Univ.-Prof. Dr.-Ing. Cristina Tarín Sauer

- Date of birth: 27.09.1972, female
- Position: Full Professor (W3)
- Institute for System Dynamics, Faculty for Engineering Design, Production Engineering and Automotive Engineering, University of Stuttgart, Pfaffenwaldring 9, 70569 Stuttgart
- Tel. +49 711 685-66299/-66302
- E-Mail: cristina.tarin@isys.uni-stuttgart.de

Academic Education

- Diploma Thesis (1996): „Digital Video- and Data Transmission using Vertical Cavity Laser Diodes", Dep. Optoelectronics, University of Ulm, Germany, Supervisor: Prof. K.J Ebeling
- Master in Electrical Engineering (1991 – 1995), Special Focus on Telecommunication, Technical University of Valencia (Universidad Politécnica de Valencia UPV), Spain
- Ph. D. Thesis (2001): „Trajectory and Position Control of a Nonholonomic Autonomous Mobile Robot", Dep. Measurement, Control and Microtechnology, University of Ulm, Supervisor: Prof. Hofer

Professional Career

- Since 2009, Full Professor at the Institute for System Dynamics, University of Stuttgart
- 2005 – 2009, Leader of a research group focused on signal processing, information technology and systems dynamics in the area Mobile Communications of the Institute for Multimedia Applications and Telecommunications (Instituto de Telecomunicaciones y Aplicaciones Multimedia iTEAM) at the UPV, Spain
- 2003 – 2005: Research Grant of the German Research Association -- Deutsche Forschungsgemeinschaft (DFG)
- 2002 - 2003: Lecturer at the Dep. for Signal and Communications Theory of the University Carlos III Madrid, Spain
- 2001: Research assistant at the Dep. of Microelectronics of the Engineering Faculty at the University of Ulm, Germany
- 1997 - 2001: Research assistant at the Dep. of Measurement, Control and Microtechnology of the Engineering Faculty at the University of Ulm, Germany

Others

- Reviewer for different scientific publications including Annals of Biomedical Engineering
- Since 2004 consultant for Technology Transfer and Innovation of the Telecommunication Engineering Board COIT
- 2002 Scientific Award of the Research Institute for Applied Knowledge Processing (Forschungsinstitut für anwendungsorientierte Wissensverarbeitung FAW), Ulm

- 2001 Award for Women´s Advancement of the University of Ulm for the Dissertation

Lectures

- Fundamentals of System Dynamics for Medical Technologies (6 ECTS)
- Real-Time Signal Processing (6 ECTS)
- Automation Technologies (3 ECTS)
- Dynamics of Event-Driven Systems (6 ECTS)
- Electrical Signal Processing (6 ECTS)
- Dynamic Filtering (6 ECTS)
- System Dynamics (3 ECTS)
- Special Problems in Cybernetics (3 ECTS)

Publications

- Rapp P., Sawodny O., and Tarin C.: "An Immersion and Invariance based Speed and Rotation Angle Observer for a Class of Revolute/Prismatic Manipulators with Two Degrees of Freedom", in *Proc. of the Control and Decision Conference CDC*, 2013
- Mesch M., Zhang C., Braun P.V., Rapp P., Tarin C., and Giessen H.: „Noninvasive optical glucose monitoring at physiological levels using a functionalized plasmonic sensor", *in Proc. of the European Conference on Lasers and Electro-Optics and XIIIth International Quantum Electronics Conference*, 2013
- Rapp P., Klünder M, and Tarín C.: "Nonlinear Adaptive and Tracking Control of a Pneumatic Actuator via Immersion and Invariance", in in *Proc. of the Control and Decision Conference CDC*, 2012
- Rapp P, Mesch M., Giessen H. and Tarin C.: "Regression Methods for Ophthalmic Glucose Sensing Using Metamaterials"; in *Journal of Electrical and Computer Engineering*, 2011
- Traver L., Tarin C., Cardona N.: "Bandwidth Resource Management for Neural Signal Telemetry"; in *IEEE Transactions on Information Technology in Biomedicine*, Vol. 13 , No. 6, 2009 , pp. 1083 - 1084
- Traver L., Tarin C., Marti P., Cardona N.: "Adaptive-threshold neural spike detection by noise-envelope tracking"; in *Electronic Letters*, Vol. 43, No. 24, 2007, pp. 1333 – 1335
- Tarin C., Teufel E., Pico J., Bondia J., Pfleiderer H.-J.: "Comprehensive pharmacokinetic model of insulin Glargine and other insulin formulations"; in *IEEE Transactions on Biomedical Engineering*, Vol. 52, No. 12, 2005, pp. 1994 – 2005