The training courses, mainly postgraduate, cited in this section include many designed primarily for geoscientists from developing countries.

- Signifies the first or amended announcement in *Episodes*.

BGS COURSES IN EARTH SCIENCE (UK and worldwide as specified by client)

Language: English. A wide range of short-duration (up to 10 days) practically orientated, postgraduate, training courses to assist national and international personnel to resolve problems involving earth sciences.

Details from Dr. Ian E. Penn, Coordinator, Training, Research and Development, British Geological Survey, Keyworth, Nottingham NG12 5GG, England. Tel: +44(0)115-9363187; Fax: +44(0)115-9363150

- **COMPUTER ASSISTED TRAINING IN MINERAL RESOURCES DEVELOPMENT** (Fontainebleau, France). Organized by the School of Mines of Paris since 1972. This training is under the UNESCO sponsorship. Next session will be from April 1st to April 30th, 1998.

Languages: French or English.

Details from Professor L. Zanone, Workshop Manager, Ecole des Mines de Paris, 35, rue Saint-Honoré E9, 77305 Fontainebleau Cedex, France. Tel: 33 1 64 69 49 30; Fax: 33 1 64 69 47 11; E-mail: sauzy@cgcs.ensmip.fr

ENVIRONMENTAL AND SAFETY CONCERNS IN MINING ACTIVITIES

(Alès, France). October to June (annually). Language: French.

Details from Dr. Gérard Verraes, Ecole nationale supérieure des techniques industrielles et des Mines d'Alès, 6, avenue de Clavières, 30319 Alès Cedex, France. Fax: 33 66 78 50 34; Tel: 33 66 78 51 96; E-mail: gverraes@ensm-ales.fr

- **EUROPEAN TRAINING COURSES ON WATER QUALITY MEASUREMENTS**

ANALYTICAL METHODS FOR ALGAE, PROTOZOA AND HELMINTHS IN FRESH-WATER, Genova (Italy), November 10–14 1997

USE OF BIOTIC INDEX TO EVALUATE THE QUALITY OF FRESHWATER STREAMS. EBI METHOD, Trento (Italy), June 22–26 1998

MEASUREMENTS OF ORGANIC COMPOUNDS IN DRINKING AND SURFACE WATER, Ioannina (Greece), July 1998

Details from TECHWARE (TECHnology for WAtER REsources), c/o CIBE-BIWM, Wolstraat, 70 rue aux Laines-B-1000, Brussels, Belgium. Tel: +32 2 518 88 93; Fax: +32 2 502 67 35; E-mail: techwarectb@innet.be

- **GEOLOGICAL DATA PROCESSING AND MINE MANAGEMENT** (Sydney and World Wide). A range of postgraduate short courses and international special customised training programs that could be credited toward Masters and Graduate Diploma degrees and Certificates.

BACKFILL TECHNOLOGY IN UNDERGROUND MINES, 13–14 October 1997 (2 days)

INTRODUCTION TO THE TECHNICAL COMPONENTS OF RESOURCE PROJECT VALUATION, 18–19 November 1997 (2 days)

DRILLING AND BLASTING, 1–5 December 1997 (5 days)

Details from Dr. Mike Katz, Director, Key Centre for Mines, University of New South Wales, Sydney, NSW 2052, Australia. Tel: 61 2 9385 5006; Fax: 61 2 9313 7269; E-mail: M.Katz@unsw.edu.au; Website: <http://www.mines.unsw.edu.au>

GEOSCIENCE SHORT COURSES AND WORKSHOPS

(various locations in Canada). Courses covering most aspects of geoscience, mostly 2–3 days, some longer, up to 2 weeks.

Details from Geological Survey of Canada, Training Courses, 601 Booth Street, Ottawa, Ontario K1A 0S2, Canada.

HYDROLOGY (Hungary, and elsewhere). Six-month, postgraduate, diploma course on advanced, theoretical and practical hydrological methods in water-resource management. Part of UNESCO International Hydrological Programme.

Details from Dr. G. Kienitz, VITUKI Water Resources Research Centre, H-1453 Budapest, Pf 27, Hungary. Fax: 361 215 3043.

