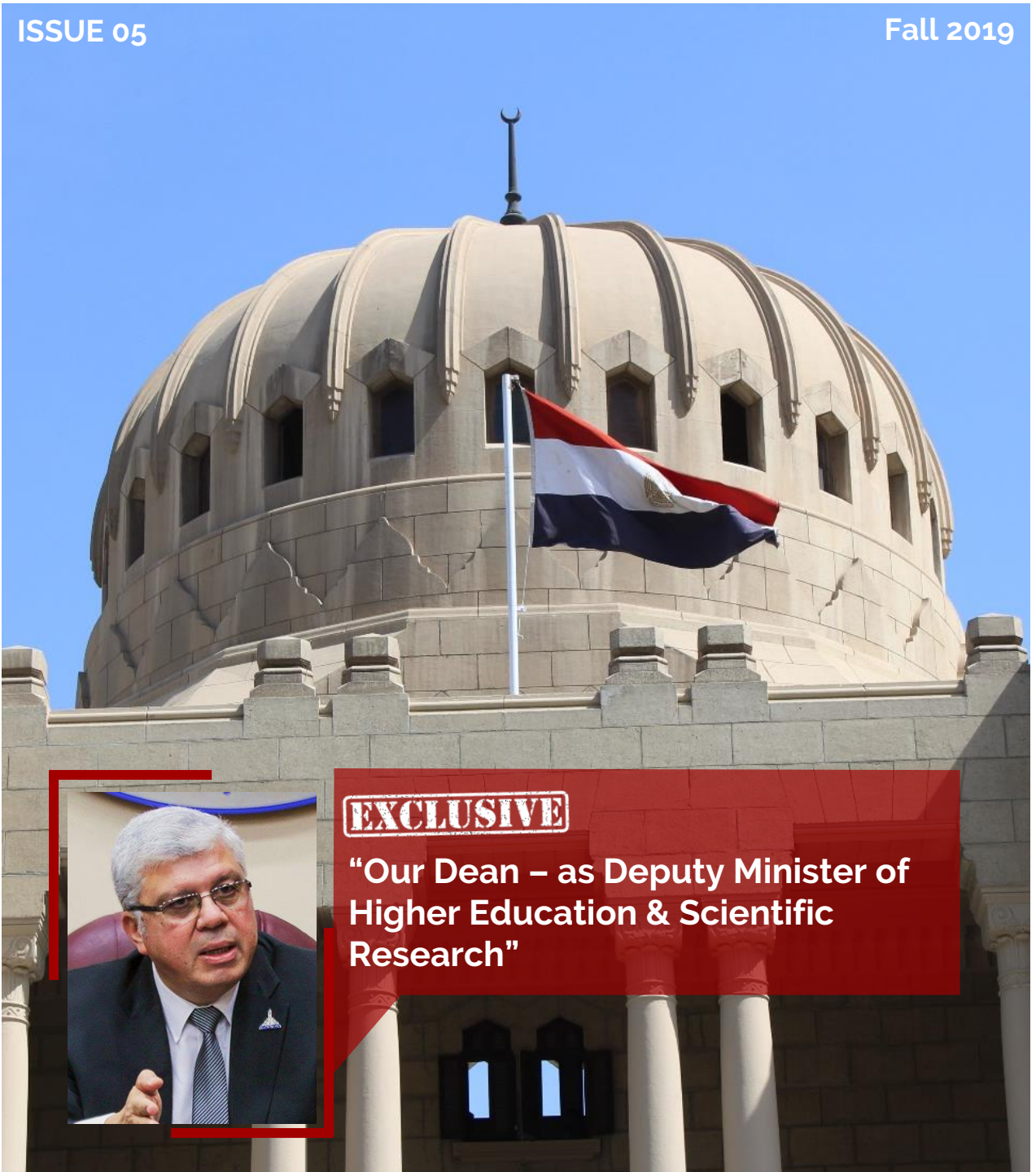


ASU-ENG

# Newsletter

ISSUE 05

Fall 2019



**EXCLUSIVE**

“Our Dean – as Deputy Minister of Higher Education & Scientific Research”



<http://eng.asu.edu.eg/Newsletter>

Issue 05    Fall 2019

# Newsletter

## Inside this Issue

News feeds and Events    01

Conferences, Workshops &  
Departmental Activities    27

Competitions, Honoring and Awards    39

Public Lectures    52



Faculty of Engineering  
Ain Shams  
University



### Center of Excellence for Energy

Supported by USAID

Implemented by  
Massachusetts Institute of Technology (MIT)  
In collaboration with Ain Shams University



<http://eng.asu.edu.eg/Newsletter>

Issue 05    Fall 2019

# Newsletter

## News feeds and Events



Faculty of Engineering  
Ain Shams  
University

## Faculties nominated as Deputy. Ministers

The Egyptian parliament approved in its plenary session, Sunday, 22 December 2019 headed by Dr. Ali Abdel-Al Aal, the cabinet reshuffle of the government of Dr. Mustafa Madbouly. The new ministers took the oath before President Sisi later on the same day. Professor Mohamed Ayman Ashour; the Dean of the Faculty of Engineering at Ain Shams University was chosen as the Deputy Minister of Higher Education and Scientific Research, and Prof. Sayed Ismail as the Deputy Minister of Housing



Ayman Ashour; the professor of Architecture at the Faculty of Engineering; was the Dean of the Faculty of Engineering at Ain Shams University, Prof, Ayman Ashour was also the Vice Deam for Graduate Studies and Research before he became the faculty Dean succeeding prof. Sherif Hammad, the former Dean of the FoE ASU, Prof. Ashour gained his bachelors degree on the 1st of June 1982. He took his master's degree on December 28, 1986, and his doctoral degree on February 19, 1993. Prof. Ayman Ashour received numerous awards from the state in the fields of architectural arts, communications and management.



Prof. Ismail was recently the technical advisor to the Minister of Housing for the Utilities Sector after the reintegration of both the Ministries of Housing and Urban Communities with the Ministry of Utilities in 2013. He also supervised some projects of utilities, infrastructure, and extending sanitation services to the Egyptian villages in the Delta and Upper Egypt, as well as other projects funded by the World Bank, with investments and grants exceeding one billion dollars. Prof. Ismail also contributed to the development of the Ministry's plan to increase the proportion of sanitation coverage in Egypt, especially for villages and its surroundings.



## **Prof. Diaa Khalil. Acting Dean of Faculty of Engineering, Ain Shams University**

Prof. Diaa Khalil has over 35 years of experience in micro photonics systems, including integrated optoelectronics and optical MEMS technology. He obtained his PhD from INPG France in 1993. Diaa Khalil is a Professor of photonics in the Faculty of Eng., Ain Shams University since 2004, and currently the Vice dean of post graduate and research affairs. He introduced the courses of Integrated Optics, Optical MEMS, and Applied Optical Engineering for the post-graduate engineering students. He is also leading a group of scientists working in the fields of Photonic microsystems. He supervised more than 50 MSc and PhD thesis in the fields of: Optics, Optoelectronics, Applied Spectroscopy, Optical MEMS and integrated Optics.

Diaa Khalil is also the CTO of the Optical MEMS Division in Si-Ware Systems company, leading a group of talented engineers developing an innovative FTIR MEMS spectrometer, a unique product that gained the Prism award in the Photonics West conference 2014 in SF USA. Prior to joining SWS, he worked with MEMScAP company as the head of the optical MEMS design group where he led the design and characterization of a 2x2 switch, and introduced a novel VOA (variable Optical Attenuator) achieving the world record of minimum PDL reported for wide dynamic range. Prof. Diaa Khalil is a holder of the Egyptian state incentive prize in engineering sciences in 1998. He is a senior member in the OSA, the IEEE Photonic Society and the SPIE and a member in the URSI society. He is currently the head of commission D in the National URSI committee, in Egypt. He is also a member in the editorial board of the journal, "Light: Science and Applications" produced by the Nature Publishing Group NPG. He is inventor of about 16 granted international patents and more than 10 other patent applications. He is author and co-author of more than 270 publications, in international journals and conferences, in addition to 3 book chapters and 1 eBook produced by SPIE.



## Higher Education, Electricity, and Investment Ministers Inaugurate the Center of Excellence for Energy, Faculty of Engineering, ASU

The Center of Excellence for Energy at the Faculty of Engineering, Ain Shams University was opened in the presence of the Minister of Higher Education and Scientific Research Prof. Dr. Khaled Abdel Ghaffar, the Minister of Electricity Dr. Eng. Mohamed Shaker, the Minister of Investment and International Cooperation Prof. Dr. Sahar Nasr, President of Ain Shams University Prof. Dr. Mahmoud Al-Metini, and the Dean of the Faculty of Engineering Prof. Dr. Mohamed Ayman Ashour. In addition, the opening ceremony was honored by the presence of the Ambassador of the United States of America in Cairo Mr. Jonathan Cohen, the Director of the US Agency for International Development (USAID) Mission, and USAID Representatives, the Vice President for Graduate Studies and Research Affairs Prof. Dr. Abdel Nasser Sinjab, the President of Aswan University Prof. Dr. Ahmed Ghallab, the President of Mansoura University Prof. Dr. Ashraf Abdel Baset, and a group of businessmen, officials, and deans.

Prof. Dr. Khaled Abdel Ghaffar, the Minister of Higher Education and Scientific Research, pointed out that through the Center of Excellence for Energy, the Massachusetts Institute of Technology will collaborate with Ain Shams University in preparing high-level applied research in the energy field, and creating a dynamic ecosystem for energy innovation, with the aim of addressing local challenges and contributing to Economic growth.



The Center of Excellence for Energy will support research that plays a critical role in the growth of the Egyptian economy, create job opportunities and provide scholarship opportunities for students to continue studying in energy related fields in both Egypt and the United States, in line with Egypt's current needs, in addition to developing energy engineering curricula to include new courses and develop programs to create a degree in energy. The Center of Excellence for Energy also helps in establishing relationships between Egyptian and American researchers and experts, to advance research and innovation in the field of energy and renewable energy that is essential to Egyptian economic growth in the future.

