



Academic and Research Resume of Faculty Members

Iran University of Medical Sciences
Public Health School



Personal Information

Full Name: Dr.Ehsan Garosi

Academic Rank: Assistant Professor

Organizational Position: Head of university IPO,
Faculty member

ORCID ID: 0000-0001-9779-1045

Field of Specialization: Ergonomics

Biography

Ehsan is a highly accomplished PhD in Ergonomics with a strong track record of over thirty publications and +20 patents in reputable journals and conferences. He is fluent in English and has extensive expertise in technical experimental tools. With more than five years of work and research experience in EMG, Signal processing, SolidWorks, IoT, AVR microcontroller programming, and Ergonomic design, Ehsan has demonstrated his ability to produce high-quality results. Additionally, he has two years of experience as a lecturer and three years as an assistant professor at Iran University of Medical Sciences, where he has honed his skills in teaching and mentoring.

Educational Background

Degree	Field of Study	University
Ph.D	Ergonomics	Tehran University of Medical Sciences
M.Sc	Ergonomics	Tehran University of Medical Sciences
B.Sc	Nursing	Qazvin University of Medical Sciences

Contact Information

Iran University of Medical Sciences,
School of Public Health – Department
of Ergonomics

(021) 86704773

Garosi.e@iums.a.ir

Eh.garosi@gmail.com

Teaching Experience

taught Courses and Projects:

- Ergonomic Design
- Work-Physiology
- Experimental study design
- C++ programming language
- Biomechanics
- Postural assessment
- Anthropometry
- Ergonomic Assessment Tool

Held Workshops:

- Workshop on designing ergonomic medical devices and equipment for industrial design students, Tehran University, Industrial Design Department.
- Solid works, workshop
- Office Ergonomics
- How to register a patent

Research Experience

Journal Articles:

1. EEG-Based Evaluation of Mental Workload in a Simulated Industrial Human-Robot Interaction Task. B Fazli, SS Sajadi, AH Jafari, **E Garosi** - Journal of Health Scope, 2025
2. M Ghasemi, S Ziafati, **E Garosi**, The effect of transcranial Direct Current Stimulation (tDCS) on fine motor skill of hand in a human-robot interactive task- Iran Occupational Health, 2024
3. **Garosi, E**, Adel Mazloumi, Changes in neck and shoulder muscles fatigue threshold when using a passive head/neck supporting exoskeleton during repetitive overhead tasks, Human Factors 66 (10), 2269-(2024)
4. H Mehridiz, MS Ghasemi, H Saeedi, M Varmazyar, **Ehsan Garosi**- Analyzing the correlation between plantar pressure distribution and UTAH back compressive force and NIOSH lifting index in symmetrical lifting tasks, Journal of Health and Safety at Work, 2024
5. Shaghaghi, A., Kazemi, Z., Sharifnead, A., **Garosi, E.**, Mohammadalizadeh, M., Mahdavi, S. H., & Ghasemi, M. S. Perceived Discomfort, Upper Body Muscular Activity, and Fatigue Over Unsupported Prolonged Sitting Tasks. Journal of Health and Safety at Work, 13(2), 368-383. (2023).
6. Mohamad Sadegh Ghasemi, Raheleh Aghajafari, Jamileh Abolaghasemi, Mojtaba Khosravi Danesh, **Ehsan Garosi**, Development and validation of a virtual learning management system usability questionnaire: A case study, Work, 2025
7. R Kaveh, **E Garosi**, MS Ghasemi, Effect of Ergonomic and Corrective Movement Interventions on Improving Sleep Quality and Reducing Musculoskeletal Disorders in Police Officers, - Iran Occupational Health, 2024
8. Golmohammadpour, H., **Garosi, E.**, Taheri, M., Dehghan, N., Ezbarami, S. M., & Karanikas, N. (2023). Redesign and ergonomic assessment of a chest-support baby walker. Work, (Preprint), 1-11.
9. H Ghadimi, **E Garosi**, MS Ghasemi Ergonomic Design and Assessment of an Adjustable Laptop Stand Used in the Typing Task- Medical Journal of the Islamic Republic of Iran, 2023
10. , M Mohammadalizadeh, Z Kazemi, **E Garosi**, A Keihani, The Effect of Stretching Exercises on Perceived Discomfort, Trunk Muscle Activity, and Fatigue in Prolonged Sitting Tasks. - Journal of Health & Safety at Work, 2023
11. **Ehsan Garosi**, Adel Mazloumi, Design and ergonomic assessment of a head/neck supporting exoskeleton for overhead work use. Applied Ergonomics. 2022

