

***International Earth Science Olympiad – 2011: A Report – R. Shankar (National Coordinator, Earth Science Olympiad; Email: rshankar\_1@yahoo.com)***

The International Earth Science Olympiad (IESO) is a competition for secondary school students launched by the International Geoscience Education Organization (IGEO; www.geoscienced.org) in 2007 with the objectives of enhancing student interest in and public awareness of Earth Sciences, forging friendly relationships among young learners from different countries, and fostering international cooperation in the exchange of ideas and materials about Earth Science and Earth Science Education. The I, II, III and IV IESO's were organized in South Korea, The Philippines, Taiwan and Indonesia respectively.

The V International Earth Science Olympiad was held in Modena, Italy, September 5-14, 2011 in which 34 countries participated (115 students including 11 guest students, 51 Mentors and 46 Observers). The students took written and practical tests in Geosphere, Atmosphere, Hydrosphere and Astronomy. The practical tests had some novelty this time: The Hydrosphere practical test (measurement of salinity and temperature) was conducted in the Venice Lagoon. Parts of the Geosphere test were conducted involving collections of a museum, rock pillars along a road, stones used for a Church wall and so on. There was an interesting field visit to a series of mud volcanoes. One could see bubbles of methane coming out of cone shaped and fissure type of mud volcanoes. The mud flowing out of them had carved out geomorphic features similar to those produced by normal volcanoes. A unique component of the IESO is the International Team Field Investigation (ITFI). Several groups, each comprising students from different nationalities, carried out field investigations of geological interest and relevance. This

year, about 22 teams carried out ITFI's near the Alps and made Powerpoint presentations of their findings. A jury evaluated the performance of each team following prescribed criteria. Awards were presented to the deserving teams.

The medal tally of the Indian Team is:

1. Mr. Yash Gupta, M. D. S. Public School, Udaipur 4 – *Silver*
2. Mr. Yash Nalwaya, M. D. S. Public School, Udaipur – *Silver*
3. Mr. Jashan Singhal, D A V Public School, Kota, Rajasthan – *Silver*
4. Mr. Alankar Shashikant Kotwal, Ratanbai Walbai Jr College, Mumbai – *Bronze*

Mr Alankar Shashikant Kotwal also bagged an award for the *Highest score in Hydrosphere Section*. The *Best Presentation Award* and the *Best Creativity Award* were respectively given to Mr. Alankar S. Kotwal and Mr. Jashan Singhal in the ITFI category.

Besides the above students, the Indian Team had Prof. R. Shankar, Mangalore

University, and Dr. T.A. Viswanath, Goa University as Mentors and Prof. R. Ramesh, Physical Research Laboratory, Ahmedabad, Prof. Prakash Narasimha, University of Mysore, and Dr. Bharat Adur, Mumbai as Observers.

The Indian Team was selected through an entrance test followed by the Indian National Earth Science Olympiad (INESO) guidelines. About 1541 students took the 1½-hour test at 60 centres across India. The question paper comprised of 100 multiple-choice questions spanning the IESO syllabus that had to be answered in 90 minutes. Questions were prepared by experts drawn from universities and research institutions in the country. The top 20 students underwent training at a camp organised at the University of Hyderabad, May 5-24, 2011. Resource persons from the universities of Goa, Osmania, Mysore, Hyderabad, Pune, Mangalore and Kuvempu, and IISc, Bangalore, IIA Bangalore, IIT, New Delhi, NGRI, Hyderabad, and NIO, Goa delivered lectures, interacted with the camp participants and imparted practical training to the participants. The INESO was conducted at the end of the camp and the top 4 were selected to represent India at the



V IESO in Italy. A Pre-departure Camp for the four selected students was held in Bengaluru during 3-4 September 2011, when they were counseled about the entire Olympiad program besides taking them to the Nehru Planetarium, Bengaluru. Resource persons delivered lectures for the benefit of the students.

Participation of the Indian Team in the

International Earth Science Olympiad and the entire Earth Science Olympiad activity was supported financially by the Ministry of Earth Sciences, Govt. of India. The Homi Bhabha Centre for Science Education (HBCSE) was helpful and supportive of the Earth Science Olympiad activity. On behalf of the Geological Society of India, I gratefully acknowledge the Ministry and

HBCSE's support. I thank the mentors, observers, camp co-coordinator, resource persons, question setters for the entrance test and INESO, Society representatives and colleagues, office-bearers and staff of the Geological Society for their invaluable help and contribution which made the whole endeavor possible. The VI IESO would be held in Argentina, Sept. 2012.

### LATERITE – THE NAME IS 204 YEARS OLD!

An earthy to feel and red hued material was christened **Laterite**, in 1807, by Francis S. Buchanan to describe, in his travelogue, its occurrence along the Malabar coast. Amazingly, it has now attained the stature of a rock-of-consequence, both from scientific and economic/utilization points of view.

Laterite is viewed as a rock in petrologic parlance, an ore in economic geology nomenclature, and soil in pedological vocabulary. Furthermore, it has proved to be a palaeo-geographic/environmental indicator, stratigraphic marker, geochemical path-finder, groundwater potential pointer, and above all a magnificent host (rock) for some common as also strategic minerals. Of late, it is gaining importance as one of the essential raw materials (albeit in small quantities) in cement industry where it is used as an 'additive' in the raw mix design.

A National Geological Monument of Laterite was erected by the Geological Survey of India, in 1979, at Angadipuram, not far away from Trivandrum where India, under the aegis of IGCP-129, hosted the First International Seminar on Lateritisation Processes.

Literature on Laterite geology is vast and with the neo-electronic access facility, knowing/learning about it is not difficult. This synoptic information is just meant to serve as a 'Refresh Button' about such a remarkable earth material.

P.K. RAMAM