This new center is part of the five-year, \$ 90 million USDA initiative, and also includes the Center of Excellence in Agriculture hosted by Cairo University in partnership with Cornell University, and the Center of Excellence in Water at Alexandria University in partnership with the American University in Cairo. The three centers focus on the areas identified by the Egyptian government as their priorities from Egypt's Vision 2030, which will lead research and innovation in the main sectors of economic growth in Egypt in the future.



Prof. Dr. Sahar Nasr, Investment Minister, expressed her happiness with this event noting that the Ministry of Investment is part of this great achievement, which started as part of our strategic partnership with the United States Agency for International Development, and is now increasing, noting that, according to bilateral economic cooperation between Egypt and the United States, the two governments have agreed to allocate more than \$ 200 million to enhance the field of education Higher and scientific research. \$ 90 million has been allocated for the establishment of three centers of excellence, aiming at establishing permanent partnerships between Egyptian and American universities in the water, agriculture and energy sectors, as well as encouraging research, scholarships and innovation. By focusing on the sectors with the highest priority, centers of excellence serve the critical needs of industry and government in applied research and policy development. As well as fostering high-quality research and building linkages between the education community, the private sector and policy makers.

## Center of Excellence for Energy, Third Energy Dialogue; “Future of Solar Energy in Egypt”



On December 25<sup>th</sup> 2019, the Center of Excellence for Energy held its third Energy Dialogue titled *“The Future of Solar Energy in Egypt: Trends and Investment Opportunities”* in Aswan. *“Aswan is one of the centers of solar energy in the world in terms of radiation intensity...”* said prof. Ahmed Ghoniem, the principle investigator and director of research, MIT. The objectives of the dialogue were: (1) Highlight new trends in solar energy and discuss opportunities and challenges related to their implementation in Egypt; (2) Encourage private sector-led investment in energy innovation and technologies and promote market-driven applied research initiatives; and (3) Establish a strong network between private and public sectors and academia.

*“An Important mission for the center of excellence is to link the people working in the academia, with people in the industry and with the people working on the policy making ...”* said prof. Diaa Khalil, the acting Dean of the faculty of engineering at Ain Shams University. The COE Energy dialogue is thus a platform for relevant stakeholders to discuss Egypt’s energy challenges and opportunities resulting in recommendations that can then be addressed through the collaboration between academia and industry, as well as the involvement of policy makers and government stakeholders





## Opening of the First Phase of Luban workshop, Faculty of Engineering, ASU.

Prof. Dr. Mahmoud Al-Matini, President of Ain Shams University and Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, received a delegation from the Chinese University of Tianjin in the fields of technology training and transportation to open the first phase of the Luban workshop headed by the governor of Tianjin, party official and deans of the colleges concerned, and under the supervision of Prof. Dr. Ahmed Mohamed Al-Sabbagh, head of the Design Department and Production Engineering and technician supervisor technically to settle the project, in the presence of Prof. Dr. Omar Muhammad Al-Husseini, Vice-Dean of Community Services for Environmental Service and Environmental Development, Prof. Dr. Diaan Khalil, Vice-Dean for Graduate Studies and Research, Prof. Dr. Tamer Al-Nadi, Vice-Dean for Education and Student Affairs, and a group of faculty members and Students.



Prof. Dr. Mahmoud El-Matiny emphasized that the aim of this project was to make Ain Shams University a training center to provide the local labor, Arab and African markets with competencies in new and modern professional specialties, and also to make the project sustainable so that its management is keen to make the workshop activity economically to ensure the provision of its technical needs of materials and trainers through courses. For those enrolled in it and obtaining grants in other required specializations such as control, robotics, mechatronics, etc. from the Chinese side.

He explained that the idea of the project was based on training students on required skills in the fields of work, especially in developing industrial markets, as these acquired skills will provide their holders with excellent employment opportunities in investment companies in Egypt and abroad in addition to that they will fill an employment gap that was forcing the owner of the capital to bring these competencies or, regardless of the project, indicating that 3 educational workshops have been prepared in the areas of energy extraction, maintenance of digital operation machines, car maintenance, and all necessary equipment is being shipped to the workshop, and that a team of Chinese experts working in Egypt will install them upon their arrival. Prof. Dr. Ayman Ashour praised the workshop, which is being established in the Faculty, as it seeks to provide students with practical skills in many engineering fields such as energy extraction, maintenance of digital operation machines and car maintenance, explaining that this project works to bridge the gap in the need for these specialties with the growing industrial investment in the region, especially by Chinese companies.



## The vice Minister of Higher Education participates in the honoring day of the employees at the Faculty of Engineering Ain Shams University and inspects the Lupan workshop.

Prof. Dr. Mohamed Ayman Ashour, Vice Minister of Higher Education and Scientific Research for University Affairs, participated today, Tuesday, December 31, 2019, in an event entitled "The annual meeting with workers", which is an annual tradition for the Faculty of Engineering at Ain Shams University under the auspices of Prof. Dr. Mahmoud al-Matyani, president of the University, where all the administrative, technical and workers in the college are honored for their efforts in conducting the educational and administrative process.

Prof. Dr. Diaan Khalil, acting Dean of the Faculty of Engineering, Prof. Dr. Omar Al-Husseini, Vice Dean for Environmental Affairs and Community Service, Prof. Dr. Tamer Al-Nadi, Vice Dean for Education and Student Affairs, and all employees of the Faculty participated in the meeting.

Prof. Dr. Ayman Ashour, despite leaving his position as a Dean of the Faculty of Engineering, and assigning him the position of Vice Minister of Higher Education and Scientific Research for University Affairs, was keen to be present among the workers and participate in honoring them.

During the "annual meeting," Prof. Dr. Mohamed Ayman Ashour praised the active role played by the college and its academic and administrative staff, wishing everyone to make more efforts to complete the academic year as planned, and expressing his happiness for being at his home "Faculty of Engineering", and among his colleagues from Teaching staff and staff.



Prof. Dr. Mohamed Ayman Ashour stressed that honoring the employees of the faculty enhances the job satisfaction and contributes to improving administrative and academic performance, pointing out that the employees are the third edge of the faculty triangle that consists of "faculty members - students - workers". Prof. Ayman thanked Prof. Dr. Mahmoud AL-Matini, the President of the University for his continuous support to the Faculty of Engineering, as well as the faculty employees and the event organizing committee. Prof. Dr. Diaan Abdel Majeed Khalil said that the college is keen on the continuity of this annual meeting, which is due to Prof. Dr. Ayman Ashour initiative when he was Dean of the Faculty, in recognition of the employees role and effort which aids in its success. During the meeting, all employees referred to retirement were honored for reaching the legal age during 2019, as well as ideal workers for 2019.



Along with this annual meeting, Prof. Dr. Mohamed Ayman Ashour, Vice Minister of Higher Education and Scientific Research for University Affairs, and faculty employees, inspected Lupan's workshop to find out the latest equipment and preparations, as it was scheduled to open on January 8- 2020.

Lupan workshop is one of the most important projects the university is working on in linking industry with education and in partnership with the largest technology universities in China and the world. After their visit to Egypt Lupan administration proposed to open a large technological training center after their visit to all universities and engineering faculties in Egypt. Ain Shams Engineering was chosen to be their partner in delivering their high-tech education in China within Egypt through Ain Shams Engineering, in all graduate curricula in the fields of engineering.

## A Delegation from the University of East London (UEL) Visited Faculty of Engineering, ASU

Prof. Dr. Ayman Ashour, Dean of Faculty of Engineering, Ain Shams University, received today a delegation from University of East London represented by Prof. Dr. Hassan Abdullah, Vice Chancellor of the University of East London, Prof. Dr. Daa Khalil, Vice Dean for Graduate Studies and Research, Prof. Dr. Omar Al-Husseini, Vice Dean for Community Service and Environmental Development, Prof. Dr. Mostafa Refat Director of the International Collaboration office (ICO) and a group of professors from different departments. The purpose of the visit was to discuss all means of establishing four new dual degree programs awarded by the Faculty of Engineering and UEL in accordance with the agreement between the two Universities. As per Prof. Ayman Ashour, the Faculty of Engineering at ASU is the first team in Africa that manufactures an electrical car in cooperation with the team of the University of Sussex to participate in the Formula Student Competition this year. He pointed out that the college is always cooperating with the major governmental and private industrial companies working in the Egyptian market in order to train students and employ fresh graduates and to keep them up to date with the latest developments in the labor market, adding that the Faculty constantly updates its study programs to keep pace with the developments and modern technology in order to graduate a student with a high degree of readiness to the work. Also, Prof. Dr. Mostafa Refat, shed light on the future vision of the faculty.



## Four New Programs in Credit Hours Program at Ain Shams Engineering in cooperation with the University of East London (UEL).

Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, announced that the accredited programs witnessed the addition of four new programs, following sessions to discuss the adoption of the four programs to the dual degree of the Faculty of Engineering in the field of communication systems, manufacturing, energy and mechatronics, to grant the dual degree from Ain Shams and UEL, UK.



The sessions of the second day of the University of East London delegation was occupied by many discussions with Prof. Dr. Mostafa Refaat, Director of the International Collaboration Office and Director of Credit Hours Programs, Prof. Dr. Daa Khalil, Vice Dean for Graduate Studies and Research, Prof. Dr. Gamal Hashim, Director of Continuous Development and Quality Assurance Unit, Faculty of Engineering. The sessions were opened by presenting the most important International programs and agreements concluded with the Faculty of Engineering, such as the University of Clausthal in Germany, the University of Mediterranean in Italy and the University of Clemson in USA. Prof. Daa Khalil, Vice Dean for Graduate Studies and Research, presented the most important work of the research sector. The UEL delegation also interviewed the dual degree students and other students from the Faculty of Engineering to explore their views and discussions on the four programs and their proposals for the four programs.

