IAGR CONFERENCE REPORT

The International Association for Gondwana Research (IAGR) and the China University of Geosciences (CUGB) have jointly organized the IAGR-Annual Convention and 11th International conference on 'Gondwana to Asia' in Beijing, China, during September 20-23, 2014. With a welcome reception and icebreaker on 19th September, the technical sessions were organized on two days on 21st and 22nd September, 2014 with oral and poster sessions at CUGB. A total of about 120 delegates attended the conference from different continents such as USA, Canada, UK, Germany, Japan, Italy, South Korea, Taiwan, China, Tazakistan, India, and Russia. Russia has figured with the highest number of outside delegates (16 nos). All the details of technical sessions, abstract volume and the Field Excursion guide were all provided to delegates ten days before the conference. The Conference focused on a wide range of topics related to supercontinent tectonics in general and 'Gondwana to Asia' in particular. The focal themes include: (i)Secular evolution of Earth: supercontinents, life and environment, (ii) Gondwana to Asia: orogenic belts, correlations and connections, (iii) Metallogeny, and (iv) Geophysical imaging of continents and cratons.

The scientific sessions of oral presentations were planned based on themes of today's importance, each one is preceded by a key note of an eminent personality with a total of 11 key note addresses. The first, was on 'Origins of Supercontinent Cycle' by Damian Nance, according to whom, this is the most important advance in Earth Sciences after Plate Tectonics. The Supercontinent cycle documents fundamental aspects of the planet's interior dynamics and has charted the course of Earth's tectonic, climatic and biogeochemical evolution for billions of years. The second was by Joseph Meert on 'Lonely Wanderers and Gondwana'. According to him, there are very strong similarities between the geometries of three supercontinents Columbia, Rodinia, and Pangea. However, some land masses like, south China, North China, Kalahari and perhaps Tarim cratons are positioned in distinct locations within each of the three supercontinents, which he proposed them as 'lonely wanderers'. Michael Brown presented key note talk on" Proterozoic vs Phanerozoic geodynamics and speculations on the supercontinent cycle" and made use of the distinct geological records of magmatism and metamorphism of both the periods - proxies for secular change in ambient mantle temperature and for the thermal structure of different tectonic environments.

Simon Wilde addressed the 'Terminal events in the eastern segment of the Central Asian Orogenic Belt' in his key note talk. He has described that its earliest components are Neoarchean age, but is predominantly composed of juvenile crustal rocks that evolved in Phanerozoic arc complexes and were accreted during the closure of the Paleo-Asian Ocean. This was subsequently emplaced with huge volumes of granitic magma in the late Paleozoic to Mesozoic. In continuation, another key note talk by Bor-ming Jahn on "Sr-Nd-Hf isotopic characterization of granitoids in accretionary orogens of Asia and implications for crustal development" indicated that the mobile belts were formed through successive accretion of island arc terranes and dispersed microcontinental fragments within the Palaeo-Asian Ocean.

The second day started with a key note talk by Alan Collins on "Detrital Zircon and muscovite provenance constraints on the evolution of the Cuddapah Basin, India". They suggested that the data reflects an evolving rift-passive margin succession, sourced from the Dharwar craton. They also indicated that the Gandikota formation represents a lateral equivalent of the Kurnool group, which is largely derived from reworking of Cuddapah super group of rocks , due to tectonic movements related to the Eastern Ghats orogen. Through Global compilations of Zircon-Hf data, Nick Roberts highlighted the significance of U-Pb crystallization ages in his talk on "Evolution of the continental crust: Insights from the Zircon record". They are helpful not only in understanding the formation of continental crust through time, but also the periodic amalgamation of supercontinents.

David Ian Groves emphasized on the importance of gold exploration in suitable tectonic and lithospheric settings particularly in cratonic margins and lithospheric boundaries in his talk on "Importance of Craton margins and other lithosphere boundaries for gold and other metal exploration" and described heirarchial mineral systems approach. Richard Goldfarb, examined the characteristics of Cretaceous gold deposits in eastern China and concluded that they are located in dilational jogs associated with large faults in his talk on "The Jiaodong gold deposists , eastern China: A global anomaly of Phanerozoic gold

