# **ANNOUNCING A NEW JOURNAL**

# International Journal of ENERGY PRODUCTION AND MANAGEMENT

## THE QUEST FOR SUSTAINABLE ENERGY





The International Journal of ENERGY PRODUCTION AND MANAGEMENT THE QUEST FOR SUSTAINABLE ENERGY

### **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 Journal 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.

The Journal 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. 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 challenge lies 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 required 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.

## TOPICS

#### **Energy Management**

- Energy planning
- Power system management
- Energy efficiency; energy savings
- Energy economics
- Energy and economic growth
- Energy in the built environment
- Energy systems and networks
- Energy and transportation
- Energy use in industry
- Energy and development
- Safety management
- Energy security
- Energy policies
- Energy balance
- Optimal use of energy resources

#### **Energy Resources**

- Hydrocarbons: coal, natural gas, oil
- Offshore challenges
- Tight and shale fields, tar sands
- Biomass and biofuels
- Hydropower, uses and tools
- Nuclear energy
- Solar energy: thermal, photovoltaic, high-T
- Wind energy
- Waste to energy
- Geothermal
- Hydrogen
- Other renewable resources

#### **Energy Production**

- Energy recovery
- Energy analysis
- Processing of oil and gas
- Heat pumps and heat pipes
- Advanced power generation systems
- Safe nuclear energy generation
- Nuclear energy reprocessing and decommissioning

- Renewable sources
- Renewable energy: buildings, industry, transport
- Alternate energy sources and technologies
- Energy storage
- Energy conversion
- Green power plants
- Energy use in industry
- Life cycle assessment
- Hybrid/integrated energy systems
- Energy systems analysis and modelling
- Micro- and nano-energy systems

#### **Energy Distribution**

- Distribution networks
- Smart grid technologies
- Pipelines
- Power lines
- Maintenance
- Green ICT

#### **Materials and Energy**

- Imbedded energy
- Solar energy materials and solar cells
- Storage and conversion materials
- Fuel production materials
- New transportation and building materials
- Energy savings

#### **Environmental Issues**

- Energy conservation and sustainability
- Environmental impact
- Green buildings
- Environmental health risk
- Emissions and pollution control
- Air pollution control
- CO<sub>2</sub> capturing and storage
- Solid and hazardous waste
- Energy and climate change



Wessex Institute of Technology

Located amid the beautiful New Forest National Park in England, Wessex Institute of Technology (usually referred to as just Wessex Institute or WIT) is a unique organisation serving the international scientific community.

The overall aim of Wessex Institute is to develop a series of knowledge transfer mechanisms, particularly directed towards the exchange of information between academics and professional users within industry.

This is achieved through a range of activities organised by a dedicated team of staff both within the Institute and its associate companies. A large network of prestigious contacts and links have been established with many organisations throughout the world.

**Publishing:** WIT Press is the publishing arm of the Institute, which produces numerous scientific books, monographs, journals and edited works as well as the proceedings from the Institute's conference programme. This includes publication in digital as well as paper format.





## The International Journal of **ENERGY PRODUCTION AND MANAGEMENT** THE QUEST FOR SUSTAINABLE ENERGY

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