Ministry of Higher Education

And Scientific Research

University of Baghdad

AL-Khwarizmi College Of Engineering

Summaries of Scientific Research Projects for Graduate Students in information & communication Engineering Department

2011-2012

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Information & communication Department

Summaries of Scientific Research Projects for Graduate Students In Information & communication Engineering Department 2011-2012

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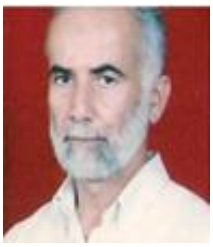
Head of the department



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Student Graduate Projects

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Student Graduate Projects 2010-2011

ت	اسم التدريسي	أسماء الطلبة	اسم المشروع
١	ا.م. د. سها محمد هادي	نورس هيثم عبد القادر عباس محمود عباس	Design and Implement an Attendance Employee Management Information System
٢	د. عمر علي عذاب منى مصطفى	يعقوب يوسف مهدي رغد رشيد سلمان	Design, Simulation and Implementation of a DSBSC Modulator/ Demodulator
٣	د. عمر علي عذاب	علياء ناصر حمد فيان عباس علي أكبر	Design, Simulation and Implementation of an FM Modulator/ Demodulator
٤	د. عمر يوسف	شمس عبد الحميد عبد المجيد أياد طارق محمد علي	Fiber optic Transmitter and Receiver cct.
٥	د. عمر يوسف علي حسين حمد	مريم خليفة عبود	Design and Implementing a SCADA based GSM system
٦	د. أمير حسين	فرح فلاح محمد نادية حسن مريوش	Automated License Plate Recognition (ALPR) System
٧	د. أمير حسين	غسق جمال ناصر	Solving Handwritten Equations using Image Processing Technology
٨	م.م.حارث فخري	سجى علي عبطان إيمان نضال عبد سعيدان	Design and Implementation of Car Anti-Sabotage System
٩	م.م.حارث فخري	قاسم نوري حسين ميادة عبد المحسن عبد الزهرة	Design and Implementation of an Examination Committee System Based on PHP
١٠	م.م.ياسر احمد	صبا رشيد حسن لورنس حكمت فرج	Design and Implementation of an Internet Firewall HTTP Filter
١١	م.احمد ستار	إسراء ناطق جواد زهراء سعد جاسم	Hybrid Watermarking Algorithm Based on Singular Value Decomposition (SVD) and Radon Transform
١٢	م.فاطمة بهجت	بسمة باسم عبد علوان مريم علي	Iris Recognition using DCT ANN

Student's Project Paper for Final Stage

Project index: 1

Design and Implement an attendance Management Information System		**Project Name**
Nawras Hatham	**Abbas Mahmmod**	**Student Name**
Assistant prof. Dr. Suha Mohammed Hadi		**Supervisor Name**
The goal of the project is to design and Implement an Electronic system for the employee attendance in an secure IS		**The Aim of the Project**
This project will be build using the Bar Code technique on the employee Identification which will hold his picture this Bar Code will be the cryptographic of the Employee information and every time the employee appear his ID in front of the Bar-Code reader a picture will be taken to that employee and the time for attendance will be tagged on the picture		**Project Summery**

