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# Preface

The Boundary Element Conference – or to give it its full name – the International Conference on Boundary Element and other Mesh Reduction Methods – is now in its 29<sup>th</sup> year. The continued success of this important meeting is due to the strength of the work carried out by the community since the original conference took place in Southampton in 1978.

At that time Southampton University was a well know international centre for the application of boundary integral techniques in engineering, work initiated by Professor Hugh Tottenham and continued by the senior editor. The research taking place at that moment resulted in a series of theses, written by colleagues now recognised as the pioneers of BEM, and produced the first book on the technique (“The Boundary Element Method for Engineers” by C A Brebbia, Pentech Press, London, Halstead Press New York, 1978).

It also has two other important by products, the first was the beginning of this conference series and the second the launching of the International Journal of Engineering Analysis with Boundary Elements, which took place in the 1980’s. These initiatives produced two focuses for the work of the international scientific community and resulted in a wealth of papers that are frequently referenced in the literature.

Following the creation of the Wessex Institute of Technology in 1986, the bulk of the BEM research activities took place at WIT, where they still are one of the stronger areas of research.

WIT also continues to produce outstanding researchers, similar to those who in the past have now established their own groups worldwide and are directly associated with this conference.

The current meeting continues with the tradition of innovation and quality which have always been the trademarks of these conferences. The book contains a series of important sections:

- Meshless techniques
- Advanced formulations
- Dual reciprocity method

- Computational issues
- Fluid mechanics applications
- Heat and mass transfer
- Plates and shells
- Wave propagation
- Damage mechanics and fracture
- Electrical engineering & electromagnetics
- Inverse problems

BEM/07 was held on WIT's Campus in the New Forest which gave the participants the opportunity of appreciating the substantial growth of the Institute in the last few years. They were also able to discuss with WIT staff the application of BEM in a diversity of new areas.

The Editors appreciate the continuous support of the international community over a long period which resulted in the outstanding contributions published in this volume and the other 50 or so in the Series. They are also indebted to the members of the International Scientific Advisory Committee and other colleagues who helped to review the papers contained in this book.

The Editors  
New Forest, UK  
2007

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