

The Faculty of Engineering at MSA University aims at promoting each student's capacity, ability, creativity and imagination when approaching future engineering problems. It also increase the students aims to understanding, awareness and appreciation of the social impact of technology. This will help orient future engineers to lead successful and professional careers worldwide. The Engineering program seek providing all students with the skills and tools would facilitate faster that advancement into management positions.

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DEAN'S WELCOME

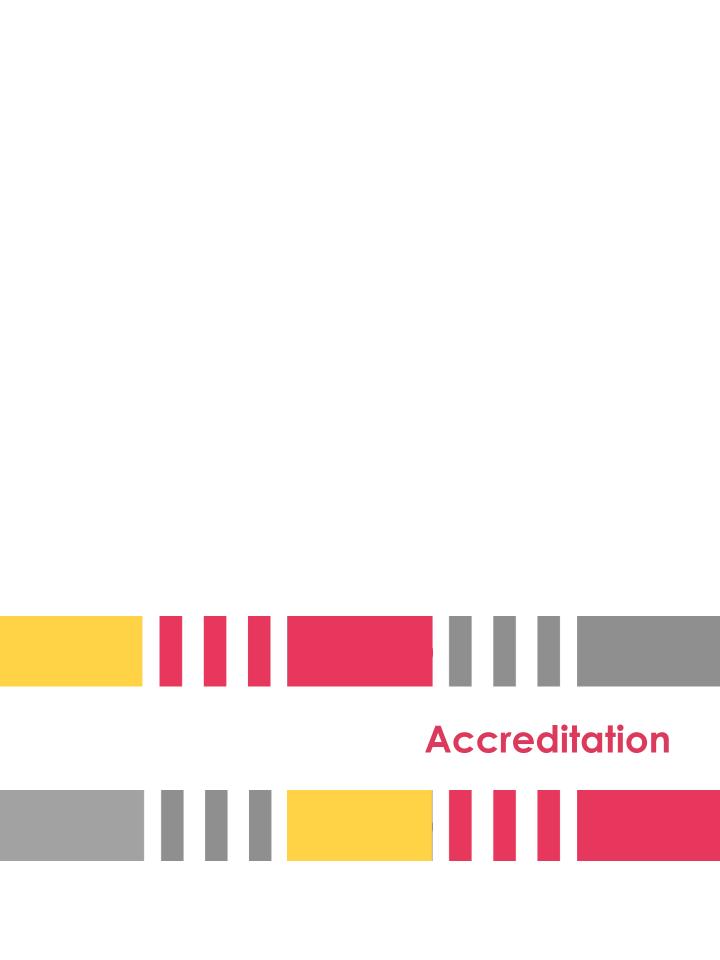
Welcome to the Faculty of Engineering at October University for Modern Sciences and Arts.

Throughout its 20-years history, the Faculty of Engineering established an outstanding regional and national reputation for excellence in graduation projects. This is due to its talented faculty and staff, its research initiatives, as well as its excellent curricula, its modern facilities and most importantly the quality of its graduates. The Faculty of Engineering at October University for Modern Sciences and Arts is in an admirable position having been able to foster strong relationships with industry partners, alumni and government. The benefit of these strong relationships can be easily seen in the high quality of our graduation projects. We believe in our students, and we value their success. We are proud of our outstanding faculty and staff, whose cutting edge research is relevant to the needs of the society. Our goal is to give students the opportunity to experience research and hands-on learning starting from the first day they step through our door. Through our program, undergraduate students gain practical experience working with industry, a win-win relationship for both partners and students.

Looking forward, the Faculty of Engineering will make every effort to continue to be known for its high-quality programs, innovation and relevance to industry and society.

Dean Faculty of Engineering
Head of Industrial Systems Department
Prof. Nahed Sobhy

01 FACULTY OF ENGINEERING



THE FACULTY OF ENGINEERING OBTAINED THE ACCREDITATION CERTIFICATE OF NAQAAE

28 April 2021

The Board of Trustees of October University for Modern Sciences and Arts - MSA University has congratulated the Deanship of the Faculty of Engineering, faculty members, students, administrators, all faculty employees for and accreditation obtaining the certificate of National the Authority for Quality Assurance and Accreditation of Education -NAQAAE for a period of five years.



The Faculty of Engineering's obtaining of this accreditation confirms its superiority in the educational and administrative process and institutional capacity.





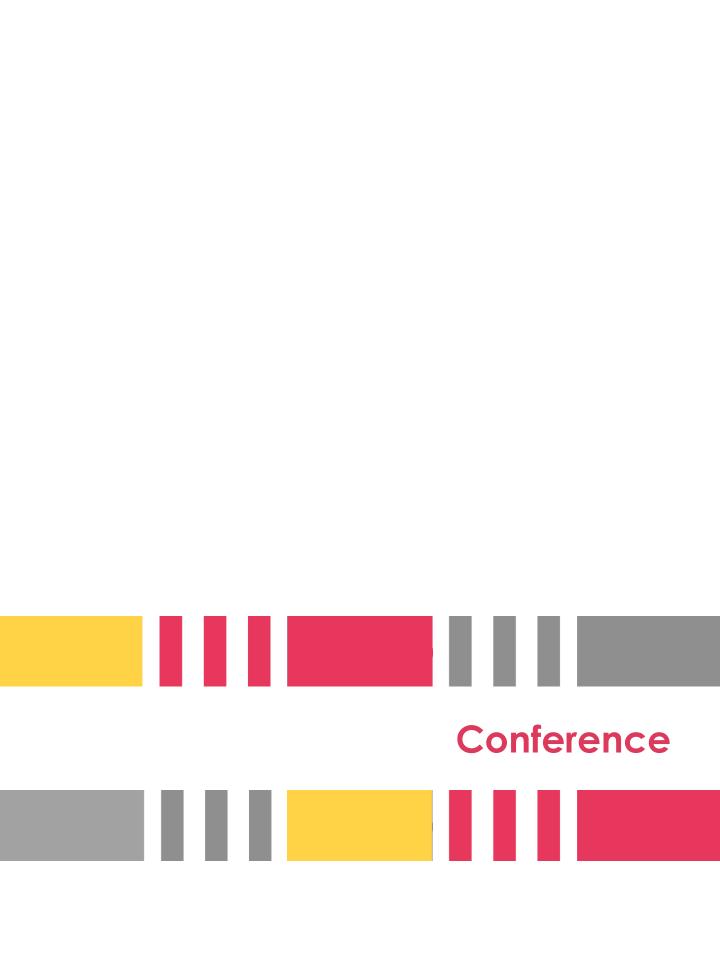






A ceremony was held to celebrate the accreditation. It was attended by Chairman of the University's Board of Trustees Dr. Nawal El-Degwy, University President Prof. Khairy Abdel Hamid, Dean of the Faculty of Engineering Prof. Nahed Sobhy, members of the Quality Assurance Committee, headed by Prof. Maysa Omar, and the teaching staff of the Faculty of Engineering.





