
FOREWORD

Modern societies require an ever-increasing amount of energy resources, adding strain to the world economy and creating technological, as well as socio-political, challenges.

This journal aims to address the issues raised above and thus act as an interdisciplinary forum for researchers and practitioners from around the globe working in a variety of topics related to the future of energy production and management in a changing world.

It covers all aspects of energy research, development and recovery from both primary and renewable sources; power generation, storage and distribution; planning and management.

This journal deals with the comparison of conventional energy sources, particularly hydro-carbons, with a number of alternative ways of producing energy, based on renewable resources such as solar, hydro, wind and geothermal, and by applying new technologies. It also welcomes papers on energy use, including industrial processes, imbedded energy contents of materials, such as those used in the built environment, requirements in transportation, ICT and all other energy related activities.

A key issue is the conversion of new, sustainable sources of energy into useful forms (electricity, heat, fuel), while finding efficient ways of storage and distribution. In many cases, the challenges lie as much in the production of such renewable energy at an acceptable cost – including damage to the environment – as with integration of those resources into the existing infrastructure.

The changes needed to progress from an economy mainly based on hydrocarbons to one taking advantage of sustainable energy resources are massive and require considerable scientific research as well as the development of advanced engineering systems. Such progress demands close collaboration between different disciplines in order to arrive at optimum solutions.

Energy production, distribution and usage entail environmental risks that need to be better understood and reliably assessed. This issue relates to human environmental health as well as ecosystem behaviour and it is an important element of energy economics and management.

The Editors

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