
Mechatronics and Robotics Study Programme as a Driver of Regional Economic Development

prof. emer. dr. sc. **Nedjeljko Perić**, University of Zagreb,
Faculty of Electrical Engineering and Computing, Department of Control and Computer Engineering

Short description:

Mechatronics is an interdisciplinary engineering field integrating mechanical engineering, electrical engineering, electronics, control, and computing, while robotics is one of its most important application domains. The new three-year, university undergraduate programme in Mechatronics and Robotics at the University of Zadar is an important step in strengthening STEM education in Zadar and the wider region. Its justification, however, should not be viewed merely as an expansion of the academic portfolio, but primarily through its contribution to economic development. The programme should encourage Zadar County and neighbouring regions to place greater emphasis on manufacturing, automation, digitalisation, and the development of technologically advanced products and services. Sustainable development requires high-quality teaching staff, modern teaching and development laboratories, cooperation with companies, and practical work for students, particularly during the final year. Industry scholarships, joint projects, and laboratories open to companies can transform the programme into a nucleus of a regional innovation ecosystem. Its success should be measured not only by student numbers, but also by new jobs, technology projects, and growth of the manufacturing economy.

- - -

More about Nedjeljko Perić:

Professor Emeritus Nedjeljko Perić (born 1950) worked at the KONČAR Institute of Electrical Engineering from 1973 to 1993, researching, developing and designing control systems for various plants and processes. He initiated and coordinated a corporate programme on microprocessor-based control of electrical machines and contributed to innovative industrial solutions. Since 1993, he has been with the Faculty of Electrical Engineering and Computing, University of Zagreb (FER), developing advanced control systems for complex plants and processes, including renewable energy sources. He introduced numerous courses, served as a visiting professor at universities in Osijek, Split, Rijeka, and Mostar, and supervised students at all study levels. He is the author or co-author of 19 textbooks and lecture notes and more than 400 scientific and professional papers. He has led, coordinated or participated in over 100 research and development projects, in close cooperation with industry. He conceived and built FER's Laboratory for Renewable Energy Systems (LARES). He founded the Innovation Centre Nikola Tesla (ICENT) and served as its director from 2015 to 2022. He was Dean of FER for two terms. His awards include the Josip Lončar Gold Plaque, the Annual State Award for Science, the Fran Bošnjaković Award, the HATZ „Power of Knowledge“ Lifetime Achievement Award, and the Croatian State Award for Science for Lifetime Achievement.