WEDSITE DESIGN WITH DATABASE MANAGEMENT FACILITY FOR THE DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

LUKA TIMOTHY BIVAN

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DEDICATION

This project is first dedicated to the Almighty God how grate my the enablement to make the design successful as expected is dedicated to my loving parents Mrs. Luka Margaret who have stood with me through thick and thin, being encouraging and supportive morally and financially.
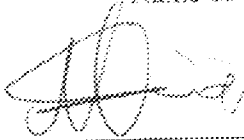
For the warm memory of my Late father Mr. Luka K. Bivan.

DECLARATION

I, Luka Timothy Bivan, declare that this work was done by me and has never been presented elsewhere for the award of a degree, I also hereby relinquish the copyright to Federal University of Technology, Minna.
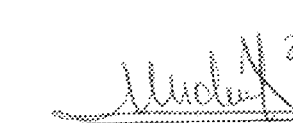
LUKA TIMOTHY BIVAN

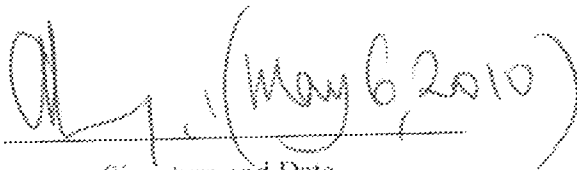Name of student

Signature and Date

Mr. MICHEAL DAVID

Name of supervisor
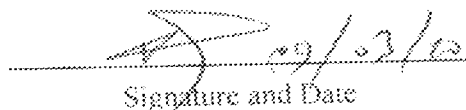
22/02/2010

Signature and Date

Dr. Y.A. ADEDIRAN

Name of H.O.D

(May 6 2010)

Signature and Date

Name of External Examiner

Signature and Date

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ACKNOWLEDGEMENT

ABSTRACT

"Internet", "World Wide Web" and "Web page" are no longer the buzzwords now. They are now a reality. The internet is the world largest computer network of networks. One of the subsets is the World Wide Web. The World Wide Web contains a number of web servers scattered around the world. The web servers contain the information that a user anywhere in the world can access. The information is available in the form of web pages.

The aim of this project is to design a website for the department of Electrical and Computer Engineering, Federal University of Technology, Minna two basic editors which are called DREAMWEAVER and WAMP.

The project concerns basically on the creation and implementation of a website of Electrical and Computer Engineering Department to enable the lecturers of the department, mainly the level advisers to be able to upload their student's results online. Also these students of the department should be able to only view their semester's results.

Many important information about the department of Electrical and Computer Engineering are also available in the website.

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CHAPTER ONE

1.1 GENERAL INTRODUCTION

In our world today, where information dissemination has gone beyond the use of such electronic gadgets as television and radio, away the traditional use of Newspapers and other forms of written communication media to the use of the internet, individuals and institutions are faced with the task of communicating through the internet. While the advent of the internet does not in anyway completely eradicate the use of other communication media, it has become a well-accepted innovation in technology because it is advantageous in a lot of ways.

The internet reaches more people at the same time or different times than any other media. Anyone seeking information can access such information easily, from any location on the globe so long as such persons are connected to the internet. This indeed is a breakthrough of technology. Mails and other forms of correspondences can be transferred from place to place in a few seconds, courtesy of the internet. This makes business and life in general easier for a lot of people and organizations.

Now, Federal University Of Technology Minna, Niger State has a wonderfully designed website connected to a database facility which show cases the University's activities to the rest of the world through the internet. But it is very important for each of the departments in the university to have their own various activities in the department featured in the internet for each of the students in the departments to keep in touch with the department even while the school is on break.

The department of Electrical and Computer Engineering found it important to have such a project implemented in the school. The design of website with database management facility

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for the department of Electrical and Computer Engineering will show the various activities of the department for the students wherever they are in the world once they are registered members in the site.

1.2 PROJECT OBJECTIVE AND MOTIVATION

Some benefits or objectives of the website design of the department of Electrical and Computer Engineering and also of being registered member on the site are;

1. Lecturers and other professional bodies in the department of Electrical and Computer Engineering, Federal University of Technology Minna have free access to the website by just typing a code which will be given to them.

2. There will be departmental registration which will be free for each student to make contributions and suggestions any time.

3. The registered members in the department can or will be able to vote and also be voted for in the departmental election. There will be a page in the website where student in the department will be able to context for election and vote. This will encourage the students to pay for departmental due because for a student to context for a post in the department, it will determine how often that student pays his/her due.

4. It will encourage especially new students to pay their due because once a student has paid his/her due there will be a form on the site where the student's necessary information will be needed for the departmental ID card.

5. There will be a page where in the department students will have access to e-books and departmental project topics. Students can also search for relevant materials through some important websites on that page.

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6. In addition, the registered students will be able to check and print out their semester's result. This page will be design in such a way that each level (i.e. from 100-500 level) will have different pages.

1.3   METHODS OF DESIGN

The method or approach use in the design of the website is the Web language HTML. In designing the website, I will make use of some software's such as Marcomedia Dreamweaver, JavaScript, VBScript, phpMyAdmin, Macromedia fireworks, Macromedia flash player and a lot of information.

This site can be accessed on the Internet after hosting and as such students can check their results on-line.

1.4   SCOPE AND LIMITATION

This project will cover the following areas:

1. User login authentication – Verifying the student's matriculation number and the password that was given to him/she after payment of the departmental dues.

2. The information of each registered student of each student to the departmental website.

3. Collection of all complied students' result data by the authorized result administrators.

4. Every registered student to the website should have access to him/her semester's result only online and can either print or store the result.

This project is limited to the following:

1. This software is programmed to work with a predefined file format called comma separated variation (CSV) and the result data must be saved in this CVS format before it is uploaded to the software.

2. The software processes only the data uploaded and cannot be used to edit or make any changes to the result data uploaded.

3. The programme or software is restricted to students checking their result only at the end each semester.

1.5 PROJECT OUTLINE

This thesis is organised in chapters and each chapters explains concisely the topics to be discussed.

Chapter One

This chapter gives the general introduction to the whole project thesis the Literature survey the project objectives and motivations as well as its application. It also contains the scope and limitations of the project work.

Chapter Two

This chapter discusses briefly the internet, how communication is effected through computer and the benefits as well as services offered by the internet. It also briefly explains how the internet is accessed. Also contains the theoretical background of the concepts the project is based upon.

Chapter Three

This chapter discusses the website development workflow. The programming languages for the web Hypertext mark-up Language and how design is done with this language is discussed in this chapter. The chapter ends with a summary of how a site is tested and published.

Chapter Four

This chapter gives an analysis of the procedure involved in the design and publishing of a database. The chapter ends with an explanation on how a site is interfaced with a database server or database manager.

Chapter Five

The concluding chapter five gives result of the test run of the site and the database as well as recommendation for further development possibilities.

CHAPTER TWO

2.1 THE INTERNET AND THE WORLD WIDE WEB

The internet was developed more than three decades ago with funding supplied by the Department of Defence where originally designed to connect the main computer systems of about a dozen universities and research organizations, the internet today is accessible by hundreds of millions of computers worldwide. Thus, the internet and the World Wide Web will surely be listed among the most important and profound creations of humankind. The internet is computer-based worldwide information network. These internets may connect tens, hundreds or thousands of computers enabling them to share information with each other and various resources such as powerful supercomputers and databases of information.

The internet has made it possible for people all over the world to effectively and inexpensively communicate with each other unlike traditional broadcasting media, such as radio and television. [1]

The internet is a decentralized system. Each connected individual can communicate with anyone else on the internet, can produce ideas, and can sell products with a minimum overhead cost. In addition, the internet has a dramatic impact on higher education and business as more universities offer courses and more companies offer goods and services online.

2.2 INTRANETS

Other types of internets, called intranets, are closed to public use. Intranets are the most common type of computer network used in companies and organizations where it is important to restrict access to the information contained on the network.

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During the 1990s the internet has grown tremendously in the number of people using it and the amount of information contained on it. According to the Internet Society, a non – profit society that studies and promotes the use of the internet, 134 countries had full internet connection and an additional 52 countries had limited access (for example, e-mail only) in 1996. Surveys performed by International Data Corporation and Matrix Information and Directory Services found that as of September 1997 there were between 53 and 57 million users of the Internet Worldwide. [2]

2.3 USES OF THE INTERNET

From the late 1960s to the early 1990s, the internet was a communication and research tool use almost exclusively for academic and military purposes. This changed radically with the introduction of the World Wide Web (also called the WWW or W3) in 1989. The WWW is a set of programs, standards and protocols governing the way in which multimedia files (documents that may contain text, photographs, graphic, video and audio) are created and displayed on the internet. [3]

Individuals, Companies and Institutions use the Internet in many ways.

1. Business organizations use the internet to provide access to complex databases, such as financial database.

2. Companies can carry out commerce online including advertising, selling, buying, distribution of products, and providing after-sales services.

3. Business organizations and institutions can both use the internet for voice and video conferencing and other forms of communication that allow people to telecommunicate, or work from a distance.

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4. The use of electronic mail (e-mail) over the internet has greatly speeded communication between companies and institutions, among co-workers, and students respectively.

5. Scientists and scholars use the internet to communicate with colleagues to perform research, to distribute lecture notes and course materials to students and publish papers and articles.

6. Individuals use the internet for communication, entertainment, and chatting, finding information, purchase and sales of goods and services.