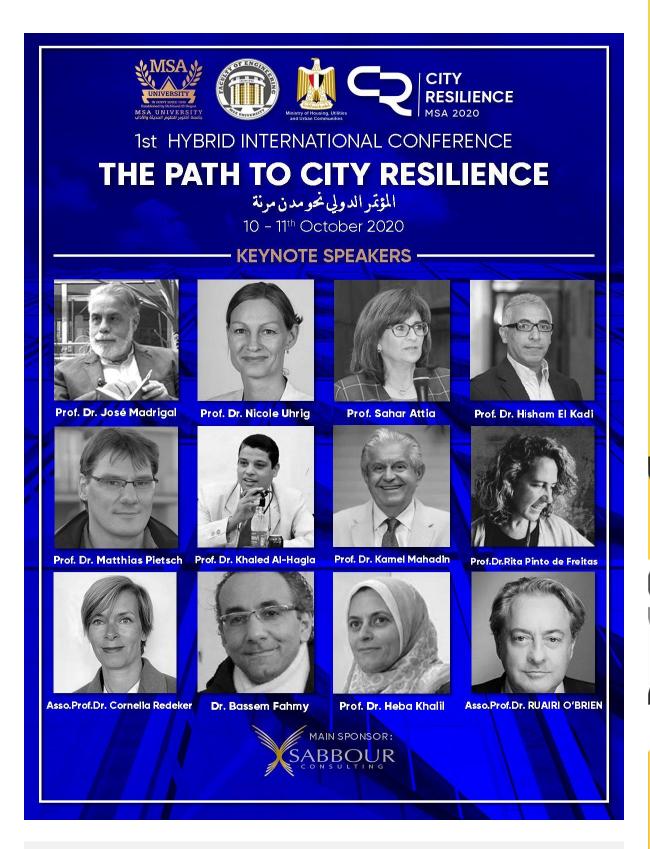


THE PATH TO CITY RESILIENCE INTERNATIONAL CONFERENCE

1 October 2020

The Faculty of Engineering, October University for Modern Sciences and Arts organized THE PATH TO CITY RESILIENCE INTERNATIONAL CONFERENCE.

MSA University welcomed the pioneers in the field of architecture and urbanism towards a rich content. Many researchers and professors from several countries around the world and more than 40 scientific and research institutions participated in the hybrid conference—an international interactive virtual platform and physical discussions. The conference hosted talks by a number of esteemed keynote speakers as well as a two-day workshop.



The conference hosted a range of esteemed architecture and urban design and planning professors from local and international universities.



The conference commenced with speeches by Dr. Nawal El-Degwy, Chairman of the University's Board of Trustees, and Prof. Nahed Sobhy, Dean of the Faculty of Engineering.









The conference witnessed a wide diversity among its attendees who included undergraduate students, postgraduate students, professors, and practitioners. Not only the attendees but also the discussed topics exhibited a similar degree of variety.



Members of the teaching staff from the Department of Architecture, Faculty of Engineering, were in charge of organizing and coordinating the various events of associated with the conference.





The conference was accompanied by a workshop, titled 'Spatial Prophylaxis'. The workshop was conducted by teaching staff from the department of architecture, Eng. Taher Abdelghany and Eng. Yara Eweida. The workshop aimed to utilize architectural ideas and innovations to redefine indoor and outdoor spaces in a way to sustain healthy living conditions.



MSA UNIVERSITY WINS HUAWEI'S 2020 GRAND PRIZE IN INFORMATION AND COMMUNICATION TECHNOLOGY



October University for Modern Sciences and Arts won the Huawei Grand Prize in information and communication technology for the year 2020/2021 for its distinction at the level of all Egyptian public and private universities in the use, application and adoption of artificial intelligence technology and digital transformation in teaching programs and curricula in all faculties and the use of fifth generation mobile technology. Moreover, Dr. Nawal El-Degwi, Chairman of the University's Board of Trustees, won the Excellence and Leadership Award for her role and great contribution in introducing artificial intelligence technology into the curricula of all university faculties.

Prof. Nahed Sobhy, Dean of the Faculty of Engineering at the University, received the Grand Prize in Information and Communication Technology, marking MSA University as the official leader of the new digital era. The honoring award from Huawei is an acknowledgement of MSA University as a pioneer in the field of Artificial Intelligence and Digital transformation and a remarkable distinction among all Egyptian public and private Universities.







In addition to winning the Grand Prize in Information and Communication Technology, four faculty members got the title of best 30 tutors for the sciences and applications of artificial intelligence and the 5G generation of mobile phones. They were: Dr. Muhammad Gamal, Dr. Ahmed Diaa, Eng. Khaled Naguib, and Eng. Ahmed Hatem. Also, Dr. Ahmed Fawzy Daw won the Best Director Award for the Huawei Training Academy at the level of the Arab Republic of Egypt. MSA University received the first place due to the huge number of faculty members and university students who attained Huawei certificates for artificial intelligence technology.



A GRANTED PATENT BY THE ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY

December 2020

Dr. Nermine Abdel Gelil Mohamed, Associate Professor, Faculty of Engineering, MSA University, has been granted a Patent by the Academy of Scientific Research and Technology on her invention "Mixture and curing procedures to produce interlocking hollow bricks from compressed sandy soil in order to increase their compressive strength and decrease their water absorption".

This invention comes within the university's strategies that aim to encourage scientific research from the idea phase to the implementation phase on the ground. Dr. Nawal Al-Degwi, Chairman of the Board of Trustees of MSA University, encouraged and supported the project with full moral and material support since the idea was established four years ago, through the production phase.



This innovative brick contributes to facing the high prices of commonly used building materials and reducing their bad impact on the environment. It also helps preserve agricultural lands as its production depends on the sandy soils spread throughout Egypt.

Moreover, the brick characterized by being easy and fast to construct due to its interlocking Lego-like feature, which cuts the wall cost by 50%, and it does not need to be fired during its production. Also, there is no need to use conventional mortar, plastering, painting, thermal, and sound insulation. It has an aesthetic dimension, and all construction procedures can be done on-site.

Although several countries use this type of brick in construction, its production in Egypt is a challenge because of the differences in climate and the nature of Egyptian soil. The patent was granted due to the success of experiments, modifications, and additions in the production process to obtain bricks that are safe to build with and conform to the requirements of the Egyptian Code.



The bricks were in fact produced from the sandy soil at MSA's campus in the 6th of October City and used in the construction of an environmentally-friendly low-cost residential unit "The Eco-fordable House", also on campus. The design won the first prize in the 4th Cairo International Exhibition of Innovation, the Green Urbanism and Innovative Architecture track, organized by the Academy of Scientific Research and Technology (ASRT).

FACULTY OF ENGINEERING HONORED IN HUAWEI'S HEADQUARTER

3 October 2020.



MSA University achieves leadership and excellence in information and communication technology with the honor of leading global information and communications technologies (ICT) in cooperation with Huawei, for the second year in a row.

A big celebration took place at Huawei's headquarters in Smart Village with the presence of the Chairman and directors of the company. In the celebration, Prof. Hisham Aref, Vice Dean of the Faculty, and Dr. Ahmed Fawzi Daw, Director of the training, have been honored with an excellence award -representing the faculty of Engineering- in 2020





HONORING OF FACULTY OF ENGINEERING MEMBERS WHO PASSED THE AI EXAM BY HUAWEI INTERNATIONAL FOUNDATION



In the context of the celebration of the silver jubilee of the establishment of MSA University and the passage of 20 years of foreign partnership with the Universities of Bedfordshire and Greenwich, and also the celebration of the university's obtaining the shield of leadership and excellence for applications of artificial intelligence in the curricula of the university's faculties, the Faculty of Mass Communication honored the faculty members and students who passed the artificial intelligence exam and obtained the certificates of the Huawei International Foundation. Shields were awarded to: Prof. Nahed Sobhy, Dean of the Faculty of Engineering, Dr. Ahmed Diaa, the Acting Head of the Communications Engineering Department, Dr. Mohamed Gamal, a teacher in the Department of Electrical Engineering and Electronic Systems, Dr. Ahmed Fawzy Al-Daw, a lecturer in the Department of the Faculty of Engineering, Eng. Ahmed Hatem, Assistant Lecturer at the Department of Electrical Engineering and Electronic Systems and Eng. Khaled Naguib, Assistant Lecturer at the Department of General Engineering.



HCIA- AI PROFESSIONAL CERTIFICATE 24 April 2021

MSA University and the Faculty of Engineering would like to congratulate the new Huawei Certified Instructors for successfully passing Huawei Artificial Intelligence (AI) exam and being recognized as Huawei Partners.

