# International Journal of
# applied mathematics and computer science

# Profile

## About

The *International Journal of Applied Mathematics and Computer Science* is a quarterly published jointly by the University of Zielona Góra and the Lubuskie Scientific Society in Zielona Góra, Poland, since 1991. It strives to meet the demand for the presentation of interdisciplinary research in various fields related to control theory, applied mathematics, scientific computing, and computer science.

In particular, *AMCS* publishes high quality original research results in the following areas:
*modern control theory and practice*
*artificial intelligence methods and their applications*
*applied mathematics and mathematical optimisation techniques*
*mathematical methods in engineering, computer science, and biology.*

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## Impact Factor

**0.794** (2010), 0.684 (2009)

# Editors

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# Guide

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*Authors:* O. Terzo, A. Carpen-Amarie, J. Kołodziej, M. Hall-May, H. González-Vélez, G. Di Modica, F.A. López-Fuentes

2011, Vol. 21, No. 1: Special section
SEMANTIC KNOWLEDGE ENGINEERING
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COMPUTATIONAL INTELLIGENCE IN MODERN CONTROL SYSTEMS
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*Authors:* M. Ławryńczuk, K. Patan, G.J. Nalepa, R.K. Nowicki, D. Belter

2009, Vol. 19, No. 4: Special section
ROBOT CONTROL THEORY
*Editor:* Cezary ZIELIŃSKI
*Authors:* K. Tchoń, M. Michałek, A. Mazur, P. Skrzypczyński

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*Authors:* B. G.-Tóth, A. Rauh, J.-P. Merlet, R. Pepy, N. Dimitrova, E. Auer, M. Tändl, M. Freihold, J.A. Enszer

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# AIMS & SCOPE

The *International Journal of Applied Mathematics and Computer Science* strives to meet the demand for the presentation of interdisciplinary research in various fields related to control theory, applied mathematics, scientific computing, and computer science. In particular, it publishes high quality original research results in the following areas:

- modern control theory and practice

- artificial intelligence methods and their applications

- applied mathematics and mathematical optimisation techniques

- mathematical methods in engineering, computer science, and biology.

We are primarily interested in presenting theoretical and application-oriented papers dealing with the following topics:

- artificial intelligence, including neural networks, knowledge engineering, reasoning and learning models, expert and decision support systems, fuzzy systems, and search methods

- control theory, including optimal control, system identification, adaptive and robust control, multivariable control, and non-linear systems

- dynamical systems, including spatiotemporal processes, control problems, sensor networks, and state and parameter estimation

- robotics, including modelling and simulation, mobile robots, and optimal trajectory planning

- fault detection and diagnosis, including model-based approaches, observers, and classifiers

- fault-tolerant control, including the control of continuous-variable and quantised systems

- mathematical biology

- mathematical modelling and simulation, including numerical algorithms

- optimisation, including mathematical optimisation techniques, global optimisation, and evolutionary algorithms

- pattern recognition

- signal processing

- applications in engineering and medicine.

The editors welcome proposals for exchange between similar journals. Also, all persons interested in bringing out special issues of *AMCS* are encouraged to contact the Editor-in-Chief. Such issues may be published on any important and timely subject within the scope of the journal. All papers proposed for specials should be refereed and meet the same criteria for scientific quality as articles presented in regular issues.

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For more information, visit our website at `www.amcs.uz.zgora.pl`.