**Project : Multiple Drones Coordination**

**Problem Sponsor : Dr. Zhong**

**Meeting Date: 2024-11-20 6:30 PM**

**Group Members Present: Brenden Martins, Matthew Paternoster, Matthew Wyatt, Tarek Kayali, Tutku Gizem**

**Key points discussed:**

1. Problem Statement:

- Disasters create chaos, making it difficult for emergency teams to quickly find and help people in need.
- Traditional methods are slow and risky for responders.
- Drones can be powerful but need good coordination to handle complex tasks.

2. Significance:

- Faster and more efficient disaster response can save lives.
- Using drones reduces the risk to human responders.
- Coordinated drone efforts can cover larger areas more efficiently.

3. Project Goals:

- **Enhance Disaster Response:** Enable multiple drones to work together in real-time for tasks like finding victims and monitoring hazards.
- **Integrate Technologies:** Use algorithms for smooth drone operations.
- **Improve Safety:** Use drones to explore dangerous areas, keeping first responders safe.

4. Objectives:

- Develop a realistic 3D simulation using Microsoft AirSim.
- Create algorithms for drone coordination and collision avoidance.
- Develop a user-friendly desktop based interface.

5. Implementation Plan:

- **Hardware:** Focus will be in Microsoft AirSim.
- **Software:** Use Python, C++, and React for developing the system.
- **Simulation:** AirSim will create a detailed environment to test our system.