2.4   HOW THE INERTNET WORKS

The internet is based on the concept of a client - server relationship between computers, also called client/server architecture. In a client/server architecture, some computers act as servers or information providers while other computers act as clients or information receivers. The client/server architecture is not one-to-one, that is, a single client computer may access many different servers and a single server may be accessed by a number of different client computers.
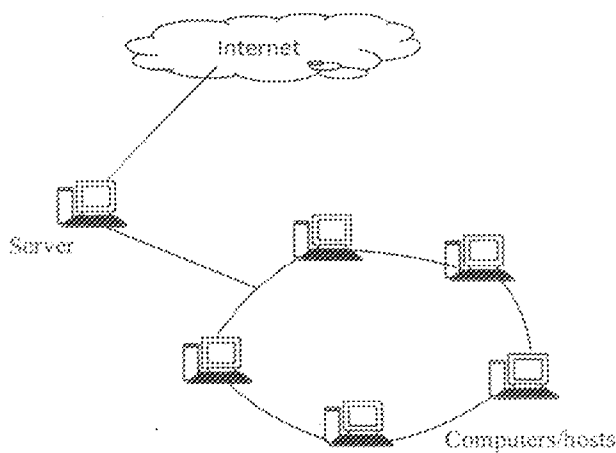
Fig. 1.Computers connected together and to internet.

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2.5   WEB BROWSER

The web browser is a client program (application) that is used to display the information provided by a specific server to which a computer is connected. It helps the user to view and navigate through the information on the internet. Today's most popular web browsers include Microsoft Internet Explorer, Mozilla Firefox, Crazy browser, Opera, etc. These browsers offer a GUI (Graphic User Interface) to the World Wide Web.

2.6   BENEFITS OF WEB APPLICATIONS

Online systems provide a number of benefits all of which go to improving administrative efficiency, simplifying operations and services. Some benefits of web applications are enumerated below:

1. ELIMINATION OF TEDIOUS WORK

Routine and cumbersome clerical tasks are replaced by automated and systematic manipulations and computations provided by the web applications spurring a great deal of operational efficiency and job satisfaction.

2. IMPROVED ACCURACY

Information processed and executed by web applications are more accurate as the applications are systematically programmed to accurately execute specific tasks and input and output information is checked for errors by data validation programs before being transmitted online or displayed. This increases information reliability and general operational excellence.

3. EXTENDED ACCESSIBILITY

Carrying out services and operations with web applications ensures a very wide coverage and ubiquity since its operations are online. This makes the information and services offered readily accessible to clients with access to the internet all over the world.

2.7 WEB PROGRAMMING

With the rapid growth in the use of internet for online banking, electronic mail (e-mail), electronic business, online learning, online results checking and also school registration. [5]. It is evident that web programming has come a long way. Today there are many web programming languages in use, but the choice of which language to use depends on the programmer and the features offered by the language.

In earlier type of client-server computing, each application had its own client program which served as its user interface and had to be separately installed on each user's personal computer. An upgrade to the server part of the application would typically require an upgrade to the clients installed on each user workstation, adding to the support cost and decreasing productivity. In contrast, web application use web documents written in a standard format such as HTML (and more recently XHTML), which are supported in a variety of web browsers. Generally, each individual web page is delivered to boards, weblogs, multiplayer online games and many other functions. [6].

2.8 METHOD OF DISPLAYING RESULTS IN THE DEPARTMENT

Presently, the Federal University of Technology, Minna is using the manual method of displaying results. After the results are been complied accordingly, each department forwards its students results to the examinations officer who forwards it to the Heads of Department.

The heads of departments in each school (Faculty) submits the results to their Deans who present the results at the senate meeting for consideration and approval. After the approval of these results, the results are returned to the various departments and handed over to the departments' level advisers of each level who print out the results of each level and paste them on a notice board for the students to view. But using this software, all that the level advisers will have to do is just to upload the results to the website and the students can have access to it in respective of the place there are provided there is internet facility.

CHAPTER THREE

3.1 DESIGN AND IMPLEMENTATION

The design and implementation of the project is well explained in details. The hardware aspect and the software used with the programming codes that were written from the start to the end of the project.

3.2 HARDWARE REQUIREMENTS

Hardware refers to the physical components of a computer and these components include both the mechanical and the electrical parts of the computer aiding its efficiency.

i. A Computer Set or a laptop with the appropriate installed programmes.

ii. A web Server for database and also used in publishing the web pages.

iii. A Scanner

iv. A flash Drive

v. A digital camera.

3.3 SOFTWARE REQUIREMENTS AND OVERVIEW

The web-based application is developed using the following High-Level programming and mark-up languages:

i. Macromedia Dreaweaver, Macromedia Fireworks and also Macromedia flash.

ii. HTML (Hyper text Mark-up Language).

iii. PHP (Hyper text Processor).

iv. WAMP Server.

But the design of this project is basically on HTML

3.4   SAVING THE WEBSITE DESIGN

The design of the website is basically done using Macromedia Dreamweaver (HTML software application). Before starting the design, first a folder called 'electrical' was created in the hard disk inside a folder WAMP. Then, the site is created and saved on the folder electrical and also an image folder called 'electrical images' is then created under the folder electrical. First and foremost, the first page created is stored with the name 'index.php'. Note, all the pages created on the design of the website, the images that would be used on the design, and all other materiel or application work that would be used in the design are all stored on the folder named electrical on the hard disk.

3.5   THE INDEX PAGE:
After creating folder in the hard disk and saving the site in the folder created, the index page was the first page that was designed. The first page interface that was design called the index page also called the home page. This page is the first page that will display to the user or student when first logged in to the department. This page has some important hyperlinks that would link you to some important pages about the department. The design is focused mainly on the department of Electrical and Computer Engineering and all of her activities and contains the following links which are in blue ink.
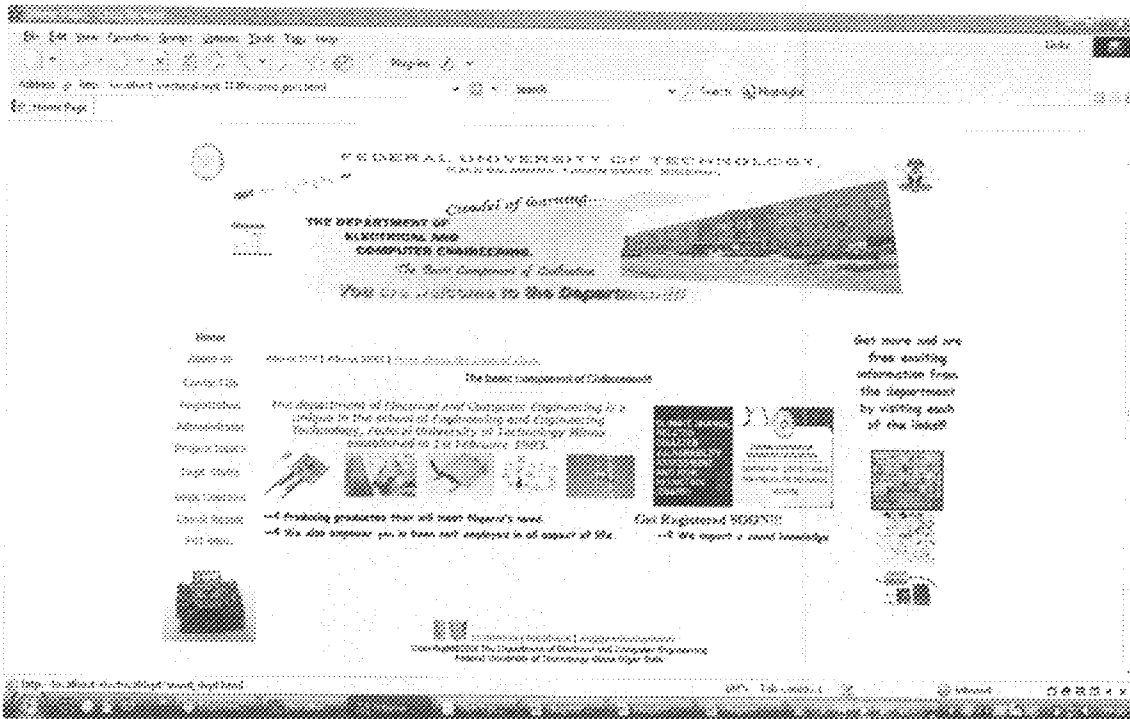
Fig.3.5 Home page

NOTE The HTML codes basically looks or follow the following format when designing a website.

<HTML>

<HEAD>

<TITLE> </TITLE>

</HEAD>

<BODY>

</BODY>

</HTML>

3.6   HTML REQUIREMENTS

When writing codes using HTML, one should note that all HTML documents require the minimum "tagging" in order to function in any browser. The minimum HTML document looks like this:

<HTML>	This tells the browser that it is reading an HTML document and begins the document
<HEAD>	This begins the HTML document heading
<TITLE>	This begins the HTML document title
</TITLE>	This ends the document's title
</HEAD>	This ends the documents heading (The title is always included within the "head" tags)
<BODY>	The "body" of the document. All of the content of the web page is within the "body" tags
</BODY>	End of body (end of content)
</HTML>	End of HTML document (end of the web page)

All HTML Tags are surrounded by these brackets and all sections of an HTML document are noted by a beginning and an ending. The end of the "<TITLE>" is designated by the "/" character "</TITLE>".

