

## Candidate for IUGS Executive Committee

**Position: Councillor 2020-2024**

**Name:** Prof. HEMA ACHYUTHAN

**Affiliation:** Institute for Ocean Management, Anna University, Chennai 600025

**Nominating Organization:** The Geological Society of India, Bangalore.



### **Biography:**

Born in Srirangam, South India, November 1956, Dr. Hema Achyuthan had her initial schooling and graduation in Pune, India. She received Ph.D. degree (Geology), 1987, from the Deccan College, Poona University developing a novel school in India for the reconstruction of the late Quaternary paleoenvironments and monsoonal shifts to understand man-land relationship using paleosols and archeological data. Her work on paleosol micromorphology, geochemical and isotopic studies of calcretes, laterites and lacustrine sediments provided wholesome narratives of landscape evolution in various parts of arid India. Her data on late Quaternary-Holocene lake level fluctuations and paleomonsoon reconstructions from south India and Kashmir are being applied for climate models. Internationally recognised for her seminal work, and in collaboration with the Leverhulme Institute for Human Evolutionary Studies, Cambridge University, she is excavating sites around Lake Turkana, Kenya (Nature 2016). Published more than 140 papers in reputed peer reviewed journals, Supervised 26 Ph.D students, and has co-supervised two international students, Oxford University (Dr. James Blinkhorn) and Cambridge University (Dr. Peter Griffith). Has collaborated internationally on numerous projects on Quaternary geology and Geoarchaeology. Recipient of awards such as the Fulbright Fellowship (1995), Tamil Nadu State Scientist Award (TANSA) 1999, Junior and Senior Research Associateship ICTP, Trieste 2003-2008 and 2012-2017, Cambridge Hamied Award, Cambridge University, UK 2012. La Pierre Simon Laplace Fellowship CNRS, 2012 and the Women Scientist Award by the Geological Society of India 2019. She is Editor member of the Quaternary International Journal, Anthropocene and Associate Editor of the Journal Geological Society of India.

### **Statement:**

As a foreign secretary of the Geological Society of India I have represented the Indian Geological Society at several events organized by the IUGS since 2017 and this has been a big eye opener for me personally. The themes being selected for these events focused on societal benefit has been important for academicians like

me. Over the years the IUGS events have successfully created a big international community of scientists focused on understanding the environment around us along with a healthy exchange of ideas, thoughts and trends enabling scientists to interact and learn from one another.

Going forward it would be important for the IUGS programme to bring to the fore several other important themes impacting the world such as climate change, women in the field of geo-sciences and other such themes which will enable the brightest of minds to discuss, understand and help create an impact. A large part of every continent is experiencing semi-arid to arid conditions impacting large populations. Understanding past patterns will enable predict future conditions. A tipping point would be to create a new commission to observe trends based on Late Neogene-Quaternary paleomonsoon reconstructions in Asia and East Africa using proxy records (palynology, dendrochronology, speleothems, fluvial and dunal records, lake and glacier) to understand impact of climate change on landscape and human impact alongside global correlations. Given an opportunity, it would be a great honor to work with similar minded focused group of people on any issue related to geosciences and society, and encouraging women geoscientists.



**Dr. HEMA ACHYUTHAN**  
Professor

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