#### **Community of the College of Engineering**

A biannual leaflet Issued by the College Vice Deanship for Development and Quality

The Second Issue, Shawal 1343H, August 2013

#### **First Meeting of College Graduates**

The College organized the first meeting of its graduates on the evening of Saturday, 3/6/1434 in the Hamad Al-Jasser Hall at the university, under the auspices of the Vice Rector for Educational and Academic Affairs, Prof. Abdullah Bin Salman Al-Salman.



The meeting came on the eve of the College celebration of its fifty years. The event was attended by a large number of graduates and employees of the college. The ceremony included a speech by the College Dean Prof. Khalid Alhumazi, and a film showing the march of the college during the past fifty years and its most important achievements. This occasion, saw the launch of the first issue of the Bulletin of the College "Community of the College of Engineering" in both Arabic and English languages as well as the launch of the Alumni Association to serve as a channel through which graduates can communicate with each other and with the faculty in order to contribute to the development of the educational process and the engineering profession. The program of the meeting also included speeches from three college graduates: Dr. Yahya bin Hamza Koshak, Prof. Mohammed bin Abdulrahman Al Haidar, and His Royal Highness Prince Abdullah Bin Musaad Bin Abdulaziz Al Saud. The three speakers shared their professional

experience and their study in the College. The speakers were then honored. Also, Engineer Tariq bin Othman AlQasabi was honored in recognition for his sponsorship of the Award for Excellence in Civil Engineering in Saudi Arabia. This was followed by an open dialogue with alumni, moderated by the Vice Dean for Development and Quality Dr. Waleed Zahid. Several ways were proposed to support the College including presenting annual lectures. providing opportunities for summer training for students, scholarships for outstanding students through the internal scholarship program as well as support for graduation projects by making available the capabilities and expertise of companies and institutions to engineering students. The meeting also saw the presentation of certificates and awards to the outstanding college graduates who graduated with excellence during the past academic year 1432/1433 AH and the first semester of this year 1433/1434 AH as well as outstanding students expected to graduate this semester.



Prof. Dr. Ahmed al-Amiri Hosted by the College Council

The College of Engineering council hosted the Vice Rector for Graduate Studies and Scientific Research Prof. Ahmed Al-Ameri on Sunday, 28/04/1434.



The meeting discussed the status of the college graduate programs, the constraints faced in attracting graduate students, the role of the Research Center of the College, the relationship between the college and Research Chairs as well as the need for clear mechanisms to follow-up and support the positive role of the College centers and research chairs and address all the negative aspects that existed in the past.

King Saud University and King Abdul Aziz City received patent from the U.S. Bureau of Intellectual Property in the field of isolating nuclear facilities from devastating earthquakes



Dr. Khaled Bin Abdullatif, associate professor of the mechanical engineering department and adviser to King Abdul Aziz City for Science and Technology - National Center for robot and intelligent systems - obtained a patent from the American Bureau of Intellectual Property in the area of isolating nuclear installations from the effects of earthquakes. The researcher presented a detailed design for a smart base isolation used in the construction phase of nuclear reactors that can isolate 90 to 95 per cent of the severity of the earthquake, according to laboratory tests that were carried out on a miniature model of the insulation system. The smart base consists of

high accuracy sensors to identify the beginning of the earthquake and then transfer the signal to an electronic control board, which in turn regulates the work of six valves in three hydraulic cylinders to control the base in a stable condition before and after the earthquake. The researcher said that this new model of smart base can benefit all sensitive installations such as nuclear power plants, hospitals, schools and all low-rise buildings that are found in areas where earthquakes are active.

#### College Achievement in the Gulf Cooperation Council Graduation Projects Competition

The College achieved the first place in the competition for the best graduation projects for students of engineering colleges in the GCC countries. The results were announced during the twentieth meeting of the deans of Colleges of engineering, architecture, planning and computer of GCC countries. Ten GCC universities participated in the competition through 46 graduation projects in different engineering disciplines. The College graduation project entitled:

Design and Implementation of a Fail-Safe Wireless Communication System for Unmanned Aerial Vehicles (UAV). The project was submitted by the students: Ryan Salman and Mohamed Aloqaili from the Department of Electrical Engineering. Qatar University won the second place while the KSU department of Industrial Engineering and Jazan University achieved the third place, and Al-Ain Emirates University and the University of Jazan were at the fourth place.

## Workshop on the Computer program MyOBE

Under the auspices of the Dean of the College Engineering Prof. Khalid Alhmaizi,, the deanship for development and quality organized a workshop on Tuesday, 28/5/1434 H on the computer program MyOBE made available by the Malaysian University of UPM. Dr. Basil

Shadid from the industrial department, presented a lecture on the main features of the program. The program is designed to follow-up and measure academic programs scientific performance and permits the access to information and reports required for academic accreditation.





