

## JOŽEF STEFAN INSTITUTE

*Jožef Stefan (1835-1893) was one of the most prominent physicists of the 19th century. Born to Slovene parents, he obtained his Ph.D. at Vienna University, where he was later Director of the Physics Institute, Vice-President of the Vienna Academy of Sciences and a member of several scientific institutions in Europe. Stefan explored many areas in hydrodynamics, optics, acoustics, electricity, magnetism and the kinetic theory of gases. Among other things, he originated the law that the total radiation from a black body is proportional to the 4th power of its absolute temperature, known as the Stefan–Boltzmann law.*

The Jožef Stefan Institute (JSI) is the leading independent scientific research institution in Slovenia, covering a broad spectrum of fundamental and applied research in the fields of physics, chemistry and biochemistry, electronics and information science, nuclear science technology, energy research and environmental science.

The Jožef Stefan Institute (JSI) is a research organisation for pure and applied research in the natural sciences and technology. Both are closely interconnected in research departments composed of different task teams. Emphasis in basic research is given to the development and education of young scientists, while applied research and development serve for the transfer of advanced knowledge, contributing to the development of the national economy and society in general.

At present the Institute, with a total of about 900 staff, has 700 researchers, about 250 of whom are postgraduates, around 500 of whom have doctorates (Ph.D.), and around 200 of whom have permanent professorships or temporary teaching assignments at the Universities.

In view of its activities and status, the JSI plays the role of a national institute, complementing the role of the universities and bridging the gap between basic science and applications.

Research at the JSI includes the following major fields: physics; chemistry; electronics, informatics and computer sciences; biochemistry; ecology; reactor technology; applied mathematics. Most of the activities are more or less closely connected to information sciences, in particular computer sciences, artificial intelligence, language and speech technologies, computer-aided design, computer architectures, biocybernetics and robotics, computer automation and control, professional electronics, digital communications and networks, and applied mathematics.

The Institute is located in Ljubljana, the capital of the independent state of Slovenia (or S<sup>o</sup>lnia). The capital today is considered a crossroad between East, West and Medi-

terranean Europe, offering excellent productive capabilities and solid business opportunities, with strong international connections. Ljubljana is connected to important centers such as Prague, Budapest, Vienna, Zagreb, Milan, Rome, Monaco, Nice, Bern and Munich, all within a radius of 600 km.

From the Jožef Stefan Institute, the Technology park “Ljubljana” has been proposed as part of the national strategy for technological development to foster synergies between research and industry, to promote joint ventures between university bodies, research institutes and innovative industry, to act as an incubator for high-tech initiatives and to accelerate the development cycle of innovative products.

Part of the Institute was reorganized into several high-tech units supported by and connected within the Technology park at the Jožef Stefan Institute, established as the beginning of a regional Technology park “Ljubljana”. The project was developed at a particularly historical moment, characterized by the process of state reorganisation, privatisation and private initiative. The national Technology Park is a shareholding company hosting an independent venture-capital institution.

The promoters and operational entities of the project are the Republic of Slovenia, Ministry of Higher Education, Science and Technology and the Jožef Stefan Institute. The framework of the operation also includes the University of Ljubljana, the National Institute of Chemistry, the Institute for Electronics and Vacuum Technology and the Institute for Materials and Construction Research among others. In addition, the project is supported by the Ministry of the Economy, the National Chamber of Economy and the City of Ljubljana.

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Since 1977, Informatica has been a major Slovenian scientific journal of computing and informatics, including telecommunications, automation and other related areas. In its 16th year (more than twentyfour years ago) it became truly international, although it still remains connected to Central Europe. The basic aim of Informatica is to impose intellectual values (science, engineering) in a distributed organisation.

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## An International Journal of Computing and Informatics

Web edition of Informatica may be accessed at: <http://www.informatica.si>.

**Subscription Information** Informatica (ISSN 0350-5596) is published four times a year in Spring, Summer, Autumn, and Winter (4 issues per year) by the Slovene Society Informatika, Litostrojska cesta 54, 1000 Ljubljana, Slovenia.

The subscription rate for 2018 (Volume 42) is

- 60 EUR for institutions,
- 30 EUR for individuals, and
- 15 EUR for students

Claims for missing issues will be honored free of charge within six months after the publication date of the issue.

Typesetting: Borut Žnidar.

Printing: ABO grafika d.o.o., Ob železnici 16, 1000 Ljubljana.

Orders may be placed by email ([drago.torkar@ijs.si](mailto:drago.torkar@ijs.si)), telephone (+386 1 477 3900) or fax (+386 1 251 93 85). The payment should be made to our bank account no.: 02083-0013014662 at NLB d.d., 1520 Ljubljana, Trg republike 2, Slovenija, IBAN no.: SI56020830013014662, SWIFT Code: LJBASI2X.

Informatica is published by Slovene Society Informatika (president Niko Schlamberger) in cooperation with the following societies (and contact persons):

Slovene Society for Pattern Recognition (Simon Dobrišek)

Slovenian Artificial Intelligence Society (Mitja Luštrek)

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Informatica is financially supported by the Slovenian research agency from the Call for co-financing of scientific periodical publications.

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# *Informatica*

An International Journal of Computing and Informatics

Introduction to the Special Anniversary Issue on AI in Slovenia	M. Luštrek, J. Žabkar, M. Grobelnik	1
Early Machine Learning Research in Ljubljana	I. Kononenko	3
AlphaZero - What's Missing?	I. Bratko	7
Explanation of Prediction Models with ExplainPrediction	M. Robnik-Šikonja	13
Semantic Annotation of Documents Based on Wikipedia Concepts	J. Brank, G. Leban, M. Grobelnik	23
Continuous Blood Pressure Estimation from PPG Signal	G. Slapničar, M. Luštrek, M. Marinko	33
Quantitative Score for Assessing the Quality of Feature Rankings	I. Slavkov, M. Petković, D. Kocev, S. Džeroski	43
Arguments in Interactive Machine Learning	M. Možina	53
An Inter-Domain Study for Arousal Recognition from Physiological Signals	M. Gjoreski, M. Luštrek, M. Gams	61
Computational Creativity Conceptualisation Grounded on ICCG Papers	S. Pollak, G.A. Wiggins, M. Žnidaršič, N. Lavrač	69
Towards Creative Software Blending: Computational Infrastructure and Use Cases	M. Martinc, M. Žnidaršič, N. Lavrač, S. Pollak	77
Graph Theoretical View on Text Understanding	J. Zupan	85
<hr/> <i>End of Special Issue / Start of normal papers</i>		
A Segmentation-Recognition Approach with a Fuzzy-Artificial Immune System for Unconstrained Handwritten Connected Digits	H. Merabti, B. Farou, H. Seridi	95
Load Balancing for Virtual Worlds by Splitting and Merging Spatial Regions	U. Farooq, J. Glauert, K. Zia	107
Microscopic Evaluation of Extended Car-following Model in Multi-lane Roads	H. Lazar, K. Rhouami, M.D. Rahmani	117
Prediction of Sentiment from Macaronic Reviews	S. Kaur, R. Mohana	127
Application of Distributed Web Crawlers in Information Management System	B. Wen	137

