

National Mineral Awards – 2007

Geophysics / Applied Geophysics: Theoretical development leading to new methodologies in geophysical exploration, Application of geophysical methods to the study of earth sciences, geo-magnetism, ground, airborne & marine geophysical survey techniques and instrumentation

Dr. K. A. Kamesh Raju, Scientist 'F', National Institute of Oceanography, Goa has done innovative research in Marine Geophysics for obtaining a deeper insight into the morpho-tectonic evolution of the Central Indian Ocean Basin. He has identified marine magnetic anomalies in this basin through modeling of seafloor spreading.

It has been shown by Dr. Raju that the sudden decrease in the spreading rate is related to the onset of collision between Indian plate and Eurasian plates. His studies have suggested that of the seamounts in Central Indian Ocean Basin represent smaller chains of major hotspot traces and their distribution is partly controlled by the fracture zones.

Detailed geophysical studies over the Carlsberg Ridge by him have indicated a spreading rate of 1.25 cm / yr and that the ridge segment is characterized by a prominent rift valley. His recent study on the role of West Andaman Fault has provided useful information towards the understanding of the mechanisms involved in the earthquakes in the Andaman Sea region.

In recognition of his significant achievement in the understanding of the tectonic setting of the Indian Ocean by geophysical studies, National Mineral Award - 2007 is conferred upon Dr. K. A. Kamesh Raju.