- Dr. Mohamed Zaki
 - Di. Monamed Zaki
- LA. Noura Hany
- TA. Shahenda Shokry
- TA. Shahenaz Shokry
- TA. Nariman Nashaat
- TA. Alaa Emad

HCIA- AI professional certificate recognizes its holder as Artificial Intelligence and the Faculty of engineering is welcoming the new Huawei academic Instructors who joined the team and definitely would add more value to Huawei Academy.

MSA-STC - Students Training Committee with the Faculty of Engineering organized sessions on Artificial Intelligence for Engineering students and a number of staff members who attended the sessions sponsored and certified by Huawei.

FACULTY OF ENGINEERING DEPARTMENTS WIN AWARDS IN MSA UNIVERSITY FOOTBALL LEAGUE

The end of the competitions events of the MSA and University Football League for faculty members from different faculties, departments and aid agencies was celebrated by an awarding ceremony for the winning teams. The football games were held in the university's playgrounds over two weeks, with the application of all safety and public health precautions and procedures COVID-19. related to following colleges won the first three places: 1) Faculty of Engineering - Department of Communications and Electronics., 2) Faculty of Engineering - Department of Architectural Engineering, and 3) Faculty of Biotechnology. While the following assistant departments got the first places: Department of Youth Welfare, Sports and Social Activities, and Engineering Management of information and communication systems.









Protocols

A COOPERATION PROTOCOL TO ESTABLISH A SATELLITE LABORATORY AT MSA UNIVERSITY









Prof. Nahid Sobhi, Dean of the Faculty of Engineering has signed a cooperation protocol with Prof. Dr. Mohamed Khalil Al-Iraqi, Vice President of the Egyptian Space Agency, a cooperation protocol to establish a satellite laboratory at MSA University, and Eng. Wassim Issa, director of the satellite laboratories project, within the framework of transferring technology for manufacturing and designing a project The Egyptian satellite of the Egyptian Space Agency. This will result in the Faculty of Engineering becoming a pioneer in satellite technology and an active member of the Egyptian Space Program.

The Egyptian Space Agency delegation visited the new laboratory headquarters at MSA University, expressed their great admiration for the laboratory's headquarters and its advanced equipment, and stated that the laboratory will be installed in July of this year, as well as training faculty members on various tests to implement and design the Egyptian satellite.

COOPERATION AGREEMENTS BETWEEN THE FACULTY OF ENGINEERING AND IBM

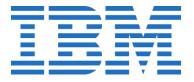


In the light of the vision and strategic plan of MSA University to pioneer in the fields of digitalization, artificial intelligence, and the Internet of Things, the Faculty of Engineering has signed a cooperation protocol with IBM. The cooperation protocol aims to provide students with training opportunities and allow them to IBM-accredited the enter international exams in all fields of digitalization. The protocol also enables teaching staff to join IBM training programs.

Also, within the framework of implementing the "Digital Egypt" strategy and the strategy and efforts of the Ministry of Communications and Information Technology to support the digital transformation of all Egyptian







institutions, state and in implementation of the Ministry's institutional development sector plan, which aims to develop and capacities and promote build digital culture for the masses of the Egyptian peoples, MSA University launched the initiative "Supporting digital transformation university students", for cooperation with IBM under the auspices of the Ministry Communications and Information Technology, in the presence of Engineer Ghada Labib, Deputy Minister of Communications and Information Technology for Institutional Development, and

Professor Dr. Nawal El-Degwy, chairman of the board of trustees of October University for Modern Sciences and Arts, Prof. Dr. Nahed Sobhi, Dean of the Faculty of Engineering, Eng. Wael Abdoush,



General Manager of IBM Egypt, Dr. Ahmed Fawzi Daou, lecturer in the Faculty of Engineering and Director of the Training and Development Committee at the University, and Eng. Orit Nail, Director IBM Initiatives Technical Skills for the Middle East.

Eng. Wael Abdoush, General Manager of IBM Egypt, said, "IBM is pleased to participate in building an Egyptian generation equipped with modern skills and experiences by making our educational technology platforms available to various Egyptian universities, in order to support the Digital Egypt Builders initiative, in cooperation with the Ministry of Communications and Information Technology, and in line with the state's plan to support Digital transformation and developing the capabilities of Egyptian youth and preparing them for the modern labor market.

The Training Committee of the Faculty of Engineering at October University for Modern Sciences and Arts provides trainers from among the faculty members accredited by IBM to teach 1,000 male and female students from various Egyptian universities nominated by the Ministry of Communications by granting 1,000 vouchers to students to register on the IBM platform. Skills Academy is an educational platform specially designed to provide Egyptian students with the necessary skills based on their specializations and needs in the era of artificial intelligence, the Internet of Things and digital technology. The training program was held during three months, starting from June 12 to August 30, 2021.

CENTER OF EXCELLENCE | THE COOPERATION BETWEEN MSA AND THE MINISTRY OF IRRIGATION AND FINANCIAL RESOURCES







Within the framework of the Egyptian state and the Ministry of Irrigation to rationalize water consumption and maximize its optimal use, the research and scientific team at MSA University's Center of Excellence and Entrepreneurship, with the support and full supervision of the University's Board of Trustees, developed a device for measuring soil moisture. An advanced communication system allows the moisture meter data to be transmitted through a message to the farmer's mobile device, to regulate the irrigation process, maximize crop productivity, reduce operating costs and increase farm profitability.

The Minister of Irrigation and Water Resources, Dr. Abdel Aty stated that the joint work team from the Ministry and October University for Modern Sciences and Arts (MSA) produced the first sample of the device and conducted laboratory tests to identify its final performance.

This scientific achievement was carried out under the supervision of Prof. Dr. Said Mabrouk- Professor at the Faculty of Engineering and Executive Director of the Center of Excellence and a group of the university's engineers and researchers, they are Eng. Mr. Al-Qadi, Eng. Ahmed Abu Fadil and Eng. Mahmoud Jaafar.



THE MINISTER OF CIVIL AVIATION VISITS MSA UNIVERSITY



The Minister of Civil Aviation attends the ceremony of handing over the sound radio system designed and manufactured by MSA University to the General Authority of Meteorology. MSA University held a ceremony for the completion of an applied research project to design and manufacture an Egyptian system for measuring weather factors in the upper atmosphere, called Radio Sound, for the benefit of the Meteorological Authority and funding from the Science, Technology, and Innovation Funding Authority. This project comes within the framework of the President's directives and the Egypt's strategy for 2030, which includes an interest in applied scientific research and deepening local industrialization. The ceremony was attended by Pilot Mohamed Manar, Minister of Civil Aviation, Dr. Mahmoud Sakr, President of the Academy of Scientific Research and Technology, Dr. Walaa Sheta, Head of the Science, Technology, and Innovation Funding Authority, Major General Hisham Tahoun, President of the Meteorological Authority, Dr. Anwar Ismail, Assistant Minister of Higher Education for National and Strategic Projects and Dr. Ayman El-Sayed Head of the Monitoring and Communications Sector at the Ministry of Irrigation.



The Egyptian Radio Sound consists of a precise electronic device that carries a balloon to measure weather factors up to a height of 30 km and a range of up to 300 km. It sends data to a ground receiving station, which uses this data for analysis and prediction of weather changes. The Meteorological Authority imports thousands of devices annually from the US and France with huge expenses.



In addition, a group of applied research projects and microelectronic devices

in the fields of water, agriculture, industry, surface and meteorological stations, mechanized agriculture, a mobile field irrigation system, a chemical engineering research group, and mechatronics engineering students' graduation projects were also presented.