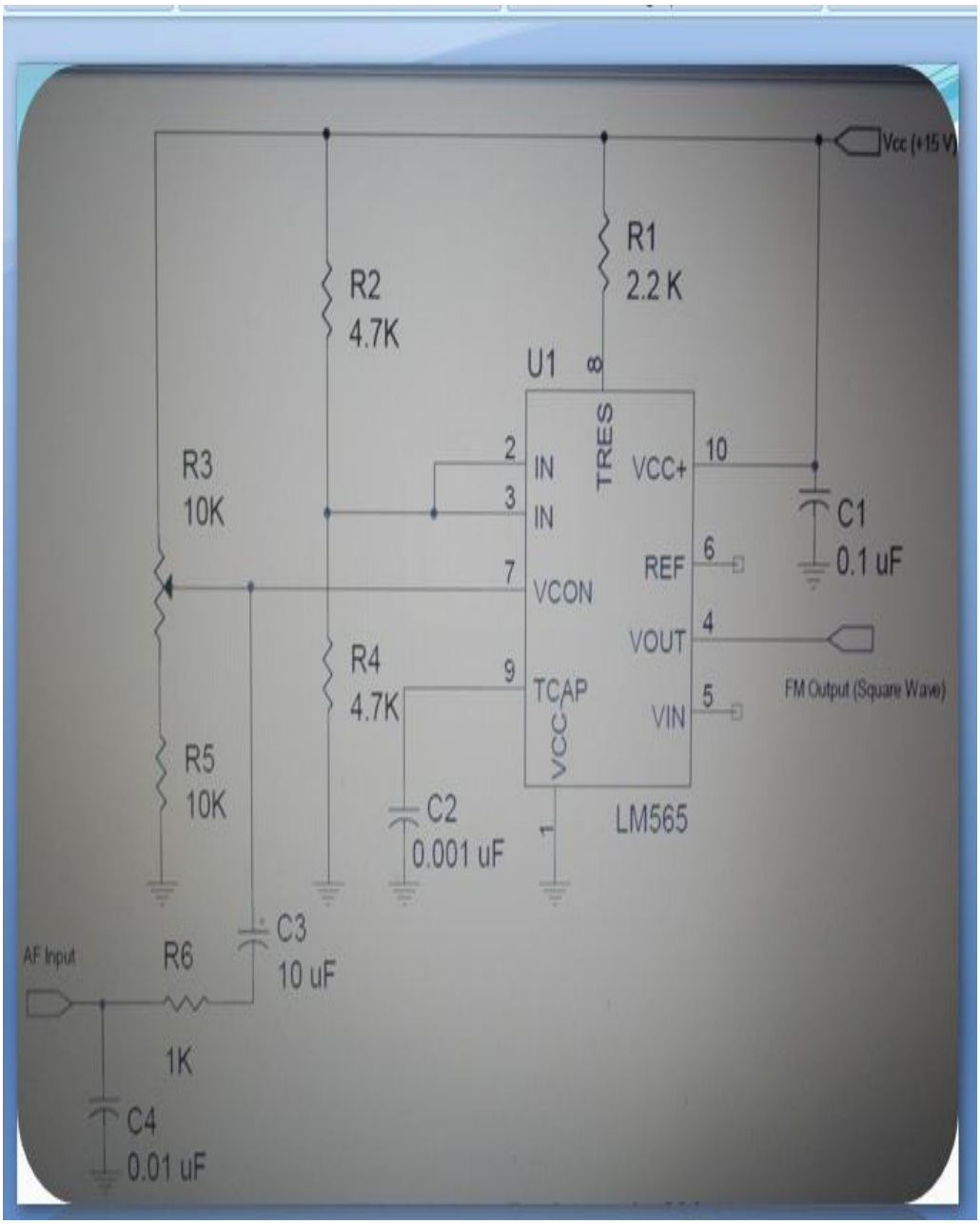
Design and Implement an attendance Management Information System

Student's Project Paper for Final Stage

Project index: 2

Design, Simulation and Implementation of an FM modulator / Demodulator		**Project Name**
Vian Abbas Ali	**Aliaa Nasir Hamad**	**Student Name**
Dr. Omar A. Athab		**Supervisor Name**
A step forward to design an FM broadcasting station in Al-Khwarizmi College of Engineering		**The Aim of the Project**
FM is one of Angle modulation techniques. It depends upon modifying the frequency of the carrier wave to get better performance. The project involves studying the theory and the various methods that are used to realize the FM signal. Then, an electronic circuit is to be designed. Testing the operation of FM signal using Matlab. Finally, implementing a prototype of the FM modulator Demodulator circuit.		**Project Summery**

Design, Simulation and Implementation of an FM modulator / Demodulator



Student's Project Paper for Final Stage

Project index: 3

Design ,Simulation and Implementation of a DSB-SC Modulator/Demodulator		**Project Name**
Ya'aqub Yousif Mahdi	**Raghad Rasheed Salman**	**Student Name**
Dr. Omar A. Athab		**Supervisor Name**
Data Transmission among building of AL-Khwarizmi College of Engineering campus		**The Aim of the Project**
Amplitude Modulation and Angle Modulation are the main types of modulation. DSB-SC is one of amplitude modulation techniques. IT depends on modifying the amplitude of the carrier wave to get better performance. The project involves studying the theory and the various methods that are used to realize the DSB-SC signal. Testing the operation of DSB-SC signal using MATLAB. Then an electronic circuit is to be implemented as a prototype.		**Project Summery**

