TEHNIČKI FAKULTET
Sveučilište u Rijeci

PREDAVANJE

utorak, 03. lipnja 2014. u 10:00 sati

Predavonica P4, **Tehnički fakultet Sveučilišta u Rijeci**, Vukovarska 58, Rijeka

Doc. dr. sc. Marko Jankovec

Fakulteta za elektrotehniko Univeze v Ljubljani - LPVO
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Elektromagnetska kompatibilnost (EMC) u projektiranju

Electromagnethic compatibility (EMC) engineering

The following topics will be covered:

European legislation states that every electronic equipment that can emit electromagnetic waves or is susceptible to it has to be equipped with a CE mark. In this lecture you will find some answers to questions such as: Who holds the responsibility for a CE mark, what are the necessary steps to obtain it and what documents have to be issued? What is the new legislation approach and what are harmonized European standards? The basics of EMC and EMI will include possible sources, victims and propagation paths. We will explain difference between common mode and differential mode interference. How to suppress EMI to maintain EMC? Which are the most common EMC problems in our everyday life? How to start a new product design to keep the EMI maintained within the limits? Which are the most common EMI mechanism on the printed circuit board (PCB)? What are the most efficient techniques to suppress EMI on PCBs? Where to put an EMI filter? What is a ferrite bead and where to put it? How to choose and place a blocking capacitor for power supply. What are the most common mistakes in PCB design that causes severe EMI or even system malfunction?

About the lecturer:

Dr. Marko Jankovec is currently an assistant professor at the Faculty of Electrical Engineering in the University of Ljubljana. His teaching courses comprise construction of electronic devices and systems, computer tools and microprocessor electronics. Till now has been a supervisor to more than 50 diploma students. He has been awarded with a "Vidmarjeva nagrada" for exemplary teaching achievements as a teaching assistant. He has been a supervisor to a student group that won the international competition TI Analog Design Contest, held by the company Texas Instruments. His research focuses in measurement and test methods and systems in the field of photovoltaics and electronics. He is an author and co-author of 20 scientific papers, over 50 conference contributions and one chapter in a book. He is a leader of a R&D group that develops commercial PV monitoring systems including IV curve scanning instruments and power converters with maximal power point tracking. He is also a supervisor of several student research groups that develop market ready electronic systems. One of the student groups founded a startup company Multilux that develops indoor local positioning systems.