International Summer School on Sliding Mode Control - Variable Structure Systems

Rio de Janeiro, April 8-12, 2019

Final Program

Time	Monday - 08	Tuesday - 09	Wednesday - 10	Thursday - 11	Friday - 12
08:30 – 09:00	Opening ceremony	Rainy day: activities suspended			
09:00 – 10:30	Five stages of developments of sliding mode controllers		Generalized super twisting algorithm	Global tracking by output-feedback sliding mode control	Discrete-time sliding mode control: an overview
10:30 – 11:00	Break		Break	Break	Break
11:00 – 12:30	Differential equations with discontinuous right-hand side – Rated stability		HOSM control and homogeneity	Adaptive sliding mode control	Sliding mode control based on output-feedback technique
12:30 – 13:30					EECI IGSC M13: submit assessment sheet
13:30 – 14:00	EECI IGSC M13: Registration				EECI IGSC M13: distribute attendance certificates
14:00 – 15:30	Conventional sliding mode design		Lyapunov-based design of higher-order sliding mode controllers	Continuous HOSM controllers – Adaptive continuous twisting algorithm	Terminal sliding mode control and its discretization
15:30 – 16:00	Break		Break	Break	Break
16:00 – 17:30	Integral sliding modes – Main ideas for second order sliding mode control design – Terminal sliding modes		HOSM differentiation and observation: a Lyapunov approach	HOSM observation, identification, uncertainties compensation	Event triggered sliding mode control and its application to network control systems
17:30 – 17:45			Break	Break	Closing ceremony
17:45– 19:15			Construction of Lyapunov functions using generalized forms	Analysis of sliding mode controllers in the frequency domain	

- IEEE IES Distinguished Lecturer Prof. Bijnan Bandyopadhyay – Indian Institute of Technology Bombay.
- EECI IGSC M13: *Homogeneity Based Design of Sliding Mode Controllers* by Prof. Jaime Moreno – Universidad Nacional Autónoma de México.
- EECI IGSC M13: *Homogeneity Based Design of Sliding Mode Controllers* by Prof. Leonid Fridman – Universidad Nacional Autónoma de México.
- Lectures by Prof. Liu Hsu – Professor Emérito of the Federal University of Rio de Janeiro and member of the Brazilian Academy of Sciences.