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Foreword

Multimedia, computer graphics and broadcasting, bio-science and bio-technology, and intelligent urban computing are areas that attract many academics and industry professionals. The goal of the MulGrab, the BSBT, and the IURC conferences is to bring together researchers from academia and industry as well as practitioners to share ideas, problems, and solutions relating to the multifaceted aspects of these fields.

We would like to express our gratitude to all of the authors of submitted papers and to all attendees for their contributions and participation.

We acknowledge the great effort of all the Chairs and the members of Advisory Boards and Program Committees of the above-listed events. Special thanks go to SERSC (Science & Engineering Research Support Society) for supporting this conference.

We are grateful in particular to the following speakers who kindly accepted our invitation and, in this way, helped to meet the objectives of the conference: Zita Maria Almeida do Vale, Hai Jin, Goreti Marreiros, Alfredo Cuzzocrea and Osvaldo Gervasi.

We wish to express our special thanks to Yvette E. Gelogo for helping with the editing of this volume.

December 2012

Chairs of MulGraB 2012
BSBT 2012
IURC 2012

Preface

We would like to welcome you to the proceedings of the 2012 International Conference on Multimedia, Computer Graphics and Broadcasting (MulGraB 2012), the 2012 International Conference on Bio-Science and Bio-Technology (BSBT 2012), and the First International Conference on Intelligent Urban Computing (IURC 2012), which were held during December 16–19, 2012, at the Korea Woman Training Center, Kangwondo, Korea.

MulGraB 2012, BSBT 2012, and IURC 2012 provided a chance for academics and industry professionals to discuss recent progress in related areas. We expect that the conference and its publications will be a trigger for further research and technology improvements in this important field. We would like to acknowledge the great effort of all the Chairs and members of the Program Committee.

We would like to express our gratitude to all of the authors of submitted papers and to all attendees for their contributions and participation. We believe in the need for continuing this undertaking in the future.

Once more, we would like to thank all the organizations and individuals who supported this event and helped in the success of MulGraB 2012, BSBT 2012, and IURC 2012.

December 2012

Tai-hoon Kim on behalf of the Volume Editors

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