

# Online Advising System (OAS)

Reem Al-Mershed  
College of Engineering,  
EFFAT University  
AnNazlah Al Yamaniyyah, Jeddah,  
22332, Saudi Arabia  
ralmershed@effatuniversity.edu.sa

Nada Al-Madhoun  
College of Engineering,  
EFFAT University  
AnNazlah Al Yamaniyyah, Jeddah,  
22332, Saudi Arabia  
nalmadhoun@effatuniversity.  
edu.sa

Shahad Al-Otaibi  
College of Engineering,  
EFFAT University  
AnNazlah Al Yamaniyyah, Jeddah,  
22332, Saudi Arabia  
salotaibi@effatuniversity.edu.sa

Nighat Mir  
College of Engineering,  
EFFAT University  
AnNazlah Al Yamaniyyah, Jeddah,  
22332, Saudi Arabia  
nmir@effatuniversity.edu.sa

## Article Info

Volume 81

Page Number: 4028 - 4032

Publication Issue:

November-December 2019

## Article History

Article Received: 5 March 2019

Revised: 18 May 2019

Accepted: 24 September 2019

Publication: 19 December 2019

## Abstract:

The Online advising system is a website for the university. The purpose of this study is to implement a system for the advisors to check their students schedule and courses and provide advices or information by an academic department obtained via the Internet to the students to improve their academic experience. The system created to be used by the advisors and the students. The system created to be part of the Effat banner website which makes the system accessible at all times and anywhere by simply using a web browser and Internet connectivity. Some of the advantages of the designed online advising system for Effat University are automatically schedule for students who got warnings in their previous semester, integrated messages between the student and advisor, a page showing the offered elective courses, and announcements space for the advisors and advisees' page.

**Keywords:-** University, online advising system, Effat, student registration

## 1. INTRODUCTION

Student academic advising is a fundamental component of effective academic experience. It involves missions where advisors help student to complete the necessary requirements to graduate in a good shape. It also requires major planning from students and advisors. Academic advisors are exposed to a variety of opportunities, enhancements, problems, and choices as technology becomes more prevalent on university campuses [1-2]. Many universities and colleges around the world are using online advising system. Automated advising system is extremely helpful for both advisors and advisees in a way they contribute in performing a part in better-informed decision and services. By introducing technology to

the academic advising process students and advisors are able to get the use of repetitive tasks on software, also it will help in devoting time to help students in planning their educational road[1-4].

The Online Academic Advising System makes scholarly calendars semester-to-semester and year-to-year by social event data from various sources. The framework will give the entirety of the data required and required for course arranging in a reasonable and simple manner. The framework additionally shows the major and generally normal, in view of the major, the framework will check if the necessities have been fulfilled and which should be finished. It additionally shows the quantity of credits finished and the quantity of credits still required for graduation. This data is

shown on the screen, approving the understudy and the guide to make a suggested scholarly arrangement for the present semester until the graduation. A database the board framework through a web application goes about as an interface between the college's present running applications and the Online Advisor. In addition, the system uses the guidelines that are put away in the college and showcases them with the client [5-6].

All the universities are having numerous counsels for every division to enable the understudy to pick a program of study and plan the best possible courses to take, by checking courses for which he/she has fulfilled the essentials and that set aside effort for the understudy and the guide since it's up close and personal understudy counsellor collaborations. So having an online prompting framework may present more prominent responsibility and may give better administrations to understudies since it's enable the understudy to do their work without alluding to their counsellors and that will decreases long haul arranging blunders and puts the obligation on the student[7-8]. For example Pennsylvania State University has a man-made reasoning part of their instructing framework that assesses the contact with respect to an understudy dropping a course and other built up an electronic master framework that, subsequent to evaluating an understudy's capacities, educates him/her about the best majors to consider [9].Whereas Brigham Young University (BYU) created a web-based freshmen advising and registration system for freshmen student to support academic advising and registration of entering freshmen through online and related materials, and helps the freshmen to look at the "big picture" of their academic careers and understand more about the courses and the requirements [10].

The academic advising has many processes like program, course choices and scheduling course. Effat University needs this system because they don't have online advising system the current advising process is the undergraduate academic advisors request from the student advisee to fill out a form prior to sitting with him/her for advising. The advisor is responsible to check the academic degree plan, read about the published rules of the university catalog, meeting with each student to see her schedule .In addition, when he/she in doubt may use the phone to contact the student services office and that takes too much time. This online advising system will provide all of the

information needed and required for course planning in understandable and easy way and that will reduces long-term planning errors and help the student to take the appropriate courses for each semester.

