ملخص مشاريع التخرج
لطلاب كلية الحاسبات والمعلومات
جامعة أسيوط

للعام الجامعي٢٠٠٩ ـ ٢٠١٠م

القسم	IT& IS&CS
اسم المشروع	Content Based Image Retrieval System
المشرف	أ.د/ يوسف بسيونى مهدى
المجموعة (١)	١ – سارة جرجس لطفي ٢ – نانسي أنيس قليني ٣- مريم وجيه لويس ٤- سيلفانا أسامة كامل ٥ – ماريانا مجدي اسحق ٦ – ميرا سامح لويس
المعاونون	م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على م/ ماجد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن

Content Based Image Retrieval System

Storage and image retrieval from multimedia database systems has become a requirement for many contemporary information systems. An image retrieval system is a computer system for searching and retrieving images from a database of digital images. The traditional techniques of image retrieval rely on annotating images with metadata such as captioning, keywords, or textual descriptions so that retrieval process can be performed based on the annotation words. Hence, the image search strategy is turned into text search. These methods are time-consuming, require human intervention to annotate the images, and their accuracy depends mainly on the image description.

In an effort to overcome these problems and improve retrieval performance, we have focused more and more on content-based image retrieval.

Content-based image retrieval techniques overcome these issues and provide an automatic scheme for indexing digital images. These techniques describe the indexed images based on image features that can

be captured from image contents. These features can be automatically extracted from the images while storing them in the database. Several image features can be relied upon such as color density, color histogram, and color layout.

In this project a content-based image retrieval system is designed and implemented. It is mainly a web-based system that stores the images in a server-side image database.

It allows a user to input an image and retrieves all images from a database similar to the user input image. The retrieval process is carried out in the backend and the results (if any) are sent back to the user.

Project Pre-requisite
1. Basic background of image processing.
2. C# programming skills.
3. SQL server skills.
4. Basic background of web-programming (HTML, Asp.net, … etc.).

القسم	CS & IS
اسم المشروع	**Digital Rights Management System For Multimedia Content Based on The watermarking and Steganography techniques**
المشرف	**أ.د/ يوسف بسيوني مهدي**
اسماء الطلاب	**١ – إبراهيم أحمد محفوظ** **٢ – أحمد جمال الدين حسانين** **٣ – محمد رمضان عز الدين** **٤ – هاني خلاف إبراهيم** **٥ – بيشوي عاطف وليم**
المعاونون	**م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على** **م/ ماجد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن**

One of the most important property of (digital) information is that it is in principle very easy to produce and distribute unlimited number of its copies. This might undermine the music, film, book and software industries and therefore it brings a variety of important problems concerning the protection of the intellectual and production rights that badly need to be solved.

Digital Rights Management (DRM) is an issue of controlling and managing intellectual property rights in the interest of the owners to protect their content against copyright infringements or other license violating use.

DRM doesn't just stop users from making many copies of an intellectual property item, but it usually prevents any kind of transfer at all. It will constrain resale and other means of transfer. Nowadays, DRM has broadened its scope to description, identification, trading, (copyright) protection, ownership assertion, integrity checks, monitoring and tracking of rights over tangible or in-tangible assets. These assets include digital content and other digitally distributable assets that can be categorized into five basic types: audio, video, text and documents, graphics and images, software

Nowadays, most content providers are protecting their digital content. However, they use a variety of technologies and a combination of these technologies to control access to and usage of their digital content.

Digital watermarking is the core technology in electronic rights protection. A digital watermark is digital data that can be embedded in digital contents and it allows one to establish ownership, identify a buyer, or add additional information about the digital content. In general, a watermarking enables ownership assertion, fingerprinting, authentication and integrity verification, content labeling, usage control and content protection. Watermarks in digital music and video may not always be imperceptible for humans.

Steganography and watermarking bring a variety of very important techniques how to hide important information in an undetectable and/or irremovable way in audio and video data.

Technologies based on watermarking embed data directly into content, resulting in imperceptible degradation in visual quality. Three major industries have a vital interest in this problem: The motion picture industry, the consumer electronics (CE) industry, and the information technology (IT) industry.

