

# **Computing for Human Services**

**Chief Editor**

**Shihab Ahmed Hameed**

*Electrical and Computer Engineering-IIUM University*

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## Chapter 24

### Interactive Web-Based Model for Medical Emergency

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#### 24.1. Introduction

Survey study for the current Malaysian healthcare, medical and emergency systems shows that they are still suffering from locality, paper-based and lack of utilizing Internet, multimedia, wireless and real time technologies. More details on drawbacks are shown in many related publications [1-5]. In this paper we will focus on the following drawbacks: locality, Lack of supporting multimedia, real-time and mobility technology, lack of unified interactive web-based database and electronic medical record. On other hand; an emergency system reduces the risk of an emergency case to the health and safety of persons and valuables by providing an effective means of communication with relevant authorities, safety guidelines and measures to be taken in an emergency situation [6]. Several of these systems are normally rely on the existing telephone and other communications infrastructure via operators and service personnel; therefore they suffer from several drawbacks [7]. Many hospitals and emergency centers are not efficient enough because the big number of emergency cases, which is not easy to be handled. In an emergency department, most likely a nurse will determine the severity of the wound and check patient's vital signs such as temperature, blood pressure and heart rate. Additional personal information and medical history have to be obtained. In case patient's information is stored in another clinic or hospital they have to be obtained. Unless the patient has brought the personal file along, getting the required information will slow down the process. An emergency physician will have to examine the patient. In some cases, the patient needs much attention and sometimes the surgery room or other devices will be needed. All these will have to be arranged in timely manner, which at present is not the case.

The lack or misunderstanding of ethical principles for people related to medical environment is another important problem that is reflected in the behavior of people as client or medical related staff, which affect the whole process.