz (U.C. Berkeley) for *Workshop on Body Conscious Design*.
 9. Design Immersion - Summer School, Cornell University. (Ithaca, NY, June 2015.)
Designing for Humans – Workshop on How Ergonomics Informs the Design Process.
 10. M.Des. Programme, Department of Design, IIT Delhi. (New Delhi, February 2014)
Learnings from the Field – Workshop on Observational Research Methods for Product Design.
 11. International Open Electives, National Institute of Design. (Ahmedabad, January 2013)
Co-Convener with Rachna Khare, Sandeep Sankat, Sandeep Arora and Devarshi Chaurasia for *Workshop on Exploring Issues of Independent Living for Indian Elderly in Urban Residential Neighborhoods*.

Thesis Advising

Chair - Master of Design Thesis Committee (Indian Institute of Technology Delhi, New Delhi)

1. **George Geo Poothokaran**, *Design of a Level-2 EV Charging Station* for SunFuel Electric Private Limited, New Delhi, July 2021 (Co-chair with Sabyasachi Paldas).
2. **Sidharth Sonowal**, *Design of an aid to ease ingress, egress and in-bed mobility for the ageing population*, July 2021 (Co-chair with Sabyasachi Paldas).
3. **Sukanya Gupta**, *Multimedia Strategy for Gartner Mobile* for Gartner India Research & Advisory Services Pvt. Ltd., Gurugram, Haryana, July 2021.
4. **Atul Kumar**, *Designing a productivity App for the next generation of mobile phone users* for Gartner India Research & Advisory Services Pvt. Ltd., Gurugram, Haryana, July 2021.
5. **Jinal Solanki**, *Freemium Strategy for Gartner Peer Insights* for Gartner India Research & Advisory Services Pvt. Ltd., Gurugram, Haryana, July 2021.
6. **Subhayan Das**, *Design of Human Performance Augmentation Device* for GenElek Technologies Pvt. Ltd, New Delhi, July 2021 (Co-chair with Sabyasachi Paldas).
7. **Sachin Kumar Garg**, *Design of Human Performance Augmentation Device* for GenElek Technologies Pvt. Ltd, New Delhi, July 2021 (Co-chair with Sabyasachi Paldas).

Chair - Master of Design Thesis Committee (National Institute of Design, Ahmedabad)

8. **Sudhir Mor**, *Sarvajal – Public Drinking Water Dispenser* for Piramal Foundation Ahmedabad, May 2014.
9. **Shruthi R. Gangadhara**, *Beyond Cycling – Using Storytelling to Design Accessories for Kids Bicycles*, for TI Cycles of India, April 2014.
10. **Ashutosh Biltharia**, *Portable Vaccine Cooler for Last Mile Connectivity in Cold Chain*, for Design Clinic Scheme, Micro Small & Medium Industries Enterprise (MSME), Government of India, April 2014.
11. **Sriram Shashank**, *Near-Eye Display-Based Information Overlay System for Industrial Applications*, for Honeywell Technology Solutions, Bangalore, November 2013.

12. **Sumesh Somarajan**, *Ergonomic Safety Shoe for Industrial Workers*, for Honeywell Technology Solutions, Bangalore, November 2013.
13. **Arjun R. Kumar S**, *Next Generation Handheld Wearable Devices for Distribution Centers*, for Honeywell Technology Solutions, Bangalore, November 2013.
14. **Tanu Malhotra**, *Ensuring Safety While Delivering Hazardous Materials*, for Honeywell Technology Solutions, Bangalore, October 2013.
15. **Mitin Anand**, *Radar Level Transmitter*, for Honeywell Technology Solutions, Bangalore, August 2013.
16. **Malvika Sainath**, *Digital Door Lock*, for Ingersoll Rand Technology Centre - India, Pune, August 2013.
17. **Varun Prabhakar**, *Connected Cluster – Human Machine Interface*, for Visteon Corporation, Pune, May 2013.
18. **Neha Motghare**, *Furogami – Convertible Bags*, for VIP Industries, Mumbai, May 2013.

Chair - Bachelor of Design Thesis Committee (National Institute of Design, Ahmedabad)

19. **Namrata D. Phirke**, *Sparc – Illuminating Houses Using Waster Heat*, for Godrej & Boyce Manufacturing Company Ltd, Mumbai, November 2013.
20. **Sharon M. Rajkumar**, *Envisioning the Connected Cabin Experience*, for Honeywell Technology Solutions, Bangalore, December 2013.
21. **Jyoti Anand**, *Smart Electronic Wallet*, for Ducere Technologies, Hyderabad, December 2013.
22. **Devanshi Saksena**, *Augmented Reality for FMCG*, for Hindustan Unilever, Mumbai, December 2013.
23. **Emil J. Alex**, *Biometric Access Control Device*, for Invixium Technologies, Ahmedabad, February 2014.
24. **Sowmya Iyer**, *Voice-based Portable Gas Detector*, for Honeywell Technology Solutions, Bangalore, March 2014.
25. **Ratul Bhowmik**, *Next-Generation Powered Air Purifying Respirator*, for Honeywell Technology Solutions, Hyderabad, April 2014.
26. **Prateek Upreti**, *User-Vehicle Connectivity – A Vision for Future Vehicle Spaces*, for Mahindra Electric, Bangalore, May 2014.
27. **Priya Passary**, *Origami Installation – Making Collapsible Partitions with Textile*, for Sandeep Pandora & Associates - Architects, Mumbai, October 2014.

