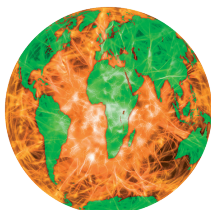


## Objectives



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.

**The International Journal of Energy Production and Management** aims to address the issues raised above and thus act as an interdisciplinary forum for researchers and practitioners from around the globe working on a wide variety of topics related to the future of energy production and management in a changing world.

The Journal covers all aspects of energy research, development and recovery from both primary and renewable sources; power generation, storage and distribution; planning and management. It deals with the comparison of conventional energy sources, particularly hydrocarbons, 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.

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*THE QUEST FOR SUSTAINABLE ENERGY*

Volume 2, Number 1, 2017

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### FREQUENCY AND FORMAT

The **International Journal of Energy Production and Management** will be published in four issues per year in colour. All issues will be supplied to subscribers both online (ISSN: 2056-3280) and in paper format (ISSN: 2056-3272).

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**ISSN: 2056-3280 (on line) and ISSN: 2056-3272 (paper format)**

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Printed in Great Britain by Printondemand Worldwide.

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## PREFACE

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This issue contains a selection of papers presented at the 2nd International Conference on Energy Production and Management in the 21st Century, “The Quest for Sustainable Energy”, organized by the Wessex Institute of Technology, UK, the Università Politecnica delle Marche, Italy, and the Ural Federal University, Russia.

The papers deal with many of the current issues related to energy production and management.

The quest for Energy can be seen as a unique long journey spanning over the history of humanity. As a matter of fact, humans have spent much of their lives struggling to achieve, gather, and manage energy.

In modern societies, the consumption of energy is one of the main indicators of the level of development. The rapid growth of the world population and the demand for higher living standards has led to the massive consumption of non-renewable energy sources with serious environmental consequences. While in the past many of these problems were localised, today we must talk of “global” pollution and the zone adversely affected is simply the whole world, mainly due to the extensive use of fossil fuels, and there is an urgent need to increase the use of renewable sources of energy.

Yet, the transition from an economy based on conventional energy to one relying on renewable sources represents a massive challenge. It requires new scientific and technological progress related not only to energy production but also to new ways of distribution, storage and usage, aiming to mitigate the negative environmental impacts associated with conventional energy. In this context, the complexity of modern energy production and management requires a multidisciplinary approach that can take into consideration not only advances in technology but also involves the environmental, economic, social and political aspects.

In such framework, the contributions in this issue present recent developments and experiences made in different parts of the world.

The digital version of the papers, as well as those resulting from the previous conference held in Ekaterinburg in 2014 are archived in Open Access format in the eLibrary of the Wessex Institute ([witpress.com/elibrary](http://witpress.com/elibrary)) where they are freely available to the international community.

The Editors are grateful to all authors for the quality of their contributions as well as to the colleagues who helped to review the papers and hence ensure the quality of this issue.

*The Editors*  
*Ancona, 2016*