

Program, all times in US EDT

Monday 21 October 2024

Organizing group	Session Title	Session Chair	Presenters	Presentation Title	Duration	Time Slot
CSS-Day Taskforce	Welcome Message	Ian Petersen	Ian Petersen	Welcome Message	60min	0:00 - 1:00 EDT
CSS President	Presidents Forum	Magnus Egerstedt	Magnus Egerstedt, Ed Chong , Yutaka Yamamoto, Francesco Bullo, Anu Annaswamy	Presidents Forum	60min	8:00-9:00 EDT
Women in Control Committee	Women in Control Session	Bozenna Pasik-Duncan	Bozenna Pasik-Duncan, Molly Shor, Linda Bushnel, Antonella Ferrara	Women in control in the past, over 30 years earlier	25min	9:00-10:30 EDT
			Afef Fekih, Dennice Gayme	Women in Control now in celebration of the 30th Anniversary of the CSS Women in Control Committee	20min	
			Jing Sun and Carolyn Beck	Women in Control in the future, 5 and 10 years later	20min	
			Bozenna Pasik-Duncan, Molly Shor, Linda Bushnell,Afef Fekih, Dennice Gayme,Jing Sun and Carolyn Beck	Round table discussion	25min	
Stochastic Systems and Control TC	Stochastic Systems, Control and Technology	Bozenna Pasik-Duncan	Bozenna Pasik-Duncan	Overview of Technical Committee on Stochastic Systems and Control, vision, mission, goals, research topics, and activities	10min	10:30-12:00
			Cinzia Da Via	Climate Change	20min	
			Cinzia Da Via, Ramalatha Marimuthu, Bozenna Pasik-Duncan, Luis Kun	Strong Partnership with other Communities and Social Implications of Technology Matter	10min	

			Dominique Duncan	Data-driven, constraint-aware control of dynamical systems	20min	
			Claire Tomlin	Safety of AI		
Energy Systems TC	Climate, Carbon, and Cyber	Mads Almassalkhi	Veronica Adetola	Resilient Control for Cyber-Physical Energy Systems	30min	12:00-13:30 EDT
			Riddhi Padariya	From Automation to Optimization: Leveraging Modular Control Systems to Build Climate-Friendly Factories	30min	
			Vladimir Dvorkin	Carbon-Aware Computing: How to Get Power Systems and Data Centers to Talk to Each Other	30min	
Energy Systems TC	Energy Systems TC Session	Mads Almassalkhi	Jan Drgona	NeuroMANCEr: Physics-informed Machine Learning Library for Data-driven Optimization, Modeling, and Control	30min	13:30-15:00 EDT
			Hamid Ossareh	Data-driven, constraint-aware control of dynamical systems	30min	
			Draguna Vrabie	Physics-informed ML methods for predictive modeling and control	30min	
Energy Systems TC	Dynamics of the Clean Transition	Mads Almassalkhi	David Hill	Energy Transition: Systems, Dynamics and Control	60min	19:00-21:00 EDT
			Elizabeth Ratnam	Controlling Power Systems in the Transition to Net-Zero: A Paradigm Shift using Negative Imaginary Systems	30min	

			Mingxi Liu	Energizing Rural Communities via Clean Power	30min	
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Tuesday 22 October 2024

Organizing group	Session Title	Session Chair	Presenters	Presentation Title	Duration	Time Slot
Kharagpur chapter	Kharagpur Chapter Session	Atreyee Kundu	Leena Vachhani	Simultaneous Planning, Control and Safety for naturally inducing trajectories to navigate in crowds	60min	0:30-1:30 EDT
Italy Chapter	5th Colloquium Roberto Tempo	Elena Valcher	Karl Henrik Johansson	Emergent behaviours and collective decisions in cyber-physical systems	60min	5:00 - 6:00 EDT
CSS History Comm.	History Session (I)	A. Isidori	Miroslav Krstic	PDE backstepping: The first 25 years	45min	6:00-8:15 EDT
			Hyungbo Shim	From consensus to coordination of multi-agent systems	45min	
			Malcolm Smith	Robustness of feedback systems	45min	
CSS Industry committee	Transition from academia to industry (or the opposite)	Lidia Auret	Klas Nilsson, Kevin Brooks, Alexandra Klintworth, Silvia Mastellone	Panel discussion	60min	8:30-9:30 EDT
TC on Manufacturing, Automation and Robotic control	Control Technologies and Solutions for Sustainable Energy Systems	Xiaocong Li	Xin Yuan	Driving Towards a Greener Future with Electric Vehicle Motor Drive Innovations	30min	10:00-11:00 EDT
			Rajnikant Sharma	Low-Cost Automation and Platooning for EVs: A Step towards Carbon neutral World	30min	

Stochastic Systems and Control TC	Outreach with its Central Role in Attracting Students to STEM Education in particular to Stochastic Systems and Control, Retention, Motivation and Recognitions in academia, industry and government.	Bozenna Pasik-Duncan	Bozenna Pasik-Duncan	30 and 24 years later in Outreach at KU and AACC, CSS, IFAC - Successful Models for Outreach,	10min	11:00-12:30 EDT
			Ramalatha Marimuthu	IEEE YESIST12 and IEEE RMC , Successful Model for attracting students through research based global competition, RMC - Successful Model for Retention, Motivation and Recognition	10min	
			Prasanta Ghosh	IEEE SYSC Students Conference 2024 - Successful Model for engaging Students in Research Projects and Conferences	10min	
			Luis Kun	Outreach and IEEE REACH Program	10min	
			Amir Aghdam, Mary Kent Doyle	Panel Sessions on DEIB at Conferences, Successful Models of Bringing Awareness to DEI	10min	
			Tyrone Duncan	Why History in Teaching Stochastic Systems and Control Matters	10min	
			All presenters from this session and the Women in Control Session	Discussion Table: Reflections and Perspectives - STEM Education, Outreach, DEI, Internet, ML and AI -	30min	