Finally, Prof. Dr. Nawal El-Degwi confirmed that achievements made in the field of applied scientific research are the beginning of a great renaissance in the possession of Egyptian technology that comes framework the within meeting the call of the President of the Republic, and she hopes that the October for Modern Sciences and Arts University (MSA University) will be an effective partner in entering our beloved Egypt into the fields of design Manufacture microelectronic systems devices, and owning modern technologies in all fields, in order to achieve the goals of sustainable development and the goals of Egypt's Development Plan.

VALEO XPERT ONLINE MEETUP IN COOPERATION WITH FACULTY OF ENGINEERING MSA UNIVERSITY

In the framework of developing the youth's digital capabilities and their weight with practical and international experiences and the link between academic study, practical life and modern technology, Valeo Egypt in cooperation with Modern Sciences and Arts University has launched the Xperts Online Conference, sponsored by the Ministry of Communication and Information Technology.

The Program Included a series of online seminars which was presented by Valeo Experts and Academic staff from MSA University. The Seminars discussed many topics about different Technologies related to Cars Digital Transformation and also provided practical examples and cases that applied cars' modern technologies.

MSA University hosted Valeo Xperts Meetup online Seminars through its online channels, in order to reach the greatest number of seniors and Masters' students from the faculties of





Engineering and Computer Sciences. The goal of the seminars raise was to awareness of the importance of digital transformation and modern technology roles in building the industrial revelation. Also, Dr. Nawal El-Degwy, Chairman of the Board of Trustees of MSA University gave a speech in the opening session of the meetup.

THE MINISTRY OF HOUSING COMMITTEE VISITS MSA UNIVERSITY AND CENTER OF EARTH





Within the framework of the cooperation between fruitful MSA University, the Ministry of Housing, Utilities and Urban Communities, and the National Center for Housing and Building Research, the university honored by the visit of the technical committee to inspect the Eco-affordable House project, which was implemented by the MSA Center of Earth team on the university grounds in 6th of October City.

The committee was chaired by Eng. Hisham Darwish, Head of the Construction and External Relations Sector at the Ministry of Housing, Utilities and Urban Communities, and Dr. Ahmed El Gabry, Dean of the Institute for Building Materials Research and

Building Materials Research and Quality Control at the National Center for Housing and Building Research.

The project has achieved all the requirements of the Egyptian codes according to the tests conducted by the National Center for Housing and Building Research on the building in terms of building unit quality, structural safety, and thermal and acoustic comfort.

PRESIDENT OF THE ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY VISITS MSA CENTER OF EARTH





Prof. Dr. Mahmoud Sakr, President of the Academy of Scientific Research and Technology visited the 'Center of Earth' at MSA University. He praised the design, the aesthetic dimension, and the economic sustainable materials used in the implementation of the project "The Eco-affordable House", which won the first prize for innovation in the axis of green urbanization and creative architecture that was organized by the Academy of Scientific Research and Technology at the Fourth Cairo International Exhibition for Innovation. The project was implemented by the MSA Center of Earth team, and it is suitable for application not only in social housing projects, but also in tourist villages and villas. Prof. Mahmoud Sakr confirmed the need to start generalizing it in various projects in the construction sector in Egypt.

The project achieved all the requirements of the Egyptian codes, and the brick mixture and its production and processing procedures obtained a 20-year patent and protection from the Egyptian Patent Office of the Academy of Scientific Research and Technology in December 2020. The housing unit was implemented with the approval of the construction sector and external relations at the Ministry of Housing, Utilities and Urban Communities.

STUDENTS TRAINING COMMITTEE (MSA-STC) HOLDS ONLINE CAREER ADVICE EVENT



MSA University – Students training committee (MSA-STC) conducts an annual career advice event "Virtual Build Your Future" to introduce the students to the labor market and help them identify the key skills needed in market nowadays.

Career advice is a venue in which students and employers can exchange ideas and information about employment opportunities through Mock-up Interview.

Some employers actively recruit summer internships at career advice event, while others participate in order to learn what skills and perspectives students can offer their organizations, to stay connected with and "give back" to the departments and institutions from which they graduated, and to demonstrate their interest in hiring graduates.

Participating students can also explore a range of career paths, network with prospective employers, and practice essential professional skills.





The Event delivered three different career advice session to advice the students how to develop their communication skills, self-presentation, and networking, which would prepare them for job interviews and other professional interactions.



The first session was given by Eng. Amr Mohamed, Head of IBO Service Operation & International Business operation at Orange Business Services to be more aware of the new technology fields nowadays. The second session was given by Eng. Abed El-Nahass, Support Engineering Manager at Microsoft and a certified career coach to be fully aware of interview tips and writing a professional CV. Finally, the third session was given by Mariam Samir, HR Executive & Certified Career Coach to be fully aware of the most trending Personal tips for the interviews.

MSA UNIVERSITY HOLDS ITS 13TH ANNUAL EMPLOYMENT FAIR



The closing activities of the 13th annual Employment Fair of October University for Modern Sciences and University Arts—MSA ended with the participation of 50 Egyptian and international companies, financial and banking institutions and 1000 than job more opportunities in various fields and disciplines as well as 8 training lectures and workshops delivered by entrepreneurs and cofounders of startups.













The campus exhibition was held on the 7th and 8th of March 2020 at the university headquarters and in presence of more than 2500 from final years visitors students and MSA university graduates and 1000 graduates of other universities with three years of experience or those who hold masters, PhD or academic and internationally recognized professional certificates.







COMMENCING THE OUTSTANDING HUB FOR JUNIOR RESEARCHERS IN MULTIDISCIPLINARY FIELD

"Research is to see what everybody else has seen, and think what nobody has thought"—Szent-Györgyi.

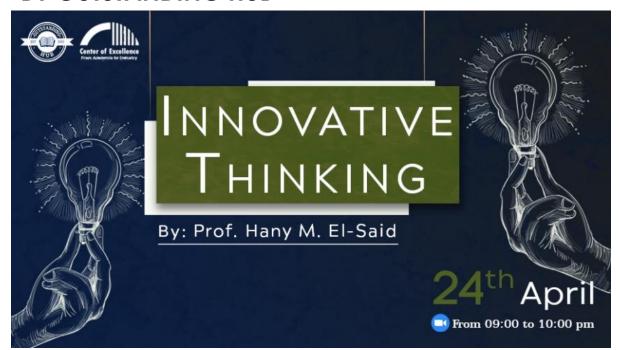
The Outstanding Hub and MSA are keen to provide a rigorous, reliable, and well-founded base for scientific research and enhance the student's learning experience under the supervision of the academic staff



Backed by the Quality Assurance Unit under the supervision of Prof. Maysa Omar (the head of the Outstanding and Creative Students Committee) and Assoc. Prof. Ghada Abdelhady (the Head of the Outstanding Hub), the Outstanding Hub seeks to establish a community that encourages students from different majors to participate in research activities under the supervision of their professors at MSA, where they can display their work and share their knowledge with others.

The Outstanding Hub will pioneer scientific research through the creativity of its talented members. It will nurture their ability to harness, professionalize, and utilize their flair by introducing and writing compelling topics, articles and papers to serve as an essence to equitable scientific research. The first Outstanding Hub session was held on campus on the 18th of October 2020, where participants got to meet the academics team, attended a talk, and got to know more about the hub.

TIPS FOR INNOVATIVE THINKING ONLINE LECTURE BY OUTSTANDING HUB



In light of the cooperation between the faculty of Engineering and the Faculty of Arts and Design, Outstanding Hub— a Faculty of Engineering committee, was delighted to invite all Engineering students to attend a lecture by Professor of Industrial Design at the Faculty of Arts and Design, Prof. Hany M. El-Said, on "Tips for innovative thinking", to promote multidisciplinary projects. The webinar was organized by Assoc. Prof. Ghada Abdel-Hady—the representative of the outstanding students in the outstanding hub and creative students committee, to support students and advise them on how to think about designing projects in innovative ways.