## Faculty of Engineering at ASU announces its new programs with credit hours.

The Faculty of Engineering at Ain Shams University, headed by Prof. Dr. Ayman Ashour, Dean of the Faculty announced the programs of the credit hours system for the academic year 2019/2020. In the field of communication systems, manufacturing, energy and mechatronics. The four programs award the dual degree from the Faculty of Engineering, Ain Shams University and the University of East London, UK and other International Universities with strategic partnership. The International Credit Hours programs at the Faculty of Engineering at Ain Shams University award the dual degree in all their programs. Partners in Germany, Italy and the UK.

<https://www.uel.ac.uk/>



Prof. Dr. Mostafa Refat added that the student does not need to travel to UK to obtain the dual degree. If the student wishes to travel for one semester or more, he/she is granted a discount on tuition fees at UEL. The students will receive student Identification cards as students at the University of East London, where the agreement provides for the treatment of students of international programs as British students with all the rights and duties of students enrolled at the University in London. They have the right to access and use digital resources and access to university sites and use the electronic library. In addition, students have all the rights when visiting the University in London in a reduction in fees if students choose to study one or more classes in London, but travel is not compulsory where granted double certificate for students upon completion of study at the Faculty of Engineering in Egypt and compliance with the quality standards stipulated in the agreement and approved by the Quality Assurance Agency (QAA) in UK.

A dual degree from England is awarded in the following programs:

1. Environmental Architecture and Urbanism Program;
2. Computer Engineering and Software Systems Program;
3. Building Engineering Program;
4. Communication Systems Engineering Program;
5. Manufacturing Engineering Program;
6. Mechatronics Engineering and Automation Program; and
7. Energy and Renewable Energy Engineering Program

In the following programs, the student is granted a double certificate:

- Materials Engineering Program  
From Clausthal University in Germany, some spend the final year in Germany.  
<https://www.tu-clausthal.de/>
- Landscape Architecture Program  
From the University of Reggio Calabria, Italy, some of the last two years in Italy.  
<http://www.unirc.it/en/>

**Note:**

For early registration please log on to the following link and register your data: -  
<https://sis.eng.asu.edu.eg/earlyRegistration>





## The First Student graduated with a Dual Degree from Faculty of Engineering, ASU and University of East London

Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, Ain Shams University, announced the obtaining of the first student from the international credit hour programs with two graduate degrees. The first is from the Faculty of Engineering, Ain Shams University, and the other from the University of East London in the United Kingdom, adding that the partnership and dual certificates agreement has been signed with the University of East London in the presence of His Excellency the Minister of Higher Education and Scientific Research Prof. Dr. Khalid Abdul Ghaffar, and the presidents of the two universities on August 18, 2018 at the Ministry's headquarters. As the agreement stipulated that due to the accreditation of the engineering college's programs and educational services to the foreign partner through a visit to the accreditation committee and the British Education Quality Agency, current students studying at the college can apply for the certificate provided that the minimum level of study is a full academic year. Accordingly, the first student of the building engineering program, which is one of the international credit hour programs, obtained his graduation certificate for the academic year 2018/2019.



### University of East London

It is hereby certified that

**Sameh Nagy Zekri Hanna Hakim**

having duly satisfied all prescribed conditions was

on

6 August 2019

duly admitted to the degree of

**Bachelor of Engineering  
with First Class Honours**

having followed an approved Honours programme in

**Building Engineering**

This certificate should be read in conjunction with the University Diploma Supplement giving further details of the programme of study

1927264

  
Vice-Chancellor

  
Chair of Board of Governors



00055653



Prof. Mostafa Refat, Director of International Credit Hour Engineering Programs (ICHEP) and Director of the International Cooperation Office (ICO) said that the results of students for the dual certificate are submitted on the foreign partner's website, the results of the students are reviewed through a committee that includes External Examiners from outside the two universities and from the British Quality Assurance Agency (QAA). The review process takes place at several levels, including reviewing tests, model answers, and all assignments and reports that students are required to take during the semester, and they are all consistent with the teaching and learning outcomes of the curriculum, program, and quality standards. Samples of students' files that are prepared are also reviewed. According to models prepared to facilitate the review of External Examiners, the students feedback process is done by a survey of students' opinion on curricula and teaching methods, not only as is done through a set of questionnaires at the end of the semester, but through two forms to survey the students. The first questionnaire take place after the midterm exams. Instructors are required to present the results of the questionnaire and discuss the results with the student and prepare a constructive corrective action for any points that are not satisfying the target level before the end of the semester. In addition, a second questionnaire is carried out by the end of the semester in the form of a paper form inside the lecture halls. The forms are scanned electronically to extract the results to be presented to the committees. Thus, the Faculty of Engineering, Ain Shams University, becomes the first governmental faculty to give a dual certificate to its students studying inside the college from a British university. This confirms that the standards at Faculty of Engineering, Ain Shams University, are comparable to international standards in global education and learning systems.

## Ain Shams university hosted a team from the School of Engineering and Informatics, Sussex University, at the faculty of Engineering campus

Prof. Dr. Diaa Khalil, acting Dean of the Faculty of Engineering hosted a team from the School of Engineering and informatics, Sussex University from 27 to 29 of January 2020. The Sussex team members are; prof. Jonathan Bacon – Head of school, prof. Peter Fussey - Industrial Research Professor (Engineering and Design) and Anoshan Antony Jubert – Team leader of Sussex-Ain Shams electric vehicle. The team also had a visit with Prof. Dr. Ayman Ashour, Vice Minister of Higher Education at the Ministry of Higher Education and Scientific Research. They discussed the progress in the Collaboration project between the two institutions, Sussex- Ain Shams Racing (SAR).



The Sussex team discussed the progress in the collaboration project between the two institutions, Sussex-Ain Shams Racing (SAR). The project is to design and manufacture an electric vehicle to compete in the iMechE contest "Formula Student", which is an annual recurring event in July. Prof. Fussey performed a technical workshop about the High-voltage application and risk management. The team leaders of Ain Shams and Sussex also discussed some technical details of the project during the visit. The team had a tour in the Faculty and visit all the laboratories with Dr. Magid Ghoniema and Dr. Walid Abou El Saoud.

## Smart Classrooms at the faculty of Engineering ASU under UNESCO-ICHEI Sponsorship.

Dr. Mahmoud Al-Matini, President of Ain Shams University, inspected one of the stages of training in the Smart Classroom at the Faculty of Engineering at Ain Shams University, which is the result of cooperation between three Chinese entities and Ain Shams University, and these three entities are the International Center for Innovation in Higher Education under UNESCO-ICHEI Sponsorship, South University of Science and Technology (SUSTech), Shenzhen City, People's Republic of China, Weidong Cloud Education Group (Weidong).

During the visit, the President of the University was accompanied by Dr. Abdel-Fattah Saud, Vice President for Education and Student Affairs, Prof. Dr. Dia Khalil, Acting Dean of the College of Engineering, Dr. Omar Al-Husseini, Vice Dean for Community Service and Environmental Development Affairs, Dr. Mostafa Refat, Director of International Credit Hours Programs, Prof. Dr. Mona Abdel-AL, Executive Director of the Education Development Department and Dr. Sameh Ibrahim, Director of the Smart Classroom Project, and Kevin Wu, Director of External Projects at Weidong Cloud Education Group, and Hassan Adeel Shehzad, Principal Technical Director for Smart Classes at the International Center for Innovation in Education Higher education under the auspices of UNESCO.



The project aims to record the lectures for broadcasting directly on the university's website allowing students to attend the lectures from anywhere through a computer connected to the Internet and keep the recorded lectures so that students can review the lectures at a later time and create a software group that allows to make interactive lessons that can be used in Smart separation. In addition, smart separation can be used to broadcast the discussions of master's and doctoral thesis. This allows one of the members of the judging panel to be outside of Egypt.

The President of the University also examined the work of the exams and the control, and stressed the need to provide all means of comfort in the examination halls for the students' to perform well in their exams. In addition, the presence of professors and observers is crucial to solve any problem that arises during the exam period. He urged the students to trust themselves and stressed that the university has taken a set of necessary measures to create the appropriate environment and provide all logistical services for students during their exams period.



Prof. Diaan Khalil, acting Dean of the Faculty of Engineering, said that the exams for the first semester are taking place quietly since its start and that no obstacles or problems have been detected.

## Institutional Development to Support International Students in Egyptian Universities.

Ain Shams University organized under the auspices of Prof. Dr. Abdel Wahab Ezzat, President of Ain Shams University and headed by Prof. Dr. Abdel Nasser Sinjab, Vice President of Ain Shams University for Graduate Studies and Research and Prof. Dr. Abd El Fattah Saud Vice President for Education and Student Affairs, Expatriates in Egyptian Universities under the supervision of Prof. Dr. Mohamed Salheen, Director of the Master of Science Program in Integrated Urbanism and Sustainable Design (ISUD) in the presence of Prof. Dr. Daa Abdel Majeed, Vice Dean for Graduate Studies, Rasha Kamal, Head of the Central Administration at the Ministry of Higher Education Prof. Dr. Reiner, Director of Expatriates Affairs, University of Stuttgart, Germany, Prof. Dr. Abdulaziz Mahmoud, Director of Expatriate Welfare Unit, Prof. Hossam Kamal Technical Office of the Vice President of the University.



The workshop dealt with many issues related to expatriates, including the new admission and admission procedures as well as the procedures of registration, formation, grants, health care requirements, access to libraries and international databases.



## A Cooperation Protocol between Faculty of Engineering, ASU and the International College of Nuclear Studies in South Korea.

