

# Masih Banijamali

banijamali.masih@gmail.com | Google Scholar | LinkedIn | masihbj.github.io

## EDUCATION

### M.Sc. in Mechanical Engineering

K. N. TOOSI UNIVERSITY OF TECHNOLOGY  
2016 - 2019 | Tehran, Iran

### Master of Business Administration (MBA)

UNIVERSITY OF TEHRAN  
2018 - 2019 | Tehran, Iran

### B.Sc. in Mechanical Engineering

ISLAMIC AZAD UNIVERSITY (SRBIAU)  
2010 - 2015 | Tehran, Iran

## RESEARCH INTERESTS

Solid Mechanics • Tribology • Contact Mechanics •  
Materials Characterization • Light Alloys & Composites

## RESEARCH EXPERIENCE

### AMAs @ MERC | GRADUATE RESEARCH ASSISTANT

Apr 2021 - Present | Alborz, Iran

- Designing and developing novel light alloys and composites with enhanced mechanical performance.
- Managing laboratory activities, overseeing materials and equipment procurement and efficient use of resources.

### MERC | VISITING RESEARCH COLLABORATOR

Jul 2019 - Sep 2020 | Alborz, Iran

- Joined the Advanced Metal Alloys (AMAs) Group as a junior tribologist.
- Investigated the tribological characteristics of ZK60 Mg alloys under various conditions.

### KNTU | RESEARCH ASSISTANT

Oct 2017 - Aug 2020 | Tehran, Iran

- Analyzed vibration in composite shell structures using analytical and numerical methods.

## TEACHING EXPERIENCE

### MERC | MENTOR & WORKSHOP INSTRUCTOR

Oct 2022 - Present | Alborz, Iran

- Advised Maryam Ahmadi-Nouri on her Master thesis project and academic progress.
- Designed and led two co-curricular workshops on Academic Writing.

### KNTU | TEACHING ASSISTANT

Jul 2019 - Sep 2020 | Alborz, Iran

- Conducted weekly recitation sessions for the Advanced Mathematics course during office hours

## HONORS & AWARDS

- Recognized as an Outstanding Alumnus in the Contact Mechanics and Elements of Tribology course held at MINES Paris - PSL
- Achieved IOP Trusted Reviewer status for peer review excellence
- Offered direct admission to PhD program in Mechanical Engineering at KNTU
- Awarded a full scholarship for the Master's program at KNTU in the Department of Mechanical Engineering
- Ranked within the top 3% among 10,000 participants in the University Entrance Exam for the Mechanical Engineering MSc degree

## ACADEMIC SERVICE

### Peer Reviewer

Reviewed scholarly submissions for journals including:

Wear (5) • Applied Mathematical Modelling (3) •  
Applied Surface Science Advances (3) • Physica Scripta (2) •  
Materials Research Express (8) • Engineering Research Express

### Secretary Member

6th International Conference on Acoustics and Vibration

## PUBLICATIONS

Ahmadi Nouri, M et al. (in progress). "Effect of Ag addition on the microstructure, mechanical properties and tribological behavior of Mg-Gd-Zn alloy". In: *Journal of Alloys and Compounds*.

**Banijamali, SM**, S Najafi, et al. (2022). "Dry Tribological Behavior of Hot-Rolled WE43 Magnesium Matrix Composites Reinforced by B4C Particles". In: *Wear*. doi: <https://doi.org/10.1016/j.wear.2022.204487>.

**Banijamali, SM**, Y Palizdar, KhA Nekouee, et al. (2022). "Effect of B4C Reinforcement and Hot Rolling on Microstructure and Mechanical Properties of WE43 Magnesium Matrix Composite". In: *Journal of Materials: Design and Applications*. doi: <https://doi.org/10.1177/14644207221085939>.

**Banijamali, SM**, M Shariat Razavi, et al. (2022). "Experimental and Simulation Study on Wear Behavior of ZK60 Alloy with 3 wt.% Yttrium Addition". In: *Journal of Materials Engineering and Performance*. doi: <https://doi.org/10.1007/s11665-022-06585-y>.

**Banijamali, SM**, Y Palizdar, S Najafi, et al. (2021). "Effect of Ce Addition on the Tribological Behavior of ZK60 Mg-Alloy". In: *Metals and Materials International*. doi: <https://doi.org/10.1007/s12540-020-00832-4>.

Najafi, S et al. (2021). "The Effect of Y Addition on the Microstructure and Work Hardening Behavior of Mg-Zn-Zr Alloys". In: *Journal of Materials Engineering and Performance*. doi: <https://doi.org/10.1007/s11665-021-05592-9>.