## National Award in the field of Geoscience & Technology

## Dr. G. R. Ravindra Kumar



Dr. G. R. Ravindra Kumar was born in Karnataka and had his education in Mysore. After obtaining M.Sc. degree in Geology from the Mysore University he successfully pursued Ph.D., research on petrology of oldest schistose rocks of the Sargur Schist Belt under the supervision of Prof. Janardhan. During this period at Mysore University he got in touch with Dr Clarke Friend, UK, from whom he learnt the science of geological mapping and unravelling

of the intricacies and beauty of structures in rocks, and Prof. R.C. Newton, University of Chicago, USA, who exited him to pursue research on granulites by explaining the complex lower crustal processes with great simplicity and authority.

Dr. Ravindra Kumar joined the Centre for Earth Science Studies (CESS), Trivandrum in October, 1979. He was a member of CESS from its formative years of growth till its takeover as National Centre for Earth Science Studies by the Ministry of Earth Sciences (MoES) in January 2014. CESS gave him freedom and unbridled support to work in areas of his choice. He carried out very detailed guarry scale field studies in large parts of the southern Indian granulite terrain (SGT). His publications relating to the evolution of granulitefacies rocks of southern India were new to the literature as available field and laboratory data on SGT were very limited. He made the first breakthrough by recording the first ever unequivocal field and petrological evidence for the transformation of garnet-biotite paragneiss to charnockite in the khondalite belt of southern Kerala through a publication in Nature (Ravindra Kumar et al., 1985, 313, 207-209). He suggested that charnockite formation recorded at Kabbaldurga (Karnataka) was not a local phenomenon but extended to the southern part of the granulite terrain. His discovery of arrested type of charnockite formation from the Kerala Khondalite Belt (KKB) opened up new vistas and paved the way for more detailed studies and publications on the region.

Dr. Ravindra Kumar has contributed significantly over the years towards better understanding of formation of granulites through study of reaction textures, PT trajectory of evolution, behaviour of elements and fluids during metamorphism. His studies and publications have brought out fundamental data on the geology, mineral and whole rock chemistry, and isotope characteristics of granulites and better knowledge on the lithospheric processes. He has worked with advanced analytical facilities at the Department of Geophysical Sciences, University of Chicago, USA (1985) and at

Department of Mineralogy and Petrology, University of Bonn, Germany (1996, 2000-2002).

The research programmes he initiated on Palghat region of southern India were most comprehensive for understanding the lower crustal processes and evolution of granulites. His studies from regions presenting protracted history of granulite evolution, from early Proterozoic to late Proterozoic, have been of extreme importance in pinning on improving our understanding on the evolution of granulite belt development and in placing constraints on the dispersal of Gondwana. Detailed studies in Palghat have become case examples of model petrological exercises to demonstrate systematic application of modern petrological tools to post graduate students. One of his publications on Palghat is reprinted in a special memoir as a landmark contribution in the 50 years of the Journal of the Geological Society of India.

Recently Dr. Ravindra Kumar has initiated new studies in the Kerala khondalite belt (KKB) on aspects concerning the origin, provenance, depositional history and tectono-metamorphic evolution of the rock association and their interrelationships. New results present evidences for magmatic origin of KKB granitoids, suggesting subduction zone related arc accretion setting followed by intracrustal melting for the evolution of KKB, which may, therefore, represent the deep-section of a collisional orogen. This contribution is significant as it relates to the type of convergent margin prior to supercontinent assembly and the nature of tectonism along the supposed Indo-Madagascar join.

Dr. Ravindra Kumar is a recipient of several fellowships and awards among which few are Research associateship of the University of Chicago, Senior Visiting fellowship of INSA-DAAD, Prof. M. R. Sreenivasa Rao Award (2006) by the Geological Society of India for outstanding contributions in the field of petrology, Emeritus Fellowship of the UGC. He has also delivered Prof Muthuswamy endowment lecture at the Geological Society of India. He is a fellow of many learned academies and societies. He has served as a Member, Programme Advisory Committee of DST (Govt. of India) in Earth Sciences (2013-2015), Member, Monitoring Committee of CSIR Network Projects (2004-2007) and as Council Member, Mineralogical Society of India. Presently he is working as a senior consultant at the National Centre for Earth Science Studies, Trivandrum.

In recognition of his outstanding contributions to the Geoscience & Technology, the Ministry of Earth Sciences honors Dr. Ravindra Kumar with "National Award in Geoscience and Technology" for the year 2015.