## 2. SYSTEM ANALYSIS

### 2.1 Basic Requirements

The system should allow different levels of user access, such as:

1. Program Administrator
2. Academic Advisor
3. IT Administrator
4. Students

Following are the requirement of the system:

- The system should display a student transcript record in flowchart, worksheet that has a spreadsheet of all required courses for the student to graduate with empty information about which quarter taken, course number and grades.
- The system should allow advisors to be able to manually add, delete, edit and modify student records and grades. And to import and export student records.
- The system should keep a track of credits count
- The system should be able to transfer credits from quarter to quarter.
- The system should show completed and planned courses in the studentprogram record. There shall be a distinction between the completed andplanned courses.
- The system shall allow Program Administrators to input a curriculum for a setof students.
  1. Major curriculum
  2. Minor curriculum
  3. Manually or through import
  4. The system shall allow the user toduplicateaparticularcurriculumforother students.
- The system should allow only one advisor to modify a particular student'sprogram record at a time.
- The system should maintain an audit trail of user edits to records, includingthe editing user, the time of the edit, and the record edited.
- The system should allow users to access it over the Internet in and offcampus.
- The system shall allow interoperability with different types of databases (MySQL and Oracle)

### 2.2 Functional Requirements

- The Advisor characterizes and proposes at least one timetables to the understudy

- Courses taken and courses still to be taken must be isolated in an unmistakable manner
- Facility to store supersedes activities
- Countermand inversion
- Email affirmation to the understudies is sent at whatever point a course is included or dropped
- Final plan messaged to understudies when enrolment is finished
- The framework will coordinate with the college database

### 2.3 Non-Functional Requirements

- Appearance Requirements  
The logo of Effat University and the present fundamental plan of Effat flag framework ought to be shown. The plan and shades of the site ought to accord the college – level understudy to make the clients feel great to utilizing the framework as opposed to blazing futile hues on the screen. Likewise, ought to mirror the earnestness of the college condition.
- Style Requirements  
The general style ought to be easy to use for the clients to utilize it productively and effectively. Moreover, the client ought to be agreeable while take a gander at it subsequent to getting to the framework. The structure ought not be too vivid to even think about reflecting the reality of the college web and yet it ought not be exhausting for the eye. It will be like the college website composition
- Accessibility Requirements  
The framework ought to likewise think about individuals with basic incapacities, so the catches that should be clicked ought to be sufficiently large and the text dimension ought to be evident that help the individuals who have locate issues. Additionally a few people are red-green partially blind, the framework ought to be planned in various hues staying away from red and green.
- Reliability and Availability Requirements  
The unwavering quality of the framework is legitimately connected to the degree of update of the archives to which it is related, for example, courses list The framework and the outside records must be refreshed always as per the necessities of the partners the counsel and the understudy will require this framework in any event once for every semester to enroll.
- Capacity Requirements

The framework ought to have the option to deal with all the data approaching from the database.

- Maintenance Requirements  
The database and the courses inventory must be refreshed somewhere around each semester to guarantee the usefulness for the most extreme timeframe. Additionally, the framework should convenient coordinate alteration recommended by partners.

### 2.4 Implementation

#### 2.4.1 System Software

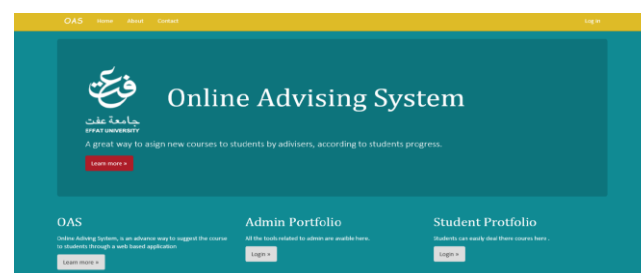
In implementation phase, Visual Studio 2013 that has new features added to it is used. Instead of using two different software programs, the new version of visual studio helped to reach that goal with only one software. Visual Studio 2013 is a collection of tools and services that will help in creating a variety of apps. Visual Studio also connects all of the projects. Tools added, including Eclipse, Xcode, NET apps, C++ and HTML/JavaScript.

#### 2.4.2 Web Pages

##### 2.4.2.1 Home page

Figure 1 presented the main page of the system, which contains Effat logo on the page and has OAS abbreviation that means Online Advising System. The page is linked into 3 other pages

1. OAS page: This offers the user more information about the system
2. Admin portfolio page: This is linked to the advisor log in page.
3. Student portfolio page: This is linked to the student log in page.