In the presence of Prof. Dr. Nazmi Abdel Hamid, Vice President of Ain Shams University for Community Service and Environmental Development Prof. Dr. Abdel Nasser Sinjab, Vice President for Graduate Studies and Research, Prof. Dr. Abdel Fattah Saud, Vice President for Education and Student Affairs, Prof. Dr. Ayman Ashour, Dean Faculty of Engineering, Prof. Dr. Diah Khalil, Vice Dean for Graduate Studies and Research, Prof. Dr. Omar Al-Husseini, Vice Dean for Community Service and Environmental Development, Prof. Dr. Zakaria Ghoneim, Dr. Aya Ziao, and Mr. Ao Hyungun, the Director of the Office of International Cooperation and Public Relations at the International College of Nuclear Studies, Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering pointed out that the protocol is in one of the most promising fields in Egypt



.Prof Ayman added that the protocol includes linking industry to scientific research through the establishment of a master degree in the field of nuclear energy for two years, the first theoretical and the second is an applied research, stressing that this agreement is one of the first protocols held in the field of nuclear energy with South Korea. The protocol also includes the exchange of information on educational programs, research activities, areas of research cooperation, publications, joint programs and diplomas as well as vocational training for students and researchers in addition to the exchange of faculty and graduate students.

## **A Delegation from the University of Aden Visited the Faculty of Engineering, Ain Shams University.**

The Faculty of Engineering, headed by Prof. Ayman Ashour, Dean of the Faculty at Ain Shams University, hosted a delegation from the University of Aden, Yemen headed by Prof. Dr. El Khedr Naser, to attend a training course on curriculum design and accreditation of academic programs. The delegation included Dr. Mohammed Aqeel Al-Attas, Vice Chancellor of Aden University for Student Affairs, Dr. Salah Mohammed Mubarak, Dean of the Faculty of Engineering, Aden University, in addition to 43 faculty members.

During the training session, a review of the distinguished activities of Ain Shams Engineering was held to start activating the cooperation between the two faculties in several fields such as the International Collaboration and the Center of Innovation and Creativity in the faculty. In addition, several lectures and workshops were presented on the standards of institutional and programmatic accreditation according to the standards of the National Authority for Quality Assurance and Accreditation for Education (NAQAAE). An ISO 9001 introductory lecture was also presented.







The training course and workshops organized by the Unit for Continuous Development and Quality Assurance at the Faculty of Engineering were run by a group of faculty members at the Faculty of Engineering, Ain Shams University under the supervision of Prof. Dr. Gamal Hashem, Director of the Unit for Continual Development and Quality Assurance, Faculty of Engineering.

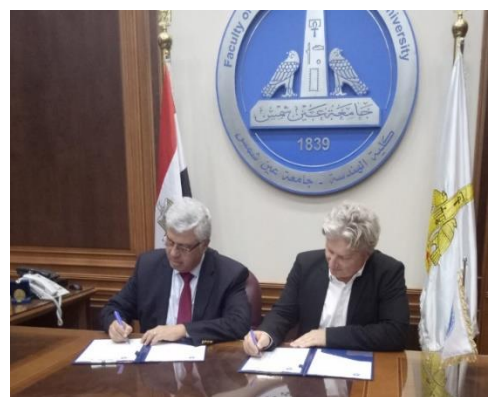
Over the course of 5 days, the delegation visited the laboratories of the Faculty of Engineering and got acquainted with the college regulations, teaching methods and student activities as well as attending a number of workshops. Prof. Dr. Ayman Ashour, Dean of Faculty of Engineering, Ain Shams University, stated that this visit comes in the light of the protocol of cooperation already signed between the two Universities. Prof. Dr. Al-Khader Nasser, President of the University of Aden, praised the extent of scientific and academic development in the Faculty of Engineering, Ain Shams University. The final day of the visit witnessed the delivery of certificates and the exchange of shields and souvenirs between the two sides.

## A Joint Cooperation Agreement between Faculty of Engineering, ASU and the Faculty of Architecture in Grenoble, France.

The Faculty of Engineering, Ain Shams University, witnessed the signing of the International Scientific Cooperation Agreement (MOU) between the Department of Design and Urban Planning, Faculty of Engineering, Ain Shams University and the research lab for acoustic space and the built environment, The Center for Research on sound space and urban environment (CRESSON) and the research laboratory using design research by Design Lab (RDL), Faculty of Architecture, Grenoble, France.

The agreement was signed by Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering and Dr. Philippe Liveneau, representing the College of Architecture in Grenoble, Head of the RDL lab and team leader for the French side. In the presence of Prof. Dr. Reem Al-Rahmani, Educational attaché at the French embassy in Cairo, Dr. Omar Al-Husseini, Vice Dean for the Faculty of Engineering for Community Service and Environmental Development, Prof. Dr. Mostafa Refaat, Director of the International Collaboration Office, Prof. Dr. Ghada Farouk, Head of the of Urban Design and Planning department, Prof. Dr. Noha Gamal Said, representative of the Egyptian side of this cooperation in France and head of the Egyptian Scientific Cooperation team. The scientific cooperation team includes each of Prof. Dr. Amal Abu Dayyah, Faculty of Architecture, Grenoble, Dr. Mohammed Al-Fayoumi and Dr. Ahmed Sami, Faculty of Engineering, Ain Shams University.

The terms of the agreement include student exchange, faculty members, administrative heads of administration in order to achieve scientific cooperation in the bachelor's stage, graduation project, master's and doctoral levels, in addition to conducting joint research and organizing international conferences and workshops between the two sides.



## The Accreditation of Ain Shams Engineering Scientific Journal and its Accession to the Global Database.

Prof. Dr. Khaled Abdel Ghaffar, Minister of Higher Education and Scientific Research, reported on the progress of 3 Egyptian scientific journals in the classification of international journals, where the impact index of the Advanced Research Journal of Cairo University increased to 5.045, and the impact factor of the engineering journals of the universities of Alexandria and Ain Shams rose to 3.696 and 3.091 on the ranking. This can be attributed to the fact that the editorial boards are following the highest standards for international arbitration and publishing, as well as the support available through the Ministry of Higher Education and Scientific Research, as well as the Egyptian Knowledge Bank.

The report also referred to the recently accredited magazines of the Faculties of Engineering at Alexandria and Ain Shams University from the Scopus platform launched by the Dutch Elsevier publishing house and the Web of Science platform launched by the American company Clarivate and their accession to the global database Citation Index Expanded (SCIE) and their acquisition of the Impact Factor. The report indicated that the impact factor is a number given to the scientific journal to measure the level of the journal depends on the number of research published in the magazine and on citations for this research, and the higher the number of the coefficient is the higher the level of the scientific journal, explaining that scientific publishing in Egypt progressed during the year 2018 with a rate of 17.1% Compared to the publication in 2017, and the rate of publishing a research every 24 minutes, where the publication in 2018 numbered 21446 searches.

It is worth noting that the number of magazines and conferences listed on the Scopus platform reached 37,500 magazines and international conferences. The magazine level is measured by the Cite Score parameter, while the number of magazines listed in the Web of Science / JCR platform is 12270 magazines. The magazine level in this platform is measured by the Impact Factor Journal.

The report pointed to the distinguished role of the Egyptian Knowledge Bank in assisting Egyptian university journals and raising some of them on the knowledge bank platform and holding specialized workshops for editors of local magazines to become magazines internationally indexed, and experts from international publishing houses such as Taylor & Francis, Elsevier, Nature, Springer attended. , Clarivate and others to upgrade these magazines to reach global.

The American Clarivate Foundation agreed to include 36 local Egyptian magazines in Emerging Journals, citations are calculated in preparation for setting an impact factor for them. The electronic publishing tools that are in line with international standards have been used in the Egyptian Knowledge Bank portal, with the provision of DOI for each article, so the number of 8 magazines has an impact factor that follows global standards.

## **A Delegation Visited Germany to Promote Applied Research and Student Exchange.**

The Faculty of Engineering at Ain Shams University, under the auspices of Prof. Dr. Mahmoud El Metiny, President of Ain Shams University, announced the visit of a delegation from the Faculty of Engineering, headed by Prof. Dr. Mohamed Ayman Ashour, Dean of the Faculty, with the participation of: Prof. Dr. Mostafa Refaat, Director of the International Collaboration Office, and Prof. Dr. Marwa Khalifa, Director of Interdisciplinary Postgraduate Programs, Prof. Dr. Ali Al-Bahrawi, full-time professor at the Department of Irrigation and Hydrolica, Dr. Sami Afifi, Academic Advisor for the Inter-Master Program "Equal Resources Cities", Cologne University of Applied Sciences, Germany, from 25-29 November 2019, within the framework of enhancing cooperation activities between the Faculty of Engineering - Ain Shams University and the University of Cologne.

A number of interviews was carried out with the officials of the Education Development Center, the Department of Foreign Relations Affairs and some of the deans of colleges and institutes at the university to exchange experiences and promote scientific and student exchange activities.

Prof. Dr. Mohamed Ayman Ashour, in interview with the university president, TH Köln, Professor Stephen Herzig discussed the signing of a memorandum of understanding between the five Universities participating in the interdisciplinary Masters on Resource Efficient Cities program, Cologne University of Applied Sciences in Germany, San Luis Potosi University, Mexico, Kenyatta University, Kenya, and Gadj Mada University, Indonesia, to enhance cooperation in the application of interoperability masters in participating universities and pave the way towards a double or multiple master's degrees.

It is worth noting that the Faculty of Engineering at Ain Shams University is a pioneer in activating the interdisciplinary programs in postgraduate studies through ("Graduate Engineering School for Research" GESR) to meet the requirements of the labor market from interdisciplinary and promoting applied research for academic and community development.

## **A Delegation from the University of Huddersfield visited the Faculty of Engineering, ASU**

The delegation included top professors from the Faculties of Engineering, Business and Education. The visit started with each party introducing themselves, their strategies, strengths and achievements. Both parties then brainstormed venues for collaboration in curricular and extracurricular education & innovation. Follow up meetings have been discussed and will be planned soon.

