Middle East Technical University   **Department of Computer Engineering**

CENG 451

Information Systems

Development Fall 2018-2019

Rescue: A Disaster Management System

PROJECT REPORT

GROUP 15

2264547 Mustafa Gönen

2264596 Emre OKYAY

2264455 Muhammet ACAR

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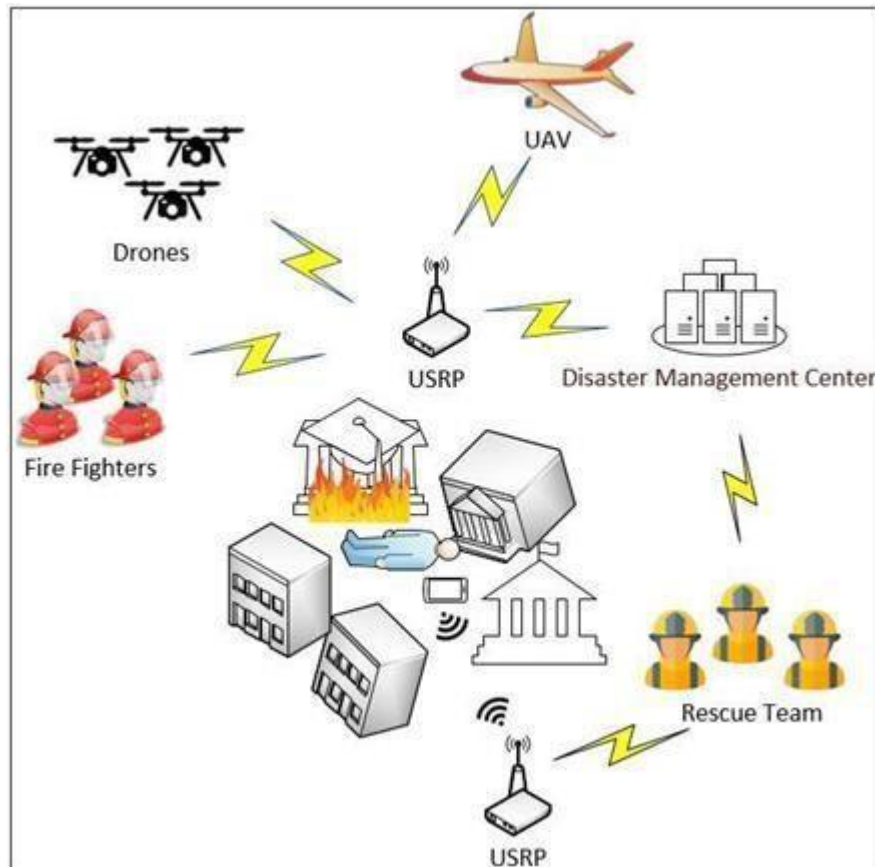# 1. Introduction

1.1. Purpose of System

Figure 1. Disaster Management System Environment

The significance of Disaster Management System gets to be obvious when managing with all helpful viewpoints of crises by organizing and overseeing of assets and obligations to reduce the affect of disasters. The center of Rescue extend is to manage resources, such as medical aid, nourishment and coordinate different groups, fire offices, police, soldiers, search and rescue teams, and medical personal to arrange emergent actions.

2.Diagrams

2.1 Use Case Diagram

In this diagram we focus fundemental actors and cases in our Project.

UAV&Helicopters&Sensors&Drones&Cameras, : These Observation Sources, collect data from areas and send damage information to Disaster Management System(DMC).

Fire-Fighters: This actor does tasks which is assigned by DMC, extinguish fire and create detailed report about incident area.

Soldiers and Polices: These actors provide security to people and help teams when they need.

Search and Rescue Teams: Collect information and brief Disaster Management System about sufferers.

Mediacal Team: This actor conduct triage and cure people who are wounded.

