preserved at one place. The collection includes all the types and duplicates fossil specimens of micro- and mega-fossils collected till 1962 by the Survey. The type specimens are serially numbered and stored. The later collections of duplicate fossils are preserved in the five Regional Palaeontological laboratories of the GSI in Hyderabad, Jaipur, Lucknow, Nagpur and Shillong. The duplicate collections are given respective regional laboratory numbers. All the described and/or illustrated specimens from regions are usually sent to GSI Repository Unit, Kolkata.

Korea: Though no vertebrate fossil has been found in the Palaeozoics of Korea, a variety of Mesozoic vertebrate fauna have been discovered in the entirely fluvio-lacustrine sediments. Specimens include fish, turtle, crocodilian, pterosaur, and dinosaur bones, and dinosaur eggs in nests as well as dinosaur and bird foot prints. In addition, hundreds of fish, turtle and whale fossils have been found in the Tertiary rocks. Many of the fossil specimens from Korean Peninsula have been lost during the wars. Korean vertebrate faunas remain inadequately published and stored unsystematically. There is no National Natural History Museum in Korea as yet. A survey and collection for preservation of biological resources, especially fish, in the Republic of Korea is being pursued vigorously.

Japan: More than 48,000 mineral specimens are registered with the National Science Museum, Tokyo of which 15,000 are from abroad. The type specimens in the NSM collection are the most important part of the new minerals that were discovered in Japan. Sakurai collection is the greatest private mineral collection in Japan collected by Dr. Kinichi Sakurai. The main part of this collection of about 15,000 specimens was donated to NSM. Comparison of bird species based on DNA studies and fish fauna of Japan and Korea were the other papers presented.

Overall, the symposium focussed on the methodology of collection and preservation of museum specimens. All the curators spoke on space constraints and the measures taken to overcome this universal problem. All the speakers agreed on the need for collection, identification, preservation, cataloguing and display of natural history specimens for posterity. The use of computers in the data entry and processing was emphasised.

Dr. Masamine Sasaki, Director General, National Science Museum, 3-23-1, Hyakunincho, Shinjuku-ku, Tokyo 169-0073 may be contacted for information on the next symposium to be held in the middle of 2004.

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CONTACT COURSE ON FLUID PHYSICS IN GEOLOGICAL ENVIRONMENTS

A five day (19-23 January, 2004) contact course on *Fluid Physics in Geological Environments*, jointly organized by the Centre for Mathematical Modelling and Computer Simulation (C-MMACS) and Jawaharlal Nehru Centre for Advanced Science and Research (JNCASR) and sponsored by the Department of Science and Technology (DST) was held in C-MMACS, Bangalore. Thirteen participants from various universities/IITs and National research institutions attended the course. Expert-faculty from different institutes were invited for delivering lectures on various aspects of fluid physics and its applications in earth sciences.

After the first day's inaugural function on 19th January, the lecture session began with an enthusiastic presentation by R.N. Govardhan (IISc) who talked on 'Basic Fluid Mechanics for Geologists' in two sessions. Included in his talk were fluid statics - the hydrostatic equation, and its application to incompressible and compressible fluids, and fluid dynamics - flow parameters, types of flow, basic flow equations and application of fluid mechanics in earth science related problems such as magma flow, atmospheric circulation and grounwater-river water interaction, flash flood prediction and rainfall/runoff modelling. Second day's (20th January) lecture series started with a lecture on "Debris Flow" by V.K. Gaur (C-MMACS), who talked on the the flow physics governing differential equations, geological case histories and certain key issues of debris flow. This was followed by K.G. Rao's (ISRO) lecture on "Dynamics and Thermodynamics of Monsoon Cloud Systems Using Radars and Satellites" which covered aspects of cloud system organization, atmospheric cloud structurtes, structures of deep cloud and interaction between layer and cloud system. This was followed by K.R. Sreenivas's (JNCASR) talk on "Convection in Geological Processes" covering model experiments to study convection in stratified media, double diffusive convection, and ended with the

question 'is the formation of columnar basalts due to double-diffusion finger convection?' - bringing igneous petrology and fluid mechanics to a meeting point.

On the third day (21st January), the participants visited K.R. Sreenivas's lab in the JNCASR to acquaint themselves with the experimental fluid mechanics facilities available. This was followed by R. Govindarajan's (JNCASR) lecture on 'Miscible and Immiscible Viscous Stratified Flow' in which he covered numerical aspects of laminar flow through 2D channel, linear stability analysis, and mentioned the role of viscosity stratification in different geological scenarios. The next talk was by M. Alam (JNCASR) on "Rapid Particle Laden Flows" and "Rheology and Microstructures in Sheared Bidisperse Granular Media" which together covered the classification of sub-aerial massive sediment motions, classification of flow regimes and numerical simulation of plane Couette flow of bidisperse granular system. Fourth day's (22nd January) session started with the lecture on "Physics of Atmospheric Circulation" by P. Goswami (C-MMACS) who talked on quantitative water budget in hydrological systems, use of continuum equations in forecasting atmospheric models and simulation of cyclones. After this, K. Sangeeta (C-MMACS) talked on "Finite Element Methods (FEM)" covering the basic concepts, formulation of finite elements, steps in finite element method, and finally giving some examples on how FEM works.

Last day's (23rd January) session started with "Introduction to Chaos Theory" by T.R. Ramamohan (C-MMACS) who covered definition, governing rules, properties and invariants associated with chaotic systems. This was followed by K. Sangeeta's continuation on Finite Element Methods. Afterwards, S. Himesh (C-MMACS) talked about "Subsurface flows" covering basic groundwater flow parameters, Darcy's law in the perspective of coupled flow, fracture media flow etc., and genesis, geometry and dynamics of sub-surface fracture networks. The last lecture of this contact course was on "Artificial Neural Networks - a Step Towards Simplicity" by G.K. Patra (C-MMACS) who covered the definition, principles and componenets of artificial neural networks (ANN). He also presented a comparative study of human brain and the computer and finally, a case study of the ANN model application in the prediction of Indian summer monsoon.

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ANNOUNCEMENT

SIXTH INTERNATIONAL CONFERENCE ON SOLVOTHERMAL REACTIONS (ICSTR-6)

The above conference is scheduled to take place in Mysore during 24-27 August, 2004. The primary objective of the conference is to discuss issues relating to the science and technology of solvothermal reactions and also hydrothermal reactions. The topics to be covered include: Solution chemistry, Thermodynamics, Phase Diagrams, Modelling, Kinetics and Diagnostic Methods, Experimental Techniques, Material Synthesis and Processing - Inorganic, Organic, Organometallic, Metallo-organic; Crystal Growth - Single Crystal, Thin Films, Nanocrystals; Technologically important Materials; Geothermal Reactors, Geologial Processes and Systems, Experimental Mineralogy and Petrology; Chemical Engineering, Metallurgy, Extraction and Separation; Supercritical Fluids; Waste Treatment, Alteration; Novel materials, Nanomaterials and Nanotechnology; High Pressure research.

For further details visit the conference website: http://www.icstr6.com or contact: Prof. K. Byrappa, Chairman, ICSTR-6, University of Mysore, P.B. No.21, Manasagangotri, Mysore - 570 006, India. **Phone:** 91-821-2525185 (O); 91-821-2515346 (R); **Telefax:** 91-821-2515185; Mobile: 91-98451-58486; **Email:** byrappak@yahoo.com or kbyrappa@rediffmail.com.