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Chair of Organizing and Program Committees

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www.math.ku.edu/ksacg/ Bozenna.html

CDC/ECC 2011

http://control.disp.uniroma2.it/cdcecc2011

For information about past workshops visit http://www.math.ku.edu/

ksacg/bpdworkshops.html

Program Committee: Bozenna Pasik-Duncan,

Bozenna Pasik-Duncan, University of Kansas

Richard Murray, California Technology of Institute

Angela Schoellig, ETH Zurich, Switzerland

Jeannie Falcon, National Instruments

Organizing Committee:

Bozenna Pasik-Duncan, University of Kansas

Mark Frei, Flint Hills Scientific, L.L.C

Tyrone Duncan, University of Kansas

Ideas and Technology of Control Systems

Monday, December 12, 2011
9:30 am – 2:30 pm
oridian A-C Main Level - Hilton Orlando B

Floridian A-C, Main Level - Hilton Orlando Bonnet Creek*

11th Anniversary

This workshop is held in conjunction with CDC/ECC 2011 IEEE Conference on Decision and Control and European Control Conference

The purpose of this workshop is to increase the general awareness among high school teachers and students of the importance of systems and control technology and its cross-disciplinary nature. The presentations demonstrate the Power, Beauty and Excitement of a Field that spans Science, Technology, Engineering, and Mathematics (STEM).

PROGRAM

9:30 Welcome

Bozenna Pasik-Duncan, USA, Chair AACC and IEEE CSS Control Education Committees

Rick Middleton, Ireland, President, IEEE Control Systems Society

Tamer Basar, USA, President, American Automatic Control Council

Edwin Chong, USA, General Chair, Conference on Decision and Control and

European Control Conference, CDC/ECC 2011

Eduardo Camacho, Spain, EUCA General Vice-Chair

10:00 Control Design of Unmanned Aerial Vehicles (UAVs)

Roberto Tempo, Past President, IEEE Control Systems Society, Director of Research, IEIIT-CNR, Politecnico di Torino, Torino, Italy

10:20 Joys and Perils of Automation: "Smart Parking" for all

Christos Cassandras, Head, Division of Systems Engineering and Professor, Electrical and Computer Engineering, Boston University, President Elect, Control Systems Society

10:45 LEGO Robotics joins University and High School, Research and Control Education

Alexander Fradkov, Professor, Institute for Problems of Mechanical Engineering, Russian Academy of Sciences

11:10 Molecular Control Systems and Synthetic Biology

Elisa Franco, Assistant Professor, Mechanical Engineering, University of California at Riverside

11:30 Autonomous Systems from Racing Cars to Robots to the Transformers

Ufuk Topcu, Postdoctoral Scholar, Control and Dynamical Systems at the

California Institute of Technology

12:00 Lunch (provided on site)

12:30 Control Systems – from LEGO to Industrial Machines

Margaret Barrett, Academic Marketing Engineer, Controls, Robotics, and Mechatronics, National Instruments

Andy Chang, Controls Engineer, National Instruments

1:00 An Overview of Capstone Design Program

Bahram Shafai, Professor, Electrical and Computer Engineering and Director, ECE

Capstone Design Program, Northeastern University

1:20 A Cube That Balances Itself on a Corner

Sebastian Trimpe, Doctoral Student, Institute for Dynamic Systems and Control,

ETH Zurich, Switzerland

1:40 Applications of Math and Control Theory to the Problem of Epilepsy

Mark Frei, Flint Hills Scientific, L.L.C., Lawrence, KS

2:00 How to Control Unmanned Vehicles

Leor Grebler, Academic Solutions Advisor, Quanser

2:20 Discussion, Workshop Evaluation and Closing Remarks

Bozenna Pasik-Duncan