Disaster Management Center(DMC): This actor receive damage information from observation sources and create action plan for itself. Then, inform groups about current situation. It sends announcements as message to public. After action plan, it delivers damage information with assigning tasks.
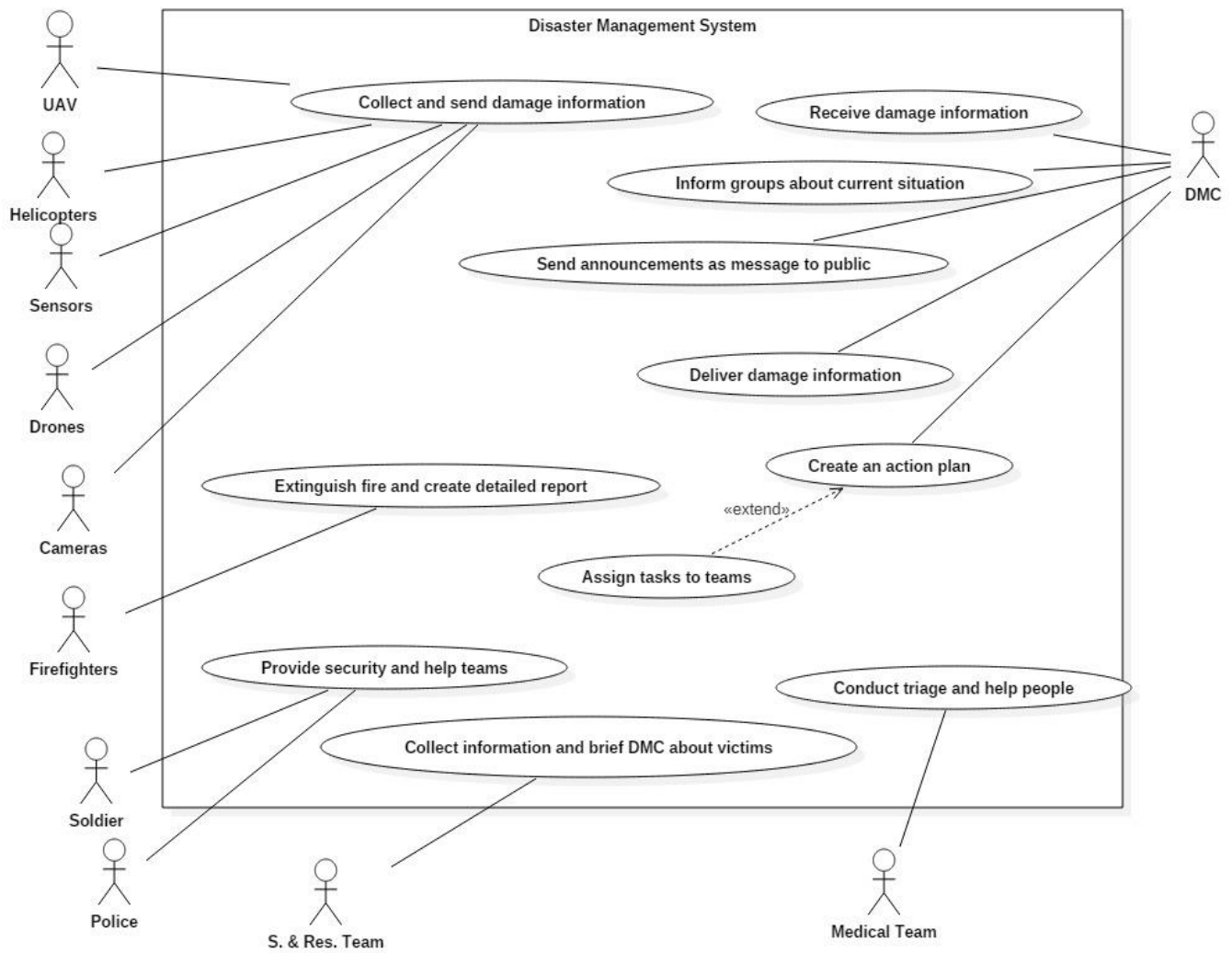
Figure 2 Use Case Diagram