The main goal of this project is to build *Digital Rights Management system of Multimedia Content based on the currently available Watermarking and* Steganography techniques.
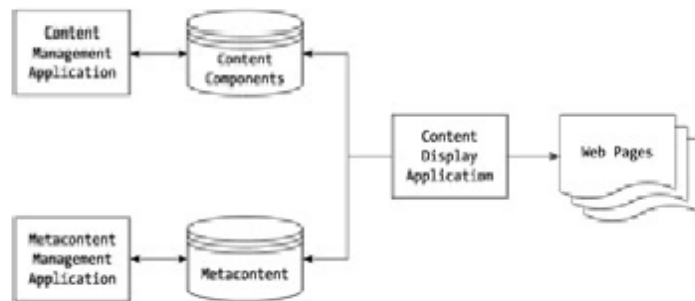
Project Pre-requisite
1. Basic background of multimedia.
2. C# programming skills.
3. SQL server skills.

القسم	**IS & IT**	
اسم المشروع	**Building a Content Management System**	
المشرف	أ.د/ يوسف بسيونى مهدى	
أسماء الطلاب	١ – ماريان إبراهيم جرس ٢ – نيفين حمدي فتحي ٣ – نجيب سالم ثابت ٤ – عمرو خضراوي عبد العزيز ٥ – وائل صلاح البدري ٦ – محمد عبد الوهاب إبراهيم ٧ – ماجي أيميل عياد ٨ – مريم مدحت ميلاد ٩ – مارينا اسحق إبراهيم ١٠ – رويس فرنسيس نصيف ١١ – مينا ماهر ذكي ١٢ – ماجي أيميل عياد	
المعاونون	م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على م/ ماجد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن	

Introduction:

A content management system is a system that manages the content components of a Web site. A content management system (CMS) is a system made up of a minimum of three applications: content management, metacontent management, and content delivery. Their purpose is to manage the full life cycle of content components and metacontent by way of a workflow in a repository, with the goal of dynamically displaying content in a user-friendly fashion on a Web site, the following figure displays a simple CMS flowchart.

The metacontent determines what is displayed and how it is displayed. The content delivery application generates Web pages by extracting content components and metacontent from their respective repositories.

The Goal:

The major goal of this project is to built a content management system, AUCMS, written from scratch using the power of Microsoft's .NET such as ASP.net, ADO.NET,and C#, and it uses Microsoft SQL Server to store its content. AUCMS must have, at least, the following high-level features:

1. Initialization system & Fully remote administration system
2. Role-based, workflow-controlled content management application
3. Full authentication and role-based authorization using encrypted passwords
4. Fully ASP.NET-controlled metacontent management application
5. Three-level dynamic content delivery application
6. User profile collection system & Restricted content

Project Pre-requisite

1. C# programming skills & SQL server skills.
2. Basic background of web-programming (HTML, Asp.net, … etc.).

القسم	**IT & CS & IS**
اسم المشروع	**FCITUBE**
المشرف	أ.د/ يوسف بسيونى مهدى
أسماء الطلاب	١ – محمد سيد حسن محروص ٢ – مصطفي محمد أمين أحمد ٣ – كيرلس متري لوقا ٤ – ماجد نشأت عجيب ٥ – عاصم شوقي فؤاد ٦ – كيرلس محسن هلال ٧ – محمود سالم إبراهيم ٨ – محمد حماد عبد الحميد ٩ – محمد فؤاد أمين عمار ١٠ – إبرام ثروت نصيف ١١ – ماركو مراد بسطوروس معوض
المعاونون	م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على م/ ماجد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن

Nowadays, one can see a great amount of video blogs around the internet (YouTube, Metacafe etc). The main functionality of these video blogs is to allow people from all around the world to share their videos among others. Besides the possibility for video creators to share their material, it also provides hundreds of hours of entertainment for users who just want to watch new exciting video clips. Videocafe is another video blog which uses the latest technologies (such as Ajax) to provide the best viewing experience out there.

Videocafe 's Functionality

1. *Watch Videos*
2. *Register to Videocafe*
3. *Uploading a video*
4. *Tag marking*
5. *Share video*
6. *Rate a video*
7. *Categories*
8. *Search*
9. *"More from the same creator"*
10. *Related videos*
11. *Ease of use*
12. *Language*

Performance requirements
> The system will be robust enough in order to accommodate hundreds of multiple users. The system will be scalable and could be adjusted to support an unlimited number of concurrent users.

Operational requirements
> Videocafe has no special requirements from its users, although the web site will be best viewed using Internet Explorer 6.0 or better.