It is very important to understand that there is a certain "hierarchy" of HTML tags which must be followed. Note that the <BODY> and </BODY> tags are all included within the <HTML> and </HTML> tags. And note that the <HEAD> and </HEAD> tags are also nested within the <HTML> and </HTML> tags. Notice further that the <HEAD> & </HEAD> tags are before the "BODY" tags, and that the "TITLE" tags are nested within the

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"HEAD". All tags on your page should be nested according to their hierarchy. It gets easy just keep going.

3.7 CONTENT OF THE WEBSITE DESIGN

The department of Electrical and Computer Engineering is a unique department which make the website design to be unique in such a way that for a student of the department to have full access to his/her result, such a student have to be registered to the website. Once a student is registered, such a student will obtain a password. The student will then use his/her matriculation number and the password obtained during registration to login when checking his/her result. The website is free to everybody

The following are the free pages any student can visit even though he/she is not a registered member to the website.

3.7.1   ABOUT FUT MINNA: This page talks more about the university (FUT Minna). The history, philosophical direction and how the university came into existence. The mission, vision, goals and the objectives of the university.
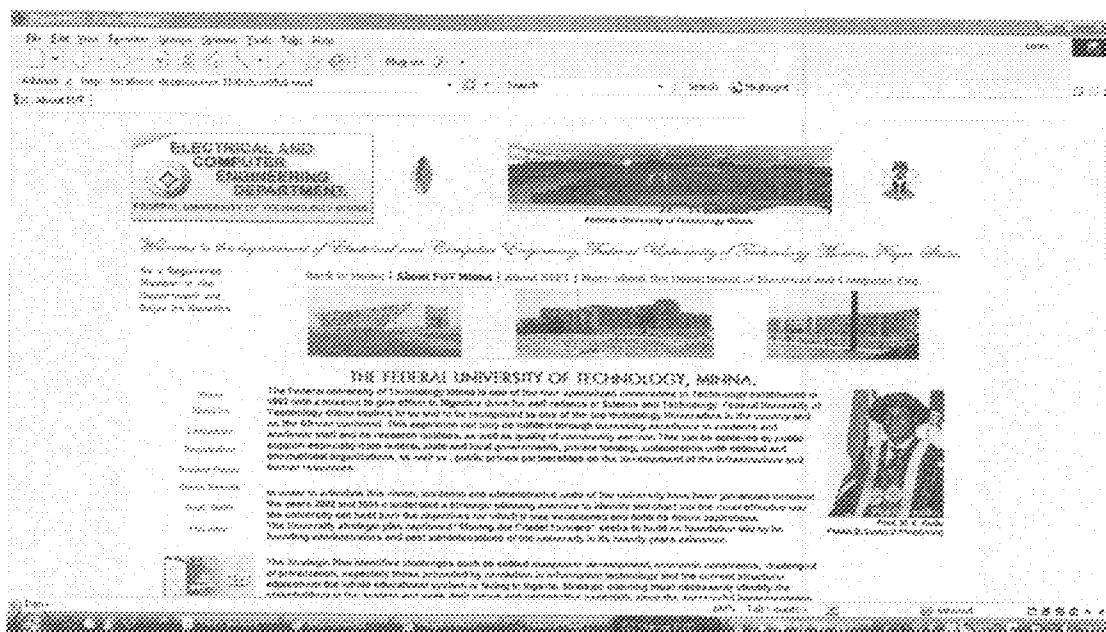
Fig. 3.7.1 about FUT Minna

3.7.2 ABOUT SEET: This page gives information about the School of Engineering and Engineering Technology, Federal University of Technology, Minna. The different department and their various options of the school and also the basic admission requirements and a lot of other information about school. The programmes the school offers in general and most importantly the modes and requirements of admission.
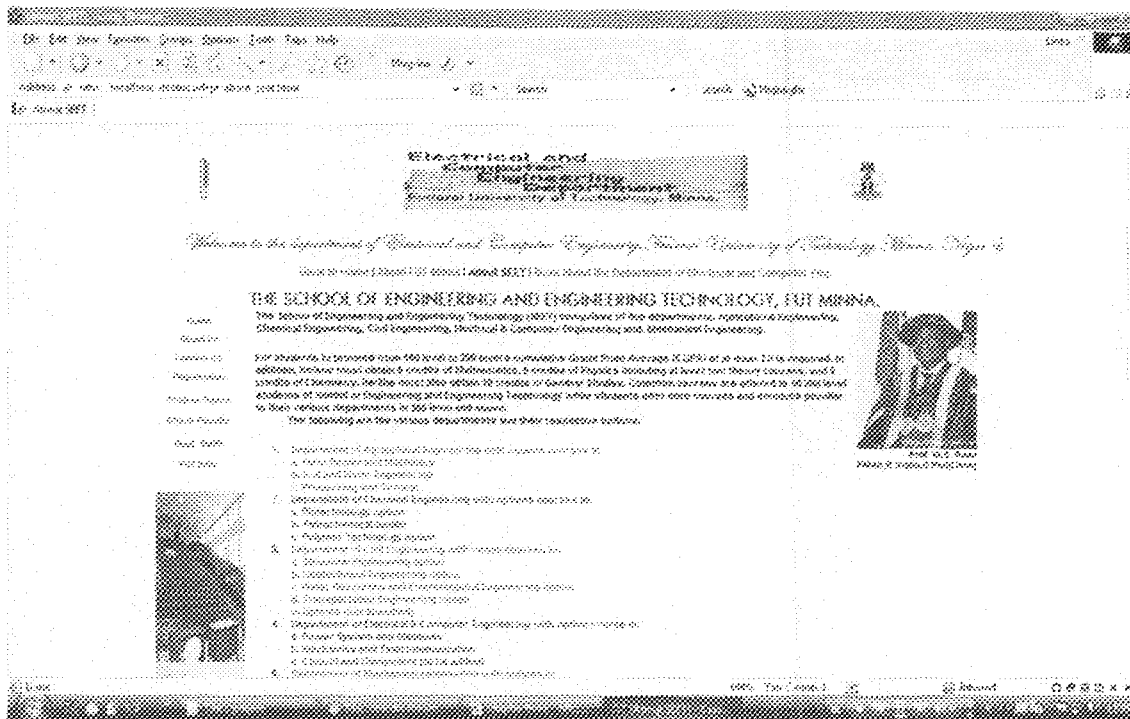
Fig.3.7.2. About SEET

3.7.3 MORE ABOUT ELECTRICAL & COMPUTER ENG. DEPT.: This page talks more about the department of Electrical and computer Engineering. This page tells the students the basic admission requirements needed for such a student to get admission into the department of Electrical and Computer Engineering, FUT Minna. The least CGPA that a student should get after second semester 100 to remain in the department. That is, for such a student to proceed from 100level to 200level. Also, this page displays the main course options of the department of Electrical and Computer Engineering. The page also talked on the Students Work Experience Programme (SWEP) and Students Industrial Work Experience Scheme (SIWES) and lots more.
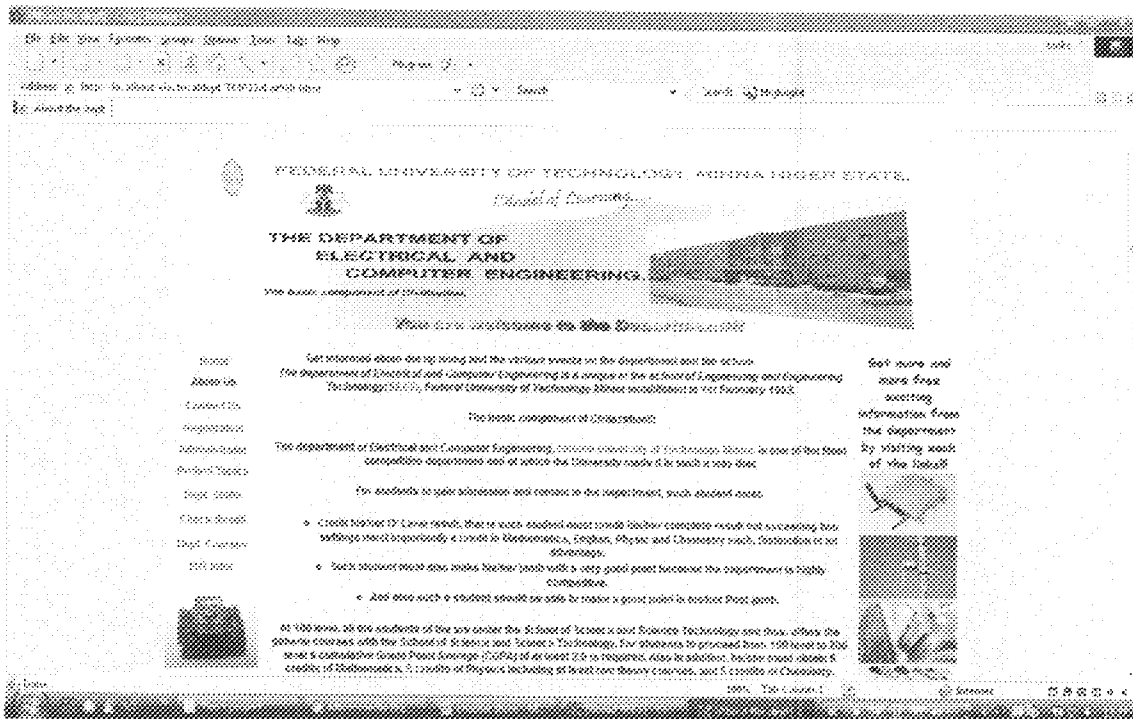
Fig. 3.7.3. The dept. Elect/Comp. Eng.

