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## **Preface**

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### **Xiong Zhang**

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**Biographical notes:** Xiong Zhang is a Senior Engineer in Systems Engineering, Engineering Design and Development, General Dynamics Land Systems – Canada (GDLS-C). He graduated from Northern Jiaotong University at Beijing, China in 1983 and obtained his MSc in 1989 from the China Academy of Railway Sciences, where he gained five years of experience in design and analysis of railway vehicle systems. Sponsored with Overseas-Research-Student (ORS) awards by the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom and Tetley/Lupton Scholarship by the University of Leeds, he spent over two years studying the fundamentals of road vehicle dynamics and tyre modelling techniques under the guidance of Professor D.A. Crolla before he moved to Canada in 1997. He received his PhD in 2001, with a dissertation on non-linear finite element modelling and analysis of highly complex tyre structures at CONCAVE (CONcordia Centre for Advanced Vehicle Engineering) Research Centre of Concordia University, Montreal. His expertise involves vehicle dynamics, tyre modelling, suspension design, shock and vibration analysis, and test data interpretation. The results from his study on tire deformation/stress analysis were presented at international conferences and published in international journals. His particular research interests include off-road vehicle mobility and applications of advanced technologies in modelling soft-soil tyre interface for ground vehicle systems. He is a licensed member of the Professional Engineer Ontario, Canada. He joined the editorial board of IJHVS in 2007.

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This special issue of IJHVS provides a unique source of cutting-edge technologies for researchers and engineers who are engaged or interested in the research, design and development of superior land vehicle systems, as well as modelling and simulation of vehicle systems with special features.

In light of the original theme on military vehicles, the surprisingly encouraging responses to Call for Papers from experts in different areas of technical fields reveal the access for this special issue to be a forum covering subjects on both military and civilian vehicle systems. Accordingly, the title of the special issue has been extended from ‘The performance and dynamics of multi-wheeled and tracked military vehicles’ to ‘The performance and dynamics of diversified land vehicle systems’, to highlight the diversity of the topics addressed by the accepted papers. Focused on the concepts and techniques applicable to military vehicles, the special issue embraces subjects on wheeled and tracked military vehicles, on-road and off-road vehicles, as well as guided vehicles, demonstrating the latest achievements in different sectors of the vehicle

engineering community. It was intended that the technologies presented by each paper reflect the up-to-date progress in the related technical area and satiate the technical needs of global readers of IJHVS.

The exceeding responses to the call for papers, and the high quality of the submissions selected for publication, have meant that the Special Issue has to be published in two parts. The first part is this present issue and the second part will appear as IJHVS 2009 Volume 16 Nos. 1/2.

I would like to thank all the authors for their hard work, their excellent contributions, and their patience with the refereeing process. I would also like to express my indebtedness to the anonymous reviewers who provided valuable comments and suggestions that ensured the quality of the special issue. Finally, the support from the Engineering Design and Development (ED&D) Department of General Dynamics Land Systems – Canada (GDLS-C), which warrants the successful completion of the editorial process and the launch of the special issue, is gratefully acknowledged.