- **IMPERIAL COLLEGE COURSES IN MINERALS AND PETROLEUM** (London, UK) A range of courses in mineral and petroleum resource appraisal, development and management.

PETROLEUM ENGINEERING—An Integrated Approach, May 1998 at Imperial College, London, UK

RESERVOIR SIMULATION—Essential Technology for Reservoir Management, July 1998 at Imperial College, London, UK

RESERVOIR CHARACTERISATION AND MODELLING, April–June 1998 at Institut français du pétrole, France and Imperial College, London, UK

TECHNICAL, FINANCIAL AND LEGAL APPRAISAL OF MINING PROJECTS, 19–21 November 1997 at Imperial College, London, UK

SPEAKING TECHNICALLY—Eight 2-day workshops, 21–22, 23–24 April 1998; 2–3, 4–5, 9–10, 11–12 June 1998; 15–16, 17–18 September 1998 at Imperial College, London, UK

Details from Sally Verkaik, Continuing Education Centre, Imperial College, Room 515, Sherfield Building, Exhibition Road, South Kensington, London SW7 2AZ, UK. Tel: +44 (0)171 594 6882/1; Fax: +44 (0)171 594 6883; E-mail: cpd@ic.ac.uk

ITC COURSES IN EARTH SCIENCES, PHOTOGRAMMETRY, AND REMOTE SENSING. Conducted in The Netherlands by ITC (International Institute for Aerospace Survey and Earth Sciences). Language: English

APPLIED GEOMORPHOLOGY AND ENGINEERING GEOLOGY, September (annually) 10 months for postgraduate course, 21 months for MSc course.

ENGINEERING GEOLOGY August (annually) 11 months for postgraduate course, 22 months for MSc course.

EXPLORATION GEOPHYSICS August (annually) 9 months for postgraduate course, 21 months for MSc course.

GEOINFORMATION SYSTEMS FOR CADASTRAL, URBAN AND RURAL APPLICATIONS, 12 months for professional Master degree course, 18 months for MSc course.

GEOLOGICAL SURVEY September (annually) 11 months for postgraduate course, 20 months for MSc course.

INTRODUCTION TO DIGITAL IMAGE PROCESSING July (annually) 4 months.

MINERAL EXPLORATION August (annually) 9 months for postgraduate course, 18 months for MSc course.

REMOTE SENSING APPLICATIONS FOR EARTH SCIENCES November (annually) 2 months.

Details from ITC, PO Box 6, 7500 AA, Enschede, The Netherlands. Tel: +31 (0) 53 48 74 444; Fax: +31 (0) 53 48 74 400; Telex: 44 525 ITC NL

- **PETROLEUM EXPLORATION AND RELATED SUBJECTS** (Rueil-Malmaison, France). A range of short seminars and longer courses in geology, geochemistry, and logging geophysics for engineers, managers and technicians in the petroleum and related industries.

Languages: French and English

Details from École National Supérieure du Pétrole et des Moteurs, Centre d'Exploration Pétrolière, ENSPM-Formation Industrie, 232, avenue Napoléon Bonaparte, 92500 Rueil-Malmaison, France. Fax: +33(1)47 52 70 79.

- **PETROLEUM EXPLORATION GEOLOGY** (Lincoln, UK). A series of short (up to 5 days) courses for geologists and geophysicists involved with exploration and development programmes that have moved into mature phases. Courses cover seismic interpretation, structural geology and basin modelling.

FAULT-SEAL ANALYSIS, 7–9 October 1997, Hundleby

PRACTICAL STRUCTURAL GEOLOGY, 13–17 October 1997, Lincoln

PRACTICAL SEISMIC INTERPRETATION—incorporating workstation techniques, 17–21 November 1997, Lincoln

Details from Badley Earth Sciences Ltd., North Beck House, North Beck Lane, Hundleby, Spilsby, Lincolnshire PE23 5NB, UK. Tel: +44 (0)1790 753472; Fax: +44 (0)1790 753892; E-mail: pam@badleys.co.uk; Web pages: <http://www.badleys.co.uk>

PROFESSIONAL DEVELOPMENT SEMINARS IN MINERAL ENGINEERING AND MINERAL ECONOMICS. Conducted by the Department of Mining and Metallurgical Engineering, McGill University. Language: English.

