

Preface

This literature survey is aimed at providing the vehicle design engineer with an update in vehicle and body systems. The author has scanned the considerable output of technical presentations during 1997–9 to extract and distil developing technologies of particular import to the working designer. The easily digestible presentation, with unusually high dependence on diagrammatic presentation, continues the popular style used for the original handbooks that were compiled by the author, and published by Professional Engineering Publishing. These are listed on the Related Titles page overleaf. *Advances in Vehicle Design* serves both as an update to the earlier volumes and as a stand-alone volume. The referenced leads provided in the text are intended to help designers and engineers from whatever background discipline. Widespread availability of computing power to designers and engineers has created the possibility of considerably shortening the lead-times between design conception and prototype manufacture. Much of the material covered here will assist in establishing predictive techniques.

Advances in Vehicle Design is an update of vehicle and body systems design in that it provides readers with an insight into analytical methods given in a wide variety of published sources such as; technical journals, conference papers, and proceedings of engineering institutions, for which a comprehensive list of references is provided. The analyses are therefore not necessarily fully developed or rigorously evaluated. Recourse to the original references is necessary particularly in order to understand the limiting assumptions on which the analyses are based.

Much of the analytical work is centred around impending legislation and, where this is quoted in the text, it is for illustration only and it is, of course, important to examine the latest statutes in the locality concerned. The list of references given at the end of the volume is a key element of the publication, providing where possible a link to the original publication source. Where the original publication is not available in bookshops, many of the sources can be found in libraries such as those of the Institution of Mechanical Engineers, London, or the Motor Industry Research Association, in Nuneaton, UK, as well as the British Library. Other similar repositories of technical information should be able to provide a selection of original source material. Where the source is a company announcement of techniques and systems, names, but not addresses, of the companies/consultancies are given. Most operate internationally and have different national locations, best found by enquiry in the country concerned. For the patent reviews in chapters six and seven, full specifications can be purchased from The Patent Office, Cardiff Road, Newport, NP9 1RH, UK.

JOHN FENTON