Lecture topics:

- •Design Process
- •Problem Solving vs. Need Finding
- •What your client says
- •Real-Life Example

Outstanding Hub seeks to encourage innovative thinking and creative problem-solving to ensure that the final outcome meets objectives and client requirements.

THE HOW OF ACADEMICS SYMOSIUM BY THE OUTSTANDING HUB



MSA University always has the vision for its students to excel on academic both and research scales. In partnership with three of the most powerful research entities recognized worldwide— The Egyptian Knowledge Bank, Clarivate Web of Science and Elsevier, the Outstanding Hub committee organized an online symposium under the name of "The Hows of Academics". The Online Symposium was divided into three consecutive sessions. The keynote speakers took the students through a journey,





introducing them to the EKB and how it works as a critical tool in academia, having one of the largest digital libraries. Then, they had an overview on how to write a proper scientific paper and what the paper submission cycle is. All the attendees of the symposium were handed the certificates of attendance issued by Web of Science and Elsevier.

SYMPOSIUM: "WHAT IS LEFT OF LOVE, BETWEEN SCIENCE AND LITERATURE"







The symposium hosted the symbol of Egypt in literature and criticism, Prof. Dr. Mohamed Hassan Abdallah, professor of literary criticism at Cairo University, and the novelist Mr. Mounir Otaiba, founder and director of the Narratives Lab at the Bibliotheca Alexandrina.

During the symposium, the novel "What's Left of Love" and "A Letter to My Friend in France" were discussed, the literary works co-written and co-authored by two creative students from the College of Engineering, the third-year student (Mohamed Khaled Farag), the Mechatronics Department, and the third-year student (Ahmed Mohamed Musharraf). Fourth, Department of "Industrial Engineering" in collaboration with director Akram El-Bazawy, a graduate of the Faculty of Mass Communications, who directed the film A Letter to My Friend in France. The Dean praised the quality and creativity of this type of seminars.

MSA CREATIVITY AND ACTIVITY CLUB HOLDS A BAZAAR AND ARRANGES ONLINE WORKSHOPS

MSA Creativity and activity club arranged a BAZAAR in the food court area that displayed the creative and amazing handmade artwork of its club members.



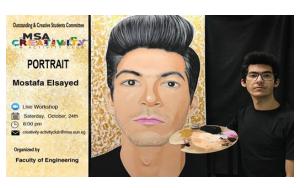
Also, workshops were held by the talented members of the clubs to teach their craft through online workshops.













Launching the first Egyptian Radio Sonde from Helwan Observatory

The system for measuring weather indicators in the upper atmosphere "Radio sonde" has been launched by MSA students, in cooperation with the General Meteorological Authority (Ministry of Civil Aviation).

Radio Sonde is a device used by the air metrological Authority to measure different parameter in the different upper layers up to 30 Km upwards. Egypt imports about 5000 device annually, and a group of MSA students in the Faculty of Engineering has implemented this device as graduation project with great success under supervision of Dr Said Mabrouk, as the project is by the Science, funded Technoloy & Innovation Funding Authority (STDF) to be implemented as a product in two years. The requested budget to fund the project is 872,000 LE. The end user of this project shall be the Egyptian Meteorological Authority (EMA)







Ministry of Higher Education & Scientific Research National Institute of Standards



وزارة التعليم العالى والبحث العلمي المعهد القومي للمعادرة

El- Sadat (Tersa) St., El Haram, Giza, Egypt - P.O.Box 136 Giza - Code 12211 - Tel./ Fax: +202 - 33867462 - NIS Tel +202 - 37401113

CERTIFICATE OF CALIBRATION شهادة معايرة

Certificate No: 730/32/2021



· NIS Lab

: Thermal Metrology

Issued For

جامعة أكتوبر للعلوم الحديثة والأداب (MSA) بالتعاون مع الهينة العامة للأرصاد الجوية

Contact Information of

the Customer بيانات اللواصل بالزبون

: 01126446427

Location of Calibration

:NIS Thermal Lab.

 Device Description سم ووصف الجهاز تحث المعايرة

:EGYSONDE device, with temperature, humidity sensor and data aquisition system, resolution 0.1°C for temperature,

and 0.1 % for relative humidity

 Manufacturer اسع الشوقة العنشية

: MSA & EMA

 Model/Type موديق الجهاز

: EGYSONDE-10

 Serial Number الرقع المسلسل للجهاز

: EGYS032021 · Code

 Reference Number of Calibration رقع المعايرة المرجعي

Approved by

. Date of Receipt تاريخ الاستلاء

: 05/04/2021

 Date of Calibration : 06/05/2021 تتريخ المعابرة

 Issue Date تناريخ الإصناد

: 30/05/2021

 Due Date تاريخ إعادة المعايرة

Head of Laboratory

Prof. Dr. Gamal M. Hassan

NIS President

Dr. Noha E.Khaled

Above is the Certificate of Calibration for the EGYSONDE project, granted by the National Institute of Standards.





UNISTRY OF HIGHER EDUCATIO

شهادة إيداع تصميم تخطيطى لدائرة متكاملة رقم

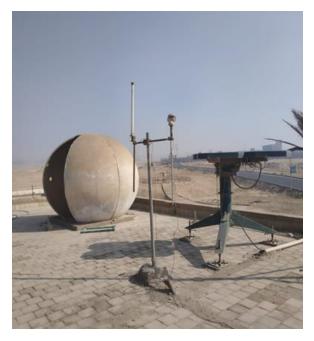
رئيس أكاديمية البحث العلمي و التكنولوجيا بعد الاطلاع على المادة رقم 2۸ من فاتون حماية حقوق الملكية الفكرية الصادر بالقانون رقم ۸۲ لسنة ۲۰۰۳ ، وعلـى قرار رئـيس الجمهوريـة رقـم ۳۷۷ لســــــة ١٩٩٨ بإعادة تنظيم أكاديمية البحث العلمي والتكنولوجيا ، وعلى طلب تصميم تخطيطي لدائرة متكاملة المقدم تحت رقـم ۳ فـي ۲۰۲۰/۱۱/۱ والمســـتندات الملحقـة بــة ،

منج شهادة إبداع تصميم تخطيطى لدائرة متكاملة رقم؟
 ا- جامعة اكتوبر للطوم الحديثة والأداب (MSA) ٢- شركة شورت سيركت ديزابيز كو
 ا- تقاطع طريق محور ٢٦ بولد ومع طريق الواحات - مدينة السيادس من اكتوبر – الحيزة – جمهورية مصر العربية
 ۲- ٣٦ الحي الرابع - المحاورة الأولى - مدينة السيادس من اكتوبر – الحيزة – جمهورية مصر العربية
 ۲- الاسياد الدكتور / سعيد عبد المنعم احمد ميروك ٢- المهندس / احمد ابو الفصل توفيق
 ۲- المهندس / السيد طه السيد الفاضي ٤- المهندس / محمود محدي حعفر مجد
 تصميم حهاز قياس العوامل الحوية في مطلقات الحو القيال (Radioson)
 عشر سياوات تبدأ من يوم ١٠ نوفمبر ٢٠٠٠، وقد توضح بياناتها في الوثائق المعتمدة المرفقة بهذه الشهادة على الجهة المختصة نشره في حريدة براءات الاختراع

لايعني منح هذه الشهادة إعطاء الحق بتسويق المنتج داخل جمهورية مصر العربية. ولتسويق موضوع هذه الشهادة يلزم إتباع الإجراءات والقواعد القانونية المعمول بها للحصول علي حق التسويق والتداول داخل جمهورية مصر العربية من الوزارات المعنية



The project also received an innovation certificate from the Academy of Scientific Research and Technology.