3.7.4 REGISTRATION

For students to have full access on their semester's result online, the student must be a registered member in the website. The main purpose for the registration is for the students of the department to have a password which will enable them have access when checking their respective results online. The registration form contains information such as student's Surname, First name, student's address, e-mail address, phone number, level, sex, matriculation number and password. The password is the must important field in the registration form where the students are allow to create a password on their own and these password created must be and well known to the student only. After a student is registered to the site, such student uses the created password with his/her matriculation number to login to check his/her semester's results online.
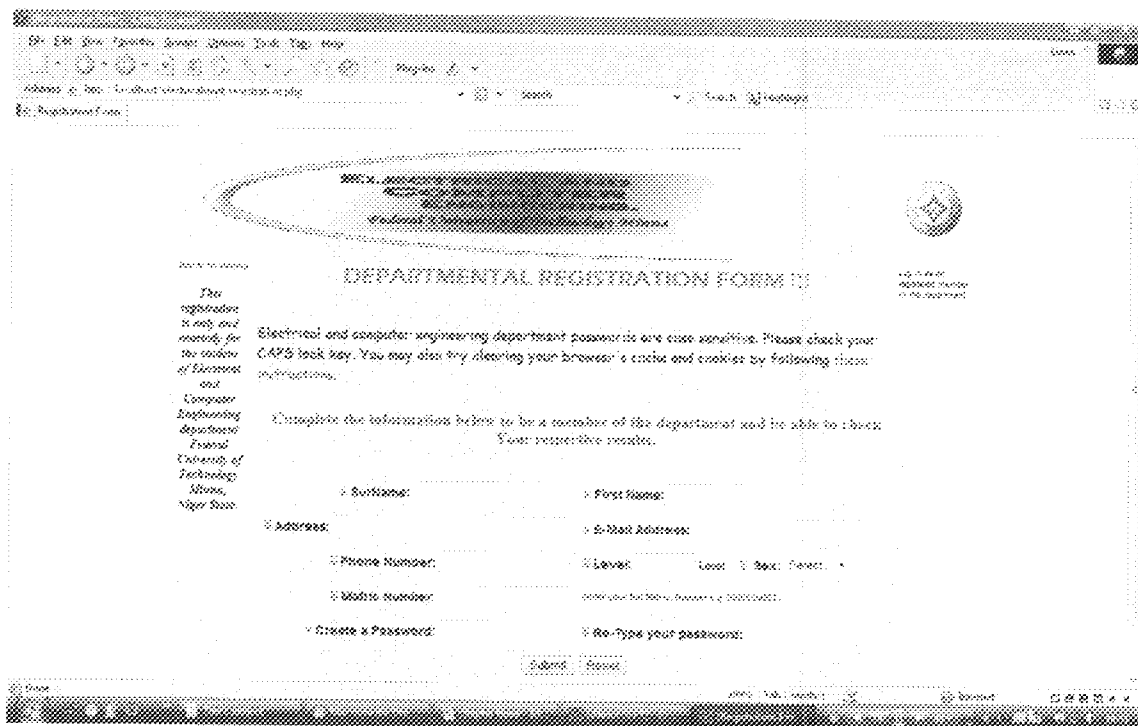
Fig. 3.7.4.a Registration Form

After registration, a confirmation page pops out to the screen to confirm the registered student's matriculation number and password. Another form comes with the confirmation page which the student will re-type his/her matriculation number and password to confirm with the registered matriculation number and password stored earlier on. At this point registered student will be very sure of their matriculation number and also their password.

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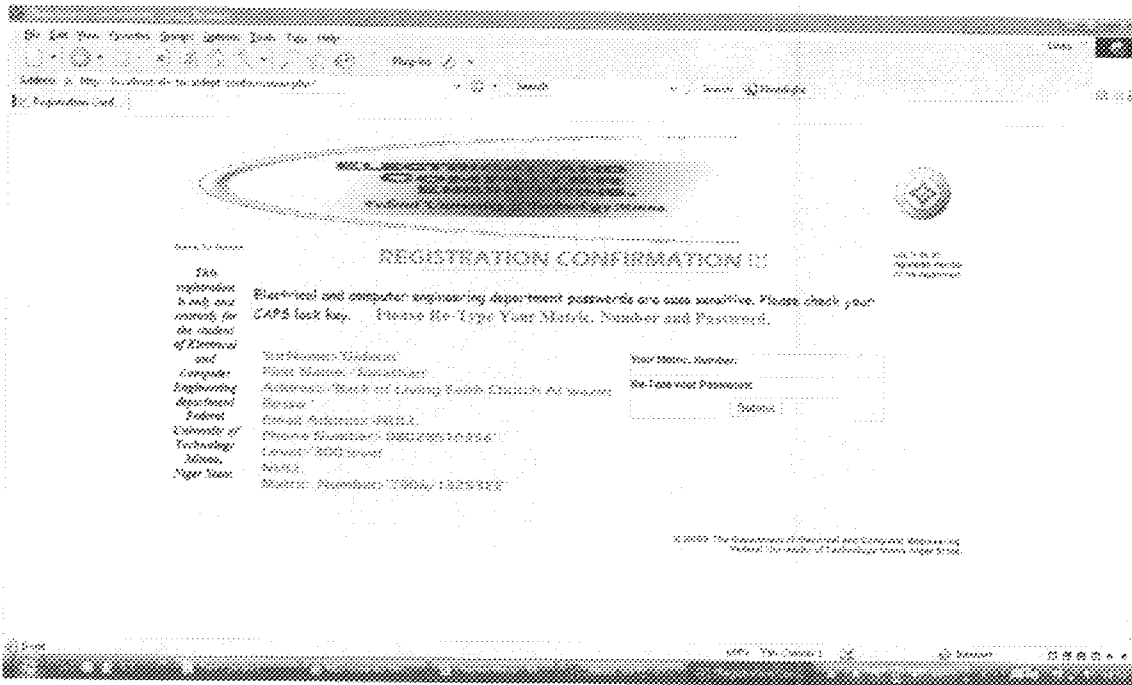
Fig. 3.7.4.b Registration Confirmation Form

3.7.5   ADMINISTRATION PAGE

The administration page is a very important page which demands password. This page is meant strictly for the level advisers from 100-500level of the department of Electrical and computer Engineering, FUT Minna to login. The page is a form which has the 'Admin Name' and 'Password' fields. The level advisers from 100 to 500 level of the department will be given the admin name and password or the administrators could create their own password the database. This password and admin name should also be between them because this page leads the various level advisers to a page where they will upload their various semesters' result to the database for the students to check where there are.

Administrative Login Form

Log In Departmental Level Advisers Only!!:

Admin Name:

Password:

[Enter] [Reset]
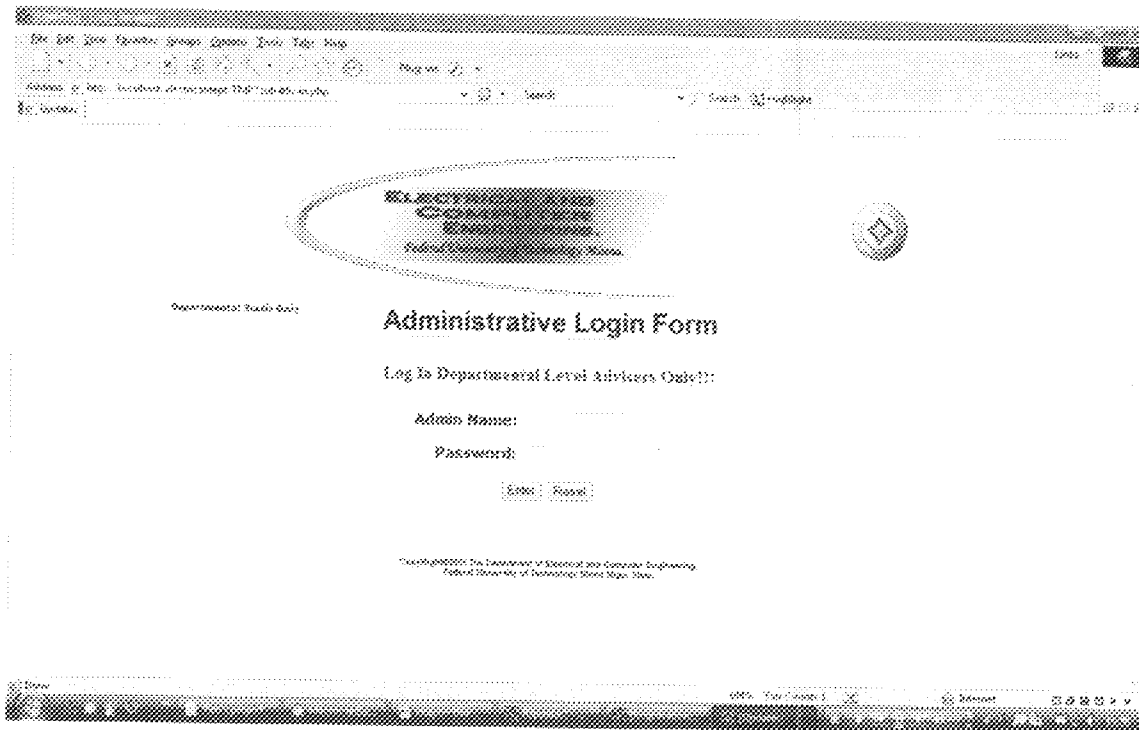
Fig. 3.7.3a. Administrator Login Form

After the level adviser have logged in, another page comes up with some important links. The page contains the various levels, that is, from 100level to 500level with their various semesters which are independent from each other. At each level, each semester has a link where it takes the level adviser to another page where he/she could upload his/her student's results.