Design ,Simulation and Implementation of a DSB-SC Modulator/Demodulator

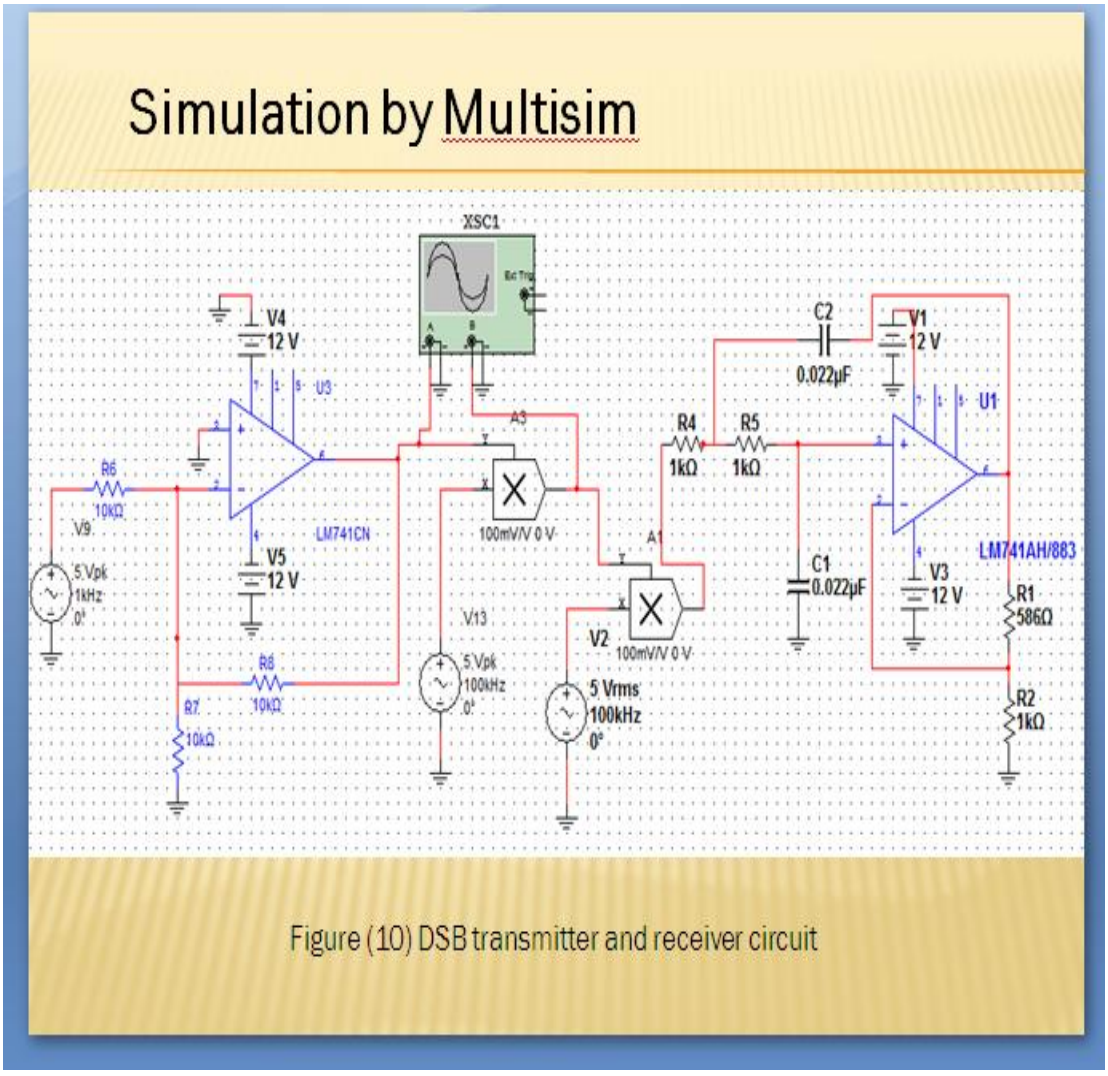


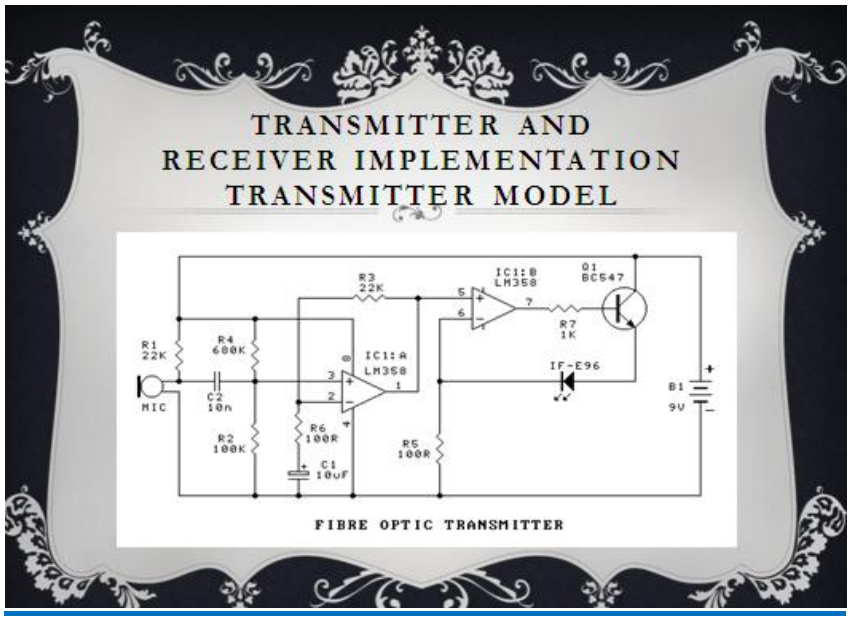
Figure (10) DSB transmitter and receiver circuit

