


PERSONAL INFORMATION




Saša Zelenika

 University of Rijeka – Faculty of Engineering, Vukovarska 58
 University of Rijeka – Centre for micro- and nano-sciences and technologies & Centre for Artificial Intelligence and Cybersecurity, Radmile Matejčić 2
 51000 Rijeka, Croatia

 + 385 – (0)51 – 651 538; 584 633
  + 385 – (0)95 – 813 46 76

 szelenika@uniri.hr; sasa.zelenika@gmail.com

 <https://orcid.org/0000-0003-1536-0132>;
<https://www.webofscience.com/wos/author/record/37754986>;
<https://www.scopus.com/authid/detail.uri?authorId=6506831761>;
<https://scholar.google.com/citations?user=YcVOqeQAAAAAJ&hl=en&oi=ao>;
<https://www.croris.hr/osobe/profil/8489>;
<https://www.linkedin.com/in/sasa-zelenika-a0854a13/?originalSubdomain=hr>

Married and father of three children.

CURRENT POSITION

Full professor with tenure in the field of Technical Sciences – Mechanical Engineering as well as Interdisciplinary Engineering Sciences & Vice-Rector

WORK EXPERIENCE

2021 →

Science management

University of Rijeka, Croatia

- Vice-Rector for Strategic Projects (previously: Rector's Assistant for International Cooperation and Strategic Partnerships (2018-2021)); member of the Council for Science and Deputy Head of Centre for Micro- and Nanosciences and Technologies (since 2020, previously Head of Centre).

2004 →

Science and teaching staff

University of Rijeka – Faculty of Engineering, Rijeka, Croatia

- Full Professor with Tenure (previously Assistant, Associate & Full Professor) and Head of Precision Engineering Laboratory. Acted as Head of the Department of Mechanical Engineering Design (2008–2010) & Dean's Assistant (2007-2008). In 2005-2009 also Guest Professor at the University of Udine, Italy. Scientific work on precision engineering and microsystems technologies.

2012 – 2014

State Official

Ministry of Science, Education and Sports of the Croatian Government, Zagreb, Croatia

- Deputy Minister (previously: Assistant Minister for Science and Technology); budget responsibility of up to, practically, 1.5 billion € per year and a sector of ca. 90'000 employees.

1998 – 2005

Scientific (project) management and R&D work

Paul Scherrer Institut, Villigen, Switzerland

- Head of the Division of Mechanical Engineering Sciences (ca. 90 people and budget of ca. 10 million CHF/year); previously Head of Mechanical Engineering Group at the Swiss Light Source project.

1996 – 1998

Development engineer for innovative mechanical products

Calortecnica, Piombino Dese (PD), Italy and then Danieli & Co., Buttrio (UD), Italy

- Project leader and then Chief Researcher and Head of a research group in the R&D Centre.

1991 – 1996

PhD student and Micromechanics Laboratory staff

Sincrotrone Trieste, Trieste, Italy

- Consultant and scholarship holder of United Nations, the ICTP, and the European Union programs.

EDUCATION AND TRAINING

1996 →

Scientific and professional specialization

EUSPEN, CISM and other institutions in Italy, Switzerland, Germany, Austria, France and Croatia → 18 seminars, courses, and schools in the fields of precision engineering, microsystems' technologies, vacuum technology, management of science and scientific (including EU) projects as well as quality.

1992 – 1996

D. Sc. in mech. eng. (design & construction of machines)

Level 8.2 of the CQF

Polytechnic University of Turin, Italy

1986 – 1991

M. Sc. in mechanical engineering

Level 7 of the CQF

University of Rijeka – Faculty of Engineering, Rijeka, Croatia

1984 – 1985

High school diploma

Level 4.2 of the CQF

Redmond High School, Redmond, WA, USA

1973 – 1984

Elementary and Secondary School

CQF levels 1 & 4

Elementary school „Dolac” and then Secondary School in Italian language, Rijeka, Croatia.

PERSONAL SKILLS

Mother tongue(s)

Croatian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Italian	C2	C2	C2	C2	C2
English	C2	C2	C1	C1	C2
German	B1	B1	B2	B2	B1
Slovenian	B2	B2	B1	B1	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user - Common European Framework of Reference for Languages

Social and organisational skills

High attitude towards human relationships, communication skills, team spirit. Possess working autonomy, creativity, high leadership potential, a versatile personality as well as a high attitude towards organizing and optimizing performances of interdisciplinary and multinational work teams. Hobbies: literature, journalism, swimming, and photography.

