


## PERSONAL INFORMATION



## Saša Zelenika

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Married and father of three children.

## CURRENT POSITION

## Full professor with tenure in the field of Technical Sciences – Mechanical Engineering

## WORK EXPERIENCE

- |             |   |
|-------------|---|
| 2004        | <b>Science and teaching staff</b><br>University of Rijeka – Faculty of Engineering, Rijeka, Croatia <ul style="list-style-type: none"> <li>▪ Full Professor with Tenure (previously Assistant, Associate &amp; Full Professor) and Head of Precision Engineering Laboratory. Acted as Head of the Department of Mechanical Engineering Design (2008–2010) &amp; Dean's Assistant (2007-2008). In 2005-2009 also concurrently Guest Professor at the University of Udine, Italy. Scientific work on precision engineering and microsystems' technologies.</li> </ul> |
| 2010        | <b>Science and teaching staff</b><br>University of Rijeka – Centre for micro- and nano-sciences and technologies, Rijeka, Croatia <ul style="list-style-type: none"> <li>▪ Laboratory Head; previously Head and Deputy Head of Centre.</li> </ul>   |
| 2012 – 2014 | <b>State Official</b><br>Ministry of Science, Education and Sports of the Croatian Government, Zagreb, Croatia <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>   |
| 1998 – 2005 | <b>Scientific (project) management and R&amp;D work</b><br>Paul Scherrer Institut, Villigen, Switzerland <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>  |
| 1996 – 1998 | <b>Development engineer for innovative mechanical products</b><br>Calortecnica, Piombino Dese (PD), Italy and then Danieli & Co., Buttrio (UD), Italy <ul style="list-style-type: none"> <li>▪ Project leader and then Chief Researcher and Head of a research group in the R&amp;D Centre.</li> </ul>  |
| 1991 – 1996 | <b>PhD student and Micromechanics Laboratory staff</b><br>Sincrotrone Trieste, Trieste, Italy <ul style="list-style-type: none"> <li>▪ Consultant and scholarship holder of United Nations, the ICTP and the European Union programs.</li> </ul>  |

## EDUCATION AND TRAINING

- |             |  |                      |
|-------------|--|----------------------|
| 1996        | <b>Scientific and professional specialization</b><br>EUSPEN, CISM and other institutions in Italy, Switzerland, Germany, Austria, France and Croatia<br>15 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 | <b>D. Sc. in mech. eng. (design &amp; construction of machines)</b><br>Polytechnic University of Turin, Italy  | Level 8.2 of the CQF |
| 1986 – 1991 | <b>M. Sc. in mechanical engineering</b><br>University of Rijeka – Faculty of Engineering, Rijeka, Croatia  | Level 7 of the CQF   |
| 1984 – 1985 | <b>High school diploma</b><br>Redmond High School, Redmond, WA, USA  | Level 4.2 of the CQF |
| 1984 – 1985 | <b>Elementary and Secondary School</b><br>Elementary school "Dolac" and then Secondary School in Italian language, Rijeka, Croatia.  | CQF levels 1 & 4     |

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	B1	B1
Slovenian	B1	B1	A2	A2	A1

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 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

Member and then president of evaluating 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 120 scientific and professional publications, 2 textbooks, a patent, 57 scientific broadening newspaper articles, 38 broadening talks and 18 scientific broadening radio shows (cf. the list of scientific and professional publications available on <http://bib.irb.hr/lista-radova?autor=258284>).

Projects

Actively participated to the EU FP scientific projects: "GoldFish" (2013-2015), "BioXhit" (2004-2005), "Handling and Assembly of Functionally Adapted Microparts" (2000-2001), "Frontier" (1997-1998) and "Microfabrication with Synchrotron Radiation" (1993-1995). Participates to an EU structural funds (ERDF) project "Research Infrastructure for Campus-based Laboratories and Centres at the University of Rijeka" (2014-2015). Principal investigator on 2 and investigator on one scientific projects of the Croatian Ministry of Science, Education and Sports (2005-2014). Main researcher on one and participated to another 2 projects of the Croatian Science Foundation (2007-2008). 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). Researcher on one scientific project supported by the University of Rijeka (2013-2017).

Conferences and peer-reviewing activity

Member of International Program and/or Organising Committees of 17 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 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", the journal "Engineering Review", articles submitted for presentation to the international conferences of EUSPEN and the IEEE Int. Conference on Robotics and Automation, as well as scientific work submitted to programmes of the Italian Ministry of Education, University and Research, the Croatian Science Foundation and the Foundation of the University of Rijeka, Croatia.

Teaching

Holds courses in 7 (pre)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 3 successfully completed D. Sc., 14 successfully completed M. Sc. and 12 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. Supervisor of 1 young researcher on an EU project and several traineeship students. Published 21 scientific papers with students he has supervised.

Memberships

Member of: EUSPEN, the American Soc. of Mech. Engrs (ASME), the Croatian Soc. of Mechanics (HDM), the Croatian Vacuum Soc. (HVD), the Croatian Soc. 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 Council of the Croatian National Innovation System (2008), the Steering Committee of the "Unity through Knowledge Fund" of the Word Bank and the Croatian Government (2006 - 2008) and of several strategic bodies and committees of the University of Rijeka and the Faculty of Engineering in Rijeka, Croatia (2005 - ).

Awards

Award for best student paper (under his mentorship) at the 37<sup>th</sup> MIPRO Int. Conv. (2014). Award for the best innovation in the Primorsko-Goranska County (2013). Best Paper – Best Oral Presentation Award at the DAAAM International 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 school 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.