GUILHERME SCABIN VICINANSA

Homepage: vicinansa.github.io ◇ Email: gs16@illinois.edu

EDUCATION

University of Illinois at Urbana-Champaign — **August 2018 - Present**
Ph.D. in Electrical and Computer Engineering
· **Advisor: Prof. Daniel Liberzon**

Polytechnic School of the University of São Paulo — **March 2017 - June 2018**
Master of Sciences (M.Sc.) in Electrical Engineering
· **Advisor: Prof. Paulo Sérgio Pereira da Silva**
· **Thesis: Algebraic Estimators with Applications**

Polytechnic School of the University of São Paulo — **February 2012 - December 2016**
Bachelor of Engineering in Electrical Engineering (emphasis on control and automation)
· **Advisor: Prof. Paulo Sérgio Pereira da Silva**
· **Capstone project: Control of Quantum Systems for Quantum Logic-Gate Generation**

PUBLICATIONS

Estimation Entropy, Lyapunov Exponents, and Quantizer Design for Switched Linear Systems
Guilherme S. Vicinansa and Daniel Liberzon
SIAM Journal on Control and Optimization (SICON), *to appear*

Controllability of Linear Time-Varying Systems with Quantized Controls and Finite Data-Rate
Guilherme S. Vicinansa and Daniel Liberzon
IEEE Conference on Decision and Control (CDC), 2022

Quantizer Design for Linear Switched Systems with Minimal Data-Rate
Guilherme S. Vicinansa and Daniel Liberzon
ACM International Conference on Hybrid Systems: Computation and Control (HSCC), 2021

Estimation Entropy for Regular Linear Switched Systems
Guilherme S. Vicinansa and Daniel Liberzon.
IEEE Conference on Decision and Control (CDC), 2019

How to Park a Car Blindfolded
Guilherme S. Vicinansa and Daniel Liberzon
IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys), 2019

Control of Pneumatic Valves with Friction Using Algebraic Estimators
Guilherme S. Vicinansa, Claudio Garcia, Paulo Sérgio Pereira da Silva
ABCM International Congress of Mechanical Engineering (COBEM), 2017

Position Estimation from Range Measurements Using Adaptive Networks
Guilherme S. Vicinansa, Yannick P. Bergamo, Cassio G. Lopes
IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM), 2016

Discrete Barycenter Method for Direct Optimization
Guilherme S. Vicinansa, Diego Cólon, Felipe Pait
Congresso Brasileiro de Automática (CBA), 2014

GRANTS AND AWARDS

"Prêmio Conde Armando Álvares Penteado" prize — **2017**
· **Awarded to the three best graduates at the Polytechnic School of the University of São Paulo considering all branches of engineering.**

"Prêmio Crea-SP de Formação Profissional de 2016" prize **2017**
· **Awarded by the Engineering Council of the State of São Paulo to the best electrical engineering graduate at the Polytechnic School of the University of São Paulo.**

"Prof. Jocelyn Freitas Bennaton" prize **2017**
· **Awarded by the University of São Paulo to the Best Electrical Engineering graduate with emphasis on Control and Automation Engineering.**

Summer School scholarship at the Institute of Pure and Applied Mathematics (IMPA), Rio de Janeiro, Brazil **2017**
· **Granted by the Ministry of Science and Technology from Brazil.**

Research Scholarship granted by FAPESP **April 2016- December 2016**
· **Research topic: Source Localization Using Adaptive Networks.**

Research Scholarship granted by FAPESP **April 2014 - July 2015**
· **Research topic: Direct Adaptive Control Using Direct Optimization.**

International Research Scholarship granted by FAPESP, **December 2014 - February 2015**
· **At the Priority Research Centre for Complex Dynamic Systems and Control of the University of Newcastle (Australia) under Professor Graham Goodwin supervision.**

TEACHING EXPERIENCE

Optimum Control Systems (ECE 553) **Fall 2020, Spring 2022**
Teaching Assistant **Urbana-Champaign, IL, USA**

Nonlinear and Adaptive Control (ECE 517) **Fall 2019, Fall 2021, Fall 2022**
Teaching Assistant **Urbana-Champaign, IL, USA**

Analysis of Nonlinear Systems (ECE 528) **Spring 2021**
Teaching Assistant **Urbana-Champaign, IL, USA**

Nonlinear control (PTC 2417) **Second Semester 2017**
Teaching Assistant **São Paulo, SP, Brazil**

Linear Multivariable Control (PTC 2513) **First Semester 2017**
Teaching Assistant **São Paulo, SP, Brazil**

Introduction to Computing for Engineering (MAC 2166) **First Semester 2013**
Teaching Assistant **São Paulo, SP, Brazil**

TECHNICAL STRENGTHS AND LANGUAGES

Computer Languages	**Python, C, C++, R, Matlab**
Languages	**English, Portuguese, French**