"My teaching philosophy entails meticulously prepared material and vibrant lectures. I like to keep students engaged and motivated, during and after lectures. I encourage collaboration between them, and aim to adapt my approach to their individual skills and needs."

I. Teaching Experience.

My teaching experience involves (i) graduate teaching assistantships and guest lectures in both graduate and undergraduate courses, (ii) specialized training as a Future Faculty Program Fellow at the University of Maryland, and (iii) the creation, development, and conduction of a series of lectures designed for the needs of the research group of my Ph.D. advisor, Professor John S. Baras.

Since my first year in the graduate school, I have been giving multiple guest lectures in the context of the graduate courses ENSE 622 (Systems Requirements, Design and Trade-Off Analysis) and ENEE 660 (Systems Theory), for which I volunteered to be a Teaching Assistant (TA). To further bolster my teaching experience, I became a TA for an undergraduate course, as well. I was assigned a teaching assistantship for ENEE 436 (Foundations of Machine Learning), given by Professor Behtash Babadi, where I was actively involved in the development of the course, and the design of the exams and assignments. Because of my expertise in the field, I also gave several guest lectures on the mathematics and implementations of deep learning methods. All these lectures were virtual. I used a combination of brief and comprehensive slides, hand-written notes (using a drawing pad and appropriate software), and carefully designed Jupyter Notebook documents; web-based interactive development environments for code, equations, visualizations and text.

In Spring 2019, I initiated a study group on advanced machine learning topics, which I have been leading since then. The group consists of almost 20 people from the research group of Prof. Baras at the University of Maryland. The majority of the participants are graduate students or researchers affiliated with the industry, and have diverse backgrounds, from applied mathematics and control theory to artificial intelligence and communication networks. Within this study group, I developed and conducted a series of weekly lectures followed by constructive discussion on new directions and applications in a wide range of fields, including controls, robotics, communication networks, and operations research. I designed these lectures to cover principles from optimization and dynamical systems, and their relation to current machine learning algorithms. I used material from standard literature and customized slides and notes. I also created software resources and tutorials and shared them in a neatly organized database. This initiative has been extremely rewarding and has also served as an opportunity to start writing my own set of notes, which I plan to use as a basis for my first book. In the immediate future, these notes will be shared with the students of my research group. Longer-term, I want to use them towards the development of an advanced independent course on the dynamics of approximation, optimization, and learning algorithms.

Lastly, in Spring 2021, I received the A. James Clark School of Engineering Future Faculty Program Fellowship from the University of Maryland. The Future Faculty Program is committed to prepare selected doctoral students to achieve career-long success in the academic world as educators and researchers. Regarding teaching, emphasis was given on developing a course, promoting active learning, problem solving and critical thinking, designing exams and assignments, and communicating effectively with students.

II. Teaching Interests.

My background and research expertise lie in the fields of control theory, optimization, machine learning, signal processing, and robotics. Therefore, I am both capable of and interested in teaching any graduate or undergraduate course related to signal processing and systems theory, optimal and non-linear control, machine learning and pattern recognition, probabilities and random processes, convex and stochastic optimization, and robotics.

III. Teaching Approach.

I believe in the benefits of an interactive lecture supported by carefully selected course material. I give emphasis in preparing homework sets that promote deeper understanding and critical thinking, and projects that promote teamwork and collaboration. During lectures, I like to keep a balance between the use of the traditional "blackboard", well-prepared presentation slides, and interactive educational methods, including quick quizzes and new software tools.

I strive to adapt my teaching approach to the students' individual strengths and weaknesses, and encourage in-class discussion and after-class conversations about potentially challenging course aspects. To keep the students engaged, I try to use direct questions to support active participation. To keep the students motivated, I try to give examples of real-world applications of the materials covered, and connect them to ongoing research directions. I like to give emphasis on the interdisciplinary nature of the problems discussed, which creates a greater appreciation for the subjects being studied. Finally, to foster teamwork spirit in my students, I actively encourage collaboration between them through team projects and reports. Building communication and teamwork skills is a fundamental ability that can only be acquired through practicing collaboration.

Outside the classroom, I plan to hold regularly scheduled office hours, but also keep an open-door policy so that students can contact me when necessary. I am always happy to help with course material, course-related research topics, career-related questions, or personal concerns.

IV. Advising Approach.

The same ideas also extend to my mentoring style. A weekly meeting, with clear small short-term goals and an equally clear long-term vision of the work being conducted, serves as a great "default" approach. However, I have found that different researchers thrive under vastly different circumstances. I was fortunate enough to be advised by Prof. Baras, whose long-term vision is uniquely insightful. Our non-regular meetings were brief, rigorous, and to the point, discussing the greater problem and potential problems to be tackled. At the same time, I have also worked in the industry, having been advised by exceptional mentors, such as Dr. Iraj Saniee, Head of the Math & Algorithms Research Group at the Nokia Bell Labs, NJ. In this context, a more hands-on approach is often preferred, with weekly meetings, clearly stated day-to-day tasks, and possibly scrum meetings, identifying short-term goals and progress.

I believe part of the job of a mentor is to tune their approach to each particular student, working with them to figure out whether a more flexible or structured approach will keep both comfortable and productive. In fact, as a senior member of a large research group, I have been actively involved in mentoring younger students and leading new collaborations. Notably, my work with one of the first group of students I mentored, has recently received the Best Student Paper Award (1^{st} place) in the IEEE International Conference on Intelligent Transportation Systems (ITSC), 2021.