



## College of Engineering Community

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## Participation of the College in the University Celebrations Marking the 89th National Day of the Kingdom of Saudi Arabia

The College dean Prof. Dr. Waleed Bin Mohamed Zahid and the College vice deans participated on Tuesday 25 Muharram 1441 H in the ceremony organized by King Saud University on the occasion of the 89th National Day of the Kingdom of Saudi Arabia under the slogan (Elan to the Summit), which was held in the main hall of the University under the patronage of His Excellency Professor Badran bin Abdul Rahman Al Omar the President of the University.

Dr. Waleed Zahid, and the College vice deans also participated in the activities organized in the College lobby on the same the occasion. The dean recorded words on this occasion in the honor board created specifically for this occasion, asking God to grant our country security, safety, progress, and dignity, and for our leaders enduring health and success.



## Visit of His Excellency the Minister of Education of Nigeria to the College

The College of Engineering was honored by the visit on Tuesday 1/3/1441 H of His Excellency the Nigerian Minister of Education. The College dean and the vice deans welcomed and accompanied His Excellency the Minister during his visit to the Student Creativity and Innovation Center in the College, and reviewed the achievements of the Student Center, including the participation of the Center in a car designed by the students, in the annual environmental Shell Marathon, which the college has been participating in for the last five

years. The College dean also briefed His Excellency on the students' work to design and program a robot in preparation for participation in the Fox Robotics competition that will be held in the United States of America in April 2020.

His Excellency then kindly visited SABIC Polymer Research Center, where he was briefed on the center's laboratories and ongoing research on polymer development.



### **Appointment and Renewal of A Number of College Leaders**

His Excellency the President of the University, Prof. Dr. Badran bin Abdul Rahman Al-Omar issued a number of administrative decisions, including the appointment and renewal of appointment of a number of leaders of the College of Engineering:

- Renewing the appointment of Prof. Dr. Abdul Mohsen bin Ahmed Al-Baddah as the vice dean for graduate studies and scientific research.
- Renewing the appointment of Dr. Abdulaziz bin Abdullah Al-Ghayyama as the head of the department of chemical engineering.
- Appointment of Dr. Majid Bin Lafi Al-Tamimi as head of the department of electrical engineering, starting from 11/23/1440 H, succeeding Prof. Dr. Abdul Hamid Al-Sanea.
- Appointment of Dr. Ayman bin Abdullah Al Twaim as head of the department of civil engineering, starting from 1/8/1441 H, succeeding Dr. Abdullah Al-Sabhan.
- Appointment of Dr. Hamad bin Fahd Al-Harbi, head of the department of mechanical engineering, starting from 5/1/1441 H, succeeding Dr. Abdullah Al-Abdulkarim
- Appointment of Dr. Majid bin Awad Al-Otaibi, vice-dean for educational and academic affairs, starting from 2/18/1441 H, succeeding Dr. Ahmed Al-Naim

For his part, the College dean Prof. Waleed bin Muhammad Zahid thanked the colleagues whose assignments ended for their good efforts in serving the departments and welcomed the colleagues who were appointed or renewed, wishing everyone success in their tasks.



**Dr. Abdulaziz Gheyama**



**Prof. Abdulmohsen AlBaddah**



**Dr. Hamad AlHarbi**



**Dr. Majid Tamimi**



**Dr. Majid Alotaibi**



**Dr. Aymane Al Twaim**

## Quality Day at the College

In continuation of the activities of the College vice deanship for development and quality in disseminating and consolidating the culture of development and quality and explaining the developments in the field of quality and academic accreditation, the College organized on 11/27/2019 the activities of "Day of Development and Quality at the College of Engineering" under the patronage of his Excellency Prof. Dr. Youssef Ben Abdou Assiri, the vice University rector for planning and development



The ceremony began with verses from Holy Quran, followed by a speech of the College dean Prof. Dr. Waleed bin Muhammad Zahid, and then a speech by the Vice President for Planning and Development, Prof. Dr. Youssef bin Abdo Asiri. After that, the vice dean for development and quality Prof. Dr. MUSAED bin Nasser Al-Awad presented a lecture entitled "Glimpses of New Amendments to the ABET International Academic Accreditation System for the 2019-2020 Session" followed by a lecture by the University's Director of Risk Management, Dr. Nasser bin Musare Al-Anazi entitled "Risk Management Plan at King Saud University".

