Masters (M.S.) and **a funded Ph.D. position** are available in the GALACxIS Laboratory (https://sinha-abhinav.github.io/#research) at the Department of Aerospace Engineering and Engineering Mechanics (AEEM), University of Cincinnati (UC), Cincinnati, Ohio, USA starting in **Spring/Fall 2024**. Broadly describing, our research focuses on **cooperative guidance, navigation, and control of autonomous multi-vehicle systems**; **multiagent pursuit-evasion**; **reinforcement/machine learning and data-driven control in autonomous systems**; and **control of networked cyber-physical systems** (security, privacy, resiliency, trustworthiness, etc.).

This opportunity is expected to offer a graduate student exposure and training in various areas pertinent to the control of autonomous multiagent systems, such as graph theory, game theory, state estimation, nonlinear and robust control, optimization, and vehicle dynamics. The student is also expected to gain practical experience in real-time deployment of a team of (possibly heterogeneous) autonomous vehicles.

The student is also expected to have a strong background in one or more of the following areas:

- Control theory (e.g., linear, nonlinear)
- Engineering mathematics (e.g., ODE, linear algebra, complex analysis)
- Machine learning (e.g., unsupervised, supervised, reinforcement learning)
- LaTeX
- Technical computing tools (e.g., MATLAB, Python, ROS)

Besides research, the student is also expected to have good written and oral communication skills, and be willing to mentor and collaborate with other students.

Interested students can send the following files to my email (sinhaab@ucmail.edu):

- A detailed CV
- A cover letter (including a concise explanation of your motivation for pursuing research studies, outlining your academic interests, and elucidating their connection to both your past studies and future objectives)
- A research statement (1-2 pages)
- Transcripts/marksheets
- Publications (if any)
- References/recommendations (if available)

I am actively looking for students who are self-motivated, passionate, and mathematically bent, to join our research group. Typically, it is advantageous to have a clear idea of the specific directions you want to explore within my areas of interest. If you have a particular research problem that captivates you, feel free to reach out, and we can proceed from that point onward based on mutual interest.

Note that the candidates need to go through the admission procedure followed by the AEEM department or University of Cincinnati.