12. **E Garosi**, A Mazloumi, AH Jafari, A Keihani, The effect of using cervical exoskeleton on the neck and shoulder muscles electrical activity during overhead work. - *Journal of Health & Safety at Work*, 2022
13. Danesh, M. K., **Garosi, E.**, & Golmohamadpour, H. (2021). The COVID-19 Pandemic and nursing challenges: A review of the early literature. *Work(Preprint)*, 1-14.
14. MS Ghasemi, **E Garosi**, N Dehghan, M Kaboli, Exploring Factors Influencing the Workload in Nursing Assistants: A Qualitative Study - *Iranian Journal of Ergonomics*, 2022
15. Danesh, M. K., **Garosi, E.**, Mazloumi, A., & Najafi, S. (2020). Identifying factors influencing cardiac care nurses' work ability within the framework of system engineering initiative for patient safety. *Work(Preprint)*, 1-9.
16. **Garosi, E.**, Khosravi Danesh, M., & Mazloumi, A. (2020). Nurses and Coronavirus: Challenges and Consequences. *Iran Occupational Health*, 17(1), 1-6. (In Persian).
17. Adel, M., Akbar, R., & **Ehsan, G.** (2019). Validity and reliability of work ability index (WAI) questionnaire among Iranian workers; a study in petrochemical and car manufacturing industries. *Journal of Occupational Health*, 61(2), 165-174.
18. **Garosi, E.**, Kalantari, R., Zanjirani Farahani, A., Zuaktafi, M., Hosseinzadeh Roknabadi, E., & Bakhshi, E. (2019). *Concerns About Verbal Communication in the Operating Room: A Field Study*. *Human Factors*, 0018720819858274.
19. **Garosi, E.**, Mazloumi, A., Kalantari, R., & hosseini, M. (2017). Design and ergonomic evaluation of serum set connector device to the medical solution. *Journal of Health and Safety at Work*, 7(4), 307-318. (In Persian).
20. **Garosi, E.**, Mazloumi, A., Kalantari, R., Vahedi, Z., & Shirzhiyan, Z. (2019). Design and ergonomic assessment of an infusion set connector tool used in nursing work. *Applied Ergonomics*, 75, 91-98.
21. **Garosi, E.**, Najafi, S., Mazloumi, A., Danesh, M. K., & Abedi, Z. (2018). Relationship between Work Ability Index and Fatigue among Iranian Critical Care Nurses. *International Journal of Occupational Hygiene*, 10(3).
22. Kalantari, R., Farahani, A. Z., **Garosi, E.**, Badeli, H., & Jamali, J. (2019). Translation and Psychometric Properties of the Persian Version of Oxford Non-technical Skills 2 System: Assessment of Surgical Teams' Non-technical Skills in Orthopedic Surgery Wards. *Archives of Bone and Joint Surgery*, 7(2), 173.
23. kalantari, R., Zakerian, s. a., Mahmodi Majdabadi, m., Zanjirani Farahani, a., Meshkati, m., & **Garosi, E.** (2016). Assessing the Teamwork among Surgical Teams of Hospitals Affiliated to Social Security Organizations in Tehran City. *Journal of Hospital*, 15(3), 21-29. (In Persian).
24. Mazloumi, A., Azizpour Marzi, M., **Garosi, E.**, Yaseri, M., & Mehrdad, R. (2018). Customization and validation study of WHO surgical safety checklist as a tool to control medical error in operation rooms in Iran. *Health and Safety at Work*, 8(2), 135-148. (In Persian).
25. Mazloumi, A., Toori, G., & **Garosi, E.** (2018). Proposing a customized model of safety culture and behavior in a car manufacturing company. *International Journal of Occupational Hygiene*, 10(2).
26. Samadi, H., Rostami, M., Bakhshi, E., **Garosi, E.**, & Kalantari, R. (2018). Can Educational Intervention be Useful in Improvement of Body Posture and Work Related Musculoskeletal Symptoms? *Journal of Human, Environment and Health Promotion*, 4(2), 81-86.
27. Vahedi, Z., Mazloumi, A., Sharifnezhad, A., Kazemi, Z., & **Garosi, E.** (2020). Head forward flexion, lateral bending and viewing distance while using a smartphone: A comparison between sitting and standing postures. *Work(Preprint)*, 1-10.
28. Zakerian, S. A., **Garosi, E.**, Abdi, Z., Bakhshi, E., Kamrani, M., & Kalantari, R. (2016). Studying the influence of workplace design on productivity of bank clerks. *Journal of Health and Safety at Work*, 6(2), 35-42. Retrieved from <http://jhsw.tums.ac.ir/article-1-5416-en.html>
29. Zare, A., Malakouti Khah, M., **Garosi, E.**, Gharib, S., & Zakerian, S. A. (2018). The effect of increased light intensity on workload, sleepiness, eye fatigue, and the degree of satisfaction of individuals from the light conditions in the control room of a power plant. *Health and Safety at Work*, 8(3), 237-250.
30. Kalantari, R., Arghami, S., Ahmadi, E., **Garosi, E.**, & Zanjirani, F.A. (2016). Relationship between workload and low back pain in assembly line workers. *Journal of Kermanshah University of Medical Sciences (Behbood)*, 20(1), 26-29.
31. **Garosi, E.**, Mohammadi, F., & Ranjkesh, F. (2016). The relationship between neonatal jaundice and maternal and neonatal factors. *Iranian Journal of Neonatology*, 7(1), 37-40.