## **Scientific Event Celebrating the Long-term Cooperation between Faculty of Engineering, ASU, Chemistry Division and the Technical University of Munich, Chemistry and Chemical Engineering Departments**

The Faculty of Engineering, Ain Shams University has been established in 1839. Since then it has been shaping the future of Egypt. Today, and after 180 years, our faculty ranks among the very best in the region. During our anniversary year, ASU ENG's-TUM history of collaboration since 2012 was brought to life and provided glimpses into the future of research in the chemical fields. On 17.07.19 renowned international professors from the Technical University of Munich shared their knowledge in a lecture series with colleagues from our faculty. Parallel to this, funding agencies provided information sessions about their institutions.

The opening ceremony was featuring Prof. Dr. Mohamed Ayman Ashour, Dean of the Faculty of Engineering, Ain Shams University, Prof. Dr. Mostafa Refaat, Director of the International Collaboration Office and Prof. Dr. Ghada Bassioni, Vice-Director of the International Collaboration Office for Research and Outreach and the coordinator of the ASU-TUM collaboration. During the opening remarks, Prof. Dr. Ayman Ashour has mentioned the award obtained by Prof. Dr. Ghada Bassioni in the chemistry field, being elected as a member of the executive bureau of the International Union for Pure and Applied Chemistry (IUPAC).

The opening remarks were followed by a keynote on "Modern Concepts for the Production of Eco-Friendly Cements" by Prof. Dr. Johann Plank, Professor, Technical University Munich, Germany and a Keynote on "A Process Engineering Design Approach to Energy Storage with POWER-TO-HEAT Concepts" by Prof. Dr. Harald Klein, Professor, Technical University Munich, Germany. Funding opportunities were demonstrated by STDF, TUM Cairo liaison office and DAAD.



<http://eng.asu.edu.eg/Newsletter>

Issue 05 Fall 2019

# Newsletter

## Conferences, Workshops & Departmental Activities



Faculty of Engineering  
Ain Shams  
University

Conferences, Workshops & Departmental Activities

## The 3<sup>rd</sup> International Conference AR\_UP 2019: Architecture & Urbanism: A Smart Outlook.

Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, Ain Shams University, opened the third international conference under the title "Architecture & Urbanism: A Smart Outlook", which was held under the patronage of Prof. Dr. Mostafa Madbouly, the Egyptian Prime Minister. Prof. Dr. Ayman Ashour, explained that this year's conference comes with the celebration of the 180<sup>th</sup> anniversary of the establishment of the College of Engineering in 1839. We also celebrate our multiple partnerships internationally and this is evident through the international partnerships of our conference today. Dr. Ashour added that 160 papers from about 30 countries were submitted to the conference this year and the jury selected 80 papers to participate in the conference that was held last October.



## Conferences, Workshops & Departmental Activities

The opening session of the conference witnessed a lecture by Dr. Hassan Abdullah, Academic President of the University of East London and former Dean of the College of Architecture and Computing, and the Faculty of Arts, Technology, Innovation and Engineering which was entitled "An overview of smart cities and future cities".

He added that the conference aims to meet the challenges of the unstoppable urban expansion that seriously affects the world's ecosystems. To become sustainable and efficiently renovated, buildings and cities need to adopt smart, compact and smart solutions. The conference also discusses the innovations of the built environment, and how these practices can transform future buildings and urban areas into places of higher value and quality.

### OUR SPEAKERS



Stefano Boeri



Hanaa Dahy



Christian K. Lackner



Hisham Elkadi



Ulrich Uetz



Hassan Abdalla

AR\_UP<sub>2019</sub>  
Architecture and Urban Planning



Springer

The conference includes several axes, including providing smart solutions with a focus on innovations in the built environment, such as: adaptive architecture and urbanization, digital architecture and its mixed building information (BIM), construction materials and systems, cities, mobility and governance, the use of renewable energy and energy efficiency through the deployment of renewable energy and increasing energy efficiency in buildings, neighborhoods, regions and cities, raise energy efficiency, performance aspects of buildings and cities, solar city development, wind energy, carbon neutrality design, policy, legislation and legal framework, in addition to the new design of cities and buildings.

The conference also offered practical models and realistic experiences that reflect smart strategies, technologies and innovations.



Conferences, Workshops & Departmental Activities

## The Recommendations of the 3<sup>rd</sup> International Conference AR\_UP2019: Architecture & Urbanism: A Smart Outlook.

The activities of the Third International Conference of the Departments of Architecture and Urban Planning concluded smart visions for the Faculty of Engineering at Ain Shams University, which was held under the patronage of Prof. Dr. Mostafa Madbouly, Prime Minister in the presence of Prof. Dr. Mahmoud Al-Metini, President of Ain Shams University, Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering at Ain Shams University and President of the conference.

The third international conference of the departments of Architecture and Urban Planning recommended smart insights for the Faculty of Engineering at Ain Shams University with several recommendations, including twin work with the ambitious London project to link the eastern extension with the western extension, especially linking the new administrative capital to the classic city of Cairo and using the applications of artificial intelligence and the Faculty of Engineering will adopt Ain Shams University in cooperation With the University of East London in preparing these studies. In addition, preparing an integrated vision for the Egyptian countryside with its new nature that fits with the spirit of the times by recognizing the distinguished work of Architect Walid Arafa in the village of Basuna in Upper Egypt to be a distinguished Egyptian model to upgrade the Egyptian countryside, as well as the preparation of an integrated concept for the application of smart technologies in architecture and construction in Egypt, especially in line with urban development policies with regard to preserving the environment and energy conservation and use of water and reduce carbon emissions.



## Conferences, Workshops & Departmental Activities

This was stated by Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering at Ain Shams University and the President of the conference. The conference ended its activities with a scientific lecture delivered by Prof. Dr. Stefano Boeri, a professor at Milan and many International Universities and Director of the City of the Future Laboratory at Tongji University, Shanghai. The conference discussed over three days several axes, including providing smart solutions with a focus on innovations in the built environment, such as adaptive architecture and urbanism - digital architecture and building information modeling (BIM) - construction materials and systems - cities, mobility and governance, the use of renewable energy and energy efficiency. By spreading smart renewable energy and increasing energy efficiency in buildings, neighborhoods, regions and cities, raising energy efficiency - performance aspects of buildings and cities - solar city development, wind energy - carbon neutrality design, policy, legislation and legal framework, In addition to the new design of cities and the design of buildings, a profound radical change. Innovative practices that restore and renew energy sources and their materials are organizational principles that guarantee the operation of cities and buildings as circular systems. The conference also presented practical models and realistic experiences that reflect smart strategies, technologies and innovations.



Conferences, Workshops & Departmental Activities

## Next Einstein Forum, in collaboration with the faculty of Engineering at Ain Shams University, on climate change

Climate change is one of the most dangerous environmental challenges facing societies in the 21<sup>st</sup> century, especially Africa and Egypt is one of the most affected countries. This might cause the imbalance of food security. In the context of the growing global interest in global warming and climate change and in accordance with the recommendations of the twenty-fifth conference of the United Nations Climate Change Convention. To keep pace with global changes and Egypt's pioneering role in Africa, Prof. Dr. Ghada Bassioni head of the Chemistry Department and Deputy Director of the International Cooperation Office, Faculty of Engineering, Ain Shams University organized a scientific cultural conference and an international scientific workshop and exhibition for students under the title "Climate Change in an African context" which was within the African Cultural Week. The aim of the conference was to discuss how to cooperate and take suitable measures that contribute to facing environmental challenges and risks. This event comes in partnership with the Faculty of Engineering, Ain Shams University, the Academy for Scientific Research and Technology and the next Einstein Forum (NEF) within the activities of the African Science Week.



Prof, Dr. Ghada Bassioni added that the conference seminars will focus on informing the governments, stakeholders and partners on the latest developments and progress made in the field of reducing global warming in the region, as well as creating an opportunity for governments and partners to discuss the future prospects of Egypt and Africa in applying modern technology to reduce the risks of climate change, moreover practical discussion to define and upgrade the level of innovative solutions to manage climate risks and integrate both the concepts of disaster risk reduction and climate change into the sustainable development goals in Africa were discussed.

## Conferences, Workshops & Departmental Activities

The symposium discussed several main axes that contribute effectively to urban development and climate changes of Africa, such as agriculture, food security, water resources and climate change, social and economic development and energy, as well as various discussion sessions, environmental solutions and climate change. Multiple topics include discussion of renewable and green energy, energy transformation and storage, carbon dioxide use, economics and sustainable education and waste recycling and reuse. The cultural symposium and workshop were held last December at the Faculty of Engineering, Ain Shams University, in addition to an international scientific exhibition held at the Academy of Scientific Research, within the activities of the African Scientific Week.



The second session included discussion of building materials and sustainability in Egypt. Prof. Hamid Al-Mosly gave a lecture entitled "Opportunities for Sustainable Development in Building Materials" by rediscovering palm products. With the participation of the Federal Institute for Materials Research and Testing in Germany, Dr. Wolfram Schmidt, Professor at the Institute and interested in sustainable development in Africa, delivered a lecture entitled "Education for Innovation, Science and Engineering - the key to sustainable African development". The second session was a lecture entitled "Adaptation strategy to climate change for the water sector in Egypt", followed by a lecture by Dr. Samah Al-Khatib under the title Urban Agriculture - a model shift towards combating climate change through empowerment. Dr. Ahmed Osama, Assistant Professor at the Faculty, gave a lecture on transport and climate change: mitigation methods. The second session ended with a lecture entitled "Systems used to resist infrastructure against the dangers of climate change", which was delivered by Dr. Rana Khallaf, Assistant Professor at the University of the Future in Egypt.