Project Pre-requisite
1. Multimedia conversion skills
2. C# programming skills.
3. SQL server skills.
4. Basic background of web-programming (HTML, Asp.net, … etc.).

القسم	**IS&IT**
اسم المشروع	HUMAN RESOURCE MANAGEMENT SYSTEM (HRMS)
المشرف	**أ.د/ يوسف بسيونى مهدى**
أسماء الطلاب	**١ – محمود سعد حسن** **٢ – أحمد محمد عبد السميع** **٣ – مصطفي السيد علي محمد** **٤ – أحمد صادق محمد سالم** **٥ – حسن أحمد رفاعي** **٦ – عرفة وهاب محمود أحمد**
المعاونون	**م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على** **م/ ماجد احمد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن**

The HRMS system is a powerful application designed to allow organizations to streamline their human resource tasks and manage their employees more efficiently:

- Employee and Company Information
- Employee Time, Attendance, and Leave Request using Biometric Fingerprint

HR Documentation Management

Project Pre-requisite

3. C# programming skills.
4. SQL server skills.
5. Basic background of web-programming (HTML, Asp.net, … etc.).

القسم	IT
اسم المشروع	Mobile Applications in Traffic Services
المشرف	أ.د/ يوسف بسيونى مهدى
أسماء الطلاب	١ – مكسيم محب نعيم ٢ – مهاب ممدوح مكين ٣ – شادي نشأت فهمي ٤ – مينا سمير ملك ٥ – كيرلس سمير عدلي ٦ – مينا جرجس حنا ٧ – مينا رمسيس حفظ الله
المعاونون	م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على م/ ماجد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن

نبذة عن المشروع

Mobile phones or Personal Digital Assistants (PDAs) with advanced imaging and communication capabilities have become ubiquitous. The main goal of this project is to design and implement a   traffic application for Mobile Devices.

القسم	IT
اسم المشروع	Mobile GIS Applications
المشرف	أ.د/ يوسف بسيونى مهدى
أسماء الطلاب	١- رسمي فوزي بطرس ٢- أسامة أنور ملاك ٣- مينا طلعت اندراوس ٤- وائل وجيه وليم ٥- مينا ناجح اسحق ٦- شادي عزت جرس ٧- مينا سنيد كامل ٨- شنودة عياد قلدس عبد المسيح
المعاونون	م/ احمد محمد عبدالمنعم م/ اسلام طه م م / محمد على م/ ماجد احمد جادالرب عسكر م/ احمد لؤى م/ عبد الرحمن

Faced with an increasingly difficult challenge in growing both average revenue per user (ARPU) and numbers of subscribers, wireless carriers and their partners are developing a host of new products, services, and business models based on data services. Location services, which provide information specific to a location, are a key part of this portfolio .

Location-based services offer many opportunities. For the mobile user, some examples of location-based services are :

- Requesting the nearest business or service, such as an ATM or restaurant
- Receiving alerts, such as notification of a sale on gas or warning of a traffic jam
- Finding a buddy

The goal of this project is to develop an example of location/context aware software applications (Location-based services.(

القسم	<u>**CS&IT&IS**</u>
اسم المشروع	<u>**Remote Assistance**</u>
المشرف	**أ.د/ عادل ابوالمجد سويسى**
أسماء الطلاب	١– هاجر جمال محمود عبد الله ٢– هدير عبد المنعم أبو الفتوح ٣– منال حامد حسن ٤– أيمان عبد الفتاح ٥– فاطمة أحمد شاكر ٦ـ **عائشة جمال محمد محروس** ٧ـ **عواطف شحاتة عبد العال** ٨ـ **أسماء محمد عبد المجيد**
المعاونون	**م/ احمد طلوبة** **م/ على حسين احمد**

نبذة عن المشروع

Remote Assistance

Design and implement an application that is based on windows sockets used to help user to control remote machines instantaneously, controlling means that you acts as your are actually sitting on this computer.

