## **Foreword**

Recently, we have seen trillions of dollars from taxpayers being spent only to mitigate the contamination of financial institutions. If the country leaders could foresee what was going to happen, they would certainly have taken decisions to avoid the global financial tsunami. The problem is that, most of the time, we are pursuing short-term benefits, and not holistic and stable advancements in the activities we are doing. Fortunately, in Air Transportation many researchers are making efforts to provide safer, more secure, sustainable, reliable and environmentally-friendly systems. They are researchers from air transportation, operation research, computer science and other related areas. These people have not only sowed the seeds of a next generation for improving the air transportation continuously, the most significant results of which will be reaped in one or two decades. Despite knowing this, these researchers do not give up working with scarce or modest budgets in face of the huge challenges they will cope with. In view of the outbreak of epidemic and pandemic such as SARS and Human Swine Influenza, there is a need to strengthen the research in this area. If a financial amount, equivalent only to a negligible part of the crisis-curative money, could be available for extension of the research ideas in this book, it is believed that, in the near future, the human being will fly better and safer than birds and, more importantly, without taking them out of the sky.

After reading these chapters, I have been impressed on how the research work from researchers with different backgrounds and methodologies can be so unique and indispensable for the global air transportation system evolution. The topics explored in this book give to the readers an up-to-date and comprehensive understanding about how mathematical models and computer software can be developed and applied for improving the planning, design, operation and management of the air transportation systems. Their applications were demonstrated in numerical examples and practical cases, together with useful information and reliable references. I sincerely hope that this book will serve as a vehicle that stimulates novel research initiatives in air transportation studies.

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William H.K. Lam has been actively involved in research and professional activities. Particularly in the last ten years (1998-2007), he has successfully received 10 earmarked research grants from the Hong Kong Research Grants Council. Recently, Prof. Lam has been granted of HK\$ 100,000 from the Croucher Foundation for organizing the 18th International Symposium on Transportation and Traffic Theory (www.isttt18.org) in Hong Kong from 16th to 18th July 2009. Prof. Lam is currently the President of the Hong Kong Society for Transportation Studies (www.hksts.org) and the Chairman of the Civil Discipline Advisory Panel, the Hong Kong Institution of Engineers (www.hkie.org.hk). He is the Co-Editor-in-Chief of the SCI Journal of Advanced Transportation and the Editor-in-Chief of the SCI Journal – Transportmetrica.