TC on Manufacturing, Automation and Robotic control	Control Technologies and Solutions for Sustainable Energy Systems	Abhinav Sinha	Sameh Eisa	Model-free, Real-time Dynamic Optimization and Control via Extremum Seeking in Wind and Solar Systems	30min	13:00-13:30 EDT
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Wednesday 23 October 2024

Organizing group	Session Title	Session Chair	Presenters	Presentation Title	Duration	Time Slot
TC on Variable Structure and sliding mode control	Variable Structure Session	Christopher Edwards	Gianmario Rinaldi	Optimal Observer-Based Control of Clean Energy Systems	30min	4:00-5:00 EDT
			Franck Plestan	Control of floating wind turbines using Sliding Mode Control	30min	
TC on Smart Cities	Driving the Future: Comparing Quality of Service Between Autonomous Vehicle Fleets and Traditional Car Sharing	Mauro Salazar	Silvia Strada, Sergio Savaresi and Antonio Pagliaroli	Driving the Future: Comparing Quality of Service Between Autonomous Vehicle Fleets and Traditional Car Sharing	30min	5:00-5:30 EDT
Chile Chapter	International Conference on Automation	Karina Barbosa	Rodrigo Palma	Challenges of Carbon-Neutral Power Systems	60min	8:00-9:00 EDT
CSS History Comm.	History Session (II)	A. Isidori	Mustafa Kammash	Biochemical reaction networks	45min	10:00- 11:30 EDT
			Markos Papageorgiou	Road Traffic Control: past present and future	45min	
TC on Process Control	Material discovery using artificial intelligence	Ali Mesbah	Faye Hajiali, Naoko Ellis, Bhushan Gopaluni	panel discussion	90min	12:00-13:30 EDT

Thursday 24 October 2024

Organizing group	Session Title	Session Chair	Presenters	Presentation Title	Duration	Time Slot
<i>Hungary Chapter</i>	<i>Robust control of cybermedical systems</i>	<i>Levent Kovacs</i>	<i>Levent Kovacs and Daniel Andras Drexler</i>	<i>Robust control of cybermedical systems</i>	<i>40min</i>	<i>3:00-3:40 EDT</i>
Kharagpur chapter	Kharagpur Chapter Session	Atreyee Kundu	Sayan Mitra	Safe control and estimation with coarse measurements	60min	9:30-10:30 EDT
TC on Automotive Controls	Automotive TC Session	Alexander Katriniok	Anna Stefanopoulou	Advances in Battery State of Health (SOH) estimation for electric vehicles: towards predictions of remaining useful life and safety indicators	30min	10:30-12:00 EDT
			Lars Eriksson	Control Challenges in Fuel Cell Electric Trucks: An Overview	30min	
			Mauro Salazar	From ACE Technologies to Sustainable Urban Mobility: An Optimization Journey	30min	
Aerospace Control TC	Challenges and Opportunities of Aerospace Control towards a Carbon Netural world	Gokhan Inalhan	Ramy Mourad, Kingsley Frgene, Gokhan Inalhan	Short talks	30min	12:00 - 13:30 EDT
				Panel discussion	60min	

Friday 25 October 2024

Organizing group	Session Title	Session Chair	Presenters	Presentation Title	Duration	Time Slot
Kharagpur chapter	Kharagpur Chapter Session	Atreyee Kundu	Stephan Trenn	From high gain adaptive control to funnel control	60min	8:30-9:30 EDT

TC on Quantum Computing, Systems and Control	Quantum Systems TC Session	Daoyi Dong/Jr-Shin Li	Francesco Ticozzi	System theoretic methods in quantum information: Review and opportunities	30min	10:00 - 11:30 EDT
			Nina Hadis Amini	Control of open quantum systems	30min	
			Jr-Shin Li	Quantum control using ensemble quantization	30min	
CSS Student Activities Committee	Student Info on CSS and Nextcom	Francesca Parise	Francesca Parise, Philip E Pare	How to become involved with CSS and Nextcom	45min	11:30-13:00 EDT
	Senior Researcher advice for students	Francesca Parise, Alberto Padoan, Anastasia Bizyaeva	Francesco Bullo, Karl Hendrik Johansson, Emilio Frazzoli, John Lygeros, Lacro Pavel	Panel Discussion: How to shape your career in control	45 min	
Vancouver Chapter	Vancouver Chapter Session	Dejan Kihás	Yue Niu	Unlocking Floating Offshore Wind Potential: Layout Modification for Power Maximization	15min	19:00-20:30 EDT
			Jingyi Wang	Adaptive digital twin identification with control: An extended Kalman filter-based sparse nonlinear identification approach	15min	
			Serena Zhang	A Path Feasibility Governor for Model Predictive Control	15min	
			Jiayang Ren	Exact Learning of Model Predictive Control Laws via Oblique Decision Trees with Linear Models	15min	
			Mohammad Bajelani	Data-Driven Safety Filter: An Input-Output Perspective	15min	

			<a href="#">Saeed Ansarirad</a>	Detection and Isolation of Covert Cyber Attacks Using Decentralized and Distributed Dynamic Observers	15min	
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