Details from Norma Procyshyn, Coordinator of Professional Development Seminars, Department of Mining and Metallurgical Engineering, McGill University, 3480 University Street, Montreal, Quebec H3A 2A7, Canada. Tel: (514) 398-4383; Telex: 05-268510; Fax: (514) 398-8379.

RECENT DEVELOPMENTS IN QUANTITATIVE AND SEQUENCE STRATIGRAPHY. Short courses organised by the Committee for Quantitative Stratigraphy which is part of the IUGS's International Commission on Stratigraphy.

Details from Dr. F. P. Agterberg, Geological Survey of Canada, 601 Booth St., Ottawa K1A 0E8, Canada. Tel: (1) 613 9962374; Fax: (1) 613 9963726; E-mail: agterberg@gsc.cmr.ca

RESERVE ESTIMATES IN THE REAL

WORLD. Three day course conducted periodically under the auspices of the Society of Economic Geologists for all associated with ore reserve estimation from exploration to development.

Details from Mrs. E. A. Reeves, School of Sciences, Staffordshire University, College Road, Stoke-on-Trent ST4 2DE, UK. Tel: +44 (0)1782 294859; Fax: +44(0)1782 745506; E-mail: d.e.roberts@staffs.ac.uk

SEPM CONTINUING EDUCATION

COURSES (various locations USA). Short 1 or 2 day courses in advanced aspects of sedimentary geology, petroleum geology and hydrogeology for practising geoscientists wishing to keep abreast of new developments and techniques.

Details from SEPM Continuing Education Department, PO Box 4756, Tulsa, OK 74159-0756, USA

SHORT COURSES IN PETROLEUM

GEOLOGY AND RELATED DISCIPLINES. Conducted by IHRDC in London or Aberdeen, UK. Language: English. A series of short courses between three and five days on seismic interpretation, reservoir modelling and reservoir management.

Details from IHRDC/Amsterdam, Brouwersgracht 288, 1013 HG Amsterdam, The Netherlands.

Tel: 31 20 6380110; Fax: 31 20 6385298; E-mail: 101762.1027@compuserve.com

TWAS FELLOWSHIPS AND RESEARCH

GRANTS. A series of grants for developing country geoscientists of proven ability to work and study for periods of 1-12 months at centres of excellence in the South, and to purchase equipment and laboratory supplies for research projects specified by them.

Details from Executive Director, TWAS Secretariat, Third World Academy of Sciences (TWAS), c/o International Centre for Theoretical Physics (ICTP), P.O. Box 586, 34100 Trieste, Italy. Tel: +39 40 2240-327; Fax: +39 40 224559; E-mail: twas@ictp.trieste.it; www home page: http://www.ictp.trieste.it/~twas/TWAS.html

UNIVERSITY OF BALLARAT COURSES IN ECONOMIC GEOLOGY (Ballarat, Australia)

A range of short intensive courses, aimed at practising geoscientists in mineral exploration.

Details from Associate Professor W.R.H. Ramsey, School of Mining, Geology and Metallurgy, University of Ballarat, P.O. Box 663, Ballarat, Victoria 3353, Australia. Tel: 053 279 261; Fax: 053 279 144; E-mail: set@fs3.ballarat.edu.au

WATER RESOURCES ENGINEERING

(Leuven and Brussels, Belgium). One-year diploma course and two-year MSc degree course in water resources engineering, the latter with options in hydrology, irrigation and water quality management under IUPWARE.

Interuniversity Programme in Water Resources Engineering. Fellowships available: enquire at Belgian embassies. Language: English. IUPWARE organises also annually a Summer School (July-September) on micro-computer applications for water resources management.

Details of Diploma Course from IUPWARE - Institute for Land and Water Management (KUL), Vital Descosterstraat 102, 3000 Leuven, Belgium.

