

<b>Department:</b>	<b>Computer Engineering</b>	
<b>Project:</b>	Intercontinental hotels and resorts reservation system	
<b>Supervisors:</b>	Prof. Dr. Gamal Selim	
<b>Students:</b>	Khalid Osama Tayseer	Ramy Farouk Abd-Allah Rashwan

### ABSTRACT

A desktop application used by reservation desk employers to perform reservations for the hotel clients. It contains a brief description about all hotel branches including resorts, rooms and suites in each branch in addition to a special offers page that provides the latest offers. The main screen of the application was provided with multimedia elements, photos and videos to add some interaction to the user. Each branch or resort page also contains random photos for the corresponding real life locations.

The application was written in C# language and connected to an access database file to ensure the ease of resolving the history of the customer and review the rooms and suites statuses whether reserved or free to start the reservation process.

<b>Department:</b>	<b>Computer Engineering</b>		
<b>Project:</b>	Blood Pressure Control		
<b>Supervisors:</b>	Dr. Abd El-Moneem Wahdan		
<b>Students:</b>	Ahmed M. Farid	Amgad M. Sedky	Rana O. Abo El-Nour

## ABSTRACT

Controlling blood pressure of a patient is one of the main problems that face doctors in the ICU. As the patient's blood pressure is very unstable and the human action might not be quick enough to compensate for the fluctuations. Therefore an automated control system was provided to support the fluctuations in order to maintain a stable blood pressure until a nurse or a doctor arrives at the scene.

The problem was to design a system that mimics the human action. It will be fast, intelligent and robust controller to compensate for irregularities in patients. In order to find a solution for this problem a design of a fuzzy, PID and Hybrid Fuzzy-PID control systems are proposed. The controllers provide a closed loop control for one of the most important vital signs in ICU patients, which is the Mean Arterial Pressure (MAP). A continuous drug infusion system, where the drug infusion rates of two drugs (Sodium Nitroprusside (SNP) and Dopamine (DPM)) is manipulated to maintain MAP. Simulation was carried out using a specific model that was designed based on clinical readings and statistics. The controller showed high reliability with the changeable model parameters within an acceptable time delay. MATLAB SIMULINK™ and fuzzy logic toolbox were used to simulate this system.

After experimenting with the three different controllers, the hybrid Fuzzy-PID controller proved to be the better controller with minimum overshoot (since the PID controller was optimized using Zigler & Nichols approach) and minimum response time with high stability.

<b>Department:</b>	<b>Computer Engineering</b>		
<b>Project:</b>	Hospital RFID System		
<b>Supervisors:</b>	Dr. Rowayda Sadek		
<b>Students:</b>	Amr Abdalla Ismail	Dina Mostafa Youssef	Mohamed Gamal Gawish

### ABSTRACT

Radio frequency identification (RFID) is a recent innovative technology that is considered to be the next wave of the IT revolution. The emergence of RFID has been affecting a number of industries globally. For example, RFID has been applied in some large industries like logistics, manufacturing, food safety management, and health care institutes, so applying it here in Egypt is a necessary step to cope with that technology applications and developments. In today's technology environment, we are all concerned about time, to save it and use it in the best way. At medical purposes the problem of time is significant since one minute can save a person's life, and any little mistake could be disastrous.

In this project we have designed and implemented a simple RFID system to be placed in hospitals that provides a smart and accurate tool for doctors, nurses, and caregivers to access their patient's medical histories, and update them since they enter the hospital until their recovery.

When a patient enters the hospital for the first time, he gets his own tag which carries his own unique ID number. This number is a gate for a complete, well-managed database showing all medical service entities related to him (Medical record, Status, Prescriptions ...etc). At the doctor's first analysis of the patient's condition, he scans the patient's tag with a handheld reader which is connected to a PC. When he reads the patient's ID, the patient's page is displayed through the interface showing the patient's record. The doctor then stores his analysis in the patient's record in the database, writing his own notes and recommendations for the nurse which takes the daily responsibility of the patient applying the doctor's recommendations. The nurse also carries her own RFID handheld reader which is connected to a PC. When she reads the patient's ID, his page is displayed through the interface showing data and ready for updates. This system allows the wireless storage and automatic retrieval of data and provides a significant improvement on identification (especially for restricted areas).

