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A Multiscale Calibration of a Photon Video Microscope for Visual Servo Control: Application to Micromanipulation
Brahim Tamadazte (FEMTO-ST Institute, France)
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Towards a Mouth Gesture Based Laparoscope Camera Command
J.B. Gomez (Universidad Nacional de Colombia Sede Manizales, Columbia)
F. Prieto (Universidad Nacional de Colombia Sede Manizales, Columbia)
T. Redarce (Institut National des Sciences Appliquées de Lyon, France)

1:00 PM – 2:00 PM
Keynote
Self-Adaptive Intelligent Sensors and Systems: From Theory to Practical Design
Dr. Sergey Y. Yurish (Technical University of Catalonia, Barcelona, Spain)

2:00 PM – 3:00 PM
Robot Control

Two-layer Sliding Mode Control of Pneumatic Position Synchro System with Feedback Linearization Based on Friction Compensation
Hong Zhao (China University of Petroleum, P. R. China)
Pinhas Ben-Tzvi (The George Washington University, USA)
Tingqi Lin (Xi’an Jiaotong University, China)
Andrew A. Goldenberg (University of Toronto, Canada)

Bipedal Modeling and Decoupled Optimal Control Design of Biomechanical Sit-to-Stand Transfer
Asif M. Mughal (University of Arkansas at Little Rock, USA)
Kamran Iqbal (University of Arkansas at Little Rock, USA)

Dynamic Modeling of a Rotating Beam Having a Tip Mass
Shengjian Bai (National University of Defense Technology, P.R. China)
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Estimating the 3D orientation of a microgripper by processing the focus data from the images delivered by a videomicroscope
Guillaume Fortier (FEMTO-ST Institute, France)
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Nadine Le Fort-Piat (FEMTO-ST Institute, France)

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Chao-Yun Chen (National Cheng Kung University, Taiwan)
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Ying-Hui Wang (National Cheng Kung University, Taiwan)

Positioning Accuracy Improvement of a Vision-based Optical Fiber Alignment Stage Powered by a Piezo-Actuator
Chun-Ming Wen (National Cheng Kung University, Taiwan)
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