The third session focused on emerging and new technologies in combating global warming. In cooperation with the German University in Egypt, Dr. Christian Richter, Professor at the Faculty of Information Management at the German University, gave a lecture entitled The Impact of Climate Change in Egypt: Social and Environmental Challenges of Egypt. In addition to a lecture by Dr. Tariq Khalil from the German University in which he highlights the African-German cooperation in thermal energy systems for photovoltaic energy, and at the conclusion of the third session with a lecture entitled Climate Change - Mitigation and Flexibility in the Urban Context: Modern Technologies and International Cooperation "delivered by Prof. Dr. Ahmed Abdel Hamid Assistant Professor, Faculty of Engineering, Ain Shams University.

The event featured a science workshop hosting IOP while presenting best practices on how to write and publish in their journals, addressed by Mr. Abdullah Asad, Institute of Physics, Ministry of Scientific Research. The workshop also included a seminar on funding opportunities and scholarships at the national and international levels.

## Conferences, Workshops & Departmental Activities

The second event within the African Scientific Week at the Academy of Scientific Research and Technology, Cairo was resumed on Monday, 16<sup>th</sup> of December 2019. Prof. Dr. Ghada Basyouni and Prof. Dr. Kamal Ali, Chairman of the Egyptian National Committee for Pure and Applied Chemistry, Academy of Scientific Research and Technology opened the session.

The event included a science exhibition showing students' work in the field hosted by the Academy of Scientific Research and Technology. Students will demonstrate interactive products and experiences on various topics: science, engineering and sustainable development. The German School (Deutsche Schule der Borromaeerinnen), Rajac Language Schools and Dover School were involved. The exhibition aimed to involve youth and students in the sustainable development process and encourage them to innovate and provide them with the opportunity to unleash their creative capabilities to develop innovative solutions that support global efforts to confront the effects of climate change, through the design, construction and operation of smart and sustainable models.



Conferences, Workshops & Departmental Activities

## Opening of the World Design Studio (WDS) at the Faculty of Engineering, Ain Shams University.

Prof. Dr. Abdel Fattah Saud, Vice President of Ain Shams University for Education and Student Affairs, inaugurated the World Design Studio at the Faculty of Engineering, Ain Shams University in the presence of Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, Prof. Dr. Omar El Hussein, Vice Dean for Community Service and Environmental Development Affairs, Prof. Dr. Dina Dr. Khalil Vice Dean for Graduate Studies and Research, Prof. Dr. Tamer El-Nady Vice Dean for Student Affairs and Prof. Dr. Mostafa Refat Director of International Collaboration Office, Dr. Mohamed EL- Fayoumi, Project Manager, Dr. Ayman Farid, Vice Director of the International Collaboration Office for Student Affairs and Training, Dr. Ashraf El Mostafa, Professor of Hydraulic Engineering, Dr. Ahmed Khaled, Head of the Design Team, Prof. Shaimaa Kamel, Head of Architectural department and Prof. Yasser Mansour, Professor of Architecture.



Prof. Dr. Ayman Ashour pointed out that the opening of the World Design Studio at the Faculty of Engineering, Ain Shams University comes with a triple cooperation agreement signed between Ain Shams University and the Clemson university from USA and Huazhong University from China. This agreement has an international dimension that contributes to solve the problems facing the three countries. Prof. Dr. Ayman Ashour stated that this project is a product of communication between Ain Shams University and Clemson University which lasted for nearly 10 years. World Design Studio next year will be held in Wuhan, China and many students from different nationalities are expected to participate in the next cycle. The outputs of the project and the performance of the students were praised by the attendees.

## Conferences, Workshops & Departmental Activities

The World Design Studio is the first of its kind in the field of engineering study interfaces that combine architecture and urban planning and linked to many other engineering disciplines, where the students from the three universities and from three continents are cooperating on solving design problems. The three faculties are: the Faculty of Engineering, Ain Shams University, the Department of Site Coordination Clemson, USA and Department of Architecture and Urban Coordination, Huazhong University, China.

The project of this year discussed the problem of rising water level in the city of Charleston, USA and how to overcome it through the reformulation of urban planning and urban coordination in the city in partnership with the Department of Hydraulic and Construction Engineering. Nearly 60 students from all three universities participated in the project, visiting the city's site in February and learning about the city's problems through the Charleston Mayor.



Where the team reached solutions to the problems of the city, which was suffering from the problem of groundwater as an archaeological city, and it is expected that these solutions will be sent to the Governor of the city to discuss ways of implementation on the ground.



Conferences, Workshops & Departmental Activities

## **Graduation Ceremony for students of the Integrated Urban Program and Sustainable Design (IUSD) - class 2019, Faculty of Engineering, ASU in cooperation with the University of Stuttgart.**

The Integrated Urbanism and Sustainable Design (IUSD) program at the Faculty of Engineering, Ain Shams University, celebrated the graduation of the seventh batch of the program, in the presence of Prof. Dr. Mahmoud Al-Matini, President of Ain Shams University, Prof. Dr. Johansson Eid, President of the National Authority for Quality Assurance and Accreditation of Education, Prof. Dr. Abdel Nasser Sinjab, Vice President for Graduate Studies and Research Affairs and Chairman of the Program Board, Prof. Dr. Mohamed Ayman Ashour Dean of the Faculty of Engineering, Prof. Dr. Mohamed El-Toukhi, former Vice President of the University, Jezebel Meering, Director of the Office of the German Academic Exchange Service in Cairo, Prof. Dr. Mohamed Salhin, Program Director, Ain Shams University, Prof. Dr. Astrid Lai, Program Director, University of Stuttgart, MD Marwa Abdel Latif, former program coordinator from Ain Shams University, Eng. Francesca Lua, former program coordinator from the University of Stuttgart, as well as a group of university professors from both universities.





Prof. Dr. Mahmoud Al-Matini during his speech, highlighted the excellent scientific cooperation between Ain Shams and Stuttgart Universities. He also stressed the importance of the support provided by the German Academic Exchange DAAD as a key partner in the program. Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, during his speech stressed on the importance of the Integrated Urbanization and Sustainable Design (IUSD) program and what it added to the college and the university in a distinguished window for international cooperation and distinguished education, and stressed the Faculty's continuing support for the program and its future activities. In his speech, Prof. Dr. Mohamed Salheen, Program Director at Ain Shams University said that since the establishment of the Integrated Urbanism and Sustainable Design (IUSD) program in 2010, a master's degree has been awarded to 120 students from 26 countries around the world such as Egypt, Germany, France, Canada, Tunisia, Sudan, Syria, Jordan, Palestine , Venezuela, Dominican, Mexico, Brazil, Peru, Costa Rica, Colombia, Taiwan, Moldova, Ethiopia. The ceremony witnessed the graduation of 19 male and female students who obtained double master's degrees from Ain Shams University and Stuttgart or one of them. On the occasion of the program entering its tenth year, Prof. Dr. Mahmoud Al-Matini , President of Ain Shams University honored the faculty members and program partners who supported the program during its establishment and who contributed to its development, and the ceremony also saw the distribution of certificates to graduates.



<http://eng.asu.edu.eg/Newsletter>

Issue 05    Fall 2019

# Newsletter

## Competitions, Honoring and Awards



Faculty of Engineering  
Ain Shams  
University

## The Second Edition of the Electric Car Rally begins.

Prof. Dr. Khaled Abdel-Ghaffar, Minister of Higher Education and Scientific Research, Prof. Dr. Mahmoud Saqer, President of the Academy of Scientific Research, Prof. Dr. Mahmoud Al-Matini, President of Ain Shams University, Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering, Ain Shams University, opened the second edition of the electric car rally in the administrative capital. Prof. Dr. Khaled Abdel Ghaffar, Minister of Higher Education, thanked the Academy for Scientific Research and Ain Shams University for the great role they played in setting up the second edition of the electric car rally, which witnessed the training of 31 universities for a period of 160 days by specialists in the field of cars, and 15 teams were selected until we arrived when We see it today from 60% Egyptian electric cars, which indicates that we have the capabilities and brains capable of innovation, as well as universities and students working for this country.



Prof. Dr Mahmoud Saqr explained that the rally race is concerned with homemade electric cars, and the ones based on them are Egyptian university students, the aim of which is to build a strong program for the auto industry in Egypt, and to gather young Egyptian capabilities of engineers and students of final years, and this comes in line with the state's plans for development and encouraging the local industry. Prof. Dr. Mahmoud Al-Metini, President of Ain Shams University, In his speech, stressed said that the university is fully supportive of creativity and innovation, as well as linking industry with scientific research and education, adding that what we see today is a clear example of this, expressing his happiness at the university's achievements, especially the College of Engineering. Prof. Dr. Ayman Ashour, Dean of the Faculty of Engineering at Ain Shams University, said that the rally is not only an electric car race, but a manufacture of those cars and how to link the educational process with the industry to achieve Egypt's vision for the year 2030 and the development of the Egyptian economy through local industrialization and the creation of a generation of engineers capable of innovation and creativity, as he reviewed his sovereignty

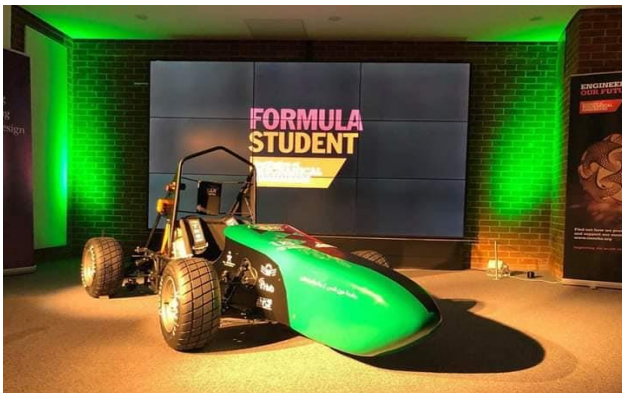
The beginning of the idea when the Faculty of Engineering, Ain Shams University, made a racing team under the supervision of professors specialized in automotive engineering, and then they participated in many competitions until they won the first prize in manufacturing at the level of the universities of the world and they were honored by President, Abdel-Fattah El-Sisi, the President of the Republic of Egypt last year, explained that some foreign universities have cooperated with us in the manufacture of an electric car. Indeed, cooperation with the English University of Sussex has taken place, indicating that in 2020 the first international formula in Egypt will be witnessed.



