

## BOOK-REVIEWS

**The Indian and Eastern Engineer** – 120th Anniversary Number. Editor–  
M. DeSouza. S. K. Ghaswala. *Indian and Eastern Engineer, Piramal  
Mansion, 235, Dr. D. Naoroji Road, Bombay (Publishers). Price Rs. 20-00*

The Indian and Eastern Engineer is 120 years old. A successful completion of 12 decades of commendable and significant work in a developing country like India is in itself an achievement. The anniversary number marks the beginning of a new decade of social order in the world in which energy, trade, inflation, production, poverty and environment are going to be the main themes for discussion. And as the editors have rightly pointed out, it would be very desirable for the Indian scientists and technologists to identify new priorities based on changing human needs and particularly in such fields which are most relevant to the weakest sections of our society.

This anniversary number contains 28 articles and review papers in various disciplines of engineering and technology. These papers, written by eminent persons in their fields, cover general engineering, energy resources, resources engineering, shipping industry, electrical and electronics engineering, computer software and hardware, mechanical and metallurgical engineering.

On energy resources, four, out of the six papers, deal with solar energy conversion and utilization. While these papers give details of energy conversion by photosynthesis, the other two papers on ocean energy and energy through cellulosic biomass give at a glance the current status of the subject.

The remote sensing technology has achieved its own recognition in recent years on the exploration of natural resources. The paper on resources engineering gives a systematic approach of the utilization of surface and subsurface resources. Of the two papers on resources engineering, one gives an analysis of the water resources problems such as deficit, requirements and gives remedial measures for developing countries.

Seven review papers give the development of various industries in India. These also include information on their achievements gained through indigeneous research and development and their future capabilities. The areas of research and development include aeronautical engineering, shipping industry, electronic teleprinters, computers, microprocessors, [aluminium and alloy steel industries and other accessories.

Seven papers have been written on technical know-how, analytical and numerical solutions, experimental studies, instrumentations and designs and a number of articles are on control of marine pollution, design considerations of new oil tankers, instrumentation for nuclear reactors, progress in internal combustion engines, development in plastic processing and heavy electrical repairs, progress in fracture mechanism, delimiting the utility of non-linear programming algorithms and are dealt with in a very proficient fashion and in depth.

Articles of general interests on engineering education, technology assessment, role of management in industrial engineering and how to build a new future, are quite interesting. On engineering education, the paper recommends a change in the pattern of education, (on the line of medical education) to make it more problem-oriented. In the Indian context, it might be worthwhile to have an open debate on this subject. The papers on technology assessment and role of management present these problems with a new approach. The last article is particularly informative.

The anniversary number is extremely valuable and interesting not only for engineers but also for all readers who have interest in science and technology. The editing of the various articles, as usual, is good. It would be a valuable addition to any library, either personal or departmental and for the information and material it provides, the price is very reasonable.

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