Technical skills

Broad experience in using ICT technologies (several operating systems, programming languages, word-processors, numerical manipulators, programs for data elaboration, CAD programs, programs for resources' management, graphical-programming languages, numerical analysis programming packages, ...). Considerable experience with laser interferometric systems for measurements in the micromechanics field, data acquisition and control systems.

Community work

Initiator and organiser of the "Rijeka of Technologies" event (2018, 2023 & 2024). Member and then president of the evaluation committee of the "Eureka" competition for best scientific projects of high-school students (2005 - 2011). Volunteer at the European Short-course Swimming Championships (Rijeka, Croatia, December 2008), actively collaborated to an NGO program "Civitas, scientists and media against violence in schools" (2009 - 2011).

ADDITIONAL INFORMATION

Scientific work

Since 2016: **Member of the Croatian Academy of Technical Sciences** (previously Associate Member). Author of more than 220 scientific and professional publications, 2 textbooks, a patent, 62 scientific broadening newspaper articles, 115 broadening talks and 18 scientific broadening radio shows, and editor of several works.

Projects

Actively participated to the EU FP scientific projects: „Strengthening the capacity for excellence of Slovenian and Croatian innovation ecosystems to support the digital and green transitions of maritime regions (INNO2MARE)” (2023-2026), “Sustainable Careers for Researcher Empowerment (SECURE)” (2023-2025), „Open and Universal Science (OPUS)” (2022-2025), „YUFERING - YUFE Transforming R&I Through Europe-Wide Knowledge Transfer” (2021-2024), „Developing and Implementing hands-on training on Open Science and Open Innovation for Early Career Researchers - DIOSI” (2021-2022), „The role of cultural heritage in socio-economic development and preservation of democratic values - HERItage” (2019-2020), „GoldFish - Detection of Watercourse Contamination in Developing countries using Sensor Networks - Enlarged” (2013-2015), „Bioxhit - Biocrystallography on a Highly Integrated Technology Platform for European Structural Genomics” (2004-2005), „Handling and Assembly of Functionally Adapted Microparts” (2000-2001), „Frontier” (1997-1998) and „Microfabrication with Synchrotron Radiation” (1993-1995). Leads the EU Digital Europe Programme (DEP) project „European Digital Innovation Hub Adriatic Croatia (EDIH Adria)” (2023-2025) and participates to an EIT-HEI project “Inno4YUFE” (2021-2023), an EU structural funds (ERDF) project „Research Infrastructure for Campus-based Laboratories and Centres at the University of Rijeka” (2014-2015), the Erasmus+ projects YUFE (2019-2022) and YUFE 2030 (2022-2026) and the ESF project „STEM fairy-tale”. Principal investigator on 2 and investigator on one scientific project of the Croatian Ministry of Science, Education and Sports (2005-2014). Main researcher on one and participated to another projects of the Croatian Science Foundation (2007-2008). Active participation and Croatian Management Committee member in the EU COST Actions „European Network for the Mechanics of Matter at the Nano-Scale (MecaNano)” (2022-2026) and „Optimising Design for Inspection (ODIN)” (2019-2024) and participation in the Action “BEEkeeping products valorization and biomonitoring for the SAFETY of BEEs and HONEY (BeSafeBeeHoney)” (2024-2027). National leader of a Croatia-Slovenia bilateral scientific project (2020-2022). Researcher on one project funded by the Swiss National Science Foundation and one project founded by the Italian Science Ministry (2005-2009). Main researcher on one Croatian Business Agency's technological project (2011) and leader of several technological projects with the industrial sector (2016-2021). Leads two (2019-2025) and researcher on another (2013-2017) scientific project supported by the University of Rijeka.

