Institute of FIeld roBOtics (FIBO)

A Cradle of Future Leaders in Robotics

Emergency Medical Service system (EMSs)

Investigators: Dr.Djitt Laowattana, Dr.Pichit Rerkshanandra, Wuttichai Visarnkuna, Prakarnkiat Youngkong

The Emergency Medical Service system (EMSs) is a pre-hospital emergency care system, considering as a part of the national public health care plan that focuses on emergency cases, caused by accidents or acute diseases. And, patients in those cases become disable. In order to provide them such an emergency medical service in time, new methods and technologies are introduced and tested in this very first state which hopefully would ease up procedures for field operators, increase effectiveness in working environments, and decrease pre-hospital operating times. For instance, Global Positioning System (GPS) and General Packet Radio Service (GPRS) are used to communicate between a project call center and ambulances so that the most accurate and effective direction could be given to operators.

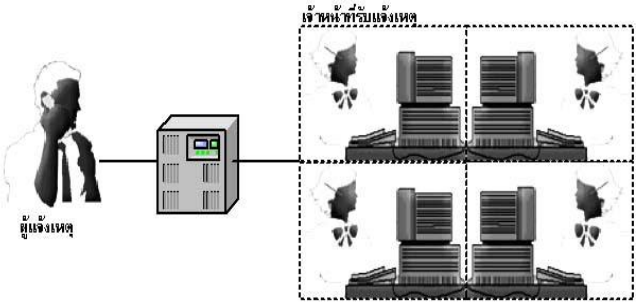

Figure 1 A designed call center system.

To design and construct the system, the Institute of Field RoBOtics (FIBO), at the King Mongkut's University of Technology Thonburi, focuses its major attention into the following components;

- To provide pre-hospital health care services in time,
- To deliver patients to hospitals correctly with right methods,
- To provide first-aid to patients correctly,
- To speed up delivery time,
- To increase effectiveness of the emergency health care procedure, and
- To synchronize involvers into the same procedure.

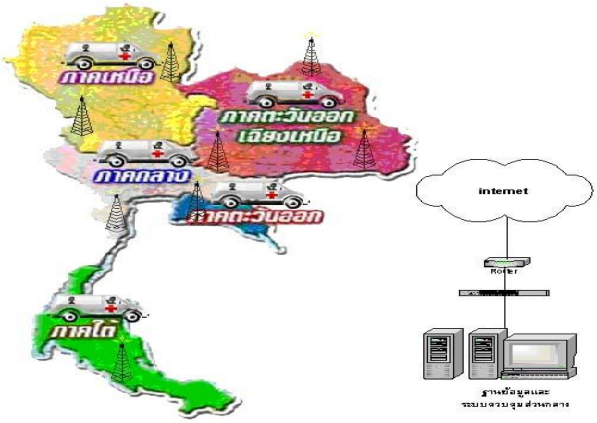

Figure 2 Positions of ambulances shown on the map.

In collaboration with the National Health Security Office, FIBO has been designing and developing components as shown below;

1. Designing a workflow for a EMSs call center,
2. Constructing a positioning system using mapping technologies,
3. Constructing a vehicle tracking system,
4. Using a web application to construct a customer relation management system, and
5. Constructing a knowledge-based management to provide necessary information as requested.