Launching the first Egyptian Radio Sonde from Helwan Observatory

MSA Students devised a system for measuring and monitoring the level and consumption of water from wells and surface water from canals and branches of the Nile River, in cooperation with the Ministry of Water Resources and Irrigation. The system includes devices and a network for measuring water level, consumption quantity, water quality,



turning on, stopping and calculating the operating hours of pumps for ground and surface water sources. The stations collect data automatically and send it through the network to a central control and control room, and water consumption rates are centrally controlled. The system, which was also, granted an innovation certificate, could lift some burden off the state budget as these stations are imported annually.



THE USE OF THE MOBILE FARMER IN FIELD IRRIGATION AND OTHER AGRICULTURAL OPERATIONS

The first model is a device that receives soil moisture data from a sensor manufactured by the Ministry of Irrigation and sends a text message on the regular mobile to inform the farmer that the crop needs irrigation.







The second model is a smart mobile application that helps farmers in irrigation and various agricultural operations.

Mobile Application for Irrigation 02

ARCHITECTURAL SYSTEMS ENGINEERING DEPARTMENT



Professors



Prof. Hesham Aref



Prof. Maysa Omar



Dr. Omar Fawzy



Prof. Ahmed Shetawy



Prof. Namir Heikal

Associate Professors



Assoc. Prof. Sameh El Feky



Assoc. Prof. Nermeen Abdel Gelil



Assoc. Prof. Tarek Abd el Salam



Assoc. Prof. Rania Elmesseidy



Assoc. Prof Shady Shawky



Assoc. Prof. Nihal Amer



Assoc. Prof. Zeinab Fesal

Lecturers (Ph.D.)



Dipl. Eng. Adel Fahmy



Dr. Tarek Galal



Dr. Emad Helal



Dr. Hesham Elmaamoun



Dr. Mohamed Ameen



Dr. Karim M. Ayyad



Dr. Ahmed Awad



Dr. Salwa El-Gendi



Dr. Lamiaa Shehata



Dr. Ahmed Abd el salam



Dr. Mai Mohamed



Dr. Eman Saleh



Dr. Elmahdy Mohamed



Dr. Hasnaa Elsherbiny



Dr. Ghada Ghazala



Dr. Doaa Esmat



Dr. Rafik Sadek



Dr. Kanzy Mohamed



Dr. Aya Magdi

Assistant Lecturers



L.A. Shereen Abodagher



LA Rana Adel



LA Nermine Nofal



LA. Abdel Hameed Jalal



LA. Alaa El-Sherif



LA Youssra Alaa



LA Mona Mostafa



LA. Lobna GalaL



LA. Arwa Hussien



LA. Olvya Bakry



L.A Taher Abdelghani



LA Hend Mostafa



L.A Alshaimaa Galal



L.A. Yosra Mohamed

Teaching Assistants



T.A. Mirna Mohamed



T.A. Jessy Tarek



TA. Shereen Husieen



T.A. Alaa el Sayed



T.A. Ali Mosleh

Teaching Assistance (Continued)







Mohamed



T.A. El Hassan T.A. Amr Nagi T.A. Ahmed

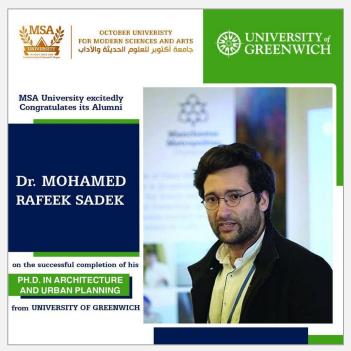


Bayomei



T.A. Nada Hatem

Mohamed Rafiq Abdel Magid Sadek PHD Greenwish University- 10/12/2020



Dr. Mohamed Rafeek now holds a Ph.D. in Architecture and Urban Planning from the University of Greenwich, UK. Dr. Mohammed Rafik graduated from Department of Architectural Engineering at MSA in 2012 and received a scholarship of excellence to study for a master's degree at MSA's British partner, the University of Greenwich in London. Despite the pandemic, Dr.

Rafik succeeded in discussing his doctorate in December 2020 and obtained the certificate and equivalence from the Supreme Council of the Egyptian Universities in April 2021. His thesis is titled 'A Comprehensive Study on the Personality of the New Cities in Greater Cairo'. It studies how the personality of cities is formed by its population and planning standards.



PUBLICATIONS

1. Prof. Dr. Hisham Mahmoud Aref

Aref, H., Magdy, S., & Gomaa, N. S. (2021). "Towards applying the mechanism of multiple land use in Egypt"

. Fayoum University Journal of Engineering, 4(1), 124-153.

Aref, H., Magdy, S., & Gomaa, N. S. (2021). "A mechanism to localize public services in Egypt based on their compatibility". Fayoum University Journal of Engineering, 4(1), 96-123.

2. Prof. Dr. Maysa Mahmoud Fathy Omar

"The role of the state in setting resilience policies in the field of urban planning towards" International Conference " THE PATH TO CITY RESILIENCE", Department of Architectural Engineering - Faculty of Engineering, October University for Modern Sciences and Arts, MSA, Al-Wahat Road - 6th of October City, Giza. October 2020

3. Assoc. Prof. Nihal abdel Wahab Amer

Amer, N. (2021). Meaning Behind Inspiration from Nature in Mosque Design: Old and New. The 5th Annual Memaryat International Conference held virtually under the theme Masjid Architecture: Form and Meaning, 23rd—24th February, 2021, Jeddah, KSA.

4. Assoc. Prof. Tarek Abdelsalam,

"New Architectural Intervention in Historically Sensitive Contexts: Humanistic Approach in Historic Cairo", Volume 17, Issue 1, The International Journal of HBRC, Cairo, 2021.

5. Dr. Emad Mohamed Helal

"Proposed Structural System for Mixed Hollow Flat Slab", Scientific Journal of the National Water Research Center, Taylor & Francis Group, TWAS-peerreview@journals.tandf.co.uk, (TWAS-2021-0040), Scoups, accepted.

PUBLICATIONS

6. Dr. Doaa Esmat Ahmed Hassan

- "Minimizing the Failure Risk of Pile Bent Pier under Seismic Load using Grouting" Journal of Engineering Sciences, Faculty of Engineering, Assiut University, JES, 48/1 January 2020
- "Proposed Structural System for Mixed Hollow Flat Slab", Scientific Journal of the National Water Research Center, Taylor & Francis Group, TWAS-peerreview@journals.tandf.co.uk, (TWAS-2021-0040)

7. Dr. Kanzy Mohamed El Halwagy

The Exploration of Creativity through the Architectural Design Educational Process- " منهجية لبناء مرونة النطاقات التراثية في مواجهة مناطر الكوارث والحد من تداعياتها

8. Dr. Salwa Abdel Moneim Yassin

- The Effect of Shading Devices with Integrated Photovoltaics on Energy Efficiency of Buildings. Book chapter in Advanced Studies in Efficient Environmental Design and City Planning, Springer, Cham, 2021, 105-120.
- El Gindi, S, "Integration of Energy Efficiency measures and Renewable Energy technologies as an Approach to Sustainable development in Egypt", Proceedings of the Path to City Resilience international conference, MSA University, Egypt, 2020.

10. Arch. L.A. Taher Mahmoud Alaa El-Din Abdel-Hamid

- "Spatial Prophylaxis: The Tactical Approach of Post-COVID Public Spaces in Cairo" (with Yara Mohamed), AMPS Proceedings Series 21. Rapid Cities – Responsive Architectures, (2020): 204-213
- "Film Intervention in Public Space: A Phylogenetic Spatial Change", The Journal of Public Space, Vol. 5, No. 4 (2020): 107-122 5. "Using Bernard Tschumi's Manhattan Transcripts as a Cinematic Pedagogical Tool in Architecture Schools in Egypt", AVANCA | CINEMA, (2020): 727-732 3.
- "Enclosurotopias: A Heterotopian Simulation of Reality" (with Zeinab Tahoon), International Congress of Contemporary Affairs on Architecture and Urbanism, (2020): 281-287

PUBLICATIONS

9. Arch. Merna Mohamed Reda

"Lightening Other Faces of The Livability Parameters in The Egyptian Urban Communities" Book chapter-The 4th International Conference of Contemporary Affairs in Architecture and Urbanism, Turkey.