Finally, Dr. Mohamed Abdel Fattah Sharaf, the head of development and quality unit of the College presented a lecture titled "Glimpses of the new amendments to the NCAAA National Academic Accreditation System for the 2018 edition." At the end, prizes for the quality competition were distributed to College students.



## **The College Received a Delegation from the University of Strathclyde, Scotland**

In the context of cooperation between Saudi and international universities, a delegation from the College of Engineering at Strathclyde University from Scotland visited the College and the Center for Sustainable Energy at King Saud University to discuss research and academic cooperation. The meeting was attended by the College dean Prof. Dr. Waleed Zahid, the vice dean for development and quality Prof. Dr. Musaad Al-Awad, the vice-dean for educational affairs Dr. Majed Al-Otaibi and the supervisor of the Center for Sustainable Energy Technologies Dr. Ziad Al-Mutairi. The University of Strathclyde was represented by Jennifer Gazzard, the International Relations Coordinator, Dr Kepa Mendibil, deputy dean of Engineering for international relations, and Dr. Mark Heslop from the department of chemical engineering

During the visit, several topics of cooperation between the two colleges were discussed, as Strathclyde University is considered one of the best universities in the British classification for engineering majors, which include electrical, mechanical, chemical, civil, and aviation engineering. The topics of cooperation included practical training for College students at Strathclyde University and cooperation in the Aviation Engineering Program, which the College intends to activate in line with the Kingdom's plan in preparing specialized human cadres. Also were discussed various topics for research cooperation between the two universities.



### Meeting of the "Visiting Student" Program

Under the gracious patronage of Eng. Abdullah bin Ahmed Bugshan and in the presence of the College Dean, Prof. Dr. Waleed bin Muhammad Zahid, the College vice deans and heads of departments, a meeting took place on Tuesday 6-4-1441 H between the students participating in the "visiting student" program in the second semester of the last academic year 1439-1440. The meeting represents a link between the sponsor of the program, the supervisors of the program from the College, and the students participating in the program.



The program gives the academically distinguished students at the College an opportunity to study a semester at an American university, with the support and encouragement of businessman Eng. Abdullah bin Ahmed Bugshan. The program is one of the most distinguished programs supervised by the College, which supports partnership and cooperation between universities and the private sector, and it is one of the main goals of the 2030 vision.

Last year, the number of students participating in the program fourth edition reached 11 students from some of the college departments (Civil, Industrial, Chemical, Petroleum and Natural Gas), and they were distributed among three universities: University of Wisconsin-Madison, Missouri University of Science and Technology, and University of Iowa.

During the meeting, academic and community experiences were transferred, including student participation and volunteering in various events inside and outside the university. The meeting started with a simple introduction to the program, and then the students reviewed a number of their personal and unique experiences.

It is worth mentioning that the number of students participating in the program in the first semester of this year (1441 AH) reached 17 students who are still studying in a number of American universities, namely the university of Wisconsin-Madison, Georgia Tech, university of Florida and the university of Alabama.



## Ceremony for Distinguished Graduation Projects for the first Semester of the Year 1441 H

The College of Engineering and Saudi BAE Systems and its Partners (BAE) held on Wednesday 6 Jumada Al-Awwal 1441 H (1st January 2020) an exhibition and a ceremony to honor distinguished projects in the College, under the patronage of the College Dean, Prof. Dr. Waleed bin Muhammad Zahid and Dr. Abdul Latif bin Muhammad Al Al-Sheikh - CEO of Saudi BAE Systems for Development and Training. In his speech, the College dean stressed that the continuous cooperation for more than seven years between the College and the company contributed to improving the quality and outputs of graduation projects through motivating students and supervisors. The College dean also urged students to continuously improve the projects. For his part, Dr. Abdul Latif Al-Sheikh expressed his gratitude to the College and its employees for supervising the distinguished projects. He also expressed his happiness about the students' performance and the quality of the projects.

The ceremony was also addressed by Dr. Majid bin Awad Al-Otaibi the vice dean for educational and academic affairs who thanked the members of the scientific committee at the College for their efforts in evaluating projects and the employees of the sponsoring company for their good cooperation in the success of this program. During the ceremony, prizes and certificates of appreciation were distributed to students and professors supervising distinguished graduation projects (the departments of Civil, Electrical and Mechanical Engineering) as well as Engineering Design Projects. The first place was won by a project in the mechanical engineering department, the second place by two projects from the electrical engineering department, and the third place by a project from the civil engineering department.