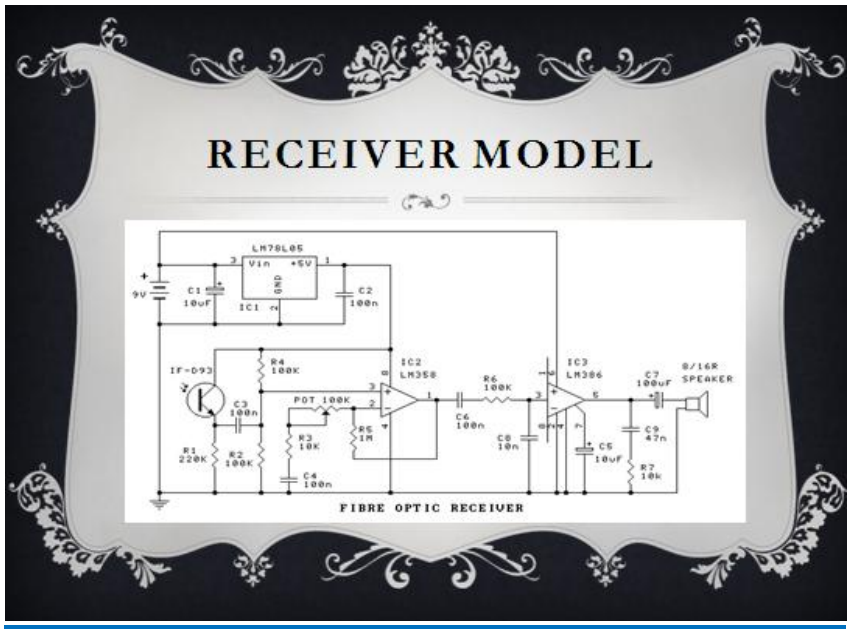
Student's Project Paper for Final Stage

Project index: 4

Fiber Optic Transmitter and Receiver circuit		**Project Name**
Ayad Tariq	**Shams Abdulhameed**	**Student Name**
Dr. Omar Yousif		**Supervisor Name**
Design an optical communication System to transmit a voice message from a transmitter to receiver through a optical fiber		**The Aim of the Project**
1- Design a transmitter system(optical) **2- Design an optical receiver** **3- Transmitting a voice signal through a microphone across the optical fiber** ***4*- Receiver as a voice through the micro phone and accommodate for the noise**		**Project Summery**

