(Himachal Pradesh) using electrical and electromagnetic methods have been discussed. Other papers describe geochemical and isotopic studies on thermal waters of some hot springs.

The last section on **Geothermal Studies** comprises (1) overviews on the geothermal resources of Madhya Pradesh, (2) neotectonic activity in the Tapti-Purna valleys and its possible control on the origin of hot springs, and (3) an integrated study using gravity, magnetic and deep resistivity data for bringing out the structural control of faults with which the hot springs of Tapti valley are associated. Other papers describe oxygen isotope studies on hot spring waters, temperature measurements in 30 to 500m deep boreholes in Sohna hot springs area in Haryana, studies on the Bakreshwar geothermal area, etc. Environmental hazards of the Indian geothermal fields are discussed in one paper.

So far, no geothermal field has been identified over the main Indian landmass which could clearly be associated with Quaternary or Late Tertiary magmatic heat source at shallow depths, the kind of fields that have been exploited for power generation elsewhere (the Circum Pacific belt, the Andean subduction zone, western USA, Italy, etc., on a long-term sustainable basis and on scale comparable to other sources like hydro, thermal and nuclear. This should not, however, deter an intensification of efforts at gaining better insights into plausible sources of the most promising of the fields like Puga or Tatapani. Eventhough the production may be minuscule, it could become vital under specific local conditions. Besides, it helps develop indigenous expertise in exploring and exploiting a nonconventional resource with its own attendant problems. The important point is that there are many low to moderate enthalpy fluids which could be put to a number of effective non-electrical uses such as development of spas, greenhouse cultivation, extraction of rare materials like cesium, etc. The publication has served the purpose of putting together all relevant data on the Indian geothermal resources. Though some of the papers are of a routine nature, it forms an useful up-to-date information base for planning future studies.

National Geophysical Research Institute Uppal Road, Hyderabad 500 007 R.U.M. RAO

# **ANNOUNCEMENTS**

FOURTH TRAINING COURSE IN GLACIOLOGY: Geological Survey of India Training Institute, Hyderabad under the aegis of Department of Science and Technology, Govt. of India, will be organising the Fourth Training Course in Glaciology at Chaurabari Glacier, Chamoli District, Uttar Pradesh for a period of 29 days in July-August, 1997. The course consists of two components with theoretical lectures at Lucknow followed by field demonstration/training on the Chaurabari Glacier. The main objective of the course is to train scientists interested in the study of Snow, Ice and Glaciers and in fundamental aspects of Glacier, including exposure to the field aspects. The course is open to young scientists/researchers having a post graduate degree in Geology, Meteorology, Physics, Geophysics, Hydrology with background in mathematics or a Master/Bachelor's Degree in Mechanical/Civil Engineering and equivalent degree holder, interested in the study of hydrology, dynamics, morphology etc. of snow, ice and glaciers and below 40 years of age will be eligible for the course provided they are medically fit (to be supported by medical certificate) for high altitude work. The young age will ensure continued utilisation of the trainees for furtherance of glaciological research.

There is no course fee and TA/DA will be paid by the course authorities as per the Government of India rules for the trainee-scientists. Application forms may be obtained from the Dy. Director General, Geological Survey of India Training Institute, GSI complex, Bandlaguda, Hyderabad - 500 068 (**Ph:** 4020859; 4022681; **Fax:** 040-4022680). The duly filled-in application forms forwarded by the organisations should reach him on or before 7th June, 1997.

NATIONAL SEMINAR ON APPLIED SEDIMENTOLOGY AND XIV CONVENTION OF INDIAN ASSOCIATION OF SEDIMENTOLOGISTS: The Department of Geology, University of Madras, Chennai proposes to organise National seminar on Applied Sedimentology and XIV convention of Indian Association of Sedimentologists during 12-14 December, 1997 in the University of Madras. For further particulars contact: Sedimentology Laboratory, Department of Geology, Guindy Campus, University of Madras, Chennai - 600 025.

INTERNATIONAL SEMINAR ON RECENT ADVANCES IN THE STUDY OF CRETACEOUS SECTIONS: Coinciding with the Centenary year of the significant scientific contribution of the Kossmat, an International seminar on "Recent advances in the study on Cretaceous sections" is planned at Tiruchirapalli during, January 1998. The seminar will consist of three day discussion followed by a four day field excursion to various type sections of Tiruchirapalli Cretaceous. The three day seminar will cover all the recent advances made since Kossmat's work in various fields viz., Paleontology, Stratigraphy, Sedimentary environments and Mineral wealth of the Cretaceous of Tiruchirapalli vis-a-vis in other globally known Cretaceous sections. For further particulars contact: Dr. A Govindan, Regional Geological Laboratory, ONGC Ltd., SRBC, Gowri Building, No.3, First Lane, N.H. Road, Chennai - 600 034, India. Ph: 044-8271431 (O), 044-6359143 (R), Fax: 044-834088, E-mail: ongc.madras@gems.usnl.net.in.

## **Interesting Papers in other Journals**

#### Norwegian Journal of Geology

Vol.76, No.3, 1996

GONZALO VIDAL and MALGORZATA MOCZYDLOWSKA: Vendian-Lower Cambrian acritarch biostratigraphy of the central Caledonian fold belt in Scandinavia and the palaeogeography of the Iapetus-Tornquist seaway, pp. 147-166.

## **Ore Geology Reviews**

Vol.11 (4), October 1996

David Lentz: U, Mo, and REE mineralization in late-tectonic granitic pegmatites, southwestern Grenville Province, Canada. pp. 197-227.

## Science

Vol.273, No.5279, 30 August, 1996

GILLES PELTZER and others: Post-seismic Rebound in Fault Step-Over caused by Pore Fluid Flow. pp.1202-1204. JOHN A. RUBEN and others: The Metabolic Status of Some Late Cretaceous Dinosaurs. pp.1204-1207.

Vol.273, No. 5280, 6 September, 1996

W. RICHARD PELTIER: Mantle Viscosity and Ice-Age Ice Sheet Topography. pp.1359-1364.