

Name Surname

Syed Mujtaba ul Hassan, PhD

Doctorate

Innovative and Engineered Materials

Education

PhD, Innovative and Engineered Materials, Institute of Science Tokyo (Tokyo Institute of Technology, Japan), 2012-2015 (MEXT Fellow)

MSc, Engineering with major in Materials, PIEAS, Islamabad, 2004-2006 (PIEAS MS Fellowship)

BSE, Metallurgy & Materials Engineering, University of Engineering and Technology, Lahore, 2000-2004 (Honors)

Experience

Visiting Researcher, Department of Chemical Engineering, Tianjin University, China (2023 & 2025)

Professor, Department of Metallurgy & Materials Engineering (DMME), National Center for Nanotechnology (NCN) PIEAS, Islamabad 2023-Now

Associate Professor, Department of Metallurgy & Materials Engineering (DMME), National Center for Nanotechnology (NCN) PIEAS, Islamabad 2019-2023

Assistant Professor, Department of Metallurgy & Materials Engineering (DMME), National Center for Nanotechnology (NCN) PIEAS, Islamabad 2016-2019

Research Student, Institute of Science Tokyo (Tokyo Institute of Technology, Japan), 2011-2012

Lecturer (Researcher), Department of Metallurgy & Materials Engineering (DMME), National Center for Nanotechnology (NCN) PIEAS, Islamabad 2006-2011

Research Interests

- Nanomaterials for Targeted Drug delivery
- Upconversion nanomaterials
- Nanomaterials for Contrast Agent Applications
- Machine Learning for Materials Science
- Molecular Docking
- Biomaterials
- AFM for nanomaterials
- Nanomaterials for Energy Applications

Last 5 Publications

Saifullah, A., Hassan, S. M. u., Khurshid, A., Naz, S., Amin, M. C. I. M., & Tariq, M. R. (2026). Fluorescence-active carbon-coated Yb (OH)₃ nanostructures: Integrating biomedical imaging and cancer therapy. *Journal of Cluster Science*, 37, Article 75.

Saifullah, A., Noor, A., & Hassan, S. M. u. (2026). Nanocomposites, nanohybrids and heterostructures of upconversion nanoparticles for biomedical applications. In K. Deshmukh, C. M. Hussain, & K. D. Belfield (Eds.), *Upconversion Nanoparticles for Biomedical Applications* (pp. 681-730). Woodhead Publishing.

Noor, A., Hassan, S. M. u., Shahzad, F., Zhang, X., Khurshid, A., Iqbal, Z., Siddique, M. T., & Marwat, N. (2026). Bright photoluminescent Gd-MXene quantum dots for cell imaging with synergistic MRI/CT capability. *Journal of Fluorescence*, 36, 1203-1214.
<https://doi.org/10.1007/s10895-025-04621-3>

Naz, S., Khurshid, A., Hassan, S. M. u., Saifullah, A., Zahid, A., & Aziz, B. (2026). Synergistic anticancer effects of Fagonia indica extract in combination with paclitaxel and benzoporphyrin derivative. *Journal of Pharmaceutical Innovation*, 21, Article 617.

Shahid, H., Zulfiqar, Z., Iqbal, Z., Ullah, A., & Hassan, S. M. u. (2026). Machine learning-guided prediction of graphene layer numbers from electrochemical synthesis parameters. *Diamond and Related Materials*, 166, Article 113780. <https://doi.org/10.1016/j.diamond.2026.113780>

Memberships

Australian Materials Research Society (AMRS) 2026 - Present

Pakistan Engineering Council (Professional Engineer) 2006- Present

Awards

Marie Curie Fellow: Awarded the 2026 NanoBio4Can postdoctoral fellowship.

MEXT Scholar: Secured the Japanese government fellowship for PhD studies.

Gold Medalist: Ranked first overall in MS studies at PIEAS.

NESCOM Awardee: Received the Certificate of Merit for top MS academic performance.

Honors Graduate: Earned a BS with Honors from UET Lahore.