The Path to City Resilience ICPCR 2020 (International Conference)

https://msa.edu.eg/msauniversity/the-path-to-city-resilience-international-conference

- 1. Alshaimaa Osama, Marwa A. Alaswadi "Heritage Conservation towards a Resilient Rosetta"
- 2. Ahmed Jamal, Ashrakat Khalid, Maram Enany "Resilient Rosetta, An Approach to Heritage Conservation"
- **3. Nofal, N., Kamal, M.,** (2020). The Resilience of Alexandria waterfront transformation and development Waterfront physical-functional dimension. Proceedings of the Path to City Resilience international conference, MSA University, Egypt.
- **4. Elareef, E., Mosleh, A.,(**2020) Visual and thermal effect of contemporary building's facade on urban spaces.. Proceeding of the path to city resilience international conference, MSA University, Egypt.

Academic Supervision

Supervision of Master and Doctoral Theses

1. Prof. Dr. Maysa Mahmoud Fathy Omar

Master supervision:

Cairo University-Architecture Department "Thesis submitted to the Faculty of Engineering at Cairo University". Islam Ali Ibrahim

Master supervision:

Cairo University-Architecture Department "Lighting and heat control inside architectural spaces applied studies for lecture halls." Mohamed Ahmed Mohamed Hassan

2. Assoc. Prof. Rania Ahmed Hamdi El Meseidy

Ph.D. supervision:

Cairo University Faculty of Urban and Regional Planning

"Landscape Design of Residual Spaces as Child-friendly Spaces" Shereen Abou Dagher

Ph.D. supervision:

Cairo University Faculty of Engineering

"Impact of Digital Platform on the Vibrancy of Urban Space to Enhance the Quality of Urban Life" Basma Medhat Ibrahim

Membership in Local or Global Organizations

1. Assoc. Prof. Tarek Abdelsalam

Society for Research on Identity Formation (SRIF) - Architectural Humanities Research Association (AHRA) - Architects for Peace - Research Center for Islamic History, Architecture, and Culture

2. Assoc. Prof. Rania Ahmed Hamdi El Meseidy

Living Future Member (International Living Future Institute) https://living-future.org/

3. Dr. Kanzy Mohamed El Halwagy

"Inspireli Awards" jury member – Participant in workshops and seminars in other universities – Speaker in the Arab Architecture Week from 10-16 October 2021, organized by Archinet, KSA, under the title "Tactical Urbanism and Community Development"

4. Dr. Karim M. Ayyad

IBPSA- Egypt

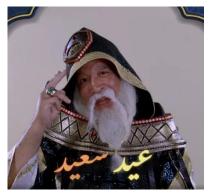


Osama Refaat Wins Awards for Cosplay Design



It is worth noting that Osama Refaat held first place in a large number of international competitions in the field of cosplay design and implementation during the past four years. He was in first place in Egycon. This had got to be one of the most complicated cosplays.













Osama had the honor of designing and creating the costumes for Mazinger & Aphrodite and Completion 4 Along with the amazing stylist Ola Ashraf Mohamed.

Amr Mousa Wins The Silver Award in a Design Competition for Branding and Packaging

Faculty of Engineering, Department of Architecture graduate Amr Mousa won The Silver Award in the Packaging Design Category in A' Design Award & Competition for his project "Nefer".

NEFER

"Nefer" is when art, technology, and design are combined to luxurious create sophisticated perfume bottle, package, and brand. The inner contains the fragrance core while the body contains the soul. The exact translation of ancient Egyptian the word "Nefer" in English is "beautiful on the inside and the outside".

University/School: Politecnico Di Milano

Lead Designer(s): Amr Ibrahim Mousa, Anas Belekhbizi Design Team: Amr Mousa, Anas Belekhbizi

Prize: Winner in Graphic Design/Packaging / Winner in Graphic Design/Branding







Teaching Assistant and MSA Alumnus Yara Mohammed Wins a Swarovski Foundation Award







Mohammed, the teaching Yara assistant in the Faculty Architecture Engineering, Department, was selected as one out of nine winners worldwide in Swarovski the Foundation: Creatives for our future program 2021 in cooperation with the United Nations, which aims to identify and support the next generation of creative leaders in the of sustainable area development in architecture, art, and fashion.

MSA Alumnus Dalia Mostafa Is a QS Engineer at ECG Company

Dalia Mostafa said: "Attending the summer course at the University of Greenwich added a lot to my knowledge as a young architect and has

quite broadened my perspective as it gave me the opportunity to explore different and diverse design methods and to deal with different mentalities, styles, and cultures. Having a certificate from the University of Greenwich gave me the opportunity to apply for multinational firms and added a strong point to my resume."



Mariam El Bialy Wins Second Place in the 2021 African Championship



Mariam El Bialy, a player in the Shooting Club and the Egyptian Trampoline Gymnastics team, also a student at the Department of Architecture, Faculty of Engineering, got Second place in the 2021 African Championship.





'SYNECDOCHE, ARCHITECTURE: MORE THAN JUST BUILDINGS' A WORKSHOP BY THE DEPARTMENT OF ARCHITECTURE



Can architecture be more than just mere physical buildings?

Have you ever thought that architecture can be a culture a way of thinking, or even a metaphor?

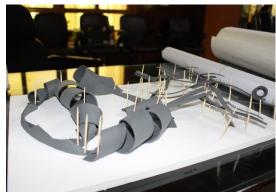
The Department of Architecture at MSA University launched the Workshop entitled 'Synecdoche, Architecture: More than Just Buildings'. The workshop was given by Eng. Taher Abdelghany and Eng. Yara Eweida, the teaching staff at the Department of Architecture, Faculty of Engineering.

The workshop took place in the Conference hall at the SSB from the 30th of November to the 2nd of December.









03

ELECTRICAL COMMUNICATIONS & ELECTRONIC SYSTEMS DEPARTMENT



Professors & Associate Professors



Acting Head of Electrical Communication Department

Associate Prof. Ahmed Diaa Eldin



Prof. Essam AbdelFattah Sorour



Assoc. Prof. Hossam Abdel-Aziz Ibrahim Selmy

Lecturers (Ph.D.)