2.2. Class Diagram

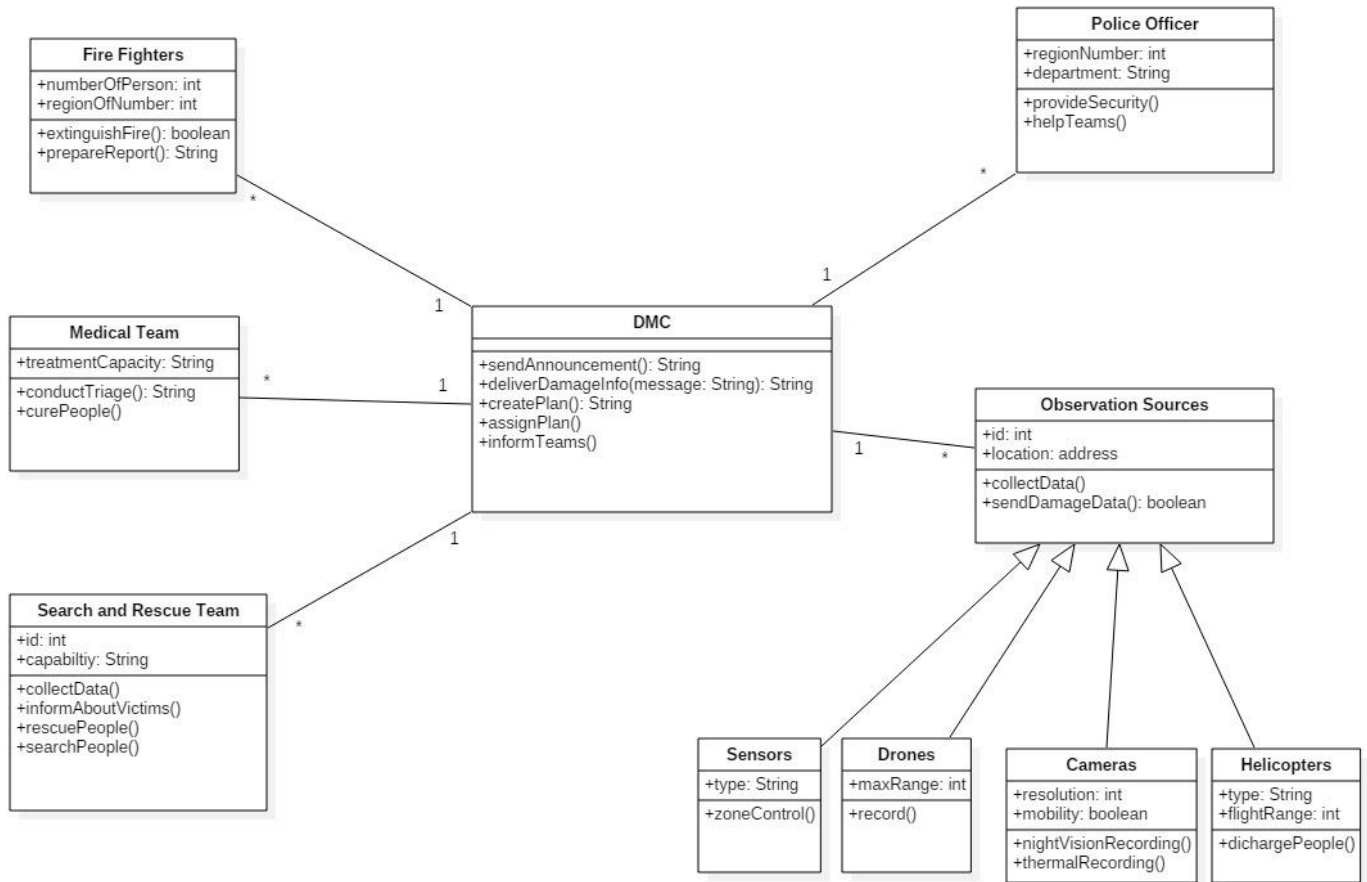This Class Diagram include systems and methods of our Project.

