

Aims and Scope

The *INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTER SCIENCE (AMCS)* strives to meet the demand for the presentation of interdisciplinary research concerned with applications of mathematical methods to computer science and engineering. AMCS publishes high quality original research results in the following areas:

- mathematical methods in computer science and engineering,
- modern control theory and applications,
- artificial intelligence methods and their applications,
- applied mathematics and mathematical optimization approaches.

The scope of the journal is extensive. Topics include:

- Control systems: optimal control, distributed parameter systems, system identification, adaptive and robust control, non-linear systems, multi-dimensional systems.
- Mathematical and numerical modelling: ordinary and partial differential equations, numerical algorithms, simulation, applications.
- Artificial intelligence: artificial neural networks, fuzzy and expert systems, rough sets theory, evolutionary and genetic algorithms, search methods, cellular automata, soft computing, applications.
- Knowledge processing: knowledge elicitation and acquisition, knowledge representation, expert systems, data mining, data basis, applications.
- Fault detection, fault analysis and diagnostics: model-based systems, soft computing techniques, pattern recognition, state and parameter estimation, signal processing, applications.
- Optimization: mathematical optimization techniques, global optimization, evolutionary and genetic algorithms.
- Robotics: modelling and simulation, optimal control, controllability, parameter and state estimation, optimal trajectory planning, singularities.

The *International Journal of Applied Mathematics and Computer Science* is issued quarterly. It is indexed by *Zentralblatt MATH*, *Mathematical Reviews*, *Current Mathematical Publications*, *MathSciNet*, *INSPEC*, *VINITI* and *Applied Mechanics Reviews*.

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