

Preface of the “Symposium on Dependable Mechatronic Systems”

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Mechatronic Systems are systems used commonly in industry nowadays. The most important challenge that designers, developers and manufacturers of such systems deal is that they accomplish the main purposes for which they were developed. One of these main purposes is that those systems must behave as expected and they must be considered dependable systems.

In this symposium we focus on aspects related with dependability of mechatronic systems. Aspects such as modeling, design, analysis, synthesis, control and interoperability of industrial mechatronic systems considering the five main domains involved: Mechanics, Electronics, Automation, Control and Informatics are highlighted for improving dependability of mechatronic systems.

The organizers aim to provide a venue where researchers, scientists, engineers and practitioners throughout the world can present and discuss the latest achievements and future directions to be followed in this domain.

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José Machado



He received his PhD degree in Mechanical Engineering – Automation, from University of Minho, Portugal (and, in simultaneous, in École Normale Supérieure de Cachan, France) in 2006. He is Assistant Professor at Mechanical Engineering department of University of Minho. He has authored, or co-authored, more than 100 refereed journal and conference proceeding papers. He has coordinated several Research Projects on Mechatronics and Automation domains and his main interests are related with design and analysis of dependable controllers for obtaining dependable mechatronic systems. He is a frequent paper reviewer for several journals, including Journal of Process Control, Control Engineering Practice, IEEE Transactions on Control Systems Technology and IEEE Transactions on Industrial Informatics. He is a member of IEEE and member of IFAC.

Sahin Yildirim



He received his Dip. Eng. Degree and MSc Degree from Erciyes University, Kayseri, Turkey, in Mechanical Engineering. He received his PhD degree from Cardiff University, UK. His research interests include: Artificial Neural Networks, System Dynamics and Control, Robot Control, Mechanical Vibrations, Suspension Systems. He has authored or co-authored over 50 refereed journal and conference proceeding papers in the above areas. Dr. YILDIRIM has chaired sessions at several international conferences. He is a frequent paper reviewer for several journals, including Mechanism and Machine Theory and IEEE Industrial Electronics. He is a member of IEEE. Also, he is editor of Mechatronic journal. He has held visiting Dr-ship in Cardiff University, 2001. Dr. Yildirim was awarded from Debrecen University as honorary Professor.