Dr. Majid Ghonima, Director of the Center for Innovation and Entrepreneurship at Ain Shams University, said that the huge dream is to develop the electric car industry in Egypt, indicating that the idea started in 2017 with a discussion inside the cabinet, then a number of ways in which we were able to enter that industry were reviewed, explaining that the year The former has witnessed the training of 25 universities and then the selection of 9 teams. As for this year, it was done in a broader and larger way, with a large team working to educate and train these young people and give them a push forward. The Electric Car Rally is the first technology competition of its kind in Egypt and the region, to race locally designed electric car models with one seat, and is one of the initiatives of the Academy of Scientific Research and Technology organized by the Faculty of Engineering at Ain Shams University.

## Silverstone Circuit in England is witnessing the retention of Faculty of Engineering, ASU at the level of Universities in the Middle East and Africa.

As usual, Ain Shams University team won many victories in the Formula Student Competition currently held in England, where they won the 26<sup>th</sup> place out of 81 participating teams from all over the world. Prof. Dr. Mohamed Abdel Aziz, head of the Department of Automotive Engineering and supervisor of the team, pointed out that the team of Ain Shams University of 44 students this year competes teams from International Universities, by participating in two cars, one car Formula ICE, a car driven by gasoline, which he made and designed fully and was able to achieve its first place in manufacturing cost last year. The second car is Nebula participated in the Formula EV Competition, is an electric-only electric car, which is manufactured for the first time in partnership with the University of Sussex in England.



The petrol-powered Sheen was able to pass the six qualifying tests to get off the race track and win the fourth place in cost and manufacturing. All teams participating in the competition Nebula, the electric car, was ranked sixth in cost and manufacturing and 37<sup>th</sup> in all teams. For his part, Prof. Dr. Mohamed Ayman Ashour, Dean of the College, said, "The College, believing in its role in supporting innovation and bridging the gap between the university and the labor market, decided to increase its support for its innovative students and harness the efforts of professors and supervisors with the highest potential to help students innovate and become Facebook logo Links on "Best Graduates in Egypt.

He added that the University administration headed by Prof. Dr. Abdul Wahab Ezzat did not hesitate to provide all kinds of support as the university purchased the required items for cars. It is worth mentioning that Ain Shams Engineering Racing Team is a student organization under the supervision of ihub Innovation Center, Faculty of Engineering, Ain Shams University. Its main objective is to revive the automotive industry in Egypt. Student 2018 in England, Shell Eco Marathon, Malaysia, local and regional ROV submarine competition and AUV autonomous submarine competition.

Competitions, Honoring and Awards

## Winning the First Place in the International Wind Turbine Competition in the Netherlands

The Faculty of Engineering, Ain Shams University (ASUWIND) won the International Small Wind Turbine Competition (ISWTC2019) held at TU Delft University in the Netherlands. First place in annual energy production AEP and first place in manufacturing to rank second in the overall ranking, this is the third time in a row that Ain Shams University, headed by Prof. Dr. Abdel Wahab Ezzat, will participate in this competition, this was stated by Prof. Ayman Ashour, Dean of the College.

As Prof. Dr. Tamer Al-Nadi, Vice-Dean for Education and Student Affairs, said that the college is keen to provide all forms of support for all its students believing in the importance of participating in all activities on all forms and patterns.



The aim of the competition was to design and build the SWT plant, which has the optimal production of energy in the predetermined wind system. In the design of participating teams, in addition to taking into account safety and cost-effectiveness factors, as well as emergency brake systems that are mandatory, and last but not least, teams should consider design aesthetics. Additional features, such as monitoring turbine conditions are also appreciated

Prof. Tamer added that the ISWTC competition is divided into two phases. The first is the design phase, where teams should write a report describing their design options, based on theoretical research. In this report, they describe electronic and safety systems, provide insight into affordability, provide mathematical evidence of the turbines' ability to withstand certain load situations, etc. If this report is submitted, teams can proceed to the next stage. The jury will take into account the design report in addition to the actual turbine performance in their decision on the best overall design, the jury is formed by independent experts from the wind industry.



The second phase of the competition is the construction phase. Small wind turbines are being tested in the wind tunnel at the Technical University of Delft for a few days, the wind tunnel at the Technical University of Delft will be used to test the performance of competing small turbines, the turbines will first be examined on electronic safety and mechanical safety systems, Wind tunnel. The output power of the turbine is measured and the goal is to get the best output power. The final phase of the week-long competition included the transfer of teams that tested their turbines in Delft to the University of Applied Sciences at the NHL to attend a final seminar where they could present their creations to the public.



Competitions, Honoring and Awards

## International Engineering Design Competition "Robocon 2019" at the Massachusetts Institute of Technology



15 students and 4 faculty members from the faculties of engineering at the universities of Ain Shams, Aswan and Mansoura, with the support of the Center of Excellence for Energy, funded by the United States Agency for International Development (USAID) participated in cooperation with the Massachusetts Institute of Technology (MIT) in the international competition for engineering design "Robocon 2019" which the Institute hosted over two weeks in its headquarters in Massachusetts, in addition to attending a workshop after the competition on the approach (visualization - design - implementation - operation), which is one of the important educational activities at the Institute.

The results of the International Engineering Design Competition "Robocon 2019", in which 55 engineering students from 10 countries participated: Brazil, Thailand, China, Singapore, Korea, Mexico, Egypt, India, the United States of America and Japan, were won by the teams that participated in them. The Center of Energy Excellence, with the silver and bronze medals. In addition, the Energy Excellence Center won the right to host the Robocon 2021 International Engineering Design Competition for the first time in Egypt at Ain Shams University.

The competition started by dividing the contestants into groups that include a participant from each country. Teams had just 12 days to design and implement a robot that performed tasks similar to those of American astronauts on the occasion of the 50<sup>th</sup> anniversary of the first human landing on the moon. Each team had to strive to overcome the challenges they faced using their creativity and engineering knowledge in order to design and create a robot capable of moving, climbing to put a flag on a mountain, collecting rocks and moving gears, and the robot must be able to move up and down for the design to be successful. With each achievement that is achieved, points are allocated based on the level of difficulty.

The team in which one Egyptian student from Menoufia University won the gold medal, while the two teams in which the two students represented the "Center of Excellence for Energy" won the silver and bronze medal, Yahya Helmy from Mansoura Engineering, and Shada Mansour, a student of Energy and Renewable Energy Engineering at Ain Shams University.

This activity comes within the goals of the USAID-funded Center of Excellence for Energy, which is implemented by the Massachusetts Institute of Technology, and which seeks to promote and spread educational culture and build sustainable infrastructure in the energy sector by raising the capabilities of a generation of graduate engineers with skills Required to implement high-quality applied research projects that focus on solving local and global problems, and address Egyptian needs according to Egypt's Vision 2030.

## Announcing the details of Ain Shams Innovation Competition With a total of prizes amounting to 100,000 pounds.

Dr. Majed Ghanima, Director of the Center for Innovation and Entrepreneurship I-Hub at Ain Shams University, announced on the details of the competition, "Ain Shams Innovates" under the patronage of Prof. Mahmoud El-Metiny, President of the University, Prof. Dr. Abdel Nasser Sinjab, Vice President for Graduate Studies and Research Affairs, Prof. Dr. Abdel-Fattah Saud, Vice President of the University for Education and Student Affairs, where the competition requires that the applicant be a student of Ain Shams University or one of its graduates. One of the conditions of the competition is that the submitted project idea be able to solve an already existing problem, and it is also possible to participate in the competition with an advanced idea that reaches the stage of marketing. The competition can be applied individually or collectively.



Dr. Majed Ghonima, pointed out that the application for the competition will be through the link to participate in the competition:

<http://ihub.asu.edu.eg/asuinnovates>

where he will communicate with the subscriber and set a schedule for the interview, taking into account the dates of the exams, adding that interviews will be conducted with the group of economists, entrepreneurs and industry practitioners, with the admitted. Intensive training will take place during the second week of the boot camp holiday on various topics: thinking, selling and marketing, which enables applicants to think more positively, as ideas can be incorporated. There will also be another meeting during the last week of February, to finalize ideas and projects presented, guide and guide applicants, indicating that the winners will be announced on April 17th with a total of 100,000 pounds in cash.

## The Conclusion of the Qualifying Programming Competition

The qualification programming competition concluded with the participation of 39 teams from the Faculty of Engineering, Ain Shams University, organized by the I-Hub Center for Innovation and Entrepreneurship, Faculty of Engineering, headed by Prof. Dr. Majid Ghonima, Director of the innovation Center ,where each team (consisting of three members) was asked to write solutions / codes for a set of challenges (ranging between 10 and 13) using one computer shared by all the team members. After five hours of competition, 9 teams qualified to represent the Faculty of Engineering in the Collegiate Egyptian - ECPC competition Contest Programming Which were held on October 25 and 26 with the participation of teams from various Egyptian Universities. The ECPC competition is the second stage where the best teams qualify to represent Egypt in the Arab Programming Competition Arab - ACPC. Contest Programming Collegiate, which in turn qualifies the first teams to participate in the competition



The last global International University programming competition ICPC International Collegiate Programming Contest, which is one of the most famous and strongest programming competitions where teams from the most famous international universities participate, and participation in this competition adds necessary skills and experiences that strengthen students' abilities and qualify them to obtain employment opportunities in the most famous international companies..

