

MOHAMMAD ALI HAIDER

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Google Scholar Profile : <https://scholar.google.com/citations?user=DWlyluAAAAAJ&hl=en>

Education

- Ph.D. Chemical Engineering, University of Virginia, 2009-2011
- M.S. Chemical Engineering, University of Virginia, 2006- 2008
- B.Tech. Biotechnology, Indian Institute of Technology (IIT) Guwahati, 2002-2006

Professional Experience

- Associate Dean Research and External Engagement, IIT Delhi-Abu Dhabi, 2023- till date
- Professor, Chemical Engineering, Indian Institute of Technology (IIT) Delhi, 2023 - till date
- Associate Faculty, Yardi School of Artificial Intelligence (ScAI), IIT Delhi, 2022 – till date
- Alexander von Humboldt Fellow, Catalysis Research Center, Technical University Munich, 2023-34
- Associate Professor, Chemical Engineering, IIT Delhi, 2018-2023
- Assistant Professor, Chemical Engineering, IIT Delhi, 2013-2018
- Visiting Scholar, Catalysis Center for Energy Innovation, University of Delaware, 2016-17
- Postdoctoral Research Associate, University of Virginia, 2011- 2013
- Coordinator of the Shea Language House, Asian Language Program, University of Virginia, 2012- 2013
- Language Assistant (Hindi/Urdu), Shea Language House, University of Virginia, 2008-2009

Awards

- **Humboldt Research Fellowship** for experienced researchers by Alexander von Humboldt Foundation, 2023
- Erasmus+ Programme, Academic Staff Mobility Grant, European Commission, 2023
- **Early Career Faculty Research Award**, IIT Delhi, 2021
- **Dr. A. P. J. Abdul Kalam HPC Award for R & D in HPC Applications**, Hewlett Packard Enterprise, and Intel, 2021
- **Teaching Excellence Award**, IIT Delhi, 2019
- Distinction in Doctoral Research, IIT Delhi to Dr. Shelaka Gupta, 2019 (now Faculty, IIT Hyderabad)
- FITT-IIT Delhi Award for Best Industry Relevant PhD. Thesis Supervision of Dr. Ejaz Ahmad (Faculty, IIT Dhanbad)
- FITT-IIT Delhi Award for Best Industry Relevant PhD. Thesis Supervision of Dr. Shelaka Gupta (Faculty, IIT Hyderabad)
- **Excellence in Basic Research and Development in Chemical Engineering**, Amar Dye-Chem Award, Indian Institute of Chemical Engineers, 2018
- Hari Om Ashram Prerit Research Award on Renewable Energy, Sardar Patel Renewable Energy Research Institute, 2017
- Department of Atomic Energy-Board of Research in Nuclear Sciences, **Young Scientist Research Award**, 2018
- Institution of Engineers (India) **Young Engineers Award**, 2018
- **Bioenergy-Awards for Cutting Edge Research (B-ACER)**, Indo-U.S. Science and Technology Forum (IUSSTF), 2017
- **Gandhian Young Technological Innovation (GYTI) Award**, presented by the Honorable President of India.
- Hydrogen Energy and Advanced Materials (HEAM) Scientist of the Year 2018, Indian Association of Hydrogen Energy and Advanced Materials (IAHEAM), sponsored by Oil and Natural Gas Corporation (ONGC) Energy Center, Mumbai
- Young Professional Travel Grant, High Temperature Materials Division, The Electrochemical Society USA, 2017
- Award for the Second-Best Presentation (postdoc category), National Science Foundation (NSF) Engineering Research Center for Biorenewable Chemicals (CBiRC), USA, 2012
- Graduate Student Travel Award, Northrup Grumman Mission Systems USA, 2008

Honours and Recognitions

- Member, **Editorial Advisory Board**, ACS Sustainable Chemistry & Engineering, 2023- till date
- Invited Session Chair, **Modelling, Simulations, and Machine learning**, North American Catalysis Society Meeting, 2022
- Member, The National Academy of Sciences, India, 2022
- **Keynote Speaker**, Chemical Engineering @ Indian Institute of Science (IISc) Symposium, 2022
- **Associate Editor**, Frontiers in Catalysis
- Recognized as **Emerging Investigator** by the Editorial Board, Reaction Chemistry & Engineering, RSC Journal, 2021
- **Highly Cited Author**, Energy & Sustainability Portfolio of Journals, Royal Society of Chemistry (RSC), 2018
- Member, Indian National Young Academy of Sciences, 2021-2025
- **Editor's Choice Collection on Machine Learning for Materials Innovation**, Journal of Materials Chemistry A, RSC Journal
- Journal Cover Illustrations, total 10 covers (CST, JMCA, Green Chemistry, Nanoscale, React. Chem. & Eng., Langmuir)
- **Chief Guest and Keynote Speaker**, Basic Principles of DFT and MD Simulations, Short Term Course at NIT Jaipur, 2020
- Selection Committee Member, Fulbright-Nehru Postdoctoral Fellowships, United States-India Educational Foundation, 2014
- Expert Committee Member for filling of the gap of feed stock in chemical sector, Ministry of Chemicals & Fertilizers, India