Fiber Optic Transmitter and Receiver circuit



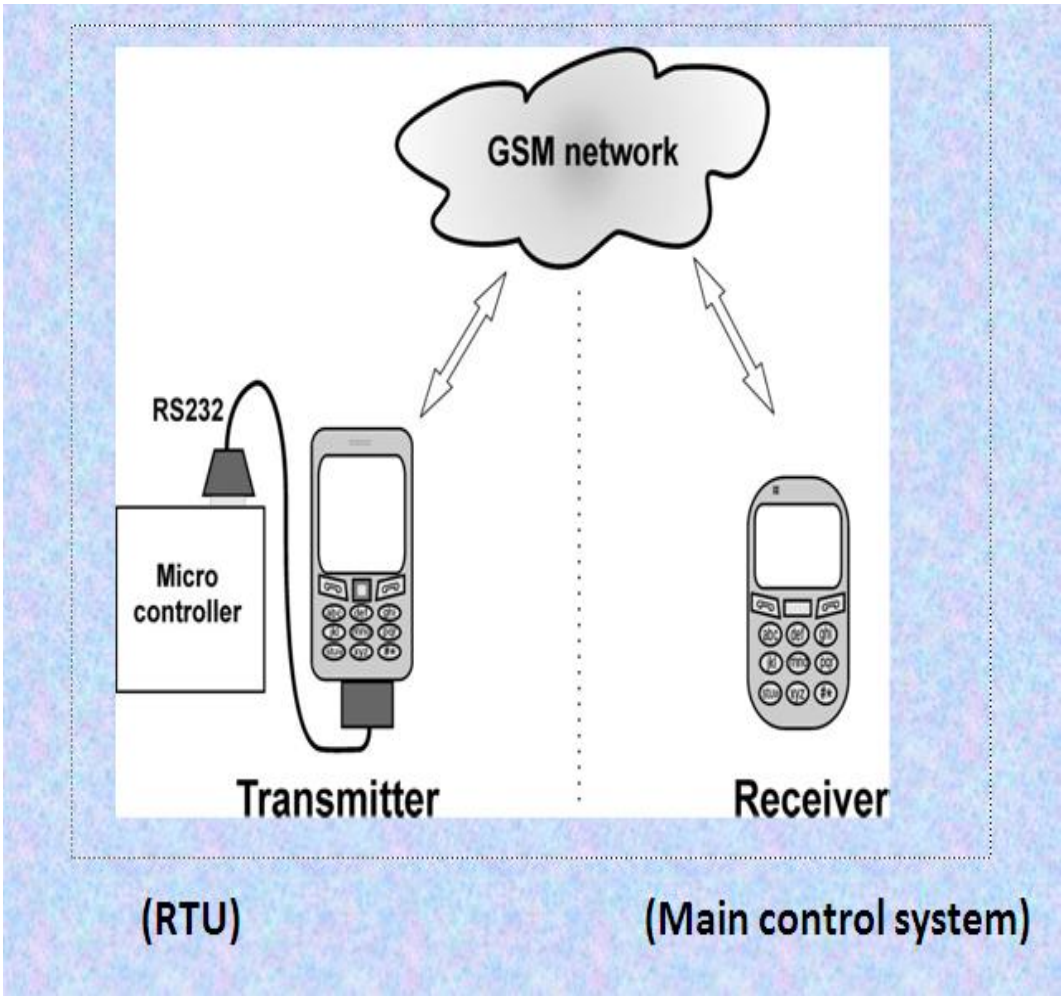


Student's Project Paper for Final Stage

Project index: 5

Design & Implementation of a SCADA based GSM system	**Project Name**
Mariam Khalifa	**Student Name**
Dr. Omar Yousif	**Supervisor Name**
1- be familiar with the real time application of 8051 real time microcontroller **2- Design a simple SCADA system through GSM comm. Using ATM command to interface between mobile and 8051 microcontroller.**	**The Aim of the Project**
1- Connect the all cct. Through multisim. **2- Programming &functioning the 8051 microcontroller.** **3- Interfacing the 8051 with the mobile system (GSM)** **4- Programming the interface system using (ATM) command.** **5-sending &receiving controlling command from plant to manager.**	**Project Summery**

Design & Implementation of a SCADA based GSM system



Student's Project Paper for Final Stage

Project index: 6

Automated License Plate Recognition (ALPR) System.		**Project Name**
Farah Falah	**Nadia Hasan**	**Student Name**
D.Ameer H. Morad		**Supervisor Name**
To construct Automatic Recognition system based on computer to capture and recognize violations vehicles of red light running at the junction.		**The Aim of the Project**
Pc camera is used to capture images of car plate .The image processing is done by MATLAB tools to enhancement and turn it in to binary image .split the plate image into small images , each containing one character. **Design character recognition system using neural network to identify characters on the car plate .Also design a simple GUI for the system .**		**Project Summery**

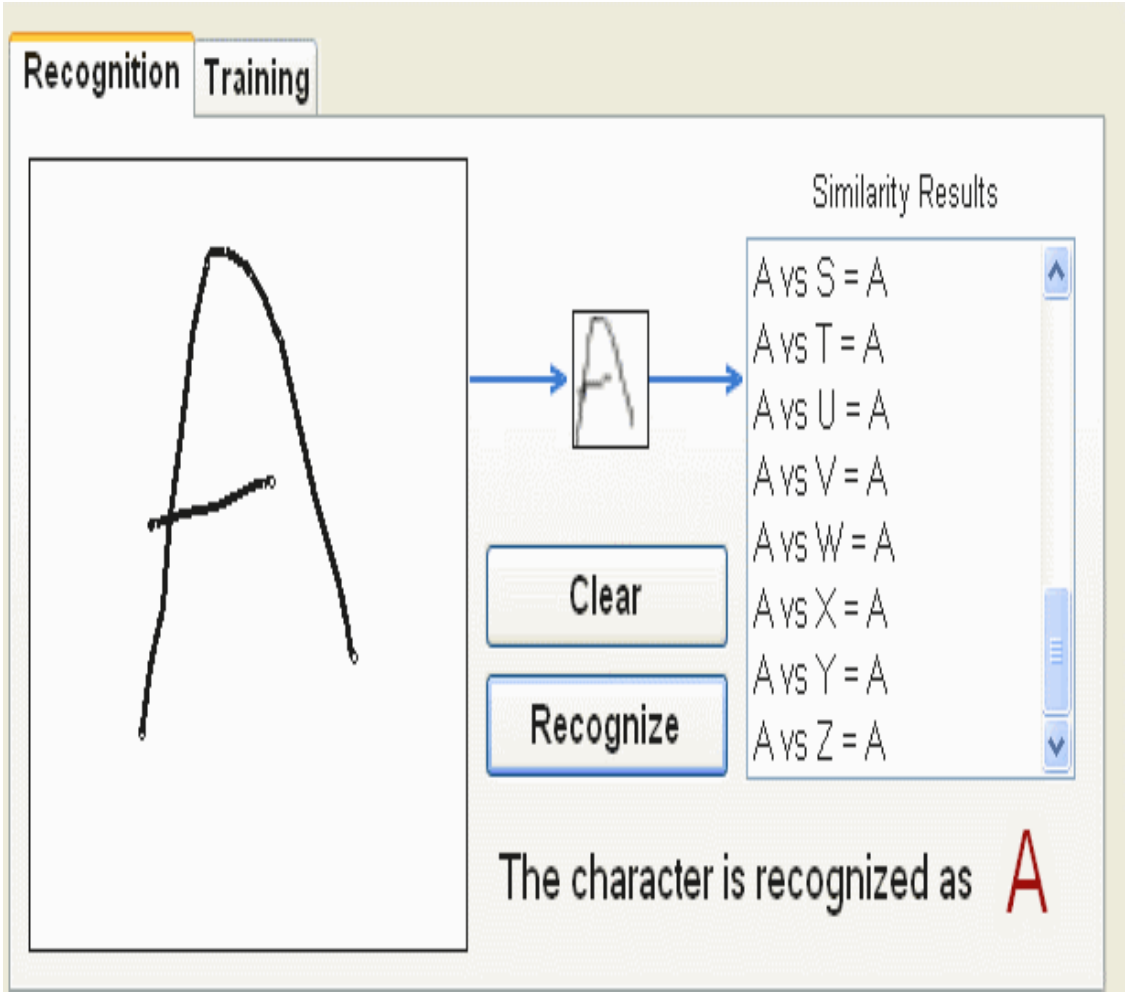
Automated License Plate Recognition (ALPR) System.

