

## Student Corner: Interviews with Students and Young Professionals

*Anderson Avila and Chun Sing Lai*

In this “Student Corner” column, we interview Dr. Augusto Bozza, a Postdoctoral Research Fellow at the Department of Electrical and Information Engineering of Politecnico di Bari.



Dr. Bozza received his M.Sc. in Automation Engineering (with honors) in 2021 and his Ph.D. in Electrical and Information Engineering in 2025, both from Politecnico di Bari, Italy. He was a visiting researcher at Institute for Systems Theory and Automatic Control of the University of Stuttgart, Germany, from 2023-2024. He was a Research Assistant in 2021 at the Decision and Control Laboratory of Politecnico di Bari. His research interests primarily focus on both model- and data-driven methodologies for modeling (e.g., physics-based and system identification) and control (e.g., predictive and adaptive), mainly applied to nonlinear systems, process control, and mechatronics. Dr. Bozza is a Graduate Student Member of IEEE and since 2023, he is a member of the SMC Society. He has contributed to the editorial activity of the

Transactions on Systems, Man, and Cybernetics: Systems and the SMC’s flagship, serving both as a reviewer and an Associate Editor for the SMC 2023 and 2024 conferences.

In this interview, we’ll get to learn a bit more about Dr. Bozza’s background, his inspirations in research, the impact that IEEE and the SMC Society have had on his career journey, as well as his advice to students considering joining and volunteering for IEEE and the SMC Society. Enjoy!

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### ***1. Can you tell us about your academic journey and how you arrived at your current research topic?***

Each step of my academic journey has been a natural progression, driven by the evolving demands of modern automation and industrial processes. Today, my research combines both model-based and data-driven approaches, primarily applied to nonlinear systems, process control, and mechatronics, aligning with the broader advancements in Industry 4.0.

My academic journey has been a continuous evolution, shaped by curiosity and the need to solve emerging challenges in control and automation. I initially focused on control system design using physics-based models, providing strong foundations for understanding complex dynamical systems. This led me to explore system identification techniques, bridging the gap between theoretical modeling and real-world applications. Over time, my interest expanded to nonlinear systems, where I delved into adaptive control methods to enhance system performance under uncertainties. Further, my focus shifted toward data-driven control, integrating learning-based techniques with traditional control strategies to improve efficiency and adaptability.

### ***2. What inspired you to pursue research in your chosen field? How do you see it impacting society and humanity?***

Generally, my inspiration for pursuing research stems from a deep curiosity and passion for solving complex problems through innovation. From the very beginning of my academic journey, I have been driven by the challenge of exploring new ideas, pushing technological boundaries, and transforming theoretical concepts into real-world solutions.

Regarding my specific research area, namely intelligent control systems, it surely represents a unique opportunity to revolutionize industrial automation by integrating learning-based methodologies with control strategies driven by data. These advancements not only enhance efficiency, adaptability, and quality in manufacturing but also contribute to safer and more sustainable work environments. Beyond technical progress, I see my work as part of a broader mission to shape the future of automation and digital transformation. By optimizing industrial processes and fostering innovation, my research directly tries to impact society by improving productivity, reducing waste, and enabling smarter and more autonomous systems.

**3. *What motivated you to join the IEEE and the SMC Society?***

My main motivation was given by the numerous opportunities they offer for professional growth, networking, and active contribution to the research community. Beyond access to international conferences and seminars, IEEE also provides a unique platform to connect with experts in your field of interest, fostering collaborations and knowledge exchange. Additionally, joining the IEEE and its societies, like SMC, offers valuable chances to contribute to society's activities, especially including initiatives for students within the Student Activities Committee.

**4. *How has being a member impacted your academic or professional journey?***

Being a member of IEEE and the SMC Society has had a profound impact on my academic journey. I think, for example, to the opportunities to connect with brilliant minds from both industry and academia, broadening my perspective and deepening my understanding of the latest advancements in intelligent control and automation. Engaging with such a diverse network has continuously inspired me, fostering new ideas and collaborations that have strengthened my research.

**5. *Where do you see yourself in the next 5-10 years?***

In the near future, I see myself continuing my research journey, possibly within academia or an industry setting, ideally contributing to R&D or Innovation departments. My goal is to bridge the gap between academic research and real-world applications, driving advancements in intelligent control, automation, and digital transformation. Whether in academia or industry, I want to be at the forefront of developing innovative solutions that enhance efficiency, adaptability, and safety in industrial processes.

**6. *What advice would you give to other students considering joining IEEE or a specific society like SMC?***

My main suggestion to students, especially PhD candidates and young researchers who are considering joining IEEE and/or SMC, is to actively participate in many society initiatives, particularly conferences. Such events provide invaluable opportunities to connect with leading experts, discover cutting-edge research, and engage in meaningful discussions that can shape your academic and professional growth. These experiences are more than just networking platforms: they are essential for broadening horizons, gaining exposure to diverse perspectives, and staying at the forefront of technological advancements. Actively contributing, whether as a presenter, reviewer, or volunteer, allows you to build a strong research network and develop a deeper understanding of your field of research.