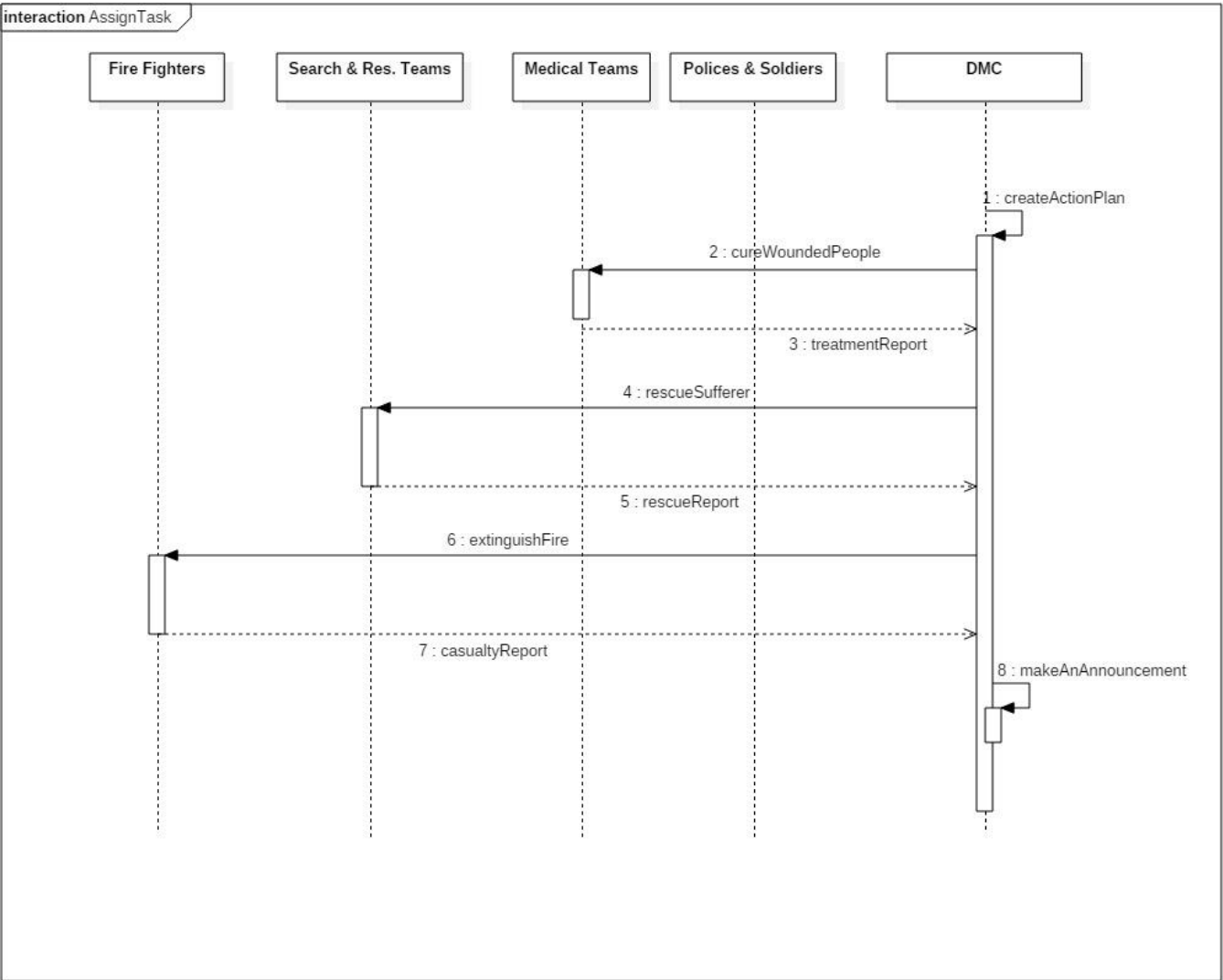**Figure 3.** Class Diagram

2.3. Assign Task Sequence Diagram

Figure 4 Assign Task Sequence Diagram
