



INTRODUCTORY SEMINAR FOR THE FACULTY POSITION

Department of Occupational and Environmental Health, College of Public Health
University of IOWA

Presented By

Amandeep Singh, Ph.D.

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EDUCATION BACKGROUND

- BACHELOR OF TECHNOLOGY (B. TECH.) | MECHANICAL ENGINEERING
Swami Vivekanand Institute of Engineering & Technology, Mohali, India
07/2006 TO 05/2010
- MASTER OF TECHNOLOGY (M. TECH) | INDUSTRIAL ENGINEERING
Guru Nanak Dev Engineering College, Ludhiana, India
07/2010 TO 06/2013
- DOCTOR OF PHILOSOPHY (PH.D.) | HUMAN FACTORS ENGINEERING
Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, India
08/2014 TO 12/2020



POSTDOCTORAL FELLOWSHIP

- Polytechnique Montreal, Mathematics and Industrial Engineering Department
Tenure: 02/2023 to Present
Research Area: Human Factors in Aviation
- University of Waterloo, System Design Engineering Department
Tenure: 02/2022 to 01/2023
Research Area: Human Factors in Surface Transportation

OVERALL PROFESSIONAL EXPERIENCE

- Teaching: 7.5 years
- Research: 11 years
- Industry: 2 years



MAJOR ACADEMIC ROLES

- Graduate/Undergraduate Teaching
- Supervise Ph.D./Masters/Interns
- Graduate Research Projects
- Conference Session Chair: 1
- Conference Session Co-Chair: 2
- Guest Editor: 3
- Editorial Board Member: 1
- Invited Speaker: 2
- Peer Reviewer: 18
- Conference Organized: 2
- Workshop Organized: 2



RESEARCH INTERESTS

Broader:

- Human Factors & Ergonomics
- Environmental Sustainability
- Advanced Manufacturing and Technology Integration

Specific:

- Human Machine Interaction
- Human Autonomy Teaming
- Whole Body Vibration
- Internet of Things
- Artificial Intelligence
- Machine Learning
- Simulation & Modeling
- Optimization Algorithms
- Decision Making
- Cognitive Ergonomics



RESEARCH COLLABORATIONS

College/Universities:

- University of Waterloo (Canada)
- University of Montreal (Canada)
- Laval University (Canada)
- Concordia University (Canada)
- Western University (Canada)
- University of Sharjah (UAE)
- University of IOWA (USA)
- KTH Royal Institute (Sweden)
- Potsdam University (Germany)
- Punjab Agricultural University (India)
- Huaqiao University (China)
- GNDEC Ludhiana (India)

Industries:

- Bombardier (Canada)
- CMC Electronics (Canada)
- DEEL Québec (Canada)
- Canadian Aviation Electronics (Canada)
- Infinite Harvest Technologies (Canada)
- AysRox Solutions (India)
- Welan Technologies (India)
- GHRS Pvt. Ltd (India)



RESEARCH COLLABORATIONS

Government Research Centre:

- National Research Council Ottawa (Canada)
- Agriculture and Agri-Food Ottawa (Canada)
- Chamber of Industrial & Commercial Undertaking (India)

SCIENTIFIC CONTRIBUTIONS

Research Papers: 46

- Journal: 17 (Published); 2 (Accepted); 5 (Under Review)
- Conferences: 14 (Published); 3 (Accepted); 2 (Submitted)
- Book Chapter: 3 (Published)
- Monograph: 1 (Published)

RESEARCH GRANTS WRITING

Total Research Grants: 13 (Awarded: USD \$425.79k) and (Awaited: USD \$3.4M)

- Government Funded: 6
- Government Funded (Submitted): 1
- Government Funded (To be Submitted): 1
- Government Funded (Writing): 2
- Industry Funded: 7

MAJOR RESEARCH GRANT FUNDINGS

- Natural Sciences and Engineering Research Council of Canada (NSERC) and The Canadian Nuclear Safety Commission (CNSC): Small Modular Reactors Research Grant Initiative.

Status: Awarded; **Amount:** CAD 3,60,000 \$ (~ USD 298.8k)

- All India Council for Technical Education (AICTE) under ‘Research Promotion Scheme’ & Modernization and Removal of Obsolescence (MODROB): Human Factors in Agriculture
Status: Awarded; **Amount:** INR 43,52,196 (~ USD 58.1k)
- Natural Sciences and Engineering Research Council of Canada (NSERC)-
Social Sciences and Humanities Research Council (SSHRC): Sustainable Agriculture Research Initiative on ‘Advancing Sustainable Agriculture through Digital Intelligence’
Status: Submitted; **Amount:** CAD 2.4M \$ (~ USD 1.9M)
- Consortium for Research and Innovation in Aerospace in Québec (CRIAQ)-
Natural Sciences and Engineering Research Council of Canada (NSERC):
‘Symbiotic Intelligent Agent for Human-Autonomy Conflict Prevention’
Status: Submitted; **Amount:** CAD 1.8M \$ (~ USD 1.49M)

INTELLECTUAL PROPERTY RIGHTS (IPR)

- Design Patent: 4 (Published); 2 (Under Evaluation)
- Product Patent: 1 (Under 2nd Evaluation)

PROFESSIONAL MEMBERSHIPS

- American Psychological Association (APA) [C2204276887]
- Association for Computing Machinery's and Special Interest Group on Computer– Human Interaction (ACM-SIGCHI), Canada [ID: 5266826].
- Institution of Engineers (I), Kolkata [AM-1699825].
- Association of Canadian Ergonomists (ACE), Canada [ID:79057].
- Indian Institution of Industrial Engineering (IIIE), Mumbai [LM 11043(99)].



INTERNATIONAL RESEARCH EXPOSURE

- Countries: Canada; United States; United Arab Emirates; China; Italy

VOLUNTEER/COMMUNITY SERVICES

- **Community Skill Development** grant proposal for empowering SC/ST (minority) students with skill knowledge under the All-India Council for Technical Education (AICTE) scheme by Government of India. Funds Awarded: INR 17,00,000 (~ USD 22,972.97).
- **Rural Child Care Centre** in India by uplifting awareness on health, nutrition, social care, and environmental conservation.
- **Food Banks** in Paris (Ontario) that help individuals and families facing food insecurity.



Thank You!