DICHIARAZIONE SOSTITUTIVA DI CERTIFICAZIONE (art. 46 e 47 D.P.R. 445/2000)

Amol Yerudkar

Benevento, [redacted]

Career Objective

- To build a successful academic career with a strong research background.

Education

Jan 2016-Dec 2020 **Doctor of Philosophy (Systems Biology)**, *University of Sannio*, Benevento, Italy 82100, (Currently Pursuing).

2010–2012 **Master of Technology in Electrical Engineering (Specialisation in Control Systems)**, *Veermata Jijabai Technological Institute*, Matunga, Mumbai, India 400019, *CPI: 8.4*.

2005–2009 **Bachelor of Engineering (Electronics Engineering)**, *Ramrao Adik Institute of Technology*, Nerul, Navi Mumbai, India 400706, *Percentage: 63.44*.

Project Profile

Doctoral Project ***On Feedback Stabilization of Switched Boolean Control Networks***

Supervisors Prof Luigi Glielmo and Dr Carmen Del Vecchio

MTech. Project ***Quantum Mechanics Approach for Protein Structure Analysis***

Supervisors Prof N M Singh

Academic Experience

Teaching Experience Assistant Professor, Electronics Engg. Dept. at Ramrao Adik Institute of Technology (R.A.I.T.), Navi Mumbai, India, July 2015 to December 2015.

Full time ad-hoc lecturer at Veermata Jijabai Technological Institute (V.J.T.I.), Matunga, Mumbai, India, August 2012 to June 2015.

Subjects Taught: UG level Control Systems, Robotics, Discrete Time Signal Processing, Data Communication and Networking, Advanced Communication.

Labs Conducted: UG Level Classical Control lab, Robotics lab, Signal Processing lab, Microwave and Fibre Optic lab, Image Processing lab.

Journal Publications

- A. Acernese, **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Model-free Self-triggered Control Co-design for Probabilistic Boolean Control Networks.", *IEEE Control Systems Letters* 5.5 (2021): 1639-1644.

- Acernese, Antonio, **Amol Yerudkar**, Luigi Glielmo, and Carmen Del Vecchio. "Double Deep-Q Learning-Based Output Tracking of Probabilistic Boolean Control Networks." *IEEE Access* 8 (2020): 199254-199265.

- A. Acernese, **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Reinforcement learning approach to feedback stabilization problem of probabilistic Boolean control networks.", *IEEE Control Systems Letters* 5.1 (2021): 337-342. The contents of this paper were also selected by IEEE CDC 2020 Program Committee for presentation at the Conference.

- **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Output Tracking Control Design of Switched Boolean Control Networks", *IEEE Control Systems Letters* 4.2 (2019): 355-360. The contents of this paper were also selected by IEEE CDC 2019 Program Committee for presentation at the Conference.

- A. Subramanian, A. Capalbo, N. Iyengar, R. Rizzo, A. Campli, R. Martino, M. Monte, A. Beccari, **A. Yerudkar**, C. Del Vecchio, L. Glielmo, G. Turacchio, M. Pirozzi, S. Kim, P. Henklein, J. Cancino, S. Parashuraman, D. Diviani, F. Fanelli, M. Sallese, and A. Luini on "Auto-regulation of secretory flux by sensing and responding to the folded cargo protein load in the Endoplasmic Reticulum", *Cell* 176.6 (2019): 1461-1476.

- **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Feedback stabilization control design for switched Boolean control networks", *Automatica*, vol. 116, Jun. 2020, Art. no. 108934.

- Sarda, K., **A. Yerudkar**, and C. Del Vecchio. "Disturbance decoupling control design for Boolean control networks: a Boolean algebra approach." *IET Control Theory & Applications* 14.16 (2020): 2339-2347.

Conference Publications

- **Yerudkar Amol**, Carmen Del Vecchio, and Luigi Glielmo. "Sampled-data set stabilization of switched Boolean control networks", *21st IFAC World Congress*, Berlin, Germany, 2020 (Accepted).
- **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Control of Switched Boolean Control Networks by State Feedback", *2019 18th European Control Conference (ECC)*, IEEE, pp. 1999-2004, 2019.

- **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Output Tracking Control of Probabilistic Boolean Control Networks", *2019 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, IEEE, pp. 2109-2114, 2019.

