Systems Science & Engineering, Human-Machine Systems, Cybernetics

IEEE SMC
Systems, Man, and Cybernetics Society

PROGRAMAÇÃO - WORKSHOP IEEE SMC

3 de setembro – Sala – UL70B
Faculdade de Ciências Aplicadas da UNICAMP
LIMEIRA – SÃO PAULO – BRAZIL

Time		Speaker
09:00 – 09:20	**Welcome and IEEE SMC Society Introduction**	Edward Tunstel
09:20 – 09:35	**Technical Perspective on Systems Science & Engineering** Systems science and engineering covers issue formulation, analysis and modeling, decision making, and issue interpretation for systems engineering lifecycle phases related to definition, development, and deployment of systems. This presentation will cover selected topics and IEEE SMC Society technical activities that are representative of the Systems Science & Engineering technical area.	Edward Tunstel
09:35– 09:50	**Technical Perspective on Human-Machine Systems** Human-Machine Systems covers human systems and human organizational interactions including cognitive ergonomics, system test and evaluation, and human information processing concerns. This presentation will cover selected topics and IEEE SMC Society technical activities representative of the Human-Machine Systems technical area.	Andreas Nuernberger
09:50 – 10:05	**Technical Perspective on Cybernetics** Cybernetics includes such areas as computational intelligence, computer vision, neural networks, genetic algorithms, machine learning, fuzzy systems, cognitive systems, decision making, and robotics. This presentation will cover selected topics and IEEE SMC Society technical activities representative of the Cybernetics technical area.	Edward Tunstel
10:05 – 10:15	**IEEE Women In Engineering – SMC Society Activity** This segment covers recent activity and focus of the SMCS Committee that is aligned with the IEEE Woman in Engineering organization. It organizes events and activities to promote the visibility of women leaders and to inspire young girls who are interested in SMCS technical areas.	Vanessa Schramm
10:15 – 10:30	**New Technical Activities and Possibilities in Brazil** This segment introduces the inaugural (in 2020) SMCS International Conference on Human-Machine Systems, and offers an opportunity to discuss potential SMCS technical activities in Brazil in collaboration with researchers based in Brazil.	David Mendonça
10:30 – 11:00	Coffee Break	
11:00 – 11:20	**Artificial Intelligence and Operations Research in Brazil: A review of the past and a look at the future**	Fernando Gomide
11:20 – 11:40	**Strategic Analysis of Construction Projects in Brazil using the Graph Model for Conflict Resolution**	Maisa Silva
11:40 – 12:00	**OPEN DISCUSSION**	All
12:00 – 14:00	Almoço	
14:00 – 14:20	**Analyzing Psychophysiological Issues in Negotiation Support Systems Design**	Suzana Daher

14:20 – 14:40	**Companion Technology**	Andreas Nuernberger
14:40– 15:00	**Prospects and Challenges for Improving Post-Disaster Debris Removal Performance**	David Mendonça
15:00 – 15:20	**Transdisciplinary Convergence of Human-Centric Robotic Systems and Cybernetics**	Edward Tunstel
15:20 – 16:00	**OPEN DISCUSSION:** • **New ideas/insights for future technical activities** • **Closing Remarks**	All

Speakers

Suzana de França Dantas Daher

[*Member – TC on Enterprise Information Systems; TC on Brain-Machine Interface Systems*]
Associate Professor, Dept. of Management Engineering, Universidade Federal de Pernambuco. Research interests: information systems; operations research; behavioral neuroscience; multicriteria decision making; group decision making and negotiation.

Vanessa Batista Schramm

[*WIE Liaison, IEEE SMC Society*]
Associate Professor, Universidade Federal de Campina Grande. Research interests: operations research; problem structuring methods; multicriteria decision analysis, group decision and negotiation; conflict resolution.

Fernando Gomide

[*Member – TC on Evolving Intelligent Systems*] Professor, Dept. of Computer Engineering and Automation, School of Electrical and Computer Engineering, UNICAMP. Research interests: computational intelligence; machine learning & data science; modeling, simulation & optimization; decision support systems & uncertainty mgmt.; analytics, prediction, business intelligence; evolving intelligent systems.

Maísa Mendonça Silva

[*Member – TC on Conflict Resolution*]
Associate Professor, Dept. of Management Engineering, Universidade Federal de Pernambuco. Research interests: production & systems engineering; operations research; multicriteria decision; game theory; conflict analysis and optimization models.

David Mendonça

[*Member-At-Large, Board of Governors, IEEE SMC Society*]
Associate Professor, Dept. of Industrial and Systems Engineering, Rensselaer Polytechnic Institute, USA. Research interests: systems engineering; human decision making; human/machine systems; computational and statistical modeling.

Edward Tunstel

[*President, IEEE SMC Society*]
Associate Director, Robotics, United Technologies Research Center. Autonomous & Intelligent Systems Dept., USA. Research interests: human-collaborative, cooperative, field, space & planetary robotics; soft computing; autonomous control; modular open systems architecture. robotic systems engineering.

Andreas Nuernberger

[*VP Human-Machine Systems, IEEE SMC Society*] Professor of Data & Knowledge Engineering, Faculty of Computer Science, Otto-von-Guericke-University Magdeburg, Germany. Research interests: adaptivity and context in systems for information retrieval and organization, multimedia retrieval, machine learning and data mining, human-computer interaction.

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We hope to see you in Bari!

…and next year in Rome! http://ichms.dimes.unical.it/