

## BOOK REVIEW

**Electric Vehicle Development**—Proceedings of an International Conference, London. Published by Peter Peregrinus Limited, P.O. Box 8, Southgate House, Stevenage, Herts, SG1 1 HQ, England, 1977. Pp. 104. Price £ 7.50.

With traditional fuel supplies probably reaching the state of exhaustion by the end of the century, the transportation industry is confronted with a major crisis. In order to conserve hydrocarbon fuels for use where they are essential, it is imperative that the transportation industry must plan and switch over to electricity, the only alternative energy source. In Britain, an Electric Vehicle Development Group has been set up to further the use of electric road vehicles. This group has been a strong advocate of the view that even with contemporarily available technology, it is possible to replace many of the functions that are carried out by the internal combustion engines, particularly in the transportation of passengers and goods in urban areas. In order to bring about such a change, a great amount of work needs to be done in the development of not only advanced road vehicles, but also in the setting up of a supporting infrastructure.

The book under review is the proceedings of an international conference organized by this group, with the support of several interested professional bodies, in London, recently. The range of topics covered by this conference are grouped under the following heads :

- Battery power and electronics
- Operational systems and supply networks
- Engineering design and the power source
- Test programmes—fleet and individual vehicles
- International activities

The fifteen papers included in this volume, although not fully comprehensive, provide an excellent perspective of current technology and thinking.

Battery electric vehicles are by no means new. Electronic controls, improved vehicle constructional techniques and better batteries have not brought about a fundamental change in this technology. Thus, their main applications have been largely confined to off-the-road transportation. As brought out by this conference, there

have been impressive new initiatives in matching state-of-the-art technology and design techniques to road and other vehicles. Prototype buses and commercial vehicles are being tried out in several Western countries. Many appealing prototypes of the passenger car and the scooter have also been developed, which, however, are not considered economic at present. Clearly, there will be considerable further improvements in the energy storage, control and drive systems as well as in the vehicle construction. It must be noted that quite significant changes in the overall vehicle system infrastructure, as well as in the vehicles themselves, will be mandatory if battery electric vehicles of any kind are to be adopted on a very large scale.

Post 1990, battery electric road vehicles for certain duties may well have an important place and the volume under review is an excellent reference source on various aspects concerned with these vehicles.

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