Student's Project Paper for Final Stage

Project index: 7

Solving Handwritten Equations Using Image Processing Technology	**Project Name**
Ghasak Jamal Nasir	**Student Name**
Dr.Ameer H. Morad	**Supervisor Name**
TO design system that can solve handwritten equations based on computer and image processing technology.	**The Aim of the Project**
Use scanner to enter the image of equation .the image processing is done by MATLAB to enhancement and tune the image into binary image. The split it into small images .each containing one symbol (number or arithmetic symbol).use neural network to design recognization system to identify symbols. After identification of all equation symbols. Then it will be solved .finally .design a simple GUI for the system.	**Project Summery**

Solving Handwritten Equations Using Image Processing Technology

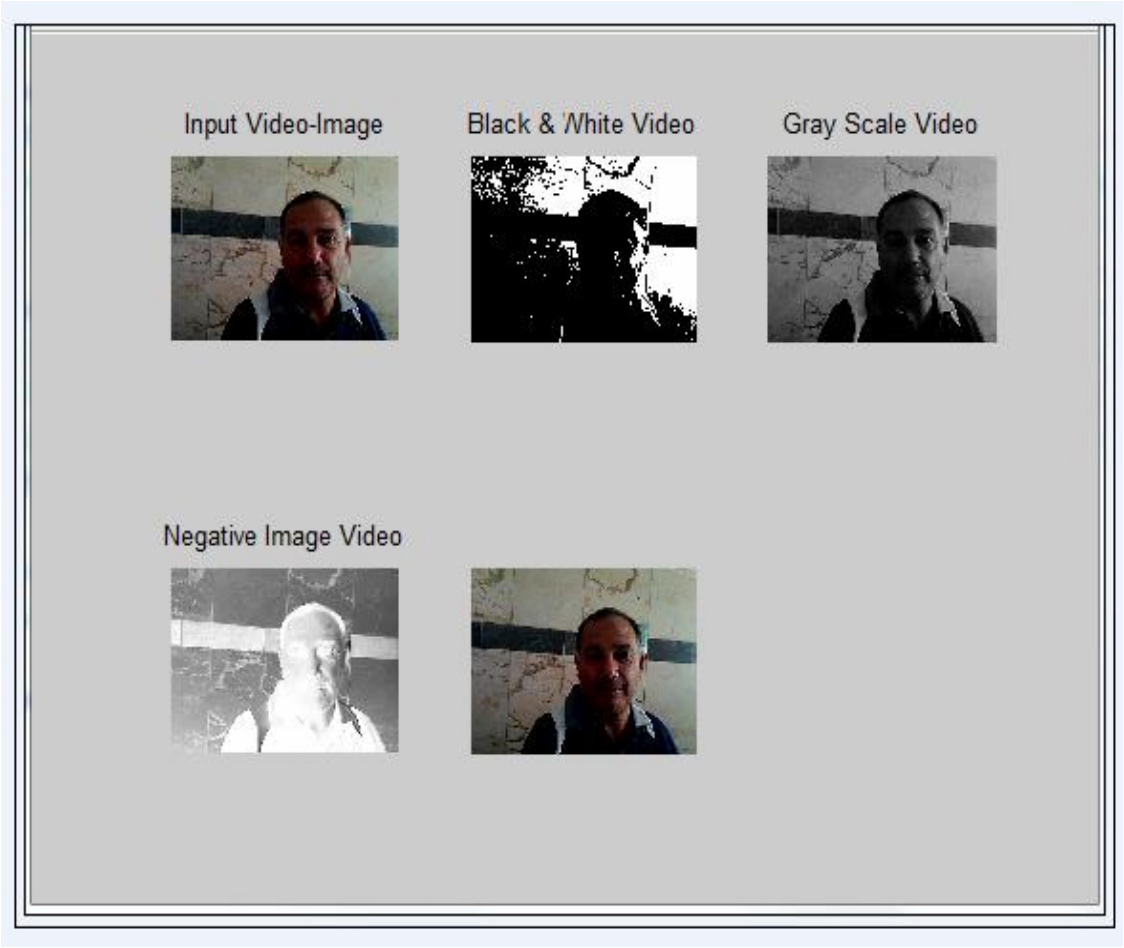


Student's Project Paper for Final Stage

Project index: 8

Design and Implementation of car Antisabotage system		**Project Name**
Eman Nidhal	**Saja Ali**	**Student Name**
Harith Fakhri Tahir		**Supervisor Name**
Design a security system to secure cars from sabotage attacks by using real time monitoring system.		**The Aim of the Project**
1- implement a literature survey **2- Design a video capturing system by using MATLAB.** **3- Treat captured video to be stored as clips, in order to decrease memory storage.** **4- Test over a system and get final results.**		**Project Summery**