Selected Invited Talks

- Chemical Engineering Graduate Seminar, IIT Bombay, 2022
- All India Radio, Science Talk, 2022
- *Value-added Chemicals from Natural Gas*, American Institute of Chemical Engineers (AIChE), Annual Meeting, 2021
- *Accelerating Catalysis Research with Machine Learning*, American Chemical Society (ACS) Fall Meeting, 2021
- *Materials for Energy and Environment*, MRSI-AGM Conclave 2021, IIT Madras, 2021
- 11th, Indo-German Frontiers of Engineering Symposium (INDOGFOE), Humboldt Foundation (Invited Participant)
- Indo-Canada Bilateral Virtual Conference on Waste to Wealth 2021
- Chemical Engineering Seminar Series, IIT Gandhinagar, 2021
- University of Queensland – IIT Delhi Academy of Research (UQIDAR) Energy Workshop, 2021
- International Center for Theoretical Physics (ICTP)-East African Institute for Fundamental Research (EAIFR), 2020
- African School of Catalysis, Rawanda, 2020
- Artificial Intelligence for Material Design, IIT Bombay, 2020
- ACCMS: International Conference on Materials Genome, 2020
- Catalysis Division, National Chemical Laboratory Pune, 2019
- Solid State and Structural Chemistry Unit, Indian Institute of Science Bangalore, 2019
- Indo-UK Newton-Bhabha Researcher Links Workshop, 2019
- SWAYAM online course on Fundamentals of Chemical Engineering, Government of India, 2019
- Science in the Age of Experience, Dassault Systemes, 2018
- Graduate Seminar, Department of Chemical and Petroleum Engineering, University of Kansas, USA, 2017
- Graduate Seminar, School of Materials Science and Engineering, Oklahoma State University, USA, 2017
- IndianOil R&D Centre, 2018
- Honeywell India Technology Center, 2015

Workshop, Symposiums and Conference Organization

- International Symposium on Chemical Reaction Engineering (ISCRE26), 2021
- Asia Pacific Chemical Reaction Engineering Symposium (APCRE9), 2021
- University of Queensland – IIT Delhi Academy of Research (UQIDAR) *Energy Workshop*, 2021 (~70 invited participants)
- Catalysis Society of India Meeting, *Catalysis for Clean Energy and Sustainable Future*, Delhi, 2019 (~500 participants)
- Workshop and Symposium on *Advanced Simulation Methods: DFT, MD and Beyond*, 2019 (~400 participants)
- Technical Education Quality Improvement Program, *Electrochemical Technologies in Hydrogen Production and Utilization for Electrical Energy*, 2015, (~30 faculty participants)
- Bioprocessing India Conference, 2018 (~ 500 participants)

Public Outreach and Social Services

- Organizer and Speaker, '*Opportunities for Career in Science for the Children of Inmates*', India Vision Foundation, 2021
- Invited Speaker, Nurturance Program, National Talent Search Exam (NTSE) Scholars, 2021
- Invited Speaker, Visit of the Undergraduate Students of Washington University at St. Louis at IIT Delhi, 2020
- Invited Speaker, Prime Minister Innovation Learning Program-Dhruv, 2019,
- Program Coordinator, Department of Chemical Engineering IIT Delhi Open House in the year 2014, 2015 and 2019.
- Program Coordinator at IIT Delhi, Navodaya Vidyalaya Students, Selected by the office of the President of India, 2018
- Volunteer, Wilmington Church, Food Distribution for Homeless in Wilmington, Delaware, USA, 2017
- Invited Speaker, Undergraduate Class of IIT Delhi, 2016
- Invited Speaker, Undergraduate Class of the Department of Science Technology and Society, University of Virginia, 2012
- Volunteer, Building Goodness Foundation, Building Homes in New Orleans and in Virginia, USA 2008

Administrative Activities

- Associate Dean Research and External Engagement, IITD Abu Dhabi, Jan 2024- till date
- Chairman, High Performance Computing (HPC) Group, IIT Delhi: Administration of IIT Delhi HPC services and outreach, expansion of the HPC to 690+ nodes (~ 2 petaflops) recognized as top-3 supercomputer in India, 2018-2021
- Nation-wide Call of Proposals for COVID-19 Research at IIT Delhi HPC, 2020
- Concept-Note and MoU with NVIDIA to setup the HPC facility as a Center of Excellence at IIT Delhi
- Preparation and Presentation of Vision-2030 and Institute of Eminence (IoE) Proposal for HPC Research at IIT Delhi.
- PhD Coordinator, Department of Chemical Engineering, IIT Delhi, 2016 and 2019-2022
- Coordinator of Alumni Relations, Department of Chemical Engineering, IIT Delhi, 2018-2019
- Scientific Advisor and Founder, WowChemE Pvt. Ltd, 2018-till date
- Session Chair, '*Modelling of Catalysts and Reactors*', ISCRE 26 & APCRE 9, 2021
- Session Chair, '*Young Scientist in Bioprocessing*', Bioprocessing India Conference in 2018 and 2014