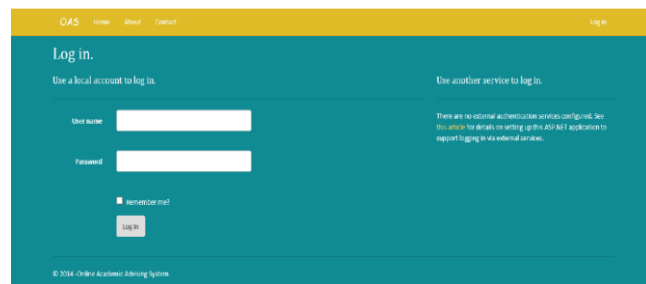


**Figure 1. OAS Home page**

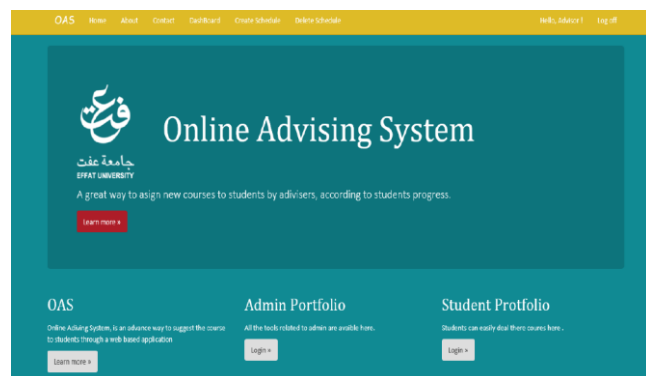
In this page (refer Figure 2), students and advisors will be able to log into their profiles. Both students and advisors will be given a username and a password to log in, the user can check on 'Remember me' box to save the username and password so the user does

not have to enter them every time he/she wants to log in.

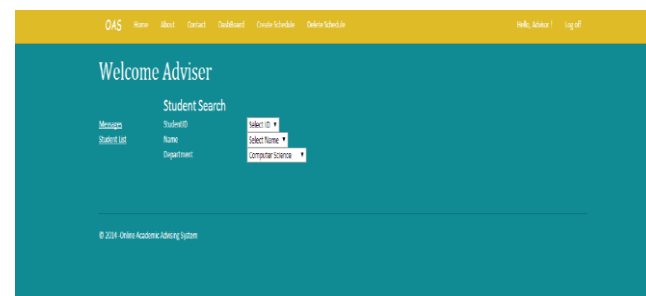
Figure 3 shows the advisor homepage. In this page, when the advisor click on the dashboard button at the top of the screen and it will transfer him/her to the advisor page where he can search for students by selecting the student's name, ID, department and the type of the student as depicted in Figure 4.



**Figure 2. Login page**

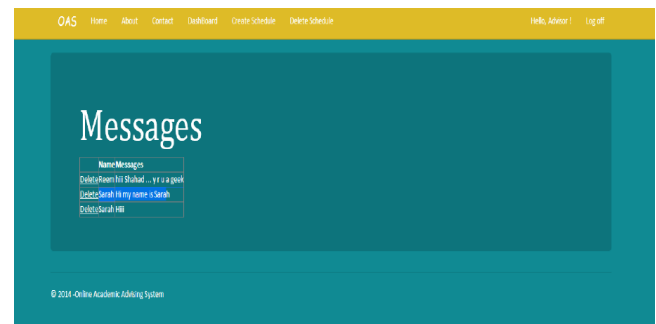


**Figure 3. Advisor homepage**



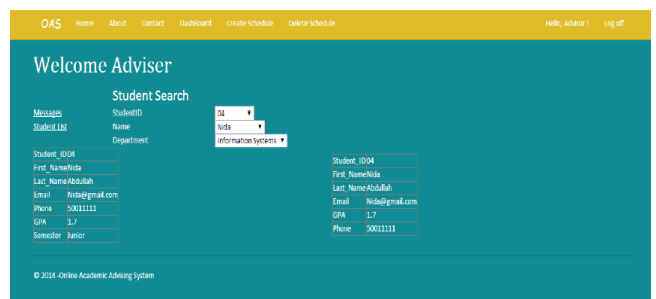
**Figure 4. OAS Advisor dashboard**

From the dashboard the advisor have an access to search through students from student search, select students to view their information, schedule and transcript, and from the left can also find the students list to view all of the students' information and can receive and exchange message between the students. Figure 5 is an example of the OAS message screen.

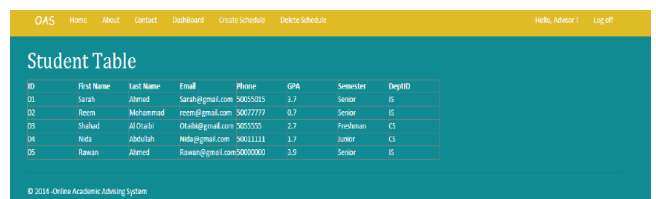


**Figure 5. OAS messages**

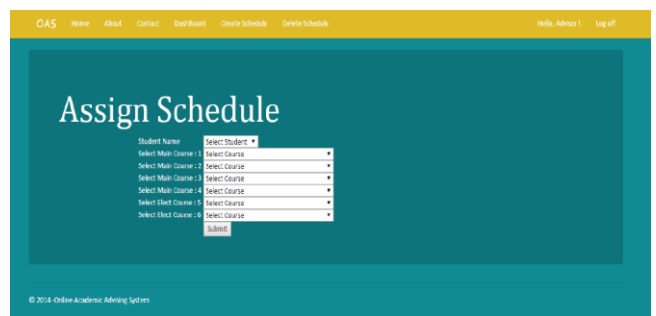
As shown in Figure 6, the advisor is able to search for a student and then the system will provide the advisor with the information about that student. In addition, based on the list of students (refer Figure 7), the advisor can also start creating a schedule and choosing the main and the elective courses for the student. Figure 8 presented the screen of OAS schedule creation. However, the advisor must select a student first to assign her schedule and then submit it.