برنامج قائم على استخدام الحزم يمكن شخص التحكم بمجموعه اجهزه من خلال جهاز كمبيوتر واحد متصل بهم عن طريق الشبكه المحليه

القسم	IT&CS
اسم المشروع	<u>**Object Editing in Video Files**</u>
المشرف	**أ.د/ عادل ابوالمجد سويسى**
أسماء الطلاب	١– بدرية ضاحى عبد الرحمن ٢– فاطمة درغام على ٣ـ مرزقة ناثان سمير ٤ـ كريستينا سمير جرجس ٥ـ أيمان جاد الكريم فلاح
المعاونون	م/ احمد طلوبة م/ على حسين احمد

نبذة عن المشروع

Object Editing in Video Files

A tool that provides automation for the following:
1) Object Removal (Removes user-selected objects from the video and fills the background) and Output video contains frames where the required object is removed as if it was not recorded from the first place.
2) Object Adding: The new background is selected by the user and The Object is selected by the user, then the object is extracted and it is adding in the new background. The output video contains frames where the required object is added as if it was recorded in the second place
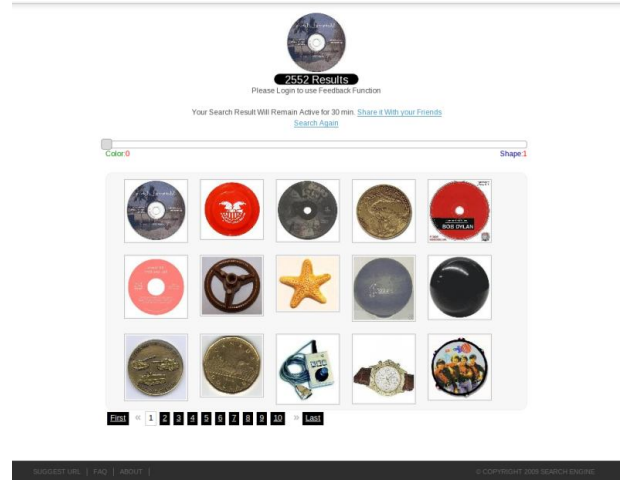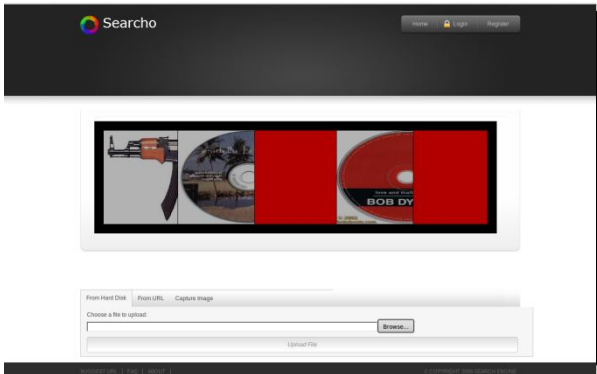
برنامج يسمح للمستخدم باستخراج كائن بعينه من فيديو مع امكانيه اما ترك الخلفيه خاليه مكانه او ادراج كائن اخر

القسم	**IT & CS & IS**
اسم المشروع	**Search-O-Media**
المشرف	**د/ عبدالرحمن حيدر عبدالرحمن**
أسماء الطلاب	١- احمد حسنى محمد ابراهيم ٢- محمد فؤاد سيد ٣- هيثم محمد عصام الدين ٤- ايه حسام الدين عبد المالك ٥- الاء عبد الراضى عزوز ٦- هبة اسامه بكر ٧- احمد محمود محمد عبد الحليم ٨- سارة محمد عبد الرحمن
المعاونون	م/ مصطفى كامل عثمان م/ نهى مصطفى

WORLD WIDE WEB has been enormously grown over the few past years. Because of explosive growth and WWW inherent lack of structure, finding what one is looking for and locating specific information remains a difficult task and can be a challenge. In fact, some of the most highly visited Web sites are search engines. Most currently available search engines only index text. While there has been some success in developing search engines for text, search engines for other media on the Web (images, video, and sounds) are just starting to appear, and are extremely primitive.

If you, for example, search for APPLE image, at Google, you will find at least half of your results are alternations of the original APPLE logo, back then, only a couple showed up, and the most of those were just the original one. **Search-O-Media** is an image web search engine that could help us in our search and save the wasted efforts, and instead of typing keyword that could be correct one or not, you will just have to upload your image and then looking for the results that are similar to the one you search for.