Administrative Login Form

100 LEVEL

FIRST SEMESTER   SECOND SEMESTER

200 LEVEL

FIRST SEMESTER   SECOND SEMESTER

300 LEVEL

FIRST SEMESTER   SECOND SEMESTER

400 LEVEL

FIRST SEMESTER

500 LEVEL

FIRST SEMESTER   SECOND SEMESTER
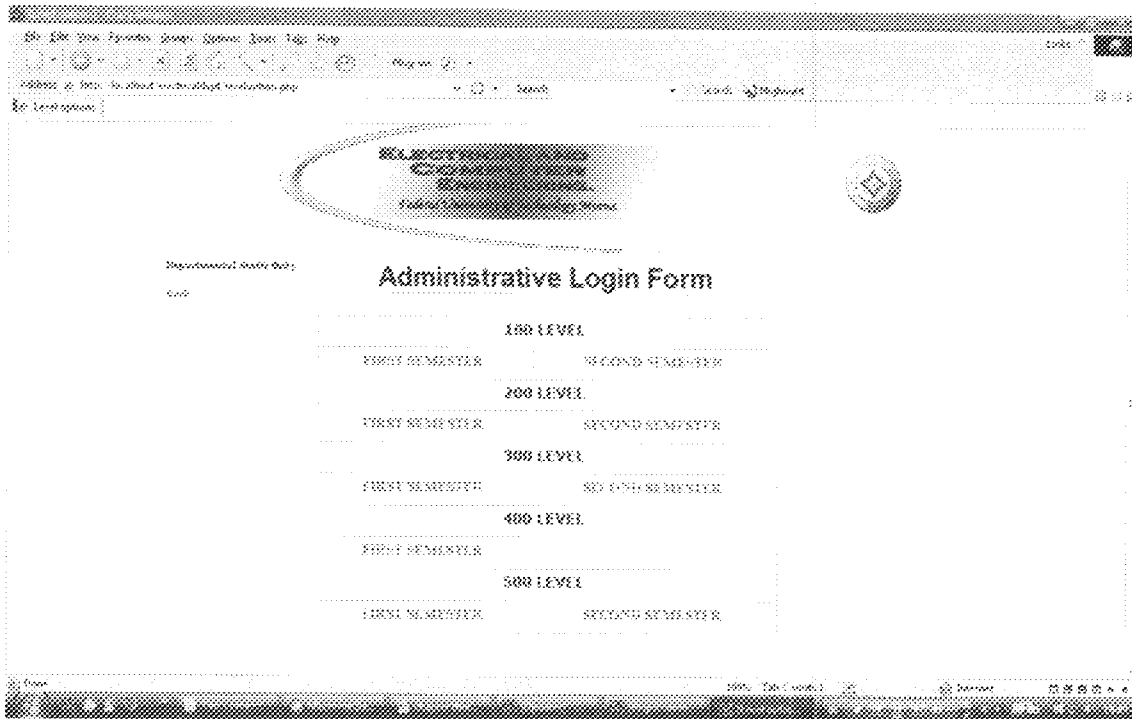
Fig. 3.7.5b. Administrator Login Form

After the lecturer has click any of the level's semester, a page will be displayed which the level adviser will be able to enter each of the student's results. Any student the level adviser typed in his/her name in the field, the information will be displayed at the bottom of the page for confirmation that the right name was typed.

Administrative Login Form

Departmental Lecturers Only!!!

Sur Name:			First Name:				Matric Number:				
MAT 111	MAT 112	PHY 113	CHE111	CHE 112	GST 116	GST 104	TCD 111	WSR 118	TCT	TGA	SGPA	CGPA

Submit

Browse...

SurName	FirstName	MatricNumber	Mat111	Mat112	Phy113	Che111	Che112	Gst116	Gst104	Tcd111	Wsr118	Tct	Tga	Sgpa	Cgpa
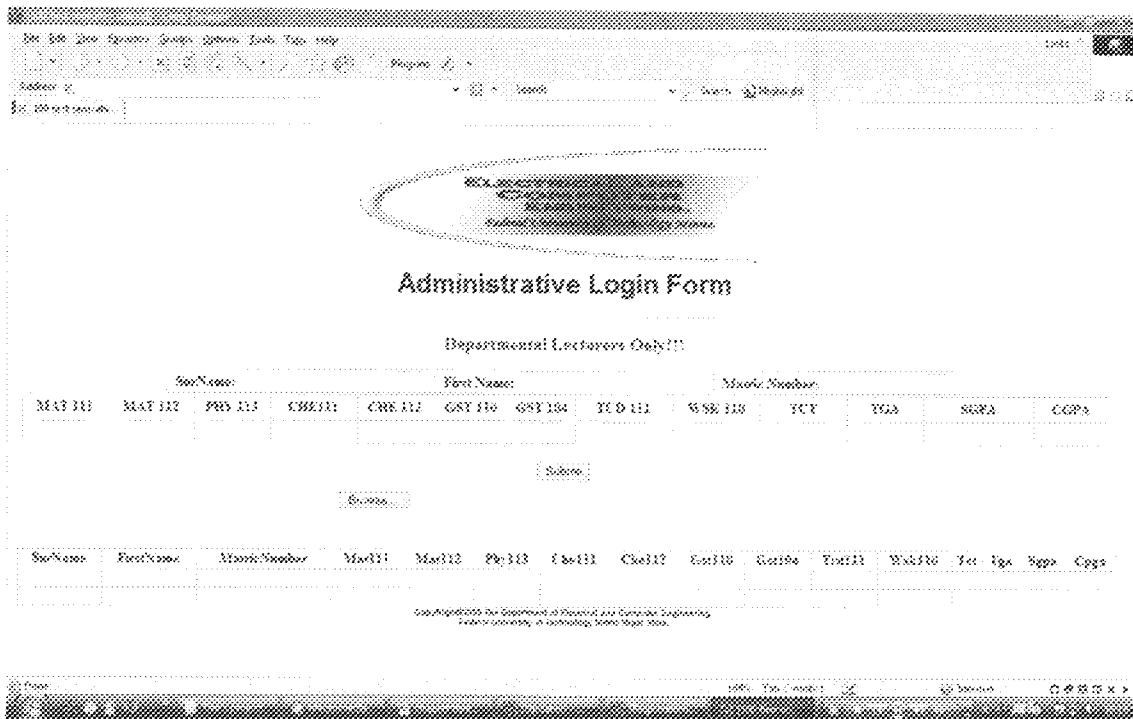
Fig. 3.7.5.c Level Adviser type in student's results

3.7.6   PROJECT TOPICS: This page is also another important page in the website design which all the students will benefit from especially the final year students. This page only contains the available projects done in the department of Electrical and Computer Engineering. Also contain some materials available and the abstracts about each project topic listed.

3.7.7   DEPARTMENTAL STAFF: This page list all the departmental lecturers and staff of the department. In this page, there are important links assigned to each of the lecturers where they could upload their lecture notes and their curriculum vitae.

3.7.8   DEPARTMENTAL COURSES: This page displays the various courses offered in the department both first and second semester of each level from 100 to 500level. This page displays the course code, course title and the credit units of each level, both first and second semesters.

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Fig. 3.7.8. Departmental course.

3.7.9 CHECK RESULT: This page shows login form where only the registered students of the website have access to enter. That is, after a student has been registered, he/she uses the password created and his/her matriculation number to get access to this page. On clicking at the submit button, another page pops out with the instruction telling the student to enter his/her surname and matriculation number again. This is so to prevent hackers from getting access to the website and checking other students results.

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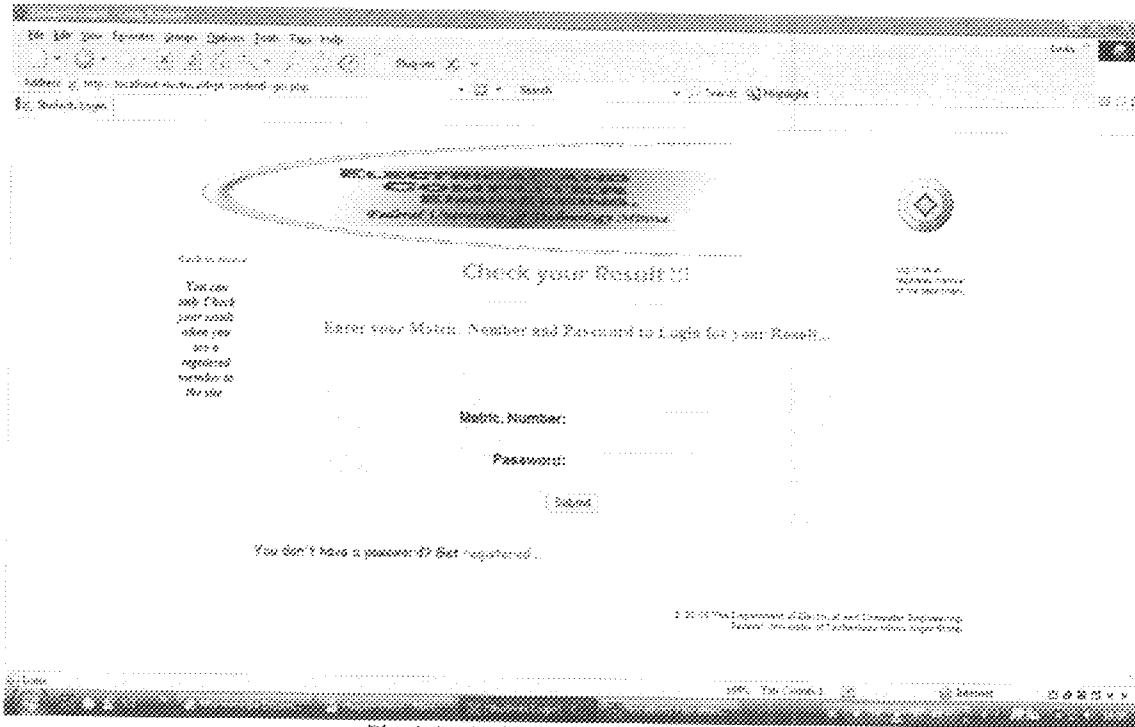
Fig. 3.7.9 login form for result checking

3.8 THE RULES OF HTML

HTML (Hyper Text Mark-up Language) does have some rules to follow even its standard form, though they are not really rules but more of suggestions.

