Boundary Elements and Other Mesh Reduction Methods XXVIII

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BEM/MRM XXVIII

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Preface

The present volume contains the edited proceedings of the 28th World Conference on Boundary Elements and other Mesh Reduction Methods (BEM/MRM28) held at the beautiful island of Skiathos, Greece, in May 2006. This is the second conference of this series organized in Greece. The first (BEM23) took place in the island Lemnos in May 2001.

This series of international conferences, organized annually since 1978, with the collaboration of distinguished engineers and scientists at various places of the world, has served as the established forum for the advancement of the Boundary Element Method. It has attracted innovative contributions in the areas of fundamental principles, theoretical, computational and algorithmic aspects of the method as well as advanced applications to small and large scale engineering problems of the real world. All leading researchers in the five continents of the world, involved in the development of the BEM, have attended more than a few of these meetings and have presented original papers, which have helped to develop the BEM into a powerful modern computational tool for solving problems of engineering praxis. It is not an exaggeration to say that the proceedings of these BEM conferences together with the International Journal of Engineering Analysis with Boundary Elements constitute the BEM Treasure Chest of the BEM community.

The development of mesh reduction methods to simplify the computational techniques has attracted the attention of the community. As the BEM is inherently a mesh reduction method, the world conference has widened its scope to encompass these methods, hence the new name BEM/MRM. This extension has added vitality to these international scientific meetings by attracting new promising researchers in the field.

The present volume captures the results of excellent BEM/MRM work carried out by researchers from various parts of the world. It covers advanced formulations, advanced structural applications, damage and fracture mechanics, dynamics and vibrations, fluid flow, heat and mass transfer, electrical and electromagnetic problems and computational techniques.

The editors would like to express their gratitude to the members of the

International Scientific Advisory Committee and to other colleagues, for their assiduous review of abstracts and follow-up papers included in this book. Their diligent work has ensured the high quality of this volume. Finally, the authors are to be commended for the excellent contributions, which advance the area of computational methods and ensure the longevity of the BEM after nearly 30 years and present the MRM as the computational tool of the 21st century

The editors
Skiathos, 2006

Contents

Section 2: Advanced structural applications

Section 3: Heat and mass transfer

Section 4: Electrical engineering and electromagnetics

Section 5: Fluid flow

Section 6: Computational techniques

Section 7: Dynamics and vibrations

Section 8: Damage fracture and mechanics