# Dr. Marzieh Izadi Laybidi

Assistant professor of Ergonomics

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## Education

- Ph.D. in Ergonomics, 2022, Tabriz University of Medical Sciences, Iran.

**Thesis Title:** "Analyzing the cognitive performance of air traffic controllers using psychophysiological responses".

- M.Sc. in Ergonomics, 2015, Tehran University of Medical Sciences, Iran.

**Thesis Title:** "Mental workload assessment among air traffic controllers using analysis of EEG signals".

- BSc. in Occupational Health and safety engineering, 2010, Kashan University of Medical Sciences, Iran.

## Research Interests

Cognitive ergonomics, Neuroergonomics, User experience design, Brain–computer interface, Environmental ergonomics, Human factors in transportation

## Work Experience

- Assistant professor of ergonomics, Iran University of Medical Sciences (IUMS), School of Public Health, Department of Ergonomics, Tehran, Iran (2024- present).

- Instructor, University of Social Welfare and Rehabilitation Sciences, Department of Ergonomics, Tehran, Iran (2021- 2023).

- Research and teaching assistant, Tabriz University of Medical Sciences, School of Health, Department of Ergonomics, Tabriz, Iran (2016-2020).

- Administrative director, Iran University of Medical Sciences, School of Public Health, Department of Ergonomics, Tehran, Iran (September 2015 ~ January 2016).

- Occupational Health and safety expert, Isfahan University of Medical Sciences, Lanjan health and treatment network, Isfahan, Iran (2011-2012).

## Research Interests

Human factors, Cognitive ergonomics, Neuroergonomics, Environmental ergonomics, Human factors in transportation

## Professional skills

- Ergonomic assessment of physiological (HR ،HRV ،EEG ،EMG)
- Human factors methods (mental workload, mental fatigue, cognitive task analysis)
- Human performance, Cognitive performance assessment (working memory, attention)
- Ergonomic Interventions, Ergonomics risk assessment and posture analysis
- Experimental study design
- Data analysis (SPSS and GraphPad Prism program)

## Languages

- English
- Persian

## Journal Articles

1. Ziaei M, Izadpanah S, Sharafi K, Shangol A, **Izadi Laybidi M**. Prevalence and risk factors of musculoskeletal disorders in inside and outside-city taxi drivers; Andisheh city, 2011. Razi Journal of Medical Sciences. 2014. (In Persian).
2. **Izadi laybidi M**, Mazloumi A, Nasl Saraji J, Gharagozlou F, Azam K. Assessment of mental workload Air Traffic Controllers based on task load factors in Air Traffic Control simulator. Iran Occupational Health. 2016. (In Persian).
3. Mazloumi A, Izadi laybidi M, Nasl Saraji J, Gharagozlou F, Jafari A.H, Shirzhiyan Z, Azam K. Shiraz Electronic Medical Journal. 2016.
4. Ziaei M, Ziaei H, Hosseini SY, Gharagozlou F, Keikhamoghaddam AA, **Izadi Laybidi M**, et al. Assessment and virtual redesign of a manual handling workstation by computer-aided three-dimensional interactive application. International Journal of Occupational Safety and Ergonomics. 2017.
5. **Izadi Laybidi M**, Rasoulzadeh Y, Dianat I, Samavati M, Asghari Jafarabadi M, Nazari MA. Cognitive performance and electroencephalographic variations in air traffic controllers under various mental workload and time of day. Physiology & Behavior. 2022.
6. **Izadi Laybidi M**, Mazloumi A, Nasl Saraji J, Gharagozlou F, Jafari AH, Shirzhiyan Z, Azam K. Investigation of relationship between EEG theta power and mental workload in air traffic control simulation. Journal of Health and Health at Work. 2023. (In Persian).
7. Gadimi H, Garosi E, **Izadi Laybidi M**, Ghasemi MS. Ergonomics Design and Assessment of an Adjustable Laptop Stand Used in the Typing Task. Medical Journal of the Islamic Republic of Iran. 2023.

## Presentations

1. Mazloumi A, **Izadi laybidi M**, Nasl Saraji J, Gharagozlou F, Jafari A.H, Shirzhiyan Z, Azam K. (2016) Investigating Mental Workload in Air Traffic Control Using Electroencephalography

(EEG) Signals. The 2nd International Iranian Ergonomics Conference and the 2nd Biennial Iranian Conference on Ergonomics, Shiraz, Iran, October 19-21, 2016 **(**Oral presentation).

2. **Izadi Laybidi M**, Nazari MA, Samavati M, Dianat I, Rasoulzadeh Y, Asghari Jafarabadi M. (2021) The effects of mental workload and time of day on cognitive performance and electroencephalographic variations in air traffic controllers. The 3rd International Iranian Ergonomics Webinar and the 4th Biennial Iranian Webinar on Ergonomics, Shiraz, Iran, March 3-4, 2021 **(**Oral presentation).

## Research Projects

1. Examination of visual fatigue and its relationship with the occupational and demographic characteristics of computer users of Kermanshah University of Medical Sciences – 2013.

2. Analyzing the cognitive performance of air traffic controllers using psychophysiological responses.

3. Investigating the effect of forward collision warning system (FCWS) on drivers' performance using driving simulator.

4. Cross-cultural adaptation, validity and reliability of the Persian version of the simulator Sickness questionnaire (SSQ)

## Book

**Izadi Laybidi M**, Papi Sh, Saki Z, Khalili F, Designing for Older Adults Principles and Creative Human Factors Approaches, Publisher, Darman Arjmand, Iran, 2023, ISSN: 978-622-93884-0-2

## References

1. Dr. Adel Mazloumi, Professor- Department of Occupational Health, School of Health, Tehran University of Medical Sciences, Tehran, Iran. amazlomi@tums.ac.ir.

2. Dr.Yahya Rasoulzadeh, Professor- Department of Occupational Health and Ergonomics, Faculty of Health, Tabriz University of Medical Sciences, Tabriz, Iran amazlomi@tums.ac.ir.

3. Mohammad Ali Nazari, Professor- Department of Neuroscience, Faculty of Advanced Technologies in Medicine, Iran University of Medical Sciences, Tehran, Iran. nazaripsycho@yahoo.com.