### Visit of Siemens Mobility to the College

Within the framework of cooperation between the University and the industrial sector to enhance the college's outputs by raising students' skills in line with the requirements of the industrial field, Siemens Mobility and in coordination with the practical training unit at the College visited on Wednesday 3/30/1441 the College in order to discuss aspects of cooperation between the two parties. The company delegation included the director of business development, Dr. Mazen Abdel Jabbar, and the financial director of the company, Mr. Alexander Buick. The delegation was met by the College dean Prof. Dr. Waleed Zahid, and Dr. Saif Al-Arifi, head of the College's practical training unit. The two sides discussed possible cooperation aspects to serve students during their studies in the College and after their graduation. The delegation also toured the laboratories of the College. The two parties agreed to have a permanent cooperation to serve the college students in the field of practical training and employment.

### Patent for Sustainable Construction Materials

Dr. Fahd Bin Kashim Bin Wa'ala, Assistant Professor of Construction Engineering and Management at the civil engineering department, received a patent from the US Patent Office (US 10,294,155 B2) demonstrating the possibility of producing sustainable construction materials that are economically and environmentally feasible with unique and qualitative characteristics. These materials were created from plastic waste and secondary industry waste, which would reduce the consumption of natural resources for construction

materials and protect the environment. This innovation will represent a quantum leap for the production of green or environmentally friendly concrete that can be used with a number of traditional and modern construction techniques, due to the advantage of these innovative materials of light weight, high efficiency of insulation and low emissions. It is worth noting that Dr. Bin Wahla previously obtained two patents in the same field.



### **Patent in Surveying Engineering**

Prof. Dr. Hassan Mohamed Bilani and Prof. Dr. Abdullah bin Mohammed Al-Qarni, who are faculty members at the College received a patent from the Patent Office of the Cooperation Council for the Arab Gulf States, No. / GC0009447 /, on a new way to design accurate maps, using flexible mathematical equations, resulting from the integration of equations of map projections with linear dependencies to reach what It is called compound projection that exceeds all known projections in terms of accuracy by up to 50%.



**Prof. Dr. Hassan Bilani**



**Prof. Dr. Abdullah Qarni**

## Employee of the Months of Muharam and Rabi 'Al-Awwal 1441

In continuation to motivate the College employees to improve performance and speed of achievement, to enhance self-confidence and the value of work, to encourage positive competition between employees, and encourage creative work methods that facilitate and increase the efficiency of work procedures, the Dean's Prize for the ideal employee of the month of Muharam 1441 was awarded to Mr. Abdullah bin AbdulAziz Chouich from the College vice deanship for educational and academic affairs. The winner was honored by the College dean in the presence of the members of the College Council at the beginning of the fourth session of the Council held on 15/2/1441 H.

Also, the Dean's Prize for the ideal employee of the month of Rabi' alAwwal 1441 was awarded to Mr. Abdullah bin Abdul Rahman Al-Ahmad from the college workshop. The winner was honored by the College dean in the presence of members of the College Council at the beginning of the eighth session of the Council held on 4/12/1441 H.



## Dean Prize for Ideal Technicians for 1441

The Dean Prize for Ideal Technician is a quarterly award that technicians working in laboratories, teaching and research laboratories and workshops affiliated with the College

compete with in order to motivate them to rapidly improve the quality and performance and encourage work in creative ways.

The award is presented at the end of each semester, and three technicians from each semester are awarded provided that the three are not from the same department, and the technicians are nominated by their department heads according to specific criteria.

The Ideal Technician Award for the first semester of the year 1441 went to:

- M. Ali bin Ahmed Asiri from the Department of Electrical Engineering
- M. Badr bin Suwaid Al-Anzi from the Department of Chemical Engineering
- M. Salim bin Youssef from the Innovation Center

The prize winners were honored by the College dean in the presence of the members of the College Council at the beginning of the tenth Council meeting held on 4/5/1441



### **The "Be Innovative" Campaign in the College**

With the participation and attendance of students and College faculty members, the activities of the "Be Innovative" campaign were held on Monday 29th of Safar 1441. The campaign aimed to introduce the portal of knowledge products management, mechanisms for disclosing creative ideas, inventions and changing their ownership. The event also included the role the University Innovation Center in serving the university's and community's inventors.