Teaching Experience

Lecturer

Indian Institute of Technology Delhi, Dept. of Design, New Delhi, India

DSD 792 - Design Project - 1 (Coordinator)	Spring 2022
DSP 722 – Applied Ergonomics	Fall 2020, 2021
DSL 810 - Special Topics in Design - Body Conscious Design	Spring 2021

Cornell University, Dept. of Design & Environmental Analysis, Ithaca, NY, USA

DEA 1100 – Design Generation(s)	Summer 2018
DEA 1110 – Making a Difference by Design	Summer 2018

National Institute of Design Ahmedabad, Product Design Dept., Ahmedabad, India

Human Factors for Design - Product Design (B. Des. & M. Des.)	Fall 2011~2013
User Interface Design - Product Design (B. Des. & M. Des.)	Fall 2011~2013

Senior Design Studio - Product Design (B. Des.) Spring 2012~2014

Invited Jury Member

National Institute of Design Haryana, Kurukshetra, India

B. Des. 4th Semester - Product Design Spring 2022
B. Des. 5th Semester - Product Design Fall 2020
B. Des. Graduation Jury Fall 2020, Spring 2021

National Institute of Design Assam, Jorhat, India

B. Des. 3rd Semester - Product Design Fall 2020

National Institute of Design Ahmedabad & Gandhinagar, India

Graduate Studio - Transportation & Automobile Design (M. Des.) Fall 2011~2013
Foundation Studio - B. Des. Freshman Year Common Studio Fall 2012~2013
Senior Studio - Exhibition & Spatial Design (B. Des.) Spring 2012~2013

School of Planning & Architecture Bhopal, Bhopal, India

National Student Design Competition (NSDC) Spring 2013
Sophomore Architectural Design Studio (B. Arch.) Spring 2014

Ministry of Commerce and Industry, New Delhi, India

Design Hackathon - Vending Cart Design Challenge Fall 2021

Graduate Teaching Assistant

Cornell University, Dept. of Design & Environmental Analysis, Ithaca, NY, USA

DEA 1100 – Design Generation(s) Summer 2017
DEA 2030 – Digital Communications Spring 2017
DEA 4402 - Competitions Studio Spring 2016~2017
DEA 4040 - Professional Practice Spring 2016~2017
DEA 3500/6510 - Human Factors Fall 2015~2017
DEA 3510/6520 - Ambient Environment Fall 2015~2017

Georgia Institute of Technology, School of Industrial Design, Atlanta, GA, USA

ID 3320 - Design Methods Fall 2010

Academic Service

Journal Reviewer

Applied Ergonomics 2020
Ergonomics 2020
Industrial Health 2021
Journal of Occupational Safety and Ergonomics 2020

Conference Reviewer

Human Factors & Ergonomics Society (HFES) Annual Conference 2016-2020
Environmental Design Research Association (EDRA) Annual Conference 2017-2021

Indian Institute of Technology Delhi, New Delhi, India

<i>Convenor, Departmental Faculty Board (DFB)</i>	2021 onwards
<i>Member, Departmental Research Committee (DRC)</i>	2021 onwards
<i>Committee Member, Student Affairs</i>	2021 onwards

Cornell University, Ithaca, NY, USA

<i>Co-Founder, Design & Environmental Analysis Graduate Student Association</i>	2016
<i>Board Member, India Association at Cornell University</i>	2017 - 2018
<i>Member, ASHA for Education – Cornell Chapter</i>	2015 - 2018

National Institute of Design (NID), Ahmedabad, India

<i>Faculty & Coordinator, Product Design Department</i>	2011 - 2014
<i>Coordinator, Research Methodology Course - M. Des Program</i>	2012 - 2014
<i>Committee Member & Convener, Tata Universal Design Research Chair</i>	2012 - 2014
<i>Organizing Committee Member, International Open Electives Design Workshop</i>	2013
<i>Organizing Committee Member, National Sizing Standards for India Seminar</i>	2013
<i>Admissions Committee Member, M. Des - Product Design</i>	2014
<i>Member, Credit & Evaluation Committee</i>	2012 - 2014
<i>Member, Courses of Study Review Committee - Product Design</i>	2012
<i>Nominated Member, Bureau of Indian Standards (BIS)- Ergonomics Committee</i>	2013 - 2014

Related Professional Experience

Associate Industrial Designer, Antenna Design New York Inc. Spring 2011

Assisted principal designer in concept development, product visualization and rapid prototyping of design projects for Mass-Transit Systems, Workspaces, and Medical Devices. Clients included Washington Metro, New York Metropolitan Transport Authority, Knoll, and Johnson & Johnson.

Graduate Research Assistant, CATEA, Georgia Institute of Technology. 2008 - 2010

Dental Workspaces Project: Conducted field studies, full-scale prototyping and user tests to develop designs of dental work environments that promote neutral posture and provide upper-body support to dental professionals. Co-authored publication of research findings in proceedings of HFES 2012.

Inclusive Indoor Play Project: Investigated indoor play behavior of children with/without disabilities, aged 4 ~ 8 years. Developed study protocol, coordinated full-scale simulation, analyzed data and drafted design guidelines for Inclusive Play. Results published in proceedings of HFES 2009, 2010.

Industrial Designer, Pentair Water India Private Limited. 2006 - 2008

Oversaw concept development, designed and rapid prototyped functional models, and facilitated focus group discussions to develop and validate new designs of domestic water purifiers for North American and European markets. Clients included GE Water, BRITA, and PUR.

Professional Memberships

Member, International Association of People-Environment Studies (IAPS) 2020 – present

Member, Human Factors & Ergonomics Society (HFES)	2009 – present
Member, Environmental Design Research Association (EDRA)	2014 – present
Member, Industrial Designers Society of America (IDSA)	2008 – present
Licensed Architect, Council of Architecture (CoA), India	2005 – present