Robert Kudelić

✉ **Email:** robert.kudelic@foi.unizg.hr

Gender: Male **Date of birth:** 10/07/1985 **Place of birth:** Croatia **Nationality:** Croatian

ABOUT MYSELF

Robert Kudelić earned his PhD in combinatorial optimization and Feedback Arc Set (FAS) by designing a Monte Carlo randomized algorithm for FAS, the first such algorithm of its kind. A university professor, he has published in a number of high-quality journals, received a reward for outstanding reviewing from Elsevier, received a dean's award for his high-impact scientific work, and, among other accomplishments, published the first extensive and state-of-the-art monograph on FAS with Springer. In his research, he deals with innovation in randomized algorithms, combinatorial optimization, computational intelligence, quantum computing, and information systems, as well as related topics and algorithmics in general. His teaching at the university is related to the aforementioned topics. He currently resides in Croatia.

WORK EXPERIENCE

University of Zagreb Faculty of Organization and Informatics

City: Varaždin | **Country:** Croatia

[2025 – Current] **Associate professor**

Theoretical and Applied Foundations of Information Science

University of Zagreb Faculty of Organization and Informatics

City: Varaždin | **Country:** Croatia

[2019 – 2025] **Assistant Professor**

Theoretical and Applied Foundations of Information Science

University of Zagreb Faculty of Organization and Informatics

City: Varaždin | **Country:** Croatia

[2015 – 2019] **Higher Research Assistant/Postdoc**

Theoretical and Applied Foundations of Information Science

University of Zagreb Faculty of Organization and Informatics

City: Varaždin | **Country:** Croatia

[2009 – 2015] **Research Assistant**

Theoretical and Applied Foundations of Information Science

PROJECTS

[2022 – 2026] **AI & Gaming EDIH**

Digital transformation of Central Croatia and Northern Adriatic through AI & Gaming EDIH

[2021 – 2023] **WAI4PwD**

Web Accessibility and other Initiatives for Persons with Disabilities in EU in Pandemic and other Crisis Times

[2021 – 2023]	**RCK Sisak—videogames**
	Development of occupational standards, qualifications, curricula, teaching materials, digital educational content based on virtual and augmented reality, and organizing training related to video game development within the RCK Sisak
[2017]	**New language for graph databases**
	Exploration of certain aspects of graph databases and an extension to the Neo4j system
[2015 – 2016]	**New methods for teaching programming with special emphasis on teaching persons with eyesight impairment**
	New methods for teaching programming with special emphasis on teaching individuals with eyesight impairment are being developed to ensure inclusivity in the tech field
[2014 – 2017]	**ModelMMORPG**
	Large-Scale Multi-Agent Modeling of Massively Multi-Player On-Line Role-Playing Games
[2013 – 2014]	**OOVASIS**
	Organizational design of multi-agent systems in the internet of things
[2008 – 2013]	**Automatization of Information System Design Processes**
	The project investigates areas of IS design that can be automated by creating computer algorithms to automate certain IS design procedures
[2007 – 2013]	**SMVAS**
	The aim of the project is to explore new possibilities of extending the formal KPL language (modal logic that results from extending propositional logic by epistemic modal operators) and UML

EDUCATION AND TRAINING

[2009 – 2015]	**Ph.D. (Information Science)**
	University of Zagreb Faculty of Organization and Informatics
	City: Varaždin | **Country:** Croatia |
[2004 – 2008]	**Master of Informatics (Information Science)**
	University of Zagreb Faculty of Organization and Informatics
	City: Varaždin | **Country:** Croatia |

LANGUAGE SKILLS

Mother tongue(s): Croatian **Other language(s):** English

HONOURS AND AWARDS

[2020] **Special Recognition from the Dean for Outstanding Scientific Publication Awarding institution:** University of Zagreb Faculty of Organization and Informatics

[2017] **Outstanding Contribution in Reviewing Awarding institution:** Elsevier

[2015] **Outstanding Contribution in Reviewing Awarding institution:** Elsevier

NETWORKS & MEMBERSHIPS

[2024] **IEEE Senior Member**   New York

IEEE

BOOKS

[2022] **Feedback Arc Set: A History of the Problem and Algorithms**

The main aim of the book is to give a review of all relevant information regarding a well-known and important problem of Feedback Arc Set (FAS). This review naturally also includes a history of the problem, as well as specific algorithms. To this point such a work does not exist: There are sources where one can find incomplete and perhaps untrustworthy information. With this book, information about FAS can be found easily in one place: formulation, description, theoretical background, applications, algorithms etc. Such a compendium will be of help to people involved in research, but also to people that want to quickly acquaint themselves with the problem and need reliable information. Thus research, professional work and learning can proceed in a more streamlined and faster way.

Link: https://doi.org/10.1007/978-3-031-10515-9

MEDIA ARTICLES

[2025] **How information drives the hidden order of the universe**

In a world dominated by data and algorithms, the concept of information plays a crucial role across various fields. From digital communications to biology and quantum physics, understanding how information works reveals fundamental truths about the universe. Scientists are now exploring the deeper meaning of functional information and its impact on complex systems. This exploration seeks to answer a profound question: What lies beneath the surface of our reality?

Link:

https://theacademic.com/how-information-drives-the-hidden-order-of-the-universe/

JOURNAL EDITORSHIP

[2025 – Current] **Journal of Computational Science**

Elsevier

CONFERENCES & SEMINARS

[2025] **NiDS—Program Committee**   Athens, Greece

Novel and Intelligent Digital Systems

Proceedings published by Springer

[2025] **ICICT—Session Chair**   London, UK

10TH International Conference on Information and Communication Technology

Proceedings published by Springer

[2024] **NiDS—Program Committee**   Athens, Greece

Novel and Intelligent Digital Systems

Proceedings published by Springer

[2023] **ICICT—Session Chair**   London, UK

Eight International Congress on Information and Communication Technology

Proceedings published by Springer

[2022] **FAIML—Program Committee**   Hangzhou, China

2022 International Conference on Frontiers of Artificial Intelligence and Machine Learning

Proceedings indexed by Scopus, Elsevier

[2020] **ISOCI—Editorial Board Member and Program Committee**   Berlin, Germany

2020 International Symposium on Computational Intelligence

Proceedings indexed by Scopus (Elsevier) and Web of Science

INTERNATIONAL TEACH-ING

[2024] **EDGE—TEACHING ENTREPRENEURSHIP AND CREATIVITY HANDS-ON**

Collaboration with the Pennsylvania State University and the University Paris Nanterre

MOBILITY

[2024] **Erasmus+**

Pennsylvania State University, US

[2023] **Erasmus+**

Pennsylvania State University, US

STUDENT ACHIEVEMENTS

[2007] **Microsoft Imagine Cup 2007 (Korea)**

Croatian finalist (world semifinalist) finish in the Software Design of the 2007 Imagine cup competition

WEB PLACES

Google Scholar

https://scholar.google.com/citations?hl=hr&user=ALyZplwAAAAJ

ORCID

https://orcid.org/0009-0003-1881-642X

Personal web page

https://cs.foi.hr/

Scopus

https://www.scopus.com/authid/detail.uri?authorId=49561383500

Web of Science

https://www.webofscience.com/wos/author/record/41386640