Conferences and peer-reviewing activity

Member of International Program and/or Organising Committees of 25 scientific conferences. Member of the European Society for Precision Engineering and

Nanotechnology (EUSPEN) Council (2010–2012). Associate editor of the CC/SCI scientific journal „Precision Engineering” (2011-2015). Expert evaluator of the European Commission (EC) of Horizon 2020 EU framework programme research infrastructure proposals. Peer Reviewer of scientific articles submitted for publication to the journals „Review of Scientific Instruments”, „Journal of Synchrotron Radiation”, „Proceedings of the Institution of Mechanical Engineers”, „Precision Engineering”, „Measurement”, „Mechanics Based Design of Structures and Machines”, „Mechanism and Machine Theory”, „Engineering Optimization”, „IEEE Sensors Journal”, „Computers & Structures”, „IEEE Transactions on Instrumentation & Measurement”, „Mechanical Sciences”, „Measurement Science Review”, „International Journal of Solids and Structures”, „IEEE/ASME Transactions on Mechatronics”, „Environmental Modelling and Software”, „IEEE Internet of Things Journal”, „Heliyon”, „Neural Networks”, „Sustainable Energy Technologies and Assessments”, „Engineering Review”, „Transactions of FAMENA”, articles submitted to the international EUSPEN conferences, the IEEE International Conference on Robotics and Automation and the International Conference on Advanced Computer Control, as well as the scientific work submitted to programmes of the Italian Ministry of Education, University and Research, the Croatian Science Foundation, the National Science Centre Poland, and the Foundation of the University of Rijeka.

Teaching

Holds courses in 4 graduate subjects and chairs 2 post-graduate (doctoral) courses at the Faculty of Engineering of the University of Rijeka, Croatia. During the survey of students' opinion on the quality of teaching, the students value his teaching abilities as excellent and very good. Supervised 5 successfully completed D. Sc., 27 successfully completed M. Sc. and 16 completed B. Sc. theses at the Faculty of Engineering of the University of Rijeka, Croatia. Co-supervised 2 M. Sc. and 2 D. Sc. thesis abroad. Member of the committees for the evaluation of 17 D. Sc. theses abroad. Supervisor of 1 young researcher on an EU project and several traineeship students. Published 57 scientific papers with students he has supervised.

Memberships

Member of EUSPEN, the American Society of Mechanical Engineers, the Croatian Society for ICT, Electronics and Microelectronics (MIPRO), the Alumni of the Faculty of Engineering in Rijeka and the MENSA International society. One of the initiators and member of the executive committee of the NGO Forum for Ethics and the Development of Science and Higher Education (2007-2010). Member of the Universitas society for the development of higher education, Rijeka, Croatia (2007-2012).

Coordination of scientific activities

Member of the EC/EUA/EuroScience Implementation Group for the Coalition for Advancing Research Assessment (CoARA) (2022) and Leader of the HE CoARA Boost project “Open Science Collaboration for Research Career Advancement and Policy Innovation at UNIRI and UCY (OSCAR)” (2024-2025). Active participation of several working groups of the Young European Research University Network (YERUN) and the European University alliance YUFE (Young Universities for the Future of Europe) (2019 →).

Member of and active participation to a large number of committees during his term at the Ministry of Science (2012-2014), among which: meetings of the European Union Competitiveness Council, European Research Area Committee (ERAC), National operative body of the Croatian Government for the creation of the Strategy of Development of Education, Science and Technology, the Croatian Agency for SMEs, Innovation and Investments, the Agency for Investments and Competitiveness, the Intersectoral Working Group for the creation of the Strategy of Development of Croatian Entrepreneurship; in this role he also co-authored the Action plan „Science and Society” for Croatia and the „Croatian Research and Infrastructures Roadmap”.

Member of the Council of the Croatian National Innovation System (2008), the Steering Committee of the „Unity through Knowledge Fund” of the World Bank and the Croatian Government (2006-2008) as well as of several strategic bodies and committees of the University of Rijeka and the Faculty of Engineering in Rijeka, Croatia (2005 →).

Awards

Award for scientific excellence in project activities of the University of Rijeka (2020, 2021 and 2022), of the best poster (DAAAM Int. Symposium 2018), of the best student paper (under his mentorship) at the 37th MIPRO Int. Convention (2014). Award for the best innovation in the Primorsko-Gorski Kotar County (2013). Best Paper – Best Oral Presentation at the DAAAM Int. Symposium, Vienna, Austria (2004). During D. Sc. studies: Agostino A. Capocaccia prize of the Italian Association for Stress Analysis (1993). During university studies: in 4 academic years given the prize to the top ranked students; received the scholarship of the Rijeka community aimed at gifted students. During the stay in the USA: Academic Fitness Award and membership in the Honor Society.