The workshop was attended by heads of departments and supervisors of quality and accreditation units. The workshop aimed at the introduction of the program, the identification of its potential benefits, and the collection of feedback of the attendance for the purpose of the development of the program in a way that satisfies the College requirements.

## Workshop on the leadership of the future, career opportunities in the field of nuclear energy

The College organized in collaboration with a number of French companies a workshop on career opportunities in the field of nuclear energy. The workshop was held on Wednesday 7/6/1434, and reviewed areas of work available in the field of nuclear energy, the different areas of education in this field and degrees awarded by relevant academic institutions. The workshop was attended by the French companies AREVA

EDF and CEA in addition to the International Institute of Nuclear Energy I2EN.





The Annual Meeting of Introductory
Lectures to Students

The College organized the annual meeting of the introductory lectures for the departments under the patronage of the dean of engineering Prof. Khaled Alhmuaizi,, under the supervision and organization of Dr. Yasser Turki, Vice Dean for Academic Affairs. The workshop was held on Thursday, 13 June 1433 in the hall of Sheikh Hamad Al-Jasser in the lobby of the university.



The workshop was attended by the heads of departments, preparatory year students and college students who have not specialize yet. Dr. Yasser started the meeting by making a

presentation about the College and its departments. He then presented some advice to students and was keen on answering student inquiries. The meeting was attended by Dr. Ahmed Al AlSheikh and Eng. Modar Al-Husseini of the Department of Civil Engineering, Dr. Abdalbari Arifi from the Department of Petroleum Engineering, Dr. Basil Al-Sadhan from Department of Electrical Engineering, Dr. Emaddine Kamal, head of the Department of Chemical Engineering, Dr. Adel Al Shaya (head) and Abdulaziz al-Tamimi from the Department of Industrial Engineering and Dr. Hani Al-Ansari (head), and Dr. Essam Ali Bahkali from the Department of Mechanical Engineering. All the faculty members actively participated in the introductory meeting with the students.



## Delegation of BAHANG University (Malaysia) Visits the College



A delegation from the University of Malaysia Pahang (Bahang) visited the College on Tuesday, 4-23-1434. The delegation was chaired by Professor Rusli Yunus, the Vice President for Research and Innovation,, as part of their visit to some of the projects and universities in the Kingdom. The delegation met with the College Dean, the vice deans and heads of departments, and gave a presentation on the University of Pahang and its activities. The delegation also got to know about the capabilities of the College and research centers & chairs. The delegation paid a visit to the Prince Sultan Center for Advanced Technologies PSATRI, and was accompanied by Prof. Saleh Al-Shubaily, the director of the center.

## A Patent is Awarded to College on the Design of Insulin Pump for Diabetics



Dr. Waheed Rarib of the Electrical Engineering Department has been granted a patent (US 8,382,703 B1, February 26, 2013 ) from the U.S. Patent Office, on the work that is entitled "Piezoelectric Dual-Syringe Insulin Pump". The piezoelectric dual syringe insulin pump includes a single piezoelectric motor configured to pump insulin. The pump is controlled by a single controller. The pump uses two insulin reservoirs (in the form of two syringes), one of which is filled with a rapid-acting insulin. The other reservoir is filled with slow-acting insulin (providing the basal function). Both syringes are alternately actuated by a single PZT linear motor (particularly, a squiggle motor), depending upon polarity of the voltage applied to the motor, and feed into a common infusion line to the patient. The device includes an LCD display, audio alarm, controller, keypad, USB port, and a micro-energy harvesting circuit for recharging an on-board battery.

#### The College Welcomes Researchers from the Research Institute on Joining and Welding of the Japanese Osaka University



A delegation of researchers at the Research Institute on Joining and Welding at the University of Osaka, Japan, visited the College on Tuesday 30/04/1434 AH. The delegation began its visit by meeting with experts form the Department of Mechanical Engineering and discussed a proposed memorandum understanding between the College and the Japanese Institute; the two parties expressed their willingness to cooperate in order to improve education and scientific research through joint research and exchange of information and materials, and take advantage of existing laboratories and the exchange of students of undergraduate and graduate studies. At the end of the visit, the College Dean welcomed the guests and emphasized the strong commitment of the College to cooperate with leading international institutes in different fields.

# Saudi Aramco Chair Receives A Delegation from the Electricity and Co-generation Regulatory Authorit (ECRA)

An ECRA delegation along with consultants to ECRA visited the College on the 11<sup>th</sup> of February 2013 and presented a lecture on "Smart Metering and Smart Grids Strategy for the

Kingdom of Saudi Arabia" to get feedback from the College faculty and researchers. The presentation was followed by discussions between the consultants and the College experts.



