



TechTalks@SJB

SJB Institute of Technology, Bangalore

Distinguished Lecture Series – Autumn 2010

Date:

15th September 2010

Wednesday

Time:

2:30 PM

Venue:

**Main Seminar Hall
CSE Block, SJBIT**

Address:

**SJB Institute of Technology
BGS Health & Education City
Uttarahalli Main Road
Kengeri, Bangalore 560060**

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Ground Water in Hard Rock Terrains: Some aspects of Exploration and Management

Dr. R. Srinivasan

Technical Advisor, Australian Indian Mineral Resources

Ground water in hard rock terrains occurs at the interface of the vadose and phreatic zones in the weathered soil-rock profile under water table conditions. It also occurs deep down, in the unweathered rocks, along fractures. Past five decades have seen extensive utilization of ground water in hard rock terrains for irrigation and industrial purposes in addition to drinking water, that has led to over exploitation in certain sectors. Future dependence on ground water in overexploited sectors requires exploration for “deep” ground water resources which appear to be neither influenced by annual fluctuation of water table nor the water shed boundaries. Meteoric water circulation can occur up to several kilometers depth as evidenced by thermal springs or by discharges in deep mines like Kolar or Hutti. While rainwater is ultimately the source of this deep water, Dr. Srinivasan says that our knowledge on the recharge–discharge relation for deep ground water is very rudimentary and is an area of active research. He will also provide a perspective for management of ground water resources.

Dr. R. Srinivasan is an eminent Precambrian Geologist of India. He was a Senior Earth Scientist at the National Geophysical Research Institute, Hyderabad and is a veteran of 35 years of research experience on Precambrian Crustal Evolution. His areas of expertise are in structural geology, sedimentology, geochemistry, geochronology, Precambrian paleobiology, heat flow and helium emanometry as applied to academic problems and mineral exploration. He has worked in different parts of India and has also carried out field studies in USA, Canada, Russia, Western Australia and Ceylon. He is currently the Technical Advisor for Australian Indian Resources Pty. Ltd., in mineral exploration.

A Ph.D from Mysore University, Prof. Srinivasan has authored over 250 research papers and professional reports. He is a Fellow of the Indian National Science Academy, Indian Academy of Sciences, National Academy of Sciences, India, and a Fellow of Geological Society of India. At present he is engaged in promotion of basic sciences in the country as a Member of the Education Panel constituted by the three National Science Academies and the Department of Science Technology of the Government of India.



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