

Ante Panjkota, PhD

Ante Panjkota finished his doctorate in 2015. With a thesis titled "Shadowed Clustering Methods for Imbalanced Data Sets," strongly connected with machine learning. Prof. Tamara Grujić, Ph.D. from the University of Split Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture, and prof. Igor Kononenko, Ph.D. from the University of Ljubljana Faculty of Computer and Information Science, jointly were the thesis supervisors. Since September 2018. Ante Panjkota is an assistant professor in the Department of Information Sciences of the University of Zadar. Before that, he was a teaching assistant and postdoctoral researcher in the Department of Economy and Naval department of the University of Zadar. Before that, he was a teaching assistant at the Polytechnic of Šibenik.

Ante Panjkota's scientific work is strongly oriented toward two main research fields. These fields are machine learning and biomechanics of sports, with significant emphasis on signal processing.

In the discourse of biomechanics, his efforts are focused on the biomechanics of rowing, where he developed a series of new experimental procedures. Besides that, he applied methods of artificial intelligence, precisely fuzzy logic, in the advancement of analysis of rowing kinematics.

Ante Panjkota's scientific focus in machine learning is on the problems of imbalanced data classification and problems of feature selection and feature extraction from raw datasets. Besides, his scientific interest encompasses the performance evaluation of machine learning algorithms and machine learning theory in general.

Collaboration areas in his scientific research with colleagues are 3D scanners and optical systems for kinematics analysis. Among further notable collaborations are the development of the EMG system, research in e-learning and e-business, and the possible usage of Internet-oriented technologies in an E-voting system. In recent times his scientific collaboration is expanded on interdisciplinary research using machine learning and data mining in CRM systems and digital marketing. Nevertheless, he also put some effort into engaging young fellow scientists - Ph.D. students in scientific work by co-authorship a few papers related to stock market prediction using deep learning and possibilities of machine learning in football data analysis.

The broader field of scientific and professional interest of Ante Panjkota, Ph.D., are analysis of algorithms in general, object-oriented programming, natural language processing, and data science.

Individually or with colleagues, he published many papers in international scientific conferences and journals with strict review processes. Moreover, he worked on a few scientific and professional projects as a researcher. From 2006. he is an external associate of the Laboratory for biomechanics, automatics, and systems of the University of Split Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture. Furthermore, he has been a member of the Laboratory of interactive systems and user experience of the University of Zadar till its beginning.

Additionally, he has been a reviewer of numerous scientific papers for notable indexed journals and international conferences.

Related to teaching activities, Ante Panjkota, Ph.D., taught IT Fundamentals, Business Information Systems, Computer Systems Fundamentals, Business Simulation, Business Intelligence, Introduction to Scientific and Professional Work, and Scientific Methodology. Current teaching includes Algorithms and Data Structures, Fundamentals of Object-oriented Programming, Advanced Object-oriented Programming, Introduction to Programming, Advanced Topics in Programming, Fundamentals of Information Technology, Introduction to Network Systems and Technologies, Data Mining, Natural Language Processing, Information Retrieval, and Methods of Data Science in Scientific Research. He also supervised many master's and bachelor's theses and published a few papers in conference proceedings with students he was a mentor or co-mentor.

From December 2019. He was named the head of the Undergraduate Professional Study of Information Technology at the University of Zadar.