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## PREFACE

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The world's economy is fuelled by energy. Depletion of resources and severe environmental effects resulting from the continuous use of fossil fuels has motivated an increasing amount of interest in renewable energy resources and the search for sustainable energy policies.

The changes required to progress from an economy mainly focused on hydrocarbons to one taking advantage of sustainable energy resources require considerable scientific research as well as the development of new engineering systems. Energy policies and management are of primary importance to achieve the development of sustainability and need to be consistent with recent advances in energy production and distribution.

In many cases, the challenges lie as much in the conversion from renewable energies (wind, solar, etc) to useful forms (electricity, heat, fuel) at an acceptable cost (including damage to the environment), as in the integration of those resources into an existing infrastructure.

The diverse topics covered by these papers involved collaboration between different disciplines in order to arrive at optimum solutions; including studies of materials, energy networks, new energy resources, storage solutions, waste to energy systems, smart grids and many others.

The Editors are especially grateful to the reviewers, as well as to the authors for their contributions.

*The Editors*  
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