

Preface

Modern technologies and techniques in engineering and informatics have been multiplying in the last few decades, affecting the lives of people around the world. Such technologies have come to define modern lifestyles and must face up to the increasing challenges of morphing into sustainable and green technologies. In an effort to catch up with recent technological advances, which are in particular sustainable and have profound effects on people's lives, the British University in Egypt organised its first international conference entitled Sustainable Vital Technologies in Engineering and Informatics in Cairo, Egypt from November 7 to 9, 2016. This book contains papers from the conference, which have been selected to share with the research and professional communities. Focus of the research presented is on advances in (1) Structures, Built and Natural Environment, (2) Energy, (3) Advanced Mechanical Technologies, and (4) Electronics and Communications Technologies. Cultural Heritage, in particular, has several contributions, which focus on preservation, sustainability, adaptation, and rehabilitation. Low carbon/low energy building and/or retrofitting are addressed in a couple of contributions. In advanced mechanical technologies as well as electronic technologies, several papers are contributed with focus on health monitoring techniques and predictive maintenance. Other significant contributions found in this collection include a campus cooling plant, and utilization of nanoparticles to improve the performance of combustion engines.

The time and effort spent by the authors in participating in the conference and preparing the manuscripts for this book are greatly appreciated. The support and funds received from the British University in Egypt for this conference are gratefully acknowledged. Special thanks are due to the Scientific Committee and the Local Organising Committee.

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