APPLIED THERMAL ENGINEERING

Design. Processes. Equipment. Economics

AUTHOR INFORMATION PACK

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DESCRIPTION

Applied Thermal Engineering publishes original, high-quality research papers and ancillary features, spanning activities ranging from fundamental research to trouble-shooting in existing plant and equipment.

Component and **system design** covers energy use both in the process and power industries, and in buildings, including passive thermal design techniques. For the former, the design problems associated with the integration of components into overall plant are also covered. Additionally, the reduction of water use and pollution prevention are of interest.

The journal features aspects of the **thermal engineering** of **advanced processes**, including process integration, intensification and development, together with the application of thermal equipment in process plants. The optimisation of processes to maximise performance is also included.

A wide range of **equipment** is relevant to *Applied Thermal Engineering*, such as heat exchangers (compact and advanced designs), heat pumps and refrigeration plant, heat pipes, combined heat and power and advanced cycles, polygeneration, heat transfer enhancement as applied to the above, and other unit operations involving thermal engineering procedures, including those related to renewable sources.

The **application** of thermal engineering is becoming critical in specific areas such as aerospace, electronics thermal management and medicine, as well as equipment used by the armed forces. Papers on such challenging applications are often a springboard for technology transfer to other areas, and are encouraged. Short communications in the form of 'Case Studies' will be considered.

A theme running through many papers will be **energy**. Energy conservation, including heat recovery, the rational use of energy and**renewable energy technologies** are inevitable features of thermal engineering across all applications. As we see an increasing interest in the use of, for example, renewable energy including solar energy in the process industries, the integration of renewable energy and 'conventional' processes is a topic of relevance. Improved efficiency and alternative equipment for reducing emissions is an increasingly important aspect of all energy use.

Economics plays a necessary role in the assessment of many thermal engineering projects. Submissions devoted to or considering the **financial implications** of equipment designs are welcome. Information on the different economic criteria applying in particular regions of the world is relevant.

Review articles on appropriate topics are encouraged. Before submitting such a paper, please contact one of the Regional Editors, or the Editor-in-Chief, with an outline of your proposed paper and your expertise in the area of your review.

Additional features include:
- Special issues devoted to emerging topics and new developments in the field
- Book reviews
- Policy and legislation reports related to the topics of *Applied Thermal Engineering*.

The Editors welcome letters on topics that readers feel are of interest to a wider audience.

Applied Thermal Engineering provides essential reference material and critical design feedback, with emphasis on thermal technologies as applied across a wide range of fields.

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