القسم	IS & CS	
اسم المشروع	Vehicle Monitoring System	
المشرف	د/ عبدالرحمن حيدر عبدالرحمن	
أسماء الطلاب	١- منار سيد محمد ٢- ايمان جلال احمد ٣- اسراء محمد محمد ٤- مروة محمود عبد الغنى ٥- مروة البدرى محمد ٦- دعاء جمال الدين محمد ٧- نشوى على حامد ٨- ماريانا عاطف ويليم	
المعاونون	م/ مصطفى كامل عثمان م/ نهى مصطفى	

The Vehicle Monitoring System (VMS) is an operative real time control for the moving of transport vehicles and its paths through a centric database. The VMS remotely collects information about vehicle movement. Actually, the system is design for the traffic monitoring of vehicles with tags. On this tag, the vehicle data is saved. When the vehicle passes at any gate, a reader reads this data and sends some data to a centric database to identify the vehicle paths.

This online monitoring system allows remotely in real time:

- to define a site of transport;
- to define parameters of vehicle movement;
- to carry out the control of vehicle;
- to control each step of the driver; and
- to control the vehicle moving speed.

القسم	IS
اسم المشروع	A Web-enabled Multimedia Information Tool
المشرف	د. تيسير حسن عبدالحميد
أسماء الطلاب	١- المعتصم بالله هشام خليفة ٢- طارق هشام عبد العزيز ٣- ابو بكر عبد المنتصر احمد ٤- مصطفى جمال محمد عبد اللطيف ٥- اسلام محمد عبد الله ٦- اسلام محمد رمضان
المعاونون	م- محمد صلاح م/ هادية رافت

A Web-enabled Multimedia Information Tool

نبذة عن المشروع

The tool will have the following objectives:

1. Enable users to create movies and presentations quickly and easily without any suffering to acquire advanced programming skills.
2. Save time to users when creating video presentations
3. Enable users to show their presentations without desktop players.
4. Store videos in SQL server efficiently.

		القسم
	IS	القسم
	Automation of Veterinary Hospital (small pets section) at Assiut University	اسم المشروع
	د. تيسير حسن عبدالحميد	المشرف
	١- رحاب عز العرب حسن احمد	
	٢- رباب محمد قطب احمد	
	٣- راندا محمد عبد الحميد محمد	أسماء الطلاب
	٤- أبتسام عبد المقصود محمد	
	٥- نهلة عوض محمد ابراهيم	
	م- محمد صلاح	المعاونون
	م/ هادية رافت	

	IS	القسم
Automation of Students hospital at Assuit University		اسم المشروع
د. تيسير حسن عبدالحميد		المشرف
١ – سلوى فهمى احمد عبد اللطيف ٢ – سماح نادى محمد خضرى		أسماء الطلاب

نبذة عن المشروع

The Veterinary hospital at Faculty of Veterinary Medicine requires to automate its sheets for examining medical conditions for pets. Through this project the student will be able to learn how to enter a medical sheet, how to diagnose a specific disease, and to discover association rules/ cluster this data to help the doctor to discover hidden knowledge.

Requirements:
1. SQL server 2008 and C#. Mastering a data mining tool as well.
2. Number of students: 4-6

	٣- سمر عبد الحميد حسين ٤- ريهام عادل عبد الرحيم ٥- هبة صلاح الدين محمد ٦- ايرينى ادور وينس
المعاونون	م- محمد صلاح م/ هادية رافت

نبذة عن المشروع

The Veterinary hospital at Faculty of Veterinary Medicine requires to automate its sheets for examining medical conditions for pets. Through this project the student will be able to learn how to enter a medical sheet, how to diagnose a specific disease, and to discover association rules/ cluster this data to help the doctor to discover hidden knowledge.

Requirements:
3. SQL server 2008 and C#. Mastering a data mining tool as well.
4. Number of students: 4-6

القسم	**IS & CS**
اسم المشروع	**3D Animation software for translating speed to signed-language**
المشرف	**د/ خالد فتحى حسين**
أسماء الطلاب	١ – ايمان سيد على ٢ – عائشة سعد محمد ٣ – لمياء محمد محمد ٤ – حنان مصطفى حسن ٥ – دعاء ابو السعود جهلان ٦ – راوية حسن عبد المعطى
المعاونون	م/ مصطفى ابو بكر م/ مونيكا مجدى م/ مروة حسين

نبذة عن المشروع

This project will develop 3D animation software for producing high-quality, cost-effective media in signed languages. Once completed, it can be used for communication between normal peoples, and deaf and hearing-impaired peoples. The software will translate words of normal people to signs which can be understood by deaf and dumb people.

.