The College Dean Prof. Dr. Waleed Zahid, accompanied by the Head of the Innovation and Entrepreneurship Development Unit at the College, Prof. Dr. Abdul Mohsen Al-Baddah visited the exhibition. The dean inaugurated the lecture presented to the College faculty members in which he stressed the College support for innovation and creativity because of their importance in modern societies, and the need to adapt to today's changing world, which is based on its knowledge-based economy. The lecture included a presentation in which Dr. Ahmed Omar – College faculty member - presented the portal of knowledge products management and its relationship to the activities of the University's innovation center in supporting innovators, inventors and external parties in the community.

Dr. Hani Hassan - Coordinator of applications for registration in the Intellectual Property and Technology Licensing Program - also made a presentation about the intellectual property program, requirements for applying for disclosure of an invention and the role of the program in serving applicants. Engineer Omar Mutasim - researcher at the college - provided a template for an innovative project at the college.

It is worth noting that the President of the University, Prof. Dr. Badran bin Abdul Rahman Al-Omar launched the "Be Innovative" campaign at the Institute of Entrepreneurship on Monday 10 Muharram 1441 H.



## **The College Welcomes Students from Sheikh Bin Baz High School**

The College, represented by the community relations unit of the College vice deanship for development and quality, hosted on 11-30-2019 a student delegation from Sheikh Abdulaziz Bin Baz high school. The students were welcomed by the head of the community relations unit Dr. Arif Adel and by Eng. Hamza Asaad Al-Zoubi. The visit was aimed primarily at introducing students to the College specializations and the services provided to students.

The College dean Prof. Dr. Waleed bin Muhammad Zahid also welcomed school students and stressed in a speech the importance of community partnership, the role of the University in society, and the importance of students visiting different universities and educational centers, which will contribute to guidance and facilitating their choices of universities and colleges. After that the students led by Mr. Bandar Al-Asmari, the school supervisor of student's activities took a tour of the College facilities.



## **The College Welcomes Students from Tarik Ben Ziyad High School**

The College, represented by the community relations unit of the College vice deanship for development and quality, hosted on 11-11-2019 a student delegation from Tarik ben Ziyad high school. The students were welcomed by the head of the community relations unit Dr. Arif Adel and by Eng. Hamza Asaad Al-Zoubi. The visit was aimed primarily at introducing students to the College specializations and the services provided to students.

The College dean Prof. Dr. Waleed bin Muhammad Zahid also welcomed school students and stressed in a speech the importance of community partnership, the role of the University in society, and the importance of students visiting different universities and educational centers, which will contribute to guidance and facilitating their choices of universities and colleges. After that the students led by Mr. Hammoud Al-Ammar, the school supervisor of student's activities took a tour of the College facilities.



### **The College Launched the First Stage of the Free Flying Competition: Create Your Own Plane**

The activities of "Free Aviation Competition: Create Your Own Plane Yourself" organized by the Student Creativity and Innovation Center at the College, were concluded on Wednesday evening, 3/3/1441 H. The student Wael Saud Al-Oud (College of Medicine) won the first place, the second place won by student Abdul Rahman Al-Mahya (College of Computer and Information Sciences), while the student, Maan Muhammad Al-Hamidi (College of Engineering), won third place.

The electronic registration was made available to all University students who wanted to participate in the competition. The competition was launched on Wednesday, 24/2/1441 H, with a lecture by Dr. Sharif Sadiq - Assistant Professor at the College mechanical engineering department, and the supervisor of the competition - on the principles of aviation and the rules of the competition, with the participation of (22) students from various colleges of the University. The students began designing their planes for a week using engineering

programs, and cutting parts of the plane using the laser machine available in the workshop of the Student Creativity and Innovation Center. The competition concluded by evaluating the students' planes according to the plane's weight criteria and the distance the plane traveled in the air before it fell from the average of three attempts per student. The competition was helped by CEE engineers: Salim bin Youssef and M. Omar Moatasem. It is worth noting that this competition represents the first stage, as it will be developed in the next semester - God willing - to add a small engine to the plane with the possibility of remote guidance, The Center will provide the participating students with the necessary materials, tools and training.