<b>Department:</b>	<b>Computer Engineering</b>	
<b>Project:</b>	Multitouch Surface Based On FTIR	
<b>Supervisors:</b>	Dr. Gamal Selim, Dr. Sherif Fadel	
<b>Students:</b>	Nour El Din Samy	6103595
	Ramy Mohamed Raafat	6103635
	Sameh Fawzy Shousha	6103955

**The Way people interact with computers nowadays will soon disappear or completely change. In the future people are going to interact with the computers in a whole different manner. The utilities available today such as the mouse and keyboard will fade away and a more comfortable and natural ways to interact with the computer are going to emerge. Multitouch screens are the subject of this project. Many technologies are available today to handle the user input on the form of fingers' gestures. This project describes how to build a Multitouch surface based on FTIR and how to handle the user's fingers' gestures, it also describes a security mechanism using RFID as part of the application to control operations performed by multiple users using the same surface.**



<b>Department:</b>	<b>Computer Engineering</b>
<b>Project:</b>	<b>Online Examination System</b>
<b>Supervisors:</b>	<b>Prof. Ahmed Fahmy</b>
<b>Students:</b>	Sameh Saleh Bakr Alaa Mohamed Selim Hany Nasser

**ABSTRACT**

*The Online Examination System* is a web based application developed using MySQL/PHP and ORACLE-APEX. It is aimed at creating an exam system which can handle formulas with random value generation for its variables.

The examination consists of different types of multiple choice questions. The questions are selected at random to ensure that each student gets a different set of questions. The examiner can create a formula for each question along with ranges of variables related to it. The examinee is provided with random set of choices for each question to avoid duplicated order of choices. The answers are evaluated at runtime and the marks obtained for each along with the answer given by the student are stored in the database.

The examiner can get the results immediately in addition to statistics report and trends graphs showing the percentage of students that solved each question, which shows the difficulty measure of each question. Besides that the student can get the results of all exams in all subjects. The software maintains the details for each student as well as provides a facility for editing the student details if required. Authentication is provided via sessions and the password is stored in encrypted form (MD5 hash) in the database.

<b>Department:</b>	<b>Computer Engineering</b>	
<b>Project:</b>	Social Network Design	
<b>Supervisors:</b>	Prof Dr Gamal Selim	
<b>Students:</b>	Tamer Abd ElRahman Sayed Norhan Saud Mohamed	

### ABSTRACT

Social Network is the grouping of individuals into specific groups, like small rural communities or a neighborhood subdivision, if you will. Although social networking is possible in person, especially in the workplace, universities, and high schools, it is most popular online. This is because unlike most high schools, colleges, or workplaces, the internet is filled with millions of individuals who are looking to meet other people, to gather and share first-hand information and experiences about cooking, golfing, gardening, developing friendships or professional alliances, finding employment, business-to-business marketing and even groups sharing information. The friends that you can make are just one of the many benefits to social networking online. Another one of those benefits includes diversity because the internet gives individuals from all around the world access to social networking sites. This means that although you are in the United States, you could develop an online friendship with someone in Denmark or India. Not only will you make new friends, but you just might learn a thing or two about new cultures or new languages and learning is always a good thing. Pryvit is a social networking service , pryvit will have active users. Users may create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. Pryvit users must register before using the site. Additionally, users may join common-interest user groups, organized by workplace, school or college, or other characteristics. Users can create profiles with photos, lists of personal interests, contact information, and other personal information. Users can communicate with friends and other users through private or public messages and a chat feature. To allay concerns about privacy, Pryvit enables users to choose their own privacy settings and choose who can see specific parts of their profile The website is free to users, and generates revenue from advertising, Pryvit requires a user's name and profile picture (if applicable) to be accessible by everyone. Users can control who sees other information they have shared, as well as who can find them in searches, through their privacy settings.

<b>Department:</b>	<b>Computer Engineering</b>	
<b>Project:</b>	S/W Implementation of Social Network	
<b>Supervisors:</b>	Prof Dr. Attalah Hashad	
<b>Students:</b>	Ramy Osama Mohamed Sayed Dina Abd elfattah	

**ABSTRACT**

A social network is a social structure made up of individuals (or organizations) called "nodes", which are tied (connected) by one or more specific types of interdependency, such as friendship, kinship, common interest, financial exchange, dislike, relationships, or relationships of beliefs, knowledge or prestige. Social network analysis views social relationships in terms of network theory consisting of nodes and ties (also called edges, links, or connections). Nodes are the individual actors within the networks, and ties are the relationships between the actors. The resulting graph-based structures are often very complex. There can be many kinds of ties between the nodes. Research in a number of academic fields has shown that social networks operate on many levels, from families up to the level of nations, and play a critical role in determining the way problems are solved, organizations are run, and the degree to which individuals succeed in achieving their goals. Pryvit is a social networking service, pryvit will have active users. Users may create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. Pryvit users must register before using the site. Additionally, users may join common-interest user groups, organized by workplace, school or college, or other characteristics. Users have been able to control what types of information are shared automatically with friends. Users are now able to prevent user-set categories of friends from seeing updates about certain types of activities, including profile changes, Wall posts, and newly added friends. One of the most popular applications on Pryvit is the Photos application, where users can upload albums and photos. Pryvit allows users to upload an unlimited number of photos, compared with other image hosting services, which apply limits to the number of photos that a user is allowed to upload. Pryvit instant messaging application called "Chat" to several networks, which allows users to communicate with friends and is similar in functionality to desktop-based instant messengers.