Conference Papers:

1. Design of an infusion set connector tool. *The second Biennial Iranian Conference on Ergonomics, Shiraz, Iran. 2016. (Oral, In Persian).*
2. Ergonomic evaluation of an infusion set connector tool to control nurses' wrist tension. *The 3rd Biennial Iranian Conference on Ergonomics, Tehran, Iran. 2018. (Poster, In Persian).*
3. Ergonomic redesign of baby walker and assessing its impacts on mother and their infant. *The 3rd International Iranian Ergonomics Webinar and the 4th Biennial Iranian Webinar on Ergonomics, Shiraz, Iran. 2021. (Poster, In Persian).*
4. The effect of using cervical exoskeleton on the neck and shoulder muscles electrical activity in overhead work. *The 3rd International Iranian Ergonomics Webinar and the 4th Biennial Iranian Webinar on Ergonomics, Shiraz, Iran. 2021. (Oral, In Persian).*
5. Perceptions of ICU nurses about fatigue and its consequences during the Covid-19 epidemic: A qualitative study. *The 3rd International Iranian Ergonomics Webinar and the 4th Biennial Iranian Webinar on Ergonomics, Shiraz, Iran. 2021. (Oral, In Persian).*
6. Workability of nurses: A qualitative study with a macro-ergonomics approach. *The 3rd Biennial Iranian Conference on Ergonomics, Tehran, Iran. 2018. (Poster, In Persian). (Documents was not accessible).*
7. The effect of transcranial Direct Current Stimulation (tDCS) on fine motor skill of hand in a human-robot interactive task, *The 4rd International Iranian Ergonomics Webinar and the 5th Biennial Iranian Webinar on Ergonomics, SHBU,2024 (Oral, In Persian).*
8. Design and fabrication of contact pressure measuring device between hand and steering wheel as a psychophysiological, indicator of mental workload while driving in different traffic conditions: a driving simulation study. *The 4rd International Iranian Ergonomics Webinar and the 5th Biennial Iranian Webinar on Ergonomics, SHBU,2024 (Oral, In Persian).*
9. Design and evaluation of a ErgoFS16 for measuring applied pressure, *The 4rd International Iranian Ergonomics Webinar and the 5th Biennial Iranian Webinar on Ergonomics, SHBU,2024 (poster, In Persian).*
10. Customization of SMET questionnaire, *The 4rd International Iranian Ergonomics Webinar and the 5th Biennial Iranian Webinar on Ergonomics, SHBU,2024 (Oral, In Persian).*
11. Design and construction of smart shoes with the capability of detecting the permissible limits of lifting load based on optimal symmetric load lifting patterns using machine learning algorithm, *The 4rd International Iranian Ergonomics Webinar and the 5th Biennial Iranian Webinar on Ergonomics, SHBU,2024 (Oral, In Persian).* Design and ergonomic evaluation of a lumbar support in siting tasks, *The 4rd International Iranian Ergonomics Webinar and the 5th Biennial Iranian Webinar on Ergonomics, SHBU,2024 (Oral, In Persian).*