## Workshop on Student Graduation Projects

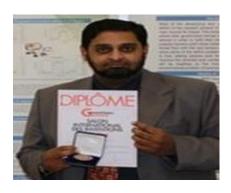


The college deanship for quality and development organized a workshop entitled "How successful are the graduation projects in the College of Engineering?" on Saturday, 1 Rajab 1434 AH, corresponding to May 11, 2013, from 1:00 to 3:00 pm. The purpose of the workshop was to display the results of the assessment of some student graduation projects that was carried out during the past year, and also the results of the competition for graduation projects in the engineering Colleges across the GCC Universities, in which the College has participated with six projects representing all the College departments.

In both events the assessment of the graduation projects was carried out by reviewers from Arab and non-Arab Universities. The workshop included a presentation by Prof. Dr. Emad Ali, Chairman of the Department of Chemical Engineering, entitled: "Standardization of Graduation Projects Against ABET criteria",

followed by a presentation by Dr. Ahmed El-Sherbini from the Industrial Engineering Department, entitled: "Lessons from the third competition for graduation projects of engineering colleges in GCC universities". The audience then discussed the results of the assessment and agreed that recommendations should be reported to the Deanship, and circulated among the College Departments in order to benefit from the remarks of the reviewers on the weaknesses and strengths of the projects and their compliance with the ABET requirements.

### College Receives Gold Medal in International Exhibition



Dr. Raja Rizwan Hussain from the Civil Engineering Department, received a gold medal in the in 41st International Exhibition of Inventions held in Geneva, Switzerland.

The medal was given to Dr. Hussain for his outstanding research through which he has developed an innovative method for prevention of macro-cell corrosion in the repaired reinforced concrete patch in RC structures. The exhibition was held during the period 10-14 April, 2013 under the patronage of the Swiss Federal Government, the State, the City of Geneva and the World Intellectual Property Organization. The event welcomed more than 60 thousand visitors from all over the world, 725 exhibitors from 45 countries and around 1000 inventions confirming its position as the world's most important invention exhibition.

#### **College Annual Meeting**

The College organized its annual staff meeting on Thursday, 7-7-1431. The meeting included a welcome speech by the College Dean, Prof.

Khalid Alhumaizi, the honoring of colleagues retirees, the heads of departments whose appointment periods ended, staff and students who were involved in organizing the celebration of the College fifty years ceremony and colleagues who received awards of excellence in various fields. Were also honored the ideal employee and ideal technician at the college level for this year.







**Ceremony Honoring the Retired Employees of College Labs** 

The staff of the College labs organized an honoring dinner on the evening of Sunday, 25/06/1434 at the educational farm, to honor the retirement of some of their colleagues:

Abduaziz Al-Shihri, Hamoud Alomari and Hassan Khatam. The dinner was attended by their colleagues as well as a number of college: administrators including Mr. Abdulaziz Al-Twijri, Director of College Administrative Affairs, the head of Civil Engineering department Dr. Khalid Dhafir and the Vice Dean for Development and Quality Dr. Waleed Zahid.



Vice Deanship for Academic Affairs Launches a Number of Development Programs for Student Affairs



Under the auspices of the vice rector for Educational and Academic Affairs, Prof. Abdullah Al-Salman, and the presence of the Dean of Admissions and Registration, Dr. Abdulaziz Al-Othman, and the vice deans, the College Deanship for Academic Affairs inaugurated on Monday 10/07/1434 a number of systems and development programs relative to students affairs and registration procedures, which were the results of continuous and vigorous efforts by the different units of the college vice deanship for Academic Affairs in the previous semesters

The units worked on the development of these systems include: the Student Affairs unit, the Student Registration unit, the Census unit and the Summer Training unit.

Dr. Yasser Turkey, the Vice Dean for Academic Affairs made a comprehensive presentation in which he reviewed the developed programs and systems, namely:

- The program to prepare the student Schedules: It is an automatic system to generate optimized student schedules, taking into account the rules and policies adopted by the College and University.
- The "find" program: It is a program that helps the student to build his schedule according to the availability of sections while satisfying his wishes as much as possible.
- Census Assistance Programs: These are programs that generate a number of files containing important data and analyses of students' academic performance, and the results of the courses sections, in addition to students' data and ways to communicate with them. These files serve many departments and units in the College.
- Student Cases Program: The students affairs
   Committee had developed a program that
   compiles data of students whose cases are
   studied by the Students Problems
   Committee so as to allow the committee to
   access easily all data needed to make the
   right decision according to the guidelines of
   the University, and policies of the College.
- Student Cases Delivery System: It is a system that allows the student to submit electronically his request and track his status.
- Program to adjust schedules: The student will be able to a request to amendment of his schedule through the web site and track the status of his request, in addition to the advantages of the system in the follow-up, archiving and accuracy in performance.
- Program to Set up Final Exams Schedules: It is a program that the College used to generate schedules of the final exams while making sure to avoid conflicts and finding appropriate time spaces between exams.

For Contact
COE\_DQuality@ksu.edu.sa
This issue is prepared by:
Dr. Waleed M. Zahid
Prof. AbdulHamid Ajjbar
Abdulaziz Alkhamis