**Figure 6. OAS student search**



**Figure 7. OAS student list**



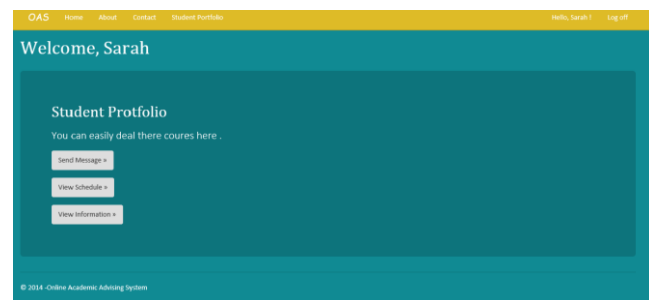
**Figure 8. OAS create a schedule**

Even after creating the schedule, the advisor has the option to delete the selected subjects for the student as shown in Figure 9.

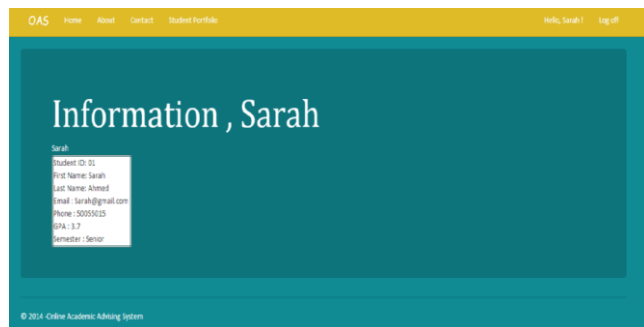


**Figure 9. OAS delete a schedule**

Upon logged in, the student will be able to see three options (refer Figure 10). Student can send message to advisor and view them, view suggested schedule from advisor and also view his/her own information. Figure 11 shows the profile for student information



**Figure 10. OAS student profile**



**Figure 11. Student information**

### 3. CONCLUSION

Online advising systems are widely used in many universities and colleges to ease the job for advisors to give academic advises to their students. This research is designed specifically to be implemented in Effat University. In order to implement the proposed system, it needs to be integrated with the current database of Effat.

### REFERENCES

[1] Albalooshi, F., &Shatnawi, S. (2010). Online academic advising support. In *Technological Developments in Networking, Education and Automation* (pp. 25-29). Springer, Dordrecht.

[2] Anderson, W., Motto, J. S., &Bourdeaux, R. (2014). Getting what they want: Aligning student expectations of advising with perceived advisor behaviors. *Mid-Western Educational Researcher*, 26(1), 27-51.

[3] Gaines, T. (2014). Technology and academic advising: Student usage and preferences. *NACADA Journal*, 34(1), 43-49.

[4] Al-Nory, M. T. (2012, August). Simple Decision Support Tool for university academic advising. In *Information Technology in Medicine and Education (ITME), 2012 International Symposium on* (Vol. 1, pp. 53-57). IEEE.

[5] Roushan, T., Chaki, D., Hasdak, O., Chowdhury, M. S., Rasel, A. A., Rahman, M. A., &Arif, H. (2014, March). University course advising: Overcoming the challenges using decision support system. In *Computer and Information Technology (ICCIT), 2013 16th International Conference on* (pp. 13-18). IEEE.

[6] Ishak, I. B., &Lehat, M. L. B. (2012, June). A conceptual framework of web-based academic advisory information system. In *Humanities, Science and Engineering Research (SHUSER), 2012 IEEE Symposium on* (pp. 957-961). IEEE.

[7] Henderson, L. K., &Goodridge, W. (2015). AdviseMe: An intelligent web-based application for academic advising. *International Journal of Advanced Computer Science and Applications*, 6(8), 233-243.

[8] Feghali, T., Zbib, I., &Hallal, S. (2011). A Web-based Decision Support Tool for Academic Advising. *Journal of Educational Technology & Society*, 14(1).

[9] Kramer, G. (2002). Online Advising. Brigham Young University.

[10] The Pennsylvania State University. (2012). How to Obtain Access for Advisers. retrieved June 6, 2014 from <https://elion.psu.edu/advising/arusab.html>