Books:

- An Intelligent System for Real-Time Assessment of Cortico-Muscular Coupling Index in ALS Disease (*Book chapter, Springer-Nature, 2025*)
- Ergonomic Interventions in Risk Reduction (*Book Chapter, Intech-open,2024*)
- Nurses Work System Optimization: Macroergonomics Perspective(*Book Chapter, Intech-open*)
- Electromyography (Principles and Applications in Ergonomics). 2020.
- Ergonomics in the Automotive Design Process. 2019. (*translation into Persian*)

Thesis (Supervisory and Advisory):

#	Title	Executer (Student)	Place of Execution	Year
1	Prediction of Manual Load Lifting Risk Levels Using Surface Electromyography (sEMG) Data in Symmetric and Asymmetric Tasks via Machine Learning Algorithms	Fatemeh Sheikh	Iran University of Medical Sciences	2024

2	Impact of Speech-Based Intervention on Mental Workload and Hand–Steering Wheel Contact Pressure During Urban Driving under Light and Heavy Traffic: A Driving Simulation Study	Zahra Hezrati	Iran University of Medical Sciences	2023
3	Design and Development of a Contact Pressure Measurement Device to Assess the Effect of Smartphone Placement on Hand–Steering Wheel Pressure During Urban Driving: A Simulation Study	Sadaf Dehghani	Iran University of Medical Sciences	2023
4	Design and Development of a Smart Shoe for Detecting Permissible Load Lifting Limits Using Symmetric Lifting Patterns and Machine Learning Algorithms	Mahsa Varmaziar	Iran University of Medical Sciences	2024
5	Design and Development of a Cognitive Assistive Tool for Evaluating Consciousness Levels Based on Pictorial Symbols of Voluntary and Involuntary Responses in Patients	Marzieh Ghasemian	Iran University of Medical Sciences	2024
6	Effect of Acoustic Features (Loudness, Timbre, and Sharpness) of Light and Heavy Vehicle Horns on Noise Annoyance Using Signal Processing Techniques	Fatemeh Ghadiri	Iran University of Medical Sciences	2025
7	Effect of an Exercise-Based Intervention Program on Reducing Pain and Musculoskeletal Disorders among Operating Room Technicians at Rasoul Akram Hospital	Maryam Abbasi Zadeh	Iran University of Medical Sciences	2024
8	Development and Implementation of Software for Prevention of Musculoskeletal Disorders Based on the Transtheoretical Model among Computer Users at Zanzan Health Center	Mr. Ghasemzadeh (PhD)	Iran University of Medical Sciences	2024
9	Effect of Ergonomics Training on Sleep Quality and Musculoskeletal Disorders among Police Command Staff in Mazandaran Province	Rana Kaveh	Iran University of Medical Sciences	2022
10	Usability Evaluation of the Virtual Learning System (NAVID) at Iran University of Medical Sciences during the COVID-19 Pandemic	Raheleh Aghajafari	Iran University of Medical Sciences	2022
11	Relationship Between Plantar Pressure Distribution, Lumbar Intervertebral Disc Load, and Lifting Index in Symmetric Manual Handling Tasks	Hassan Mehri	Iran University of Medical Sciences	2022
12	Effectiveness of Transcranial Direct Current Stimulation (tDCS) on Motor Skills of Remote-Control Operators in a Human–Robot Interactive Task	Fatemeh Ziyafati	Iran University of Medical Sciences	2022
13	Factors Affecting Workload and Coping Mechanisms Using the SEIPS Model among Nursing Assistants in a Teaching Hospital (2019–2021)	Maryam Kaboli	Iran University of Medical Sciences	2021
14	Design, Construction, and Effectiveness Evaluation of an Ergonomic Laptop Holder with Adjustable Height and Viewing Angle	Hamid Ghadimi	Iran University of Medical Sciences	2021

