

# Preface

In the Name of Allah, Most Gracious and Most Merciful.

On behalf of the Faculty of Mechanical Engineering, Universiti Teknologi Malaysia and Akademia Baru Press, the editor would like to thank all the authors that contributed to this proceeding.

The topics covered in this proceeding include application of advanced materials in various engineering fields especially in applied mechanics & design, thermo-fluids, manufacturing process, aeronautics, oceanic, automotive and industrial process.

Because the contributions for this book come from various authors of various backgrounds, who themselves are experienced in their own right, they are responsible towards the contents of their work. Any questions, however, may be directed to the editor to be forwarded to the respective authors.

Finally, all of these chapters are presented as to share the knowledge and research findings with the readers. The editor hopes that this proceeding serves its purpose in disseminating knowledge and creating enthusiasm among the readers in the area of Mechanics and Applied research.

Nor Azwadi Che Sidik  
Department of Thermofluids  
Faculty of Mechanical Engineering  
Universiti Teknologi Malaysia  
2014

## **Organizing Committee**

Mdm. Rozanti A.Hamid  
Penerbit Akademia Baru  
ahrozanti@gmail.com

Dr. Nor Azwadi Che Sidik  
Department of Thermo-fluid,  
Faculty of Mechanical Engineering,  
Universiti Teknologi Malaysia, Malaysia  
azwadi@fkm.utm.my

Dr. Shervin Sharafatmandjoor  
Department of Mechanical and Aerospace Engineering,  
Science and Research Branch,  
Islamic Azzad University, Theran, Iran  
sharafatmandjoor@gmail.com

Dr. Saeed Jamei  
Department of Marine Engineering,  
Faculty of Engineering,  
Universiti teknologi Malaysia, Malaysia  
Jsaeed2@live.utm.my

Dr. M'hamed Beriache  
Faculty of technology,  
Department of Mechanical Engineering,  
University Hassiba Benbouali, Algeria  
m.beriache@gmail.com

Dr. Syahrullail Samion  
Department of Thermo-fluid,  
Faculty of Mechanical Engineering,  
Universiti Teknologi Malaysia, Malaysia  
syahruls@mail.fkm.utm.my

Dr. Nik Ahmad Ridhwan bin Nik Mohd  
Department of Aeronautical Engineering,  
Universiti Teknologi Malaysia, Malaysia  
ridhwan@fkm.utm.my

Dr. Khalid Saqr  
Mechanical Engineering Department,  
College of Engineering and Technology (Alexandria campus),  
Arab Academy for Science, Technology and Maritime Transport, Egypt  
khaledsaqr@gmail.com

Miss Siti Aisyah Razali  
Penerbit Akademia Baru  
ctecah@gmail.com

Mdm. Nuraliza Noorawzie  
Penerbit Akademia Baru  
nuralizanoorawzi@gmail.com