### **Employee of the Month of Rabi' AlThani 1441 H**

In continuation to motivate the College employees to improve performance and speed of achievement, to enhance self-confidence and the value of work, to encourage positive competition between employees, and encourage creative work methods that facilitate and increase the efficiency of work procedures, the Dean's Prize for the ideal employee of the month of Rabi' Althani 1441 was awarded to Mr. Alwaleed Ben Mohammed Rahsid from the College vice deanship for educational and academic affairs.

The winner was honored by the College dean in the presence of members of the College Council at the beginning of the tenth session of the Council held on 4/5/1441 H.



### **Visit of a Delegation of International Amateurs Wireless Federation to the Educational Satellite Project**

The College welcomed a delegation of the International Radio Amateurs Federation consisting of Ole Garpestad, Vice President of the Federation, David Sumner, Secretary of the Federation, Donald Beattie, President of the Federation for the First Sector, Mr. Faisal Al-Ajmi, Vice President of the Federation for the First Sector and members of the Saudi Association for Wireless Amateurs led by Prince Badr bin Faisal Al Saud, Chairman of the Board of Directors of the Association. The delegation was received at the college's satellite earth station by Prof. Dr. Abdul Mohsen Al-Baddah, the Vice-Dean for Graduate Studies and Scientific Research and the project supervisor, Dr. Qais Belwafi, the technical director of the project, and students participating in the project.

The visiting delegation listened to a briefing on the most important objectives of the project, the vision from which it originated, the satellite mission, what has been accomplished so far, the capabilities and devices available in the earth station, the experiences that the team gained during its work in this field, and a brief presentation on the contract signed with the Russian company Gklaunch to launch the satellite. The date of its launch, God willing, will be during the period from the first of July to the end of September 2020, from the Baikonur Space Center. The visiting team also discussed possible cooperation with the College.



## Launching of the Second Edition of the "CanSat" Satellite Competition at the Student Innovation and Creativity Center

The Student Creativity and Innovation at the College announced on 22/5/1441 H, the launch of the second edition of the "CanSat" satellite competition, which is opened to all University students. The competition aims to spread the culture of aviation and space among University students, provide them with practical experience in satellite technologies and develop their personal, technical and practical skills. The Center provides the facilities, tools, equipment and training necessary for the participants in the competition.

The "CanSat" satellite is a real satellite that is small in size and has a shape of a can of soft drinks, incorporating all major and subsidiary systems of a satellite. The competing teams will use balloons to launch the satellite to a certain height and carry out essential tasks such as photographing Earth from various heights, measuring temperature, and sending this data to the receiver on the ground.

A new task called "Egg Safety" was added to this edition of the competition, where an "egg" will be placed inside the satellite, and participants are asked to calmly land the satellite from the required height so that the egg is not broken.

The two-week event includes learning, training, design, challenge and valuable prizes.

In the first week, three training sessions will be given to the participants:

- Micro controller programming (Arduino)
- Design and manufacture of satellite structure using 3D printing.
- Wireless communication and satellite communication

In the second week, students will be divided into teams and working groups, after which each group will start designing the CanSat using the tools provided by the Student Creativity and Innovation Center. On the last day of the competition, the teams will launch satellites using balloons intended for this purpose.

The participating teams will be evaluated against a number of criteria, including:

- Egg Safety (20 points).
- Use the smallest parachute to land the satellite (20 points), where three sizes of umbrellas are provided, from which the participating teams can choose.
- 
- Accuracy of the timing of the operation of the landing mechanism at the required height (20 points).
- Ability of the satellite to read, send and receive data (20 points).
- Presenting new and creative ideas at any stage of designing, manufacturing and operating the satellite (20 points).

The winning teams will be awarded valuable prizes. Participants will also receive attendance certificates.



It is worth noting that the first version of this competition was organized by the Student Creativity and Innovation Center during the months of Rajab and Shaaban in 1440 H, and saw the participation of more than 300 male and female students from various colleges of the university.

A total of (53) students were selected. The competing satellites were launched on 8/29/1440 H. The winning teams were awarded prizes by the College dean Prof. Dr. Waleed bin Muhammad Zahid.

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