Patents:

1. **Smart Under-Desk Footrest with Multi-Position Adjustment** – Registration No. 96163 – Application No. 139650140003007618
2. **Neck Holder with Head Weight Support Capability** – Registration No. 100802 – Application No. 139850140003008430
3. **Ocular Indenter (Corneal/Globe Indenter Device)** – Registration No. 96384 – Application No. 139650140003009602
4. **Intravenous Drug Infusion System** – Registration No. 92642 – Application No. 139650140003009602
5. **Tragus-Type Stethoscope** – Registration No. 91838 – Application No. 139550940003026367
6. **Electric Connector for IV Set to Solution Bag** – Registration No. 89244 – Application No. 139450140003013595

7. **Multi-Chamber Microset for Drug Injection** – Registration No. 89931 – Application No. 139550140003002961
8. **Portable Device for Connecting IV Set** – Registration No. 85545 – Application No. 139350140003009927
9. **IV Drug Infusion Dilution System** – Registration No. 93155 – Application No. 139550140003012094
10. **Smart Ergonomic Chair with Adjustable Dimensions** – Registration No. 100206 – Application No. 139750140003008143
11. **Hospital Triage Chair** – Application No. 140350140003001104
12. **Smart Shoe with Force Measurement on Lumbar Intervertebral Discs** – Application No. 140350140003000498
13. **Consciousness Level Measurement Device** – Application No. 140350140003000133
14. **Smart Exoskeleton with Motion Support for Crop Harvesting** – Application No. 140250140003000082
15. **Ergonomic License Plate Replacement Device with Adjustable Height** – Application No. 140150140003009001
16. **Rapid Test Kit for Natural Honey Detection** – Application No. 140150140003004635
17. **Wearable Device with Simultaneous Vibration and Electrical Muscle Stimulation** – Application No. 140150140003003914
18. **Portable Lever for Lifting Front Wheels of Wheelchair** – Application No. 140150140003003029
19. **Chemotherapy Infusion Adapter with Controlled Output Volume** – Application No. 140050140003009551
20. **Smart Device for Automatic Detection of Neuromuscular Functional Connectivity Index** – Application No. 140050140003004249

Achievements and Honors

Selected Projects:

1. Investigating the relationship between body image and nutritional attitudes in Qazvin University of Medical Sciences. (*Grant No. 28/6/2143, by Qazvin University of medical Science 2012*).
2. Knowledge, attitude and practice of nursing and midwifery students about hospital infection control at the University of Medical Sciences in 2013. (*Grant No. 38/6/8235, by Qazvin University of medical Science 2013*).
3. Design, construction and ergonomic evaluation of an infusion set connector tool to control nurses' wrist tension. (*Grant No. 94-04-159-30715, by Tehran University of medical Science 2015*).
4. Feasibility and ergonomic evaluation of an infusion set connector tool to control nurses' wrist tension. (*Grant No. 95-01-27-31454, by Tehran University of medical Science 2016*).
5. Evaluation of existing praying chairs on the market, designing and developing an ergonomic praying chair for public and personal users. (*Grant No. 38815, by Tehran University of medical Science 2018*).
6. Explaining Barriers and Structural Facilitators of Health System Employees in the Face of Corona virus and Strategies Adopted in Emergency and Intensive Care Units: A Qualitative Study. (*Grant No. 99-1-100-48209, by Tehran University of medical Science 2020*).
7. Nurses' fatigue in Corona virus epidemic: Identifying the causes and factors of fatigue management strategies. (*Grant No. 99-1-99-48017, by Tehran University of medical Science 2020*).
8. Experimental study to determine the threshold of muscle fatigue and estimate the biomechanical load on the intervertebral discs of the neck based on postural angle and electromyographic data in overhead work tasks. (*Grant No. 9611905002, by Tehran University of medical Science 2020*).