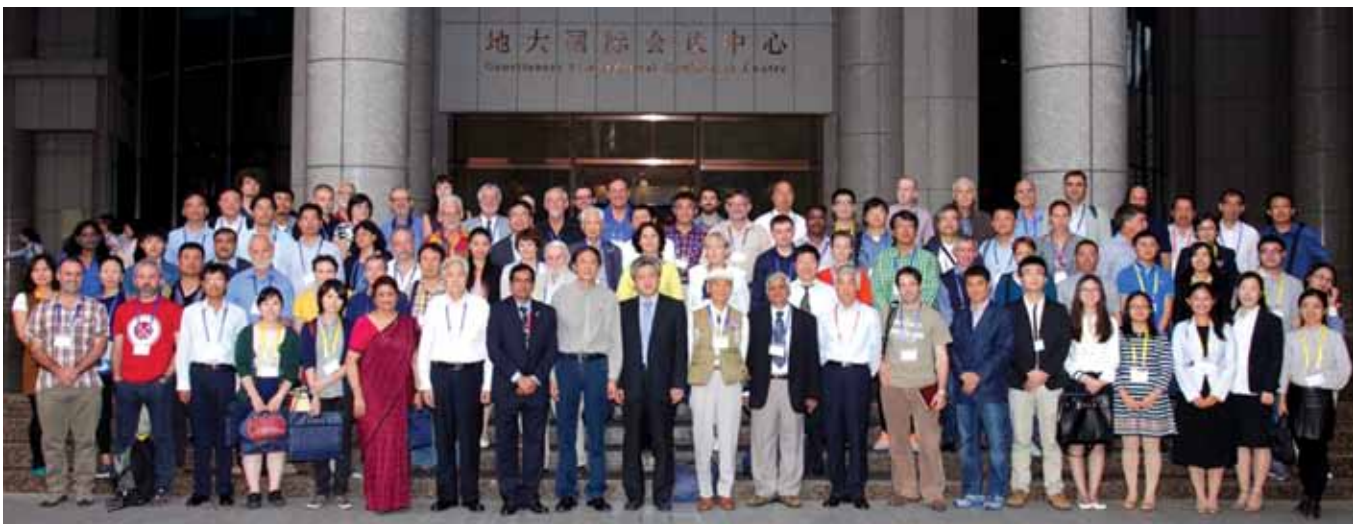
in Precambrian rocks". Special emphasis has been laid on the gold formation related to the Mesozoic subducting sediments and the underlying basalt of the Pacific plate. Richard Ernst has elaborated the episodicity of large igneous provinces in his talk on "Large igneous provinces and resource exploration: metals, oil/gas and water". He argued that the LIPs are critical in reconstructing Precambrian supercontinents and enabling the tracing of metallogenic and hydrocarbon belts between presently separated but formerly contiguous crustal blocks. Dave Kelsey presented a key note talk of current interest related to orogenic belts entitled, "Ultrahigh temperature crustal metamorphism at regional scale – causes, tectonic setting, phase equilibria and trace element thermometry constraints". There have been lively discussions after each presentation adhering to tight schedules of timing.

Many other oral presentations covered different aspects of geologic importance like the periodicity of mantle plumes, Paleoproterozoic orogenic processes, double sided subduction zones, collisional processes, Precambrian crustal evolution, Zircon U-Pb geochronology, tectonics of Central orogenic belt, Validity of Pan African tectonic models in southern India and several other important topics of current interest. In addition to oral presentations, there were 51 poster presentations, out of which four were selected for the student best poster award in order to encourage young researchers.

A three day post-conference field excursion was held during 22-24 September, exposing the participants to the Trans –North China Orogen, a major subduction-collision belt developed during the amalgamation of the Western and Eastern and the final cratonization of the North China Craton at ~ 1.85 Ga. The field excursion focused on some of the post collisional intrusive suites within the TNCO along the route from Beijing to Chengde and further north to the Damiao iron ore mines. The participants had the opportunity of visiting the famous Damiao gabbro-anorthosite-norite-mangerite-rapakivi granite suite exposing a huge magma chamber of late Paleoproterozoic post-collisional rocks. The participants also had the rare opportunity of visiting the Great China wall, one of the Seven Wonders of the World, during the field work. The field excursion was organized under the leadership of Prof. Santosh and his students.

The IAGR annual convention and international conference provided opportunity to meet and interact with world renowned geoscientists, for the exchange of scientific ideas and for the growth of excellence in academic and scientific pursuits. Some of the important observations that impressed me include: holding all the listed deliberations on time without any changes and absentees and maintaining the scheduled timings of presentation and discussions. The GR - 2013 Best Paper Award Ceremony, IAGR General Assembly and Council Meeting, Gondwana Research Editorial Board meeting and other business meetings (IGCP 592, IGCP 628) were also held during the conference. All the delegates carried home their sweet memories of valuable scientific proceedings, panoramic and interesting geological field experience and the excellent hospitality. The organizers Prof. M. Santosh,and Prof. Xiaoqiao Wan and their team members deserve rich compliments.

T.R.K.Chetty



Group photo of the participants of IAGR- 2014,China University of Geosciences, Beijing (CUGB), China.