

Candidate for IUGS Executive Committee

Position: Councilor 2020-2024

Name: Manish A. Mamtani

Affiliation: Department of Geology and Geophysics,
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India

Nominating Organization:
Indian National Science Academy (INSA)



Biography:

Dr. Manish A. Mamtani is a Professor of Structural Geology at the Department of Geology and Geophysics, IIT Kharagpur (India). He obtained his Ph.D. in 1999 from M.S. University of Baroda (India) for pursuing his work on deformation mechanisms, a research he carried out in India and University of Heidelberg (Germany) under the Sandwich Model Doctoral Program of the German Academic Exchange Service (DAAD). Since 1999, Prof. Mamtani has been a faculty in IIT Kharagpur. His research has focused on integrating field, microstructural, anisotropy of magnetic susceptibility (AMS) and SEM-EBSD data to decipher deformation mechanisms, regional tectonics, paleostress, kinematics and evaluate structural control on vein emplacement and mineralization. Prof. Mamtani has established a “*Fabric Analysis Lab*” in IIT Kharagpur. This houses sophisticated equipment for AMS analysis, light microscopy and sample preparation unit (Broad Ion Beam polisher) for SEM-EBSD studies, fabric quantification and digital imaging of rock microstructures. Researchers from India and abroad have regularly used these facilities and Prof. Mamtani has active collaborations with scientists in Germany (Karlsruhe and Aachen), Italy (Catania and Turin) and Cameroon (Dschang). He has published more than 55 journal research papers, edited two special issues, conducted several workshops on Structural Geology/Tectonics and delivered lectures in various countries (Germany, Italy, France, Austria, Czech Republic, Spain, Belgium). Prof. Mamtani’s research is well-recognized, which is manifested in him being awarded K. Naha Award for Structural Geology (2002; Geological Society of India), Alexander von Humboldt Fellowship (2005; AvH Foundation, Germany), H.H. Read Memorial Gold Medal (2007; Society of Geoscientists and Allied Technologists, India), National Geoscience Award (2010; Government of India). Prof. Mamtani has contributed to dissemination of structural geology knowledge through his association with the Geological Society of India (as Council Member since 2011), IUGS-TecTask (formerly as TecTask Officer and presently as Vice-Chair), and board member of the European Society for Deformation Mechanisms, Rheology and Tectonics (DRT).

Statement:

It is an honour for me to be nominated as Councilor of the International Union of Geological Sciences. I have been associated with the IUGS Commission on Tectonics and Structural Geology (TecTask) for the past several years as a TecTask Officer, and presently its Vice-Chair. This allowed me to actively contribute to IUGS activities by organizing TecTask workshop in IIT Kharagpur (India, 2016) and University of Kerala (India, 2018). These outreach programs have benefited several geoscientists from India as well as other Asian countries and Africa. This has been a satisfying experience, and I am highly motivated to continue on this path of contributing further to the vision of IUGS for global geosciences. There is increasing acceptance in geoscience community that rock deformation, fracture/pore network connectivity, fluid flow is interlinked and play a critical role in mineralization, hydrogeology, engineering geology and various applied aspects that are critical for human sustenance. This is well within the scope of IUGS activities and I will positively contribute to this and similar key areas including working towards setting up global networks of geoscientists, taking steps towards more inter-disciplinary teaching and research, as well as further dissemination geosciences.