القسم	CS &IS
اسم المشروع	High level computer graphics language
المشرف	د/ خالد فتحى حسين
أسماء الطلاب	١- احمد هاشم على صالح ٢- عمرو جمال عبد الحفيظ ٣- عمرو مجدى ربيع ٤- محمد يوسف بسيونى ٥- حسن سعد شعبان رزق ٦- اسامة جلال عبد الصادق
المعاونون	م/ مصطفى ابو بكر م/ مونيكا مجدى م/ مروة حسين

نبذة عن المشروع

The goal of this project is to build a high level computer language for general computer graphics tasks with special care given to 3d Modeling tasks (including Primitives construction, mesh modifiers, meshes loading & saving from/to popular file formats, scene management,.. etc)

The language will be a dynamic, loosely typed, OO featured, memory managed language, with support for writing external plug-ins in C/Cpp for enhancing language functionality (classes/functions to be used from within the language)

القسم	**CS &IS & IT**
اسم المشروع	**Automatic Generation of 3D Animations**
المشرف	**د/ خالد فتحى حسين**
أسماء الطلاب	**١ – محمد محمود يوسف** **٢ – نيفين محمد محمود** **٣ – دينا بدوى فريد** **٤ – رقية حمدى عبد الحميد** **٥ – سارة شريف محمود** **٦ – عبد الله محمد محمد عبد الرحيم** **٧ – محمد ابو الوفا عبد المعطى** **٨ – محمد نمير عبد الجواد**
المعاونون	م/ مصطفى ابو بكر م/ مونيكا مجدى م/ مروة حسين

نبذة عن المشروع

The cost of producing animated movies is very high. Turning a story in text form into an animated movie is a long and complicated procedure. Many parts of this process could be automated. This project will automate some tasks of the life cycle of computer animation generation. For example, when a story involves the movement of objects in an environment with other physical entities, there is a problem of avoiding the obstacles. The user does not have to specify how to avoid the obstacles. It is enough to specify the starting point x and endpoint y of the movement. A planning module could then automatically calculate a collision free path from x to y, if such a path exists at all.

القسم	IS & IT
اسم المشروع	3D Virtual Tour Viewer
المشرف	د/ خالد فتحى حسين
أسماء الطلاب	١ – سارة جلال مصطفى النجار ٢ – اسماء احمد عبد الكريم ٣ – الاء اسامة عبد اللطيف ٤ – عبير عبد المنعم فهيم ٥ – مهيتاب محمد فرغلى
المعاونون	م/ مصطفى ابو بكر م/ مونيكا مجدى م/ مروة حسين

نبذة عن المشروع

One of the most exciting field in computer science is Virtual Reality, it provide the user with visual experience, made from virtual environment simulated with the computer. The purpose of this project is to build a fast and highly interactive 3D virtual tour viewer. The viewer will read 3D file formats and render the result. The 3D viewer will support the Navigation features such as Orbit, Zoom, and Pan. User can define viewing mode: Color Shaded, Gray Shaded, Wire frame, or Point Cloud.

IT	**القسم**
Software framework for control and communication of mobile robots	**اسم المشروع**
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م/ مروة حسين	**المعاونون**

Software framework for control and communication of mobile robots

The objective of the project is to create and test a prototype of a software framework for wireless control and communication of mobile robots which can be adapted to work with various robotic vehicles and network infrastructures. It is possible to customize the software to the client's needs at a low cost. The software framework is flexible in which independent modules like the communications module and control module can be modified without affecting each other. Such flexibility allows the system to address the needs of a large range of clients. The software also allows the integration of other sensors and hardware such as compass, gyroscope, and sonar depending on the client's needs.

1-Content Based Image Retrieval System

2- Digital Rights Management System For Multimedia Content   Based On The on The watermarking and Steganography techniques

3- Building a Content Management System

4-Video café

5-Fingerprint identification /verification system

6-Mobile Applications in Traffic Services

7-Mobile Gis Applications

8-Remote Assistance

9-Object Editing in Video Files

10-Search-O-Media

11-Vehicle Monitoring System

12-A Web-enabled Multimedia Information Tool

13-Automation of Veterinary Hospital (small pets section) at Assiut University

14-Automation of Students hospital at Assuit University

15-3D Animation software for translating speed to signed-language

16-High level computer graphics language
17-Automatic Generation of 3D Animations
18-3D Virtual Tour Viewer
19-Software framework for control and communication
          of mobile robots