1. HTML is not case sensitive

2. HTML supports a content model

3. HTML elements should not nest

4. HTML attributes should be quoted

5. HTML element that is opened should be closed at the end of each usage

6. Browsers ignore unknown attributes and elements.

3.9 THE DATABASE

The database is the long-term memory of the web database application. The application can't fulfil its purpose without the database. However, the database alone is not enough.

3.10 THE APPLICATION: MOVING DATA IN AND OUT OF DATABASE

The application piece is the program or group of programs that performs the tasks. Programs create the display that the user sees in the browser window, they make the application interactive by accepting and processing information that the user types in the browser window and they store information in the database and get information out of the database. (The database is useless unless you can move data in and out.)

3.11 INTRODUCTION TO PHP AND MYSQL

MySQL is developed, marketed, and supported by MySQL AB, which is a Swedish company. The company licenses it in two ways:

3.11.1 **Open source software:** MySQL is available via the GNU GPL (General Public License) for no charge. Anyone who can meet the requirements of the GPL can use the software for free. I use MySQL as my database on the website because it is free and simple to use.

3.11.2 **Commercial license:** MySQL is available with a commercial license for those who prefer it to the GPL.

3.12 DEVELOPING A WEB DATABASE APPLICATION USING PHP AND MYSQL

The database application is been designed using the WAMP also called Windows Apache MySQL PHP. The WAMP contains both the MySQL and PHP in it, which is very flexible when creating the database. The interface of the WAMP window is shown below;
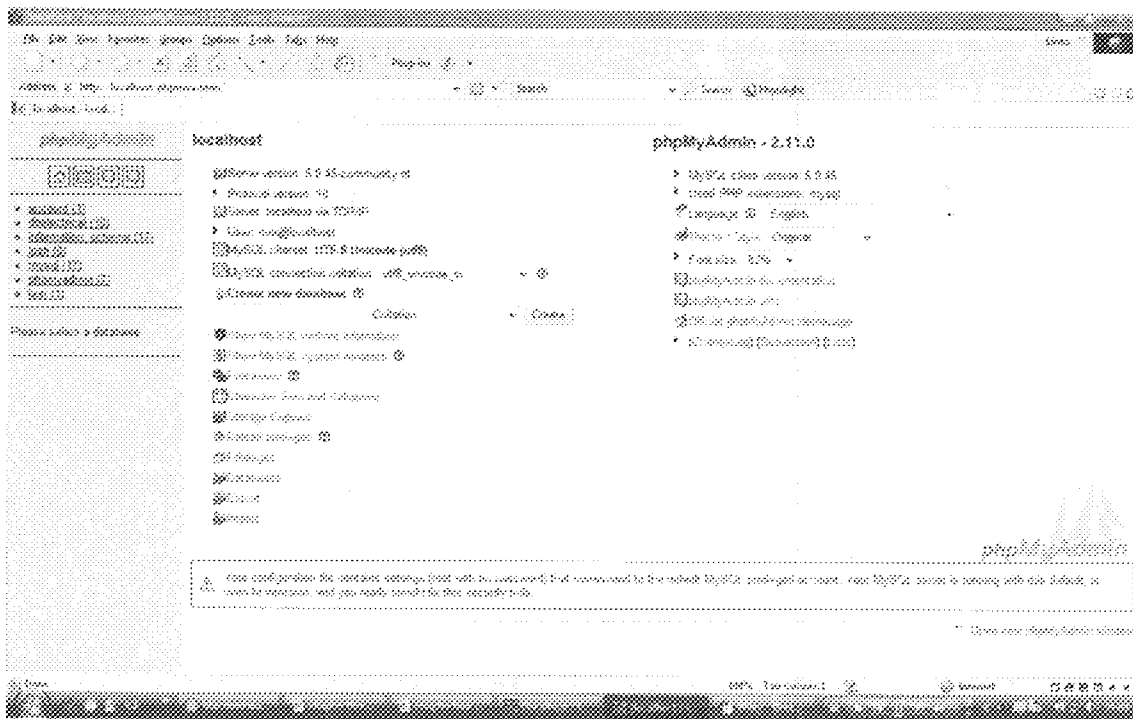
Fig. 4.4. The Interface of a WAMP - phpMyAdmin

3.13 CREATING A DATABASE: The database was created for the department of Electrical and computer Engineering called "dbelectrial" at the phpMyAdmin Server which is at the localhost. Localhost means that the database is designed locally before hosting the site. After initialising the database, the various tables were created under the database called dbelectrical. The database dbelectrical is like a house which holds all the data or information about the department of Electrical and Computer Engineering.

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Under the database dbelectrical are many tables that are linked together to make a long chain network. The various tables are as shown below;

Each table created in the database dbelectrical is designed in such a way that the number of fields in each of the tables created matches or corresponded to the number of fields in each of the form in the interface of the website.

3.14   LIST OF TABLES CREATED

The database consists of the following tables. The lists of tables created in the database dbelectrical are interconnected between themselves which makes the application very inter-reactive. This tables that are created are as follows;

1. **Login:** This table is designed to accept data only from the departmental lecturers, i.e. the various level advisers. This table only holds one data which is only entered by the level advisers to avoid by-passing the page by an unauthorized person.

2. **Registration:** This table created in the database holds only the students of the department's information. This table stores the students surname, first name, address, email-address, phone number, level, sex, matriculation number and password. Most importantly is the students' matriculation number and password which they will use to login whenever they wants to check their results online. This table is very flexible to a user where he/she can easily view his/her details anytime they want.

3. **Level Results:** This table basically holds each student's result on the database. The results held in this table can only be entered by the level advisers of each level in the department. The table is designed with enough security in which once the result has been entered by the level adviser, the result can not be edited but rather can only be viewed by the level advisers and the students. Should in case the level adviser entered a student's result wrongly, the only way he/she can edit the result is by going to the administrator in the database i.e. where the student's results is been stored in the database to effect a change or correction.

CHAPTER FOUR

VERIFICATION AND TESTING

4.1   THE DESIGN OF THE PAGES INTERFACE

The whole design of the interface was done properly without any breakage of either image or page links. To avoid complications on the design and also linking of the images and pages, all the materials used in the design and all the pages created during the design of the departmental website are all stored and held under a unique folder called 'electricaldep.' folder in the hard drive the system. The pages were linked from one page to another appropriately to avoid malfunction of the website when been hosted on the internet, as expected. The test of the design pages as well as the test of the linking of pages from one page to another was done locally in the system before publishing the website to the rest of the world.

4.2   THE DESIGN OF THE DATABASE

It's the database that tells of the functionalities and the effectiveness of a database driven website such as this departmental website. Once the database is working well, then the design itself would not be editable by any user but only display the information stored in both the database and the design.

The database is created separately and linked to the design done in dreamweaver by using the MySQL connection. After connecting the database created to the design, then the link form all the tables that were created on the database was established to the pages created on the design of the website. The links that were made from the website interface to the database was tested and confirmed to be working and effective. That is information can easily flow from the user to the database and from the database to the user effectively.

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4.3   REGISTRATION PAGES

Students can easily get registered to the website without any stress and such a student can easily get back his/her password if he/she forgets his/her password after filling some information concerning the student. For security reasons, the student's password will be sent to his/her email address after 24 hours.

