

Prof. M.H. Sadeghi

PERSONAL INFORMATIONS

Mohammad Hossein Sadeghi

Nationality: Iranian

Address: Faculty of Mechanical Engineering, Manufacturing Engineering Group,
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https://scholar.google.com/citations?hl=en&user=5COPckoAAAAJ&view_op=list_works

SPECIALITY: Mechanical and Manufacturing Engineering

ACADEMIC STATUS: Professor

EDUCATION

1982, B.Sc., Mechanical Engineering,

Sharif University of Technology, Tehran, Iran

1985, M.Sc. Mechanical Engineering Design,

Loughborough University of Technology, U.K.

1989, Ph.D. Mechanical and Manufacturing Engineering,

The University of Birmingham, U.k.

1997, Visiting Professor, Manufacturing Engineering,

McMaster University, Hamilton, Ontario, Canada

AREAS OF INTEREST

- CAD/CAM/CAE systems
- Smart Design and manufacturing
- Manufacturing systems Engineering
- Metal Forming and Machining Processes
- Additive manufacturing of lattice structures
and their application in biomedical field

WORK EXPERIENCE

1982-1984, National Iranian Industries, Tehran, Iran, working as a Design and Manufacturing Engineer.

1990- Present, Faculty of Mechanical Engineering, Tarbiat Modarres University, Tehran, Iran, working as a Professor of Manufacturing Engineering.

PROFESSIONAL ACTIVITIES

- Head of Manufacturing Group, Mechanical Engineering Department, Tarbiat Modarres University, Tehran, Iran (Feb1991 – March1996).
- Chair of the faculty of Mechanical Engineering, Tarbiat Modarres University, Tehran, Iran (June1997- Dec1999).
- Scientific Adviser of the Scholarship Department of the Ministry of Science, Research & Technology in the field of Mechanical and Manufacturing Engineering (April 1990 – June 1999).
- Member of the Scientific and Organizing Committee of the “2nd Annual Conf. of the Iranian Society of Mechanical Eng., Sharif University of Technology, May 1994, Tehran, Iran.
- Member of the Scientific/Organizing Committee of the 2nd ,3rd , 4th and 5th Production and Manufacturing Eng.Conf., Amirkabir University of Technology, 1993, 1995, 1998 and 2003, Tehran, Iran.
- Member of the Executive Committee of the Mechanical Eng. of the Alumni of Sharif University of Technology, Tehran, Iran (Feb. 1998 - Present).
- Chairman of the 1st Tehran International Conference on Manufacturing Engineering (TICME2005), Tarbiat Modares University, Dec. 2005, Tehran, Iran.
- Member and Chairman of the Executive Committee of the Society of Manufacturing Engineering of Iran

(SMEIR), Tehran, Iran (Feb. 2002- 2007).

ACADEMIC ADVISING

Supervisor of 5 B.Sc. research projects.

Supervisor of 82 M.Sc. research projects.

Supervisor of 29 Ph.D. research projects.

AWARDS

“The 1991 Donald Julius Groen Prize”, the Institutions of Mechanical Engineers, London, U.K.

He has been selected by Thomson Reuters Data Base as the world’s top 1% Scientists for consecutive years, 2017, 2018 and Scopus single calendar year 2020.

TEACHING EXPERIENCE

Lecturship in the following subjects (past 30 years):

1. Manufacturing Processes (Undergraduate)
2. CAD/CAM/CAE (Undergraduate)
3. Manufacturing Systems Engineering (Graduate)
4. Applied Plasticity and Metal Forming (Undergraduate)
5. The Forging Process and Die Design (Graduate)
6. Principles of Metal Machining (Graduate)
7. Advanced CNC Machine Tools (Graduate)
8. Laser Micro Machining (Graduate)
9. Smart Design & Manufacturing (Graduate)

RECENT PUBLICATIONS (in field of Additively manufactured lattice structures)

1. Mohammadi Ghalehney, S., Sadeghi, M.H., Mechanical Behavior of Additively Manufactured Graded Auxetic Structure for Hip Implants”, Journal of Modares Mechanical Engineering, 23,(7),439-447, 2023.
2. Nikaein, G., Sadeghi, M.H., Sagbas, B., (2023). Numerical and Experimental Investigation of Mechanical Properties of Gyroid-based Lattice Structures with Different Cell Orientations, 7th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry, Oct. 25-27, 2023 - Istanbul, Turkiye.
3. Heydari, H., Nikaein, G., Sadeghi, M.H., (2023). Manufacturing of Gyroid-based Lattice Structures using Investment Casting Method Combined with Additive Manufacturing, 7th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry, Oct. 25-27, 2023 -Istanbul, Turkiye.
4. Kazemivand Niar, S., Nikaein, G., Sadeghi, M.H., Koc, B., (2023). Bending Behavior of Additively Manufactured Gyroid-based Lattice Beams, 7th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry, Oct. 25-27, 2023 -Istanbul, Turkiye.
5. Mohammadi Ghalehney, S., Sadeghi, M.H., Gharehbaghi, H., Mechanical Properties of 2D Re-entrant Gradient Structures Produced by Additive Manufacturing”, Iranian Journal of Science and Technology, Trans. of Mechanical Engineering, 65. 2024.
6. Mohammadi Ghalehney, S., Sadeghi, M.H., Barati, H., Gharehbaghi, H., “enhancing Auxetic Gradient Structures for hipjoint implants to optimize stress shielding Reduction”, Journal of Physica Scripta, May 2024.
7. Nikaein, G., Sadeghi, M.H., Jamshidi, M., Sagbas, B., INVESTIGATING THE EFFECT OF UNIT CELL ORIENTATION ON MECHANICAL PROPERTIES OF GYROID-BASED LATTICE STRUCTURES. International Journal of 3D Printing Technologies and Digital Industry, 2025. 9(1): p. 45-52.
8. Niar, S.K., Nikaein, G., Sadeghi, M.H., Vrancken, B., van Hooreweder, B., Mirzaali, M.J., Effect of micro-architectural design and polymer infiltration on mechanical properties and fatigue life of strut-and sheet-based lattice bone scaffolds. Materials & Design, 2025: p. 114217.
9. Nikaein, G., Haji Mohammadvali, M., Sadeghi, M.H., Topology optimization of cantilever beams with non-cellular, cellular, and hybrid structures for enhanced mechanical performance. Applications in Engineering Science, 2025. (25): p. 100279.

10. Yar Ahmadi, A.H., Nikaein, G., Sadeghi, M.H., A Bioinspired Lattice Bone Scaffold with Tunable Transverse Isotropy Based on a Modified Octet–Truss Unit Cell. *Forces in Mechanics*. 2026 Jun 13:100373.
11. Yar Ahmadi, A.H., Nikaein, G., Sadeghi, M.H., Sagbas, B., Investigating the Mechanical Properties of Strut-Based Lattice Structures Using Homogenization Method (under publication).

PUBLICATIONS

From more than 250 Journal and Conference published papers, some selected Publications are available in:

https://scholar.google.com/citations?hl=en&user=5COPckoAAAAJ&view_op=list_works

	All	Since 2021
<u>Citations</u>	10507	5242
<u>h-index</u>	52	35
<u>i10- index</u>	196	132