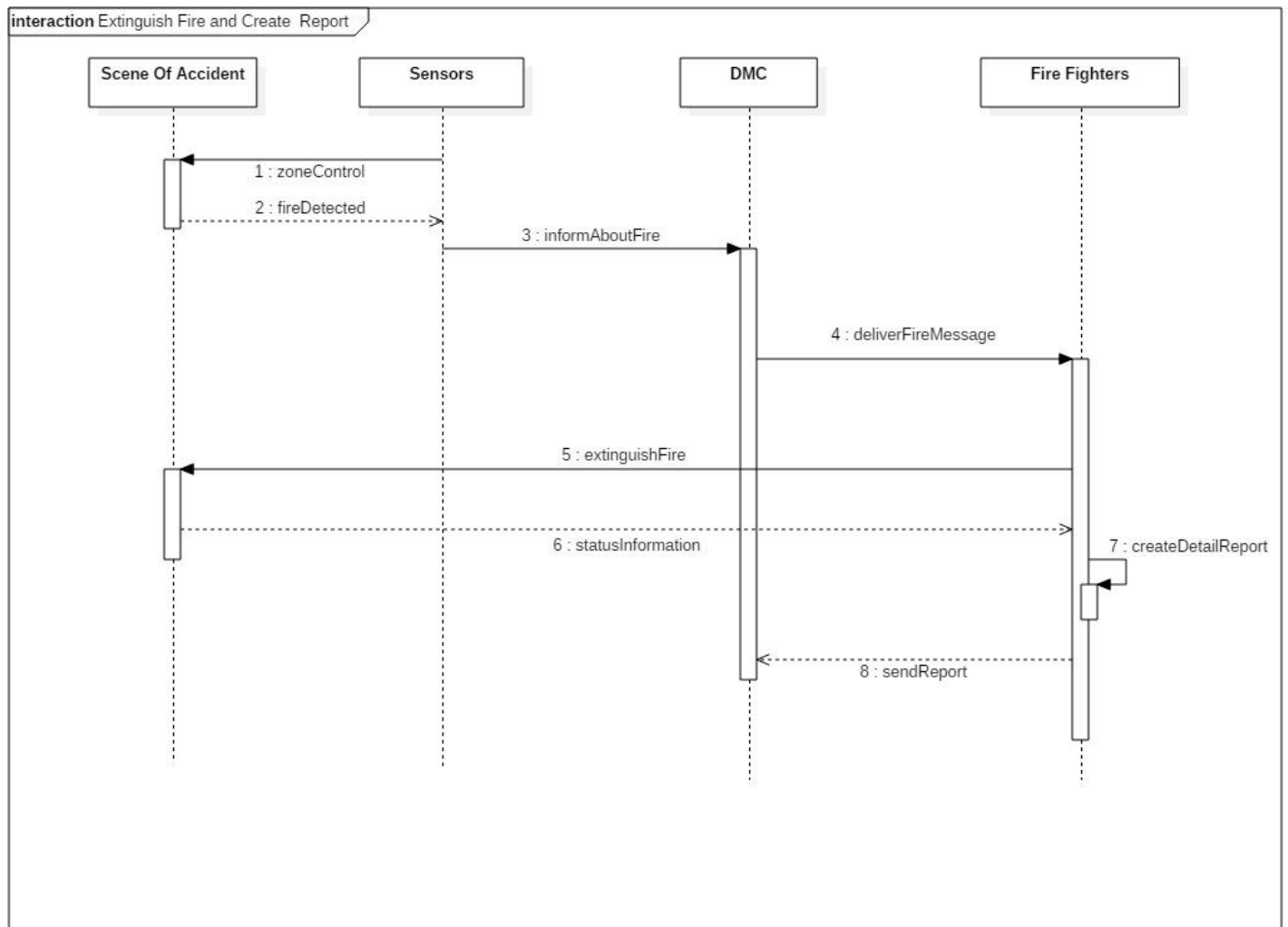
2.4. Extinguish Fire and Create ReportSequence Diagram

Figure5. Extinguish Fire and Create Detailed Report Sequence Diagram