4.4   RESULT CHECKING

The departmental students can check their results easily by each typing his/her surname and matriculation number in a form provided in the website. After typing his/her surname and matriculation, the result pops out as follows;
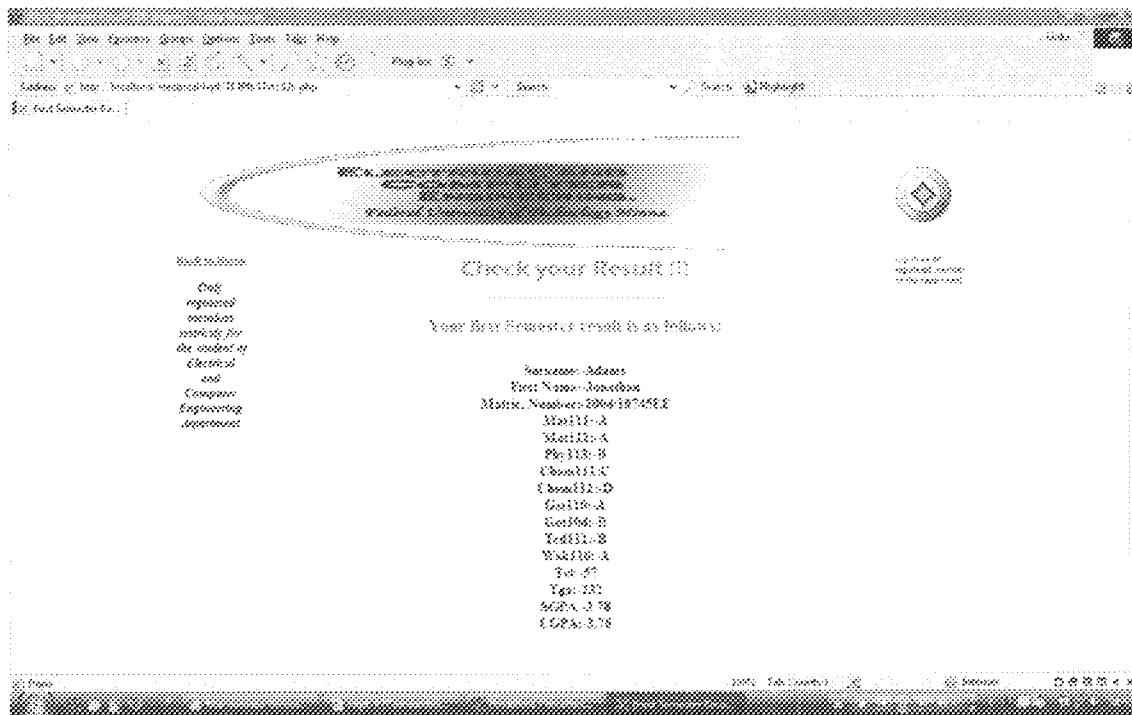
Fig 4.4.Registered student result download

Once the level advisers upload the student's results to the net, any student having the registration password can access his/her result. Note that, the result each student check can not be editable by anyone except the administrator in the server room only.

4.5   STUDENT'S PROJECTS

Students of the department of Electrical and Computer Engineering, independent of the Institution can have access to a lot of the departmental library. Some past years projects are also available in the website. Each of the projects contains the project topic, the name of the project designer, the abstract, the introduction, the block and circuit diagram, the methodology and lots more important information about each project.

CHAPTER FIVE

5.1 SUMMARY

The design of the Electrical and Computer Engineering department website contain a very brief history of the department, its mandate and functionalities as a department. Also it gives the various information such as about us, contact us, Lecturers upload of results, registration of student, students checking of results and lots more. It also links the department to the outside world and gives room for easy communication.

5.2 CHALLENGES ENCOUNTERED

There were lots of challenges that were faced during the design of the website such as information gathering, how to make the website attractive. The greatest challenge is in the design of the database and also in the connectivity of the design to the database.

There was need to apply some other applications such as Corel Photo paint for animation, macromedia flash and lots more, and thus requires one to have some knowledge about the applications to make the aim of the project achievable.

5.3 CONCLUSION

Today, the internet has already changed our world and there is nothing we can do about it other than to make the best of our world out of it. Internet is the fastest and more advanced means of communication in the world today and website development is the only process of passing this information to the world and will continue as long as the internet lasts. The new comers are always welcome and new sites will always be published everyday. It is very important to note that there are diverse tools and strategies of implementing web development and everybody is welcomed.

5.4 RECOMMENDATION

It should be encouraged that all governmental organizations are computerized, this will help the government in its work and allows growth in the nation. Also, they should make use of people with information skills, as well train and make it mandatory for every government worker especially the top officials to be computer literates. For this is important.

Finally, everyone should visit the internet and will see and understand that there is no other recommendation other than that you should get all the information you need just for time. The internet contains a lot of information that whatever the question or information you need either in the Religion, academics, circular world, or whatever information you need, you will find an answer because everyday people all over the world are always working on new technologies and publishing their new inventions.

APPENDIX

Fig 3.5 HOME PAGE Source Codes

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />

<title>Home Page</title>

<style type="text/css">

<!--

.style16 {        font-size: 17px;

          font-style: italic;

}

.style19 {font-family: "Comic Sans MS"; font-size: 12px;}

.style20 {        font-size: 10px;

          font-family: Verdana, Arial, Helvetica, sans-serif;

}

.style24 {font-family: Arial, Helvetica, sans-serif; font-size: 12px; }

.style26 {        font-size: 12px;

          font-family: Verdana, Arial, Helvetica, sans-serif;

          color: #3A385F;

}

.style29 {        font-family: Arial, Helvetica, sans-serif;

          font-size: 11px;

}

.style31 {font-size: 9px; font-family: Geneva, Arial, Helvetica, sans-serif; }

.style32 {        font-size: 9px;

          font-family: Arial, Helvetica, sans-serif;
```

```
}

.style9 {font-family: "Comic Sans MS";

       font-size: 14px;

       color: #330000;

}

a:link {

       color: #0000FF;

       text-decoration: none;

}

a:visited {

       text-decoration: none;

       color: #0000FF;

}

a:hover {

       text-decoration: underline;

       color: #00FF00;

}

a:active {

       text-decoration: none;

       color: #0000FF;

}

body {

       background-color: #F1EDED;

}

-->

<style>

<head>
```

```
<body>

<table width="900" border="0" align="center" cellpadding="0" cellspacing="0"
bgcolor="#FFFFFF">

  <tr>

    <th height="231" colspan="3" align="center" valign="middle" bgcolor="#FDFDFD"
scope="col"><p><img src="dept_images/Fui spinaz.gif" alt="fui mx" width="47" height="44"
align="top" /><img src="dept_images/frontsize_electept.png" width="807" height="178"
/></p></th>

  </tr>

  <tr>

    <th width="107" height="343" align="left" valign="top" scope="col"><table width="100"
border="0" align="center" cellpadding="3" cellspacing="3">

      <tr>

        <th align="center" valign="bottom" scope="col"><span class="style24">Home</span></th>

      </tr>

      <tr>

        <th align="center" valign="bottom" scope="col"><a href="about.html" class="style24">About
Us </a></th>

      </tr>

      <tr>

        <th align="center" valign="bottom" scope="col"><a href="contacts.html"
class="style24">Contact Us</a> </th>

      </tr>

      <tr>

        <th align="center" valign="bottom" scope="col"><a href="registration.php"
class="style24">Registration</a></th>

      </tr>

      <tr>

        <th align="center" valign="bottom" nowrap="nowrap" scope="col"><a href="updates.php"
class="style24">Administrator</a> </th>

      </tr>

      <tr>
```

38

```html
      <th align="center" valign="bottom" nowrap="nowrap" scope="col"><a href="projects.html"
class="style24">Project Topics</a></th>

      </tr>

      <tr>

      <th align="center" valign="bottom" scope="col"><a href="dept_staffs.html"
class="style24">Dept. Staffs</a> </th>

      </tr>

      <tr>

      <th align="center" valign="bottom" scope="col"><a href="courses.html" class="style24"> Dept.
Courses</a> </th>

      </tr>

      <tr>

      <th align="center" valign="bottom" scope="col"> <a href="studentlogin.php"
class="style24">Check Result </a></th>

      </tr>

      <tr>

      <th align="center" valign="bottom" scope="col"> <a href="fut_infor.html" class="style24">FUT
Infor. </a></th>

      </tr>

    </table>

    <a href="http://en.wikipedia.org/wiki/File:CD-ROM_Photodetector.jpg"> <img
src="dept_images/photodetector.bmp" width="106" height="100" border="0" /> </a></th>

    <th width="670" align="center" valign="baseline" scope="col"><table width="100%" border="0"
align="center" cellpadding="0" cellspacing="0" bgcolor="#F7F7F7">

    <tr>

    <th width="49%" height="18" scope="col"> <span class="style20"><a
href="about_fut.html">About FUT </a> | <a href="about_seet.html">About SEET</a> | <a
href="about_dept.html">More about the Dept of Elect. </a></span></th>

    <th width="51%" align="right" valign="middle" scope="col"> </th>

    </tr>

  </table>

  <table width="100%" border="0" align="center" cellpadding="0" cellspacing="0">
```

```html
<tr align="center">

  <th width="8" height="244" valign="top" scope="col"> <th>

  <th width="682" valign="top"  scope="col"><span class="style24">The basic component of
Civilazation!!!</span>

    <hr width="25%" align="center" size="2" />

    <table width="100%" border="0" align="center" cellpadding="0" cellspacing="0">

    <tr>

        <th width="63%" height="123" align="left" valign="top" scope="col"><table
width="100%" border="0" align="center" cellpadding="0" cellspacing="0">

        <tr>

          <th height="34" colspan="5" align="center" valign="baseline" scope="col"> <span
class="style16"><span class="style26">The department of Electrical and Computer Engineering is a
unique in the school of Engineering and Engineering Technology, Federal University of Technology
Minna established in 1st February 1983. </span></span></th>

        </tr>

        <tr>

          <th width="50%" height="56" scope="col"><img
src="dept_images/phototransistor4.bmp" width="78" height="57" /></th>

          <th width="50%" scope="col"><img src="dept_images/UBN.bmp" width="81"
height="51" /></th>

          <th width="50%" scope="col"><img src="dept_images/OSEbridge.bmp" width="78"
height="50" align="middle" /></th>