Design and Implementation of car Antisabotage system



Student's Project Paper for Final Stage

Project index: 9

Design and Implementation of an Examination Committee System Based on PHP		**Project Name**
Qassim Noori	**Mayyada Abd-elmuhsin**	**Student Name**
Harith Fakhri Tahir		**Supervisor Name**
Implement a system that can support the functions of examination committee		**The Aim of the Project**
Implement a system that can support the functions of examination committee		**Project Summery**
This project will maintain a process of design and implementation of a system that can enable each teacher to upload all marks of his student and submit his subject's question paper ;Also it will maintain a link between registration unit which located in deanship structure and an examination committee in order to facilitate the operation of editing student transcripts and monitoring the process of committees in each department		

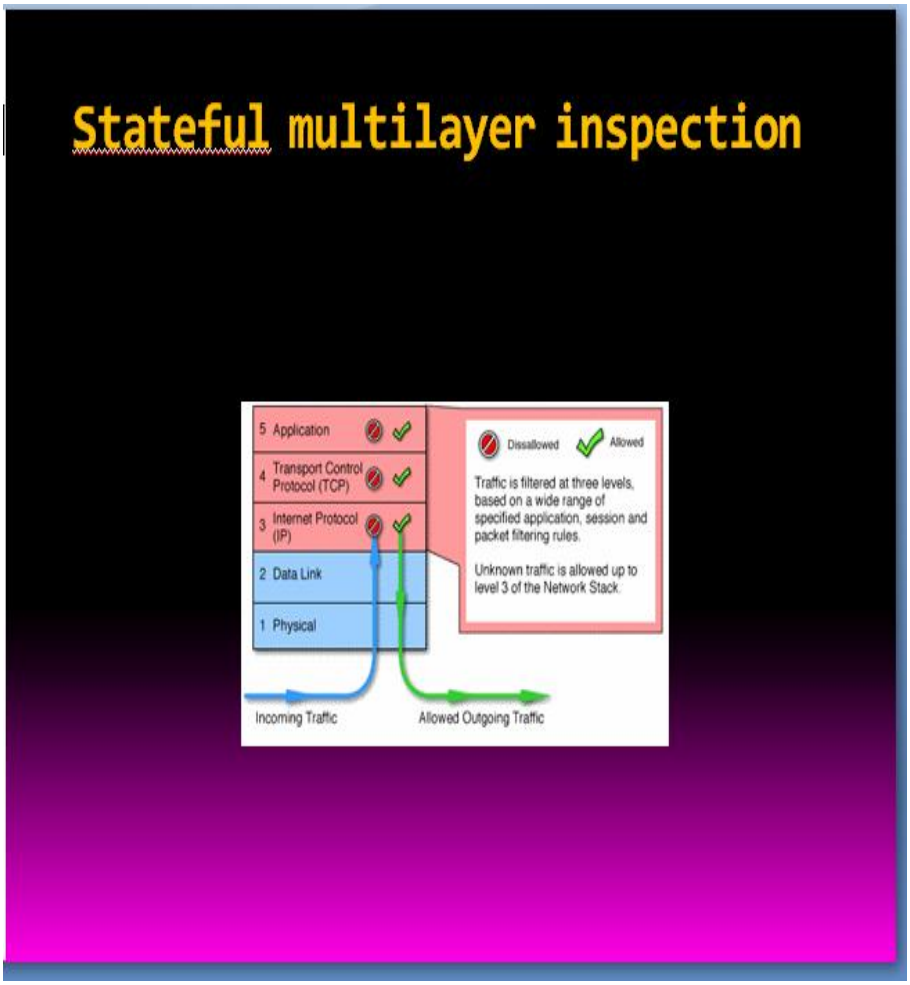
Design and Implementation of an Examination Committee System Base on PHP

Student's Project Paper for Final Stage

Project index: 10

Design and Implementation an Internet firewall HTTP filter		**Project Name**
Saba Rasheed	**Lawrence Hekmat**	**Student Name**
Yasir A. Abdullah		**Supervisor Name**
The purpose of this project is to implement a firewall program, this program deals with filtering (checking) web sites URL if its contain a bad (customized) word in its URL by blocking these sites and keep it outside a protected environment		**The Aim of the Project**
An Internet firewall is a piece of software or hardware that helps screen out hackers, viruses, and worms, which try to reach the computers over the Internet. **A firewall filters the information coming through the Internet connection into the private network or computer system. If an incoming packet of information is flagged by the filters, it is not allowed through.** **A *filter* is a process that is applied to data that is sent or received by the server. Data sent by clients to the server is processed by *input filters* while data sent by the server to the client is processed by *output filters*.** **HTTP filter is used for filtering HTTP, including URL, web page contents, post contents, post files and so on. HTTP filter deals with filtering some words which are not allowed to be appeared on the URL and block these sites to the internal users.**		**Project Summery**