It is worth noting that this is the third year in a row that the Faculty of Engineering is able to host a qualifying competition for the participating teams, as 13 teams participated in the first year and 27 teams in the second year. The College of Engineering managed to qualify for the Arab ACPC competition during the last five copies, and the Forty-two team succeeded in qualifying for the ICPC International Competition in 2014, and the teams represented by the College of Engineering were close to qualifying for the International Competition ICPC twice as the Forty two rises team finished 10th in 2015 knowing that the number of teams The qualifying team was 9 teams, and the Dark Team finished 13th in 2017, one place above the qualified teams

Competitions, Honoring and Awards

## Election of Prof. Ghada Bassioni as a Bureau Member of the International Union for Pure and Applied Chemistry (IUPAC)

Prof. Dr. Ghada Bassioni has been elected as a member of the International Union of Pure and Applied Chemistry (IUPAC) Bureau for the term 2020-2023 during the IUPAC general meeting in July 2019 in Paris, France.

A neutral and objective scientific organization, IUPAC was established in 1919 by academic and industrial chemists who shared a common goal – to unite a fragmented, global chemistry community for the advancement of the chemical sciences via collaboration and the free exchange of scientific information. Throughout its long history IUPAC has fulfilled that goal through the creation of a common language and the standardization of processes and procedures.



IUPAC is the world authority on chemical nomenclature and terminology, including the naming of new elements in the periodic table; on standardized methods for measurement; and on atomic weights, and many other critically-evaluated data. IUPAC is a leader in the provision of objective scientific expertise for the resolution of critical global issues that involve every aspect of chemistry, all of which have societal impact. IUPAC is involved in a wide range of diverse activities that ultimately impact both the chemical profession and society as a whole..

For almost a century IUPAC has contributed to the diverse and interdisciplinary field that is chemistry. IUPAC is a catalyst that unites chemists worldwide and is fulfilling the mission by fostering sustainable development, providing a common language for chemistry, and advocating the free exchange of scientific information

Competitions, Honoring and Awards

## The President of Ain Shams University honors Prof. Dr. Hossam El-Barambali at the University Council

Prof. Dr. Mahmoud Shawky Al-Matini, President of Ain Shams University, honored Prof. Dr. Hossam AL-Boromboli, Professor and former head of the Department of Architecture, Faculty of Engineering, Ain Shams Engineering. Where Prof. Mahmoud Al-Matini, President of the University, handed him the University Shield. This was because he won the bronze award for the best project in the world in 2019 for the project to develop the Sayeda Aisha Square, as it was honored in Rome, Italy. Prof Hussam received his award from Livedo in competition with 200 projects and qualifications over 3 months, bringing the name of Egypt of the front.



This event was attended by the deputies and faculty deans during the University Council. Prof. Dr. Al-Boromboli is considered one of the leading engineering consultants with experience and history in designing sports facilities, stadiums and halls at both the national level and the Arab world. He participated in the design of many sports facilities and participated in the development of the branch of El-Zohour Club in the Fifth settlement and the Sky Club and Peter sport of Al Dhafra Club in Emirates and Sports Club in the city of Toga and Rabat in Morocco. It is worth noting that Prof. Dr. Hossam previously obtained the Arab Award for Outstanding Maintenance Engineer 2017 from the Arab Council for Operation and Maintenance in Lebanon. Prof. Dr. Hossam El-Boromboli was previously the Head of the Architecture Department and Chairman of the Egyptian Code Committee for Operation and Maintenance. He was also chosen as a member of the reviewing committees in local and international conferences and magazines, and he has more than 132 researches, in addition to supervising more than 100 master and doctoral theses.

Competitions, Honoring and Awards

## Faculty of Engineering, ASU Awards its Visiting Professors

Faculty of Engineering, Ain Shams University, headed by Prof. Dr. Ayman Ashour held a celebration of its visiting professors, where they gave a number of lectures in the presence of Prof. Dr Mostafa Refaat, Prof. Dr. Diaa Khalil, Prof. Dr. Gamal Hashem, Prof. Dr. Ghada Basiouni, a group of heads and professors of scientific departments and a large number of students of the Faculty of Engineering.

Prof. Dr. Hassan Abdullah delivered a lecture on future and smart cities. Professor Hassan Abdullah, who is currently the Provost of University of East London University and a member of the Framework Team for Educational Excellence in the United Kingdom has a general responsibility for the university's strategic academic operation . From 2009 to 2011, Hassan was Dean of the College of Design at the University of Sharjah. Prior to that, he was Head of the Leicester School of Architecture and Spatial Design at De Montfort University Leicester.. He has led a number of major research projects at the national and international levels in partnership with universities and organizations at a global level. He is also a member of many research councils and committees worldwide. He has been recently as well promoted to the positions of UEL Provost.



Prof. Dr. Samir El Ghazaly shed light on the future trends of electronics, communications and computer engineering in the twenty-first century. Prof. Dr. Samir El Ghazaly is a Professor of the Department of Electrical Engineering at the University of Arkansas and Chairman of the Prize Committee for Theory and Technologies of the Institute of Electrical and Electronic Energy, Chairman of the Nominations and Appointment Committee of the Institute for Services and Products of the Institute and Vice-Chairman of the Electoral Supervision Committee of the Institute. In electrical engineering at the University of Arkansas, recipient of the Distinguished Educator Award from the Institute for Theory and Technology of the Institute of Higher Education for Microwave Education in 2015 and currently chairs the EEA Prize Committee And its electronic.

Prof. Dr. Nasser Al-Sheimi, gave lecture on inertial navigation, an essential technology for independent systems, the latest developments and future trends. Dr. Nasser is a Research Chair Fellow in Canada, a Fellow of the Canadian Academy of Engineering, and a foreign expert at the United States Navigation Institute, Department of Talent Program in Geomatics Engineering in China, University of Calgary and founder and president of Deep Stopping (PPI) and also the former head of the Earth Engineering division, Canadian head of research in multi-sensor geomechanically systems.

Prof. Dr. Magdy Salama, highlighted the future of energy networks in terms of generation, distribution, transmission and smart loads, and Professor Magdy Salama is Professor of the Department of Electricity and Engineering at Waterloo University. Founding director of the University of Water world Dubai, United Arab Emirates and founding director of the Waterloo University campus, Dubai, United Arab Emirates.. Also Prof. Dr. Hala Nassar gave a lecture on the International Design Studio: Urban Growth and Development. Dr. Hala Nassar, the second vice-president of the Teacher's Council in Landscape Architecture, Honorary Professor of the Huazhong Agricultural University in China and Director of the Hotness Studio, is concerned with sustainable design and planning, cultural landscape preservation for urban design, public arts and places making, and healthcare design, and has received several awards from The American Society of Landscape Architects reported on its design and planning work in the United States and internationally. Professor Hala Nassar's international efforts in education culminated in the inauguration of the World Design Studio in 2019; a global multi-disciplinary, multi-university design consortium.



Prof. Dr. Nabil Fouad is a professor at the Institute of Building Physics at Leibniz University Hannover, gave a lecture in Energy Efficiency and Energy Conservation in Buildings. At the end of the day Prof. Dr. Ayman Ashour, Dean of the college, honoring visiting professors with renewing the agreement, since they are a visiting professor at the college and taking memorial photos.





<http://eng.asu.edu.eg/Newsletter>

Issue 05 Fall 2019

# Newsletter

## Public Lectures



Faculty of Engineering  
Ain Shams  
University

## Public Lectures

The Faculty of Engineering at Ain-Shams University has organized a set of public lectures. The following are some of these lectures



### Prof. Hala Nassar

Second Vice President of the Council of Educators in Landscape Architecture (CELA)  
Honorary Professor at Huzhong Agricultural University in China.



### Prof. Robert Hewitt

Professor of Landscape Architecture Landscape Architecture Program School of Architecture Clemson University

13 October  
10:00- 11:00

**World Design Studio; Urban Growth and Development, Wuhan, China**



### Prof. Magdy Salama

Professor in the Department of Electrical and Computer Engineering, University of Waterloo.  
Founding Director of the University of Waterloo Campus, Dubai, UAE.

15 October  
9:00- 9:45

**Overview of Future Power Grids: Generation, Transmission, Distribution and Intelligent Loads**



## Prof. Nabil A. Fouad

Institute for Building Physics  
Leibniz Universität Hannover

15 October  
9:45 – 10:30

### Energy Efficiency/Conservation In Buildings



## Prof. Naser El-Sheimy

Professor and Canada Research Chair  
Fellow, Canadian Academy of Engineering  
Fellow, the US Institute of Navigation (ION)  
Foreign Expert, China 1000 Talent Program  
Department of Geomatics Engineering,  
The University of Calgary  
Founder and President of Profound Positioning Inc.  
(PPI)

15 October  
11:00-11:45

### Inertial Navigation -A Core Technology For Autonomous Systems: State Of The Art And Future Trends



## Prof. Hassan Abdalla

BEng MSc PhD CEng PFHEA FRSA  
Current Position: Provost of the University of East  
London  
UK Teaching Excellence Framework Panel Member

15 October  
13:00-13:45

### An Overview Of Smart And Future Cities: Case Studies



## **Prof. Samir M. El-Ghazaly**

Professor in the Department of Electrical Engineering at the University of Arkansas  
Chair of the Awards Committee of the IEEE Microwave Theory and Techniques,  
Chair of the Nominations and Appointment Committee of the IEEE Publication Services and Products Board  
Vice Chair of the IEEE Elections Oversight Committee

15 October  
13:45- 14:30

**Future Directions For Electronics,  
Communications And Computer Engineering In  
The 21st Century**

**For More Info:**

[Info.ICO@eng.asu.edu.eg](mailto:Info.ICO@eng.asu.edu.eg)

©2019 Copyright:  
All Rights Reserved to the  
International Collaboration  
Office –  
Faculty of Engineering – Ain Shams  
University

