Emergency Responder Locator Prototype Dynamic Information Visualization Application

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WHERE LEADERS LOOK *forward*

Description

In a defined interior space, display the location of objects in real time, determine objects requiring special attention, and dispatch a robot to that location.

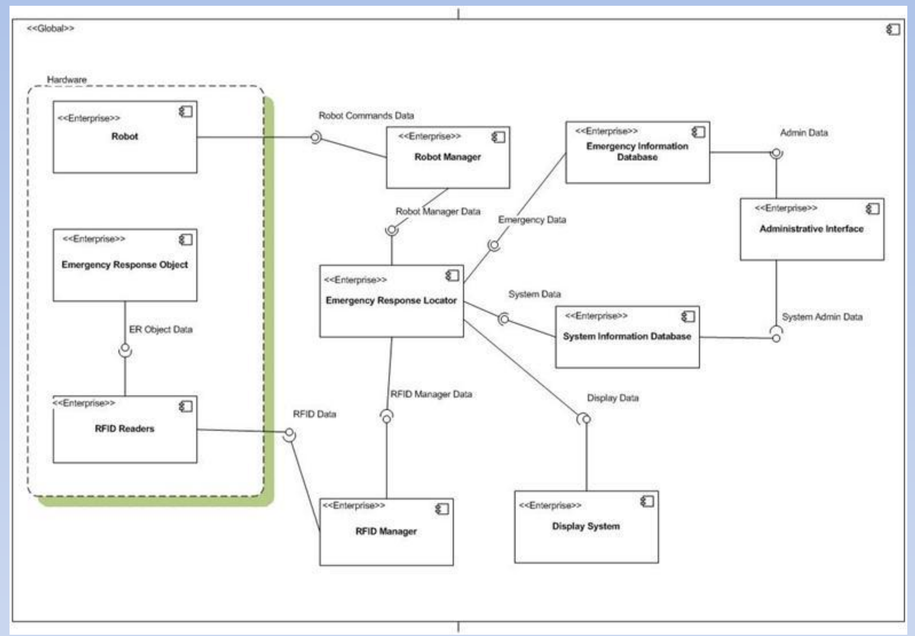
Key Educational Objectives

- Learn the implication of emerging technologies
- Learn the concepts of system architecture and integration
- Learn about the development of requirements and interactively working with a Subject Matter Expert
- Learn the value of team work in a complex project.

Educational Settings

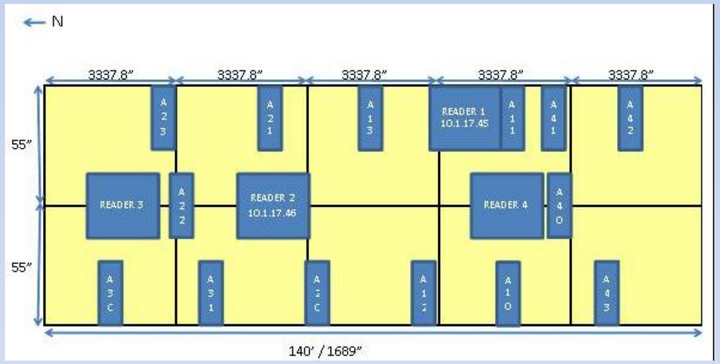
•Graduate Course in Software Engineering
•Summer Research Program for Teams of AP/CS High School Students.

ER-Locator System Architecture



Illustrative Layer On GIS Floor Plan Howard Hall Level 1

RFID Reader/Antenna Placement and Location Grid



Technologies Used

- **Passive RFID**
  - Alien Readers/Antennas
  - Omni-ID & Alien Tags
- **Pioneer Robot**
  - Wireless Control
  - Grabber
  - Video Streaming
- **Electronic Floor Plan**
  - FloorView
  - GIS
- **SDEs**
  - JAVA, C#, HTML
  - XML, SENSORML
  - Relational Database

Balloons with RFID Tags Simulating Objects Plus Robot