Design and Implementation a Internet firewall HTTP filter

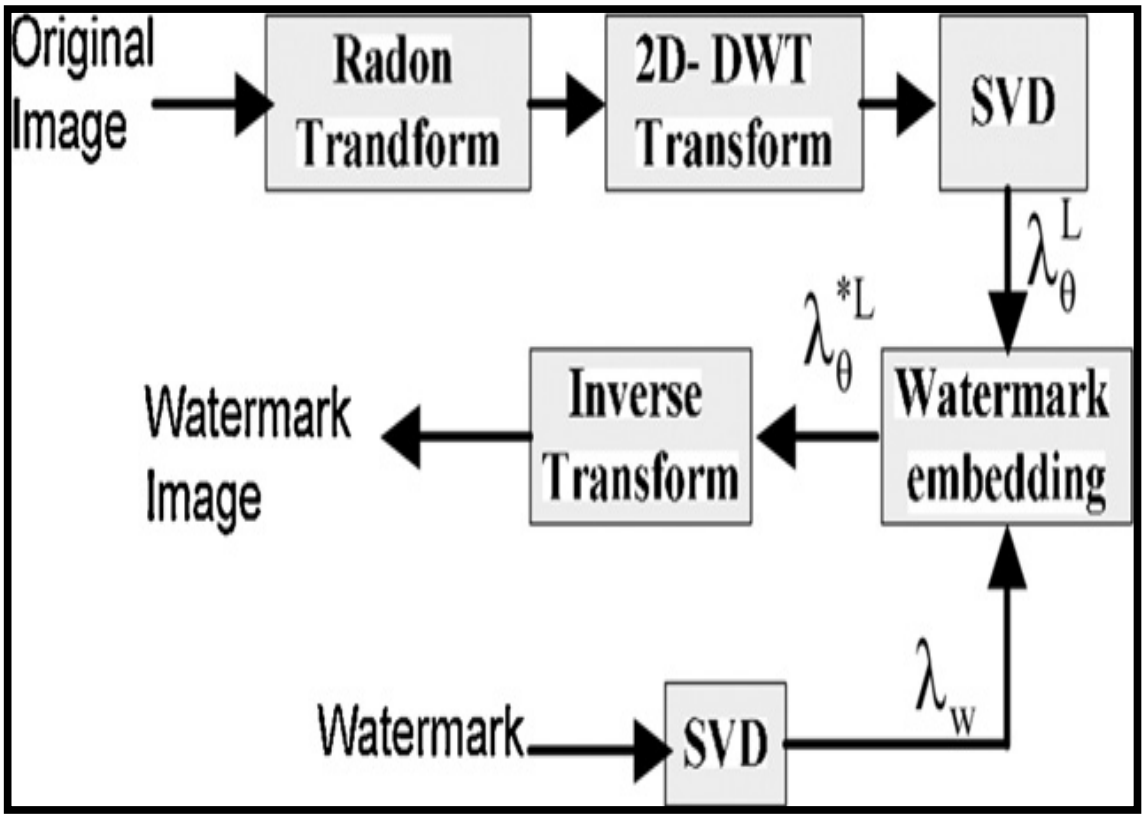


Student's Project Paper for Final Stage

Object index: 11

Hybrid Watermarking Algorithm Based on Singular Value Decomposition(SVD) and Radon transform		**Project Name**
Zahraa Saad Jasim	**Esraa Natik Jwad**	**Student Name**
Ahmed S. Hadi		**Supervisor Name**
Let the students know now to deal with images. compute the 2-d DWT, Eigen values, **Eigen vectors by using MATLAB, Know how to hide image or text inside a host image like LSB .Make the watermarking algorithm more secure by using radon transform.**		**The Aim of the Project**
1. How to process the images by using MATLAB **2. How to hide the images by using MATLAB** **3. How to compute the 2-D DWT using MATLAB** **4. Watermarking by using 2-D DWT.** **5. Watermarking by using radon Transform and 2-D DWT.**		**Project Summery**

Hybrid Watermarking Algorithm Based on Singular Value Decomposition (SVD) and Radon transform



Student's Project Paper for Final Stage

Project index: 12

Iris Recogration using DCT and ANN		**Project Name**
Bassma Basim	**Mariam Ali**	**Student Name**
Fatima Bahjet Ibrahim		**Supervisor Name**
The aim of the project is building a security system using a Biometric Feature is the Iris, the system using DCT to extract features trained by ANN to recognize the person.		**The Aim of the Project**
This project present an Iris Recognization system .the design used DCT for feature extraction. Those features will be the input for multilayer feed forward ANN algorithm the Iris images used in the system is obtained from CASIA data base.		**Project Summery**

Iris Recogration using DCT and ANN