SAYED MOHAMMAD HOSSEIN IZADI

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Dedicated aerospace engineer with comprehensive academic training in Aerospace Engineering at the bachelor's, master's, and PhD levels. My undergraduate studies concentrated on machining processes, while my master's research focused on delamination in composite materials. During my PhD, I specialized in fracture mechanics of functionally graded and composite materials and further explored machine learning applications in related research.

EDUCATION

Aerospace Engineering-Aerospace Structures | Ph.D.
University of Tehran – Tehran
09/2020 – 01/2025

- Thesis title: Analytical energy-based mixed mode I/II fracture criterion for functionally graded materials.

Aerospace Engineering-Aerospace Structures | Master of Science
K. N. Toosi University of Technology – Tehran
09/2018 – 09/2020

- Thesis title: Investigation and Determination of Optimal Parameters for Drilling of Composite Materials.

Aircraft mechanics (Aerospace)| Bachelor of Science
Shahid Sattari Aeronautical University of Science & Technology – Tehran
09/2014 – 02/2018

- Thesis title: Knowledge and manufacturing process of industrial parts with the help of reverse engineering by three-axis numerical control machines.

ACCOMPLISHMENTS

- The best bachelor's thesis of the faculty in 2018 was honored by the Iranian Aerospace Society.
- Exemplary PhD dissertation recognized at the 34th Research and Technology Festival of the University of Tehran (December 2025)

ARTICLES

- [1] S. M. H. Izadi, M. Fakoor, and B. Mirzavand, “Characterization of elastic modulus and fracture toughness of randomly oriented chopped glass fibers functionally graded materials,” Steel Compos. Struct., vol. 53, no. 1, pp. 091–101, 2024.
- [2] S. M. H. Izadi, M. Fakoor, and B. Mirzavand, “A novel mixed mode fracture criterion for functionally graded materials considering fracture process zone,” Theor. Appl. Fract. Mech., p. 104710, 2024.
- [3] S. M. H. Izadi, M. Fakoor, and B. Mirzavand, “Developing a new mixed mode I/II fracture criterion for cracked functionally graded materials considering the fracture process zone effect,” Acta Mech., 2024.
- [4] M. Fakoor, S. Ghodsi, S. M. H. Izadi, and Z. Daneshjoo, “Exploring Fracture Toughness in the Damage Zone of Fiber-Reinforced Composites: A Study on Crack Orientation Effects,” Arab. J. Sci. Eng., 2025.

- [5] S. M. H. Izadi, M. Fakoor, and B. Mirzavand, “Investigating crack propagation and R-curve behavior in fiber-reinforced functionally graded material considering the effects of fiber bridging and fracture process zone,” Int. J. Solids Struct., vol. 320, p. 113550, 2025.
- [6] S. M. H. Izadi and M. Fakoor, “Extension of the average strain energy density method for crack initiation prediction in functionally graded materials and identification of a toughening mechanism,” Front. Struct. Civ. Eng., 2025.
- [7] S. M. H. Izadi, “Fracture behavior of randomly oriented chopped/short fiber-reinforced composite materials: A combined experimental, numerical, and machine learning approach,” Theor. Appl. Fract. Mech., vol. 142, p. 105381, 2026.