Details of MSc Course from IUPWARE - Laboratory of Hydrology, VUB, Dienst Hydrologie, Pleinlaan 2, 1050 Brussels, Belgium.

Details of Summer School from IUPWARE - Institute for Land and Water Management (KUL), Vital Descosterstraat 102, 3000 Leuven, Belgium. Web site: <http://www.tw.vub.ac.be/ond/hydr/pantar/homepage.htm>

WEDC (Water, Engineering and Development Centre). Concerned with water and urban infrastructure. Courses offered range in duration from 3 weeks to 12 months, deal with a wide variety of water, engineering, developmental, environmental, and management topics, and lead to certificates, diplomas, or MSc degrees.

Details from Kathy Brown, WEDC, Loughborough University, Leicestershire LE11 3TU, UK. Tel: +(44) 1509 222885; Fax: +(44) 1509 211079; E-mail: WEDC@lboro.ac.uk

Other organizations that offer specific training courses in a variety of earth-science-related fields:

● **GDTA** (Groupement pour le Développement de la Télédetection Aérospatiale). Parc Technologique du Canal, 8-10 rue Hermes, 31526 Ramonville S Agne Cedex, France. Tel: 33 (0) 5 61 39 49 00; Fax: 33 (0) 5 61 39 49 59.

ESRIN (European Space Agency) Via Galileo Galilei, 00044 Frascati, Rome.

GSA (Geological Society of America) Continuing Education Coordinator, 3300 Penrose Place, PO Box 9140, Boulder CO 80301, USA.

IGAC (Instituto Geográfico 'Agustín Codazzi', Apartado Aéreo 53754 y 6721, Bogotá 2, Colombia. Fax: (571) 3680950.

IISSE (International Institute of Seismology and Earthquake Engineering), Building Research Institute, Ministry of Construction, 1 Tatehara, Tsukuba, 305, Japan. Tel: +81 298-64 6677, +81 298-64 2151 (switchboard) ext 450; Fax: +81 298-64 6777 (Aitn Ken Sudo)

Four courses are available:

- 11-month course for young seismologists and earthquake engineers;
- Two-month course (biennially) for advanced experts;
- Individual course for advanced experts to a maximum of one year; and
- 45-day course in global earthquake observation.

UNESCO (United Nations Educational Scientific and Cultural Organization), 7 place de Fontenay, 75700 Paris, France.

Wadia Institute of Himalayan Geology

33 General Mahadeo Singh Road, Dehra Dun 248 001, India

Tel: 91-135-624806, 627387; Telex: 585 326 WIHG IN;

Fax: 91-0135-625212; Email: wihg@sirnetd.ernet.in

VISITING SCIENTISTS SCHEME

Aimed at promoting national and international cooperation in research and training in Earth Sciences disciplines, Wadia Institute of Himalayan Geology has launched a scheme of Visiting Fellowships. The Scheme offers opportunities for taking up studies related to Himalayan geology and geophysics to be carried out at the Institute in collaboration with the Institute scientist(s). The tenure of stay under the Scheme shall be for 2 to 3 months, extendible to a maximum of one year in exceptional cases. Four persons shall be invited in a financial year (April-March), of whom at least two shall be below the age of 45 years. In addition to a monthly honorarium (variable from Rs 3000 to Rs 6000, depending upon qualifications and experience) and, as far as possible, a single room accommodation, suitable funds shall be made available for field work, if any, related to the proposed research work. An Indian Visiting Scientist will be entitled to TA & DA as per his/her entitlement from parental place of work and back. In the case of a foreign Visiting Scientist, TA & DA will be paid from international airport/seaport of landing in India to the Institute and back to international airport/seaport.

Application on the prescribed application form are invited under Scheme for the year 1996-97 from researchers from academic institutions of higher learning, R & D laboratories and scientific organisations in India and abroad. The applications must reach the Director, Wadia Institute of Himalayan Geology, Dehra Dun latest by **November 30, 1997**. For application forms and Terms & Conditions governing the Scheme (available free of cost) write to the Registrar, WIHG, Dehra Dun. For any query, contact Dr. M. I. Bhat, Programme Incharge.