          <th width="50%" scope="col"><img src="dept_images/electricalComp2.bmp"
width="81" height="50" longdesc="http://www.deepri.com" /></th>

          <th width="50%" scope="col"><img src="dept_images/antenna.bmp" width="77"
height="49" /></th>

        </tr>

        </table></th>

      <th width="37%" align="center" valign="middle" bgcolor="#FFFFFF"
scope="col"><p><img src="dept_images/center.gif" width="202" height="113" /></p></th>

    </tr>

    <tr>
```

40

```
<th align="left" valign="middle" scope="col"><span class="style19">&#8212;&cent;
Producing graduates that will meet Nigeria&rsquo;s need. <span> </th>

<th align="left" valign="top" scope="col">Get Registered SOON!!! </th>

</tr>

<tr>

<th align="left" valign="middle" scope="col"><span class="style32"><span
class="style19">&#8212;&cent; We also empower you in been self employed in all aspect of life.
</span></span></th>

<th scope="col"><span class="style19">&#8212;&cent; We impart a sound
knowledge </span></th>

<tr>

</table></th>

</tr>

<tr>

<th height="19" scope="col"> </th>

<th scope="col"> <a href="http://en.wikipedia.org/wiki/File:Photodiode_symbol.svg"><span
class="style9"><a href="http://en.wikipedia.org/wiki/File:Snubber.jpg"></a></th>

<tr>

</table>

<p><span class="style29"><span class="style31"><img src="dept_images/flag[1].gif"
width="40" height="24" /></span><span class="style31"> </span> <a
href="http://www.electricaldept.edu.ng/comment.html">comment</a> | <a
href="http://www.electricaldept.edu.ng/feedback.html">feedback</a> | <a
href="http://www.electricaldept.edu.ng/suggestion.html">suggestion/opinion</a></span></p></th>

<th width="123" align="center" valign="top" scope="col"> <p class="style9">Get more and ore
free exciting information from the department by visiting each of the links!!!</p>

<p class="style9"><a href="http://en.wikipedia.org/wiki/File:Photodiode_symbol.svg"><img
src="dept_images/electricalComp.bmp" width="77" height="64" /></a><BR /> <a
href="http://www.jambrass.com/brass_electrical_components.html"><img
src="dept_images/electricalComp1.bmp" width="70" height="64" border="0" /></a><a
href="http://en.wikipedia.org/wiki/File:Snubber.jpg"> <img src="dept_images/rc snubbers.bmp"
width="70" height="61" border="0" /></a></p>

</th>

</tr>
```

```
<tr>

    <th colspan="3" align="center" valign="middle" scope="col"><p><span
class="style31">CopyRight&copy;2009 The Department of Electrical and Computer Engineering.<br
/>

    Federal University of Technology Minna Niger State. </span></p></th>

  </tr>

</table>

</body>

</html>
```

Code to display 100 Level Results

```php
<?php

session_start();

?>

<?php

// main page

include_once("connections/dbelectrical.php");


//then the rest of the page normally.


?>


<?php require_once('Connections/dbelectrical.php'); ?>

<?php

mysql_select_db($database_dbelectrical, $dbelectrical);

$query_Firstresult100 = "SELECT `100firstresult`.surName, `100firstresult`.firstName,
`100firstresult`.matricNumber, `100firstresult`.mat111, `100firstresult`.mat112,
`100firstresult`.phy113, `100firstresult`.che111, `100firstresult`.che112, `100firstresult`.gst110,
`100firstresult`.gst104, `100firstresult`.ted111, `100firstresult`.wsk110, `100firstresult`.ict,
`100firstresult`.tga, `100firstresult`.sgpa, `100firstresult`.cgpa FROM `100firstresult`";

$Firstresult100 = mysql_query($query_Firstresult100, $dbelectrical) or die(mysql_error());
```

```php
$row_Firstresult100 = mysql_fetch_assoc($Firstresult100);

$totalRows_Firstresult100 = mysql_num_rows($Firstresult100);

?>


<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />

<title>First Semester Result 100 display</title>

<style type="text/css">

<!--

.style11 {font-size: 9px;
        font-family: Verdana, Arial, Helvetica, sans-serif;
}

.style12 {font-family: "Eras Demi ITC";
        color: #666666;
}

.style16 {font-size: 14px;
        font-style: italic;
}

.style19 {color: #FFFFFF}

.style2 {font-weight: bold; color: #FF0000; font-size: 25px;}

.style21 {font-size: 9px; font-family: Geneva, Arial, Helvetica, sans-serif; }

.style4 {font-family: "Comic Sans MS"}

.style43 {color: #666660}

.style51 {font-size: 10px; font-family: Verdana, Arial, Helvetica, sans-serif; }

.style56 {color: #00FFFF;
```

```
<table width="900" border="0" align="center" cellpadding="0" cellspacing="0"
bgcolor="#FFFFFF">

  <tr>

    <th height="133" colspan="2" align="left" valign="top" scope="col"><p
align="left">         <img
src="dept_images/wrong_id_clip_image001.gif" alt="curve" width="612" height="129" id="Image1"
></p></th>

    <th width="80" align="center" valign="middle" scope="col"><img src="dept_images/fut.png"
alt="FUTMINNA" width="64" height="64" align="left" ></th>

  </tr>

  <tr>

    <td width="100" height="292" align="left" valign="top"><table width="80%" border="0"
align="center" cellpadding="0" cellspacing="0"  bgcolor="#FFFFFF">

      <tr>

        <th height="39" align="left" valign="top" nowrap="nowrap" bgcolor="#FFFFFF"
scope="col"><a href="index.html" class="style51">Back to Home </a></th>

      </tr>

      <tr>

        <th width="88%" height="205" align="center" valign="top" scope="col"><span
class="style16">Only  registered members  restrictly for the student of Electrical and Computer
Engineering department </span></th>

      </tr>

      <tr>

        <th scope="col"> </th>

      </tr>

      <tr>

        <th scope="col"> </th>

      </tr>

    </table></td>

    <td width="720" align="center" valign="top"><p align="center" class="style2 style19
style19"><span class="style12">Check your Result</span><span class="style43"> !!</span></p>
```

```php
<p align="center" class="style2"><img src="dept_images/wrong_id_clip_image001_0000.gif"
width="200" height="1" /></p>

<p class="style4"><span class="style56"> <span class="style57"> Your first Semester result is as
follows; </span></span></p>

<table width="100%" border="0" align="center" cellpadding="5" cellspacing="5">

<tr>

<th height="108" align="center" valign="middle" scope="col">

<?php
// Request the text of all the results
$result = mysql_query( "SELECT surName, firstName, matricNumber, mat111, mat112, phy113,
che111, che112, gst110, gst104, ted111, wsk110, tct, tga, sgpa, cgpa FROM `100firstresult` WHERE
surName = '{$_SESSION['SurName']}' AND firstName = '{$_SESSION['FirstName']}' " );

if (!$result) {

exit('<p>Error performing query: ' . mysql_error() . '</p>');

}


while ($row = mysql_fetch_array($result))

{


if($row['surName'] != "") {    echo '<p>SURNAME:-' . $row['surName'] . '</p>'; }

if($row['firstName'] != "") {    echo '<p>First Name:-' . $row['firstName'] . '</p>';
}

if($row['matricNumber'] != "") {    echo '<p>Matric Number:-' .
$row['matricNumber'] . '</p>'; }

if($row['mat111'] != "") {    echo '<p>Mat111:-' . $row['mat111'] . '</p>'; }
if($row['mat112'] != "") {    echo '<p>Mat112:-' . $row['mat112'] . '</p>'; }

if($row['phy113'] != "") {    echo '<p>Phy113:-' . $row['phy113'] . '</p>'; }

if($row['che111'] != "") {    echo '<p>Chem111:-' . $row['che111'] . '</p>'; }

if($row['che112'] != "") {    echo '<p>Chem112:-' . $row['che112'] . '</p>'; }

if($row['gst110'] != "") {    echo '<p>Gst110:-' . $row['gst110'] . '</p>'; }

if($row['gst104'] != "") {    echo '<p>Gst104:-' . $row['gst104'] . '</p>'; }
```

```php
if($row['tcd111'] != "") {    echo '<p>Tcd111:-'. $row['tcd111'] .'</p>'; }

if($row['wsk110'] != "") {    echo '<p>Wsk110:-'. $row['wsk110'] .'</p>'; }

if($row['tct'] != "") {    echo '<p>Tct:-'. $row['tct'] .'</p>'; }

if($row['tga'] != "") {    echo '<p>Tga:-'. $row['tga'] .'</p>'; }

if($row['sgpa'] != "") {    echo '<p>Sgpa:-'. $row['sgpa'] .'</p>'; }

if($row['cgpa'] != "") {    echo '<p>Cgpa:-'. $row['cgpa'] .'</p>'; }

                }; ?>

                </th>        </tr>

        <tr>

        <th height="55" align="left" valign="top" scope="col"> </th>

        </tr>    </table></td>

    <td align="left" valign="top"><span class="style21">Log In as an  registered member of the department  </span></td>        </tr>

    <tr>

    <td> </td>

    <td> </td>

    <td> </td>

    </tr>

    <tr>

    <td colspan="3" align="right" valign="baseline"><span class="style11">&copy; 2009 The Department of Electrical and Computer Engineering.<br />

    Federal University of Technology Minna Niger State. </span></td>

    </tr>        </table>    </body>

</html>

<?php

mysql_free_result($Firstresult100);

?>
```