- A. Joshi, **A. Yerudkar**, C. Del Vecchio and L. Glielmo on "Storage Constrained Smart Meter Sensing Using Semi-Tensor Product", *2019 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, IEEE, pp. 51-56, 2019.

- K. Sarda, **A. Yerudkar**, C. Del Vecchio, L. Glielmo and N Singh on "Subspace and Coordinate Transformation for Boolean Control Networks using Binary Logic", *2019 27th Mediterranean Conference on Control and Automation (MED)*, IEEE, pp. 328-333, 2019.

- **A. Yerudkar**, C. Del Vecchio, N. Singh and L. Glielmo on "Reachability and Controllability of Delayed Switched Boolean Control Networks", *2018 European Control Conference (ECC)*, IEEE, pp. 1863-1868, 2018.

- S. Sutavani, K. Sarda, **A. Yerudkar**, and N. Singh on "Interpretation of complex reaction networks in Boolean network framework", *2018 Indian Control Conference (ICC)*, IEEE, pp. 7-11, 2018.

- P Dey, M Parimi, **A. Yerudkar**, and S R Wagh on "Real-time Estimation of Propagation of Cascade Failure using Branching Process", *2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG)*, IEEE, pp. 629-634, 2015.

- P. Bajaria, A. Pandey, **A. Yerudkar**, F. Kazi, N. M. Singh on "LMI based loop shaping control of biological circuits", *22nd Mediterranean Conference on Control and Automation*, IEEE, pp. 1267-1272, 2014.

- R. Sawlekar, **A. Yerudkar**, F. Kazi and N. M. Singh on "Identification of Inflection Points along Protein Backbone by Frenet Quaternion Frame and Schrödinger Equation", *2012 IEEE Conference On Control, System and Industrial Informatics*, IEEE, pp. 146-151, 2012.

Courses and Summer Schools Attended

University of Sannio	Advanced Mathematics, Probability and Statistics, Machine Learning, Empirical Evaluation Techniques in Engineering, Tools and Applications on Numerical Analysis, Advanced Laboratory.
University of Toronto	Connaught Summer Institute on Synthetic Biology, Toronto, Canada, 6-10 June, 2016.
IMT Lucca	A Short Course on Convex Optimization, Lucca, Italy, 3-6 July.
SSBSS 2016	Systems and Synthetic Biology Summer School, Tuscany, Italy, 8-14 July, 2016.
EMBO	Workshop on Glycosylation in the Golgi Complex, Vico Equense, Italy, 24-28 October, 2016.
Online Course	Dynamical Modeling Methods for Systems Biology by Icahn School of Medicine at Mount Sinai on Coursera.

MTech Course Work

Semester I	Dynamical Systems, Feedback Control Design, Optimal Control, Finite Dimensional Linear Systems, Robotics: Dynamics and Control.
Semester II	Nonlinear System Analysis, Nonlinear Control Design, Multivariable Control, High Performance Industrial Drives, Advance Control Theory.

Computer Skills

Programming	LaTeX, C, C++	System	Windows, Linux
Design Tool	MATLAB, Simulink, Mathematica	Software	Microsoft Office, Visio, Copasi
Assembly Language	Microprocessor, Microcontroller	Hardware Description	VHDL, Verilog
Real Time Simulator	OPAL RT OP4500		

References

Luigi Glielmo Professor, University of Sannio, Benevento, Italy 82100.
Email: glielmo@unisannio.it.

Carmen Del Vecchio Asst. Professor, University of Sannio, Benevento, Italy 82100.
Email: c.delvecchio@unisannio.it.

N. M. Singh Professor, Veermata Jijabai Technological Institute, Mumbai, India 400019.
Email: nmsingh@ee.vjti.ac.in.

Declaration

I hereby declare that, all the above mentioned information is true to the best of my knowledge and belief.

Il sottoscritto Amol Kerba Yerudkar, consapevole che le dichiarazioni false comportano l'applicazione delle sanzioni penali previste dall'art. 76 del D.P.R. 445/2000, dichiara che le informazioni riportate nel seguente curriculum vitae et studiorum, redatto in formato europeo, corrispondono a verità.

Amol Kerba Yerudkar