9. Redesign and ergonomically evaluation of the baby walker to reduce its consequences for mothers and children. (*Grant No. 1666, by Iran University of medical Science 2016*).
10. Ergonomic assessment of different models of hospital bedpans using objective and subjective indices: an experimental study (*Grant No. 26982, by Iran University of medical Science 2023*).
11. Design, fabricate and evaluation of an ergonomic chair cover with adjustable lumbar support and installation on different types of seats based on adjustable pneumatic system (*Grant No. 25525, by Iran University of medical Science 2022*).
12. Influence of Medisa Ara Gostar's Filler Injection Syringe on Upper Limb Musculoskeletal Disorder Risk Factors in Specialist Doctors (*Grant No. 28766, by Iran University of medical Science 2023*).

Honors and Awards

- Ranked 2nd in national university entrance exam for M.Sc. degree in Ergonomics in year 2014.
- Level 3 patent certificate for "An infusion set connector tool used in nursing work". Registration No: 85545. *Festival of inventions and innovations of ROOYESH, Damavand, Tehran, Iran. 2016.*
- Ranked 1st in national university entrance exam for Ph.D degree in Ergonomics in year 2017. (by curse).
- Selected as the best thesis for "Design and ergonomic assessment of an infusion set connector tool used in nursing work". *The 3rd Biennial Iranian Conference on Ergonomics, Tehran, Iran. 2018.*
- Selected as the Top Student, *Iranian Top Thesis Festival - Professor Hesabi's award, 2020.*
- Selected as the Top Researcher, *Iranian Top Thesis Festival - Professor Hesabi's award, 2020.*
- Selected as the best thesis for "Design and ergonomic assessment of an infusion set connector tool used in nursing work". *Iranian Top Thesis Festival - Professor Hesabi's award, 2020.*
- Selected as the Ahmadi Roshan Award for ergonomic design of electrical car. *Iran's National Elites Foundation, 2021.*
- Selected for receiving the **IEA/Kingfar** Award for Student Research in Human Factors and Ergonomics 2021
- 2024 best faculty professor
- 2023 Top University innovative startup company owner

Technical and Professional Skills

Skills:

Posture Evaluation		Biometrics EMG	
Biometrics Movement Analysis		Motions Analysis	
SolidWorks		STATA	
Microsoft Office and Excel		SPSS	
MATLAB		C++	
Microcontroller Programming		Machine Learning	

Language competence:

Persian: Native, mother tongue +TATI

English: Professional working proficiency

Scientific Memberships and Academic Activities

Experience

- **Lecturer**

Department of Ergonomics, Iran University of Medical Sciences, Tehran, Iran.

2019 - 2021

- **Ergonomics Specialist**

Design and manufacturing an E-car (Ahmadi Roshan Foundation)Iran's National Elites Foundation (INEF), Tehran, Iran.

2020- 2021

- **Reviewer**

1. Work (Indexed in ISI, Scopus & PubMed)

2019-2020

2. International Journal of Occupational Hygiene (Indexed in DOAJ)

3. Springer Nature, BMC Nursing (Indexed in ISI, Scopus & PubMed)

4. Health Scop (Indexed in ISI& PubMed)

- **Mentor**

Collaboration with Dr. Mehran Fateminia in educational and research work at Tehran University, Industrial Design Department.

2021-current

- **Assistant professor**

Department of Ergonomics, Public Health Faculty, Iran University of Medical Sciences, Tehran, Iran

2025-current

- **ISO Secretary**

Secretary of International Ergonomics Standard Committee (TC159), Iran

2024-current

- **CEO**

CEO, ErgoKit Company

2024-current

- **Head of university IPO**

Head of Intellectual Property Group, Iran University of Medical Sciences

2024-current

Memberships and Voluntary Activities:

- Member of the Iranian Ergonomics Society. 2017-now.
- Member of the Iranian Nursing Organization. 2016-now.