

ROLE OF MAGNETOTELLURICS IN GEOPHYSICAL PROSPECTING. By Adam, A., Association of Exploration Geophysicists (AEG), Hyderabad, 1985, pp. 80, Rs. 75.00, (U.S. \$ 15.00)

Professor Adam has earned great reputation for his innovative research on theory and application of electromagnetic and magnetotelluric methods. The publication of this monograph, therefore, is a laudable effort by AEG.

The monograph is broadly divided into two parts. The first part is devoted to theory and data acquisition, while the second, to the application to a variety of geological and engineering problems.

Basic theory, inhomogeneities in the source as well as in the earth, data acquisition and processing have been covered in mere 22 pages, as a result of which, readers with adequate background will appreciate it but to others it is just a skeleton. Professor Adam could have provided a more detailed account. The second part is focussed on some very interesting case histories, thereby emphasizing the versatility of the magnetotelluric method. Shallow exploration problems in civil engineering and ore deposits, deep structural and tectonic problems associated with earthquake prediction, geothermal resources exploration, sedimentary basins in the search of petroleum, crustal and mantle conditions, – all such case studies show that the magnetotelluric method can be of immense value. ‘Capacitive sensor’ in recording of high frequency signals for civil engineering problems is a new addition to the existing method.

There are unfortunately some deficiencies. All the photographs and most of the illustrations are very poorly reproduced which makes the reading very strenuous and one is likely to lose interest after leafing through some pages of an otherwise interesting monograph.

Eq. 36 (p. 25) has a misprint, while in Fig. 22 (p. 31) identical legend has been used for black schists and chlorite. The description for Fig. 43 (p. 57) appears to be incorrect. A brief index could have been added. A few lines on ‘remote reference’ would have been welcome.

On the whole, this monograph gives glimpses of an exploration technique which has proved its usefulness during the last three decades.

*National Geophysical Research Institute
Hyderabad*

K. MALLICK