Dr. Said Mabrouk



Dr. Amira El-Tokhy Ali



Dr. Ahmed Fawzy Azet



Dr. Mohamed Zaky Al-Atrach



Dr. Hatem Zakaria Radwan



Dr. Mostafa Gamal



Dr. Walid M. Nabil



Dr. Maher El-M. Tayeb

Assistant Lecturers



L.A. Ahmed Hatem



L.A. Farah Raad Karim



L.A. Shahenaz Mohamed Shokry

Teaching Assistants



T.A. Mostafa Ali T.A. Mariam Abdelmoneim



Ahmed Hamza Sayed Ibrahim



TA. Alaa Emad



T.A. Mohamed Osama Elfawal



T.A. Nouran Magdy



T.A. Nayera Hassan Ali



T.A. Shrouk Tarek T.A. Mohamed T.A. Mahmoud Mohamed



Ahmed Hosny



Mohsen Ebrahim



T.A. Ahmed Gamal Ahmed



T.A. Mahmoud Youssef Elazzab





R.A. Ahmed Aboelfadl Tawfeek



R.A. Mahmoud Magdy Gaafar

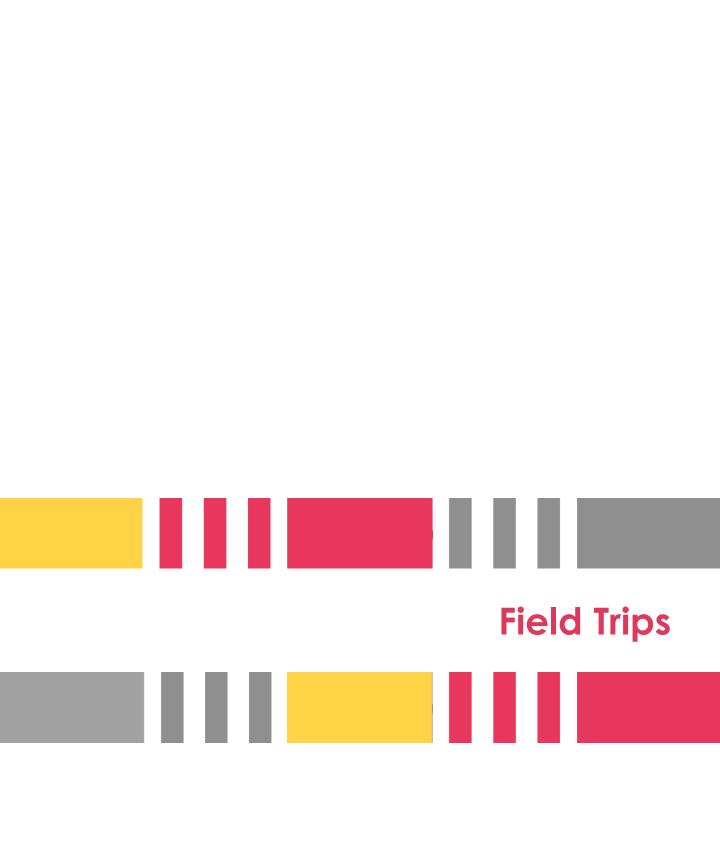
Dr. Mostafa Gamal Ali and Dr. Amira El Tokhy Earn Their Ph.D. Degrees from the University of Greenwich



Dr. Mostafa Gamal Ali Emberaz, Faculty of Engineering, Communication and Electronics Department graduate, of class July 2008, has achieved his PhD in Electrical Engineering from the University of Greenwich, United Kingdom. He earned his PhD degree for thesis a "Integrated filtering Antennas for Wireless Application", with full satisfaction from the examination panel in April 2020. Dr. Embaraz was granted a PhD scholarship, as part of between MSA collaboration University and University of Greenwich.



Dr. Amira El Toukhy, a graduate of the department of Electrical Communications and Electronics Engineering, MSA University, has achieved her PhD in Electrical Engineering from University of Greenwich, United Kingdom. She earned her PhD degree for a thesis titled: "Multi-port filtering networks (MPFN) for mobile communications and satellite systems", with full satisfaction from the viva examination panel. Dr El Toukhy was granted a PhD scholarship as part of collaboration MSA between University and University of Greenwich.



A FIELD TRIP TO THE GRAND POWER STATION OF THE NEW CAPITAL



The Department of Communication arranged a field trip for its students to the Grand Power Station in the new administrative capital.





ENG. OMAR EL-SHAFEI'S GRADUATION PROJECT ACKNOWLEDGED AS 'NEW SCIENTIFIC ADDITION' IN SPRINGER NATURE SWITZERLAND



The graduation project of Eng. Omar Khaled El-Shafei—graduate of the 2018 class in the Department of Communications and Electronics Engineering, MSA University, has been published as a distinguished scientific article and research with a new scientific addition in the Springer Nature Switzerland magazine, which is considered one of the largest international peer-reviewed journals with an impact factor of 0.95 and is also listed on the research base. Scientific Scopus. The project is titled "Adjustable Stand-Wave Microwave Filters Used in Wireless Applications - Analog Integrated Circuits and Signal Processing". It has been supervised by faculty members, Prof. Dr. Mahmoud Abdallah and Prof. Dr. Ahmed Abdel Moneim. Omar El-Shafei is now working as an engineer, specializing in the field of security and securing communications and information at the National Bank of Egypt.

'KITABNA' PUBLISHES THE NOVEL 'CASA' BY COMMUNICATION DEPARTMENT STUDENT AMINA AL-HAGAN



Have you ever wondered if there is a different path that you could take to quide you home? This book has all ingredients of life; it talks about love, friendships, heartfelt experiences and random thoughts that usually cross my I find myself best when I express into words. Conversations, observations, experiences, books and movies helped me have a wider mindset with two different eyes. I learnt that love can sometimes be messy, hang in there and never give it up, because someday someone will come and make it look all neat and fresh to your heart. And there are some times when you will enjoy its mess, not only its beauty. Embrace it, enjoy it & give it time to live & learn from it. With every piece of this book; I am permanently leaving a piece of me to you, I am asking you to take care of it and cherish it. That was my direction to my own home, what is yours? Graduated from Communication Engineering in 2020, interested in writing, reading and playing the piano. Her mind is full of thoughts and her heart is filled with love; publishing this book is her first step to be spreading what she has to the world.

A novel by Amina Al-Haggan, an MSA graduate from the Faculty of Engineering, Department of Communication, has been published by 'Kitabna'. The novel—named 'CASA'. contains different ideas that aim for comfort and peace in difficult times, with the spread of the global pandemic. CASA includes glimpses of life such personal experiences, as friendships, how to deal with people, how to set boundaries of respect and not infringe on the rights of others. Amina El-Haggan will participate with her first novel at the Cairo International Book Fair 2021.



04

COMPUTER SYSTEMS ENGINEERING DEPARTMENT



Professors & Associate Professors



Acting Head of Computer
Systems Engineering Department

Associate Prof. Samer Ibrahim

Lecturers (Ph.D.)



Dr. Ahmed Ayoub



Dr. Manal Moustafa

Teaching Assistants



TA. Hagar Hesham Negm



TA Mohab Safwat Mohamed



T.A . Yomna Sameer Elkholy

05

INDUSTRIAL SYSTEMS ENGINEERING DEPARTMENT



Professors, Assoc. Professors & Lecturers



Prof. Dr. Nahed Sobhi



Program LeaderDr. Mohamed Hassan



Prof. Tarek Mahmoud Elhossainy



Dr. Sameh Ahmed Salah

Assistant Lecturers



L.A. Ali Bahig Ali



L.A. Yara Mohamed Elsaid



L.A. Yasser Mohamed Saafan



L.A. Sherine Ibrahim Bishara



L.A. Omnia Reda Mazroaa

Teaching Assistants



T.A. Ahmed Maher Khairy



T.A. Youssef Osama Mohamed Hassan



T.A. Philopateer Nabil Zaki Salama

Publications – Students & Alumni

1. Dr. Sameh Salah El Din

Sameh A. SALAH, Ahmad MUSTAFA "INTEGRATION OF ENERGY SAVING WITH LEAN PRODUCTION IN A FOOD PROCESSING COMPANY". Journal of Machine Engineering, 2021, Vol. 21, No. 4, pp. 5-20.

AHMED M. MUSHARRAF WINS SECOND PLACE IN MAMA NAWAL SHORT STORY COMPETITION 2021





شمادة تقدير

أحمد محمد رزق – قصة ابي علمني الطيران

عن مشاركتكم المتميزة في معرض الكتاب السنوي لجامعة MSA الدورة الرابعة "مصر روسيا... ثقافة وأكثر"

مارس 2021







The Ahmed student, Musharraf Mohamed Industrial Department-, won second place in the Mama Short Nawal Story Competition 2021. He participated with Akram El-Bazawy, a graduate the Faculty of Mass Communication, MSA University, in writing the script for the movie "A Letter to My Friend in France," which was selected for screening in many international festivals and won four International awards and the movie is still in theaters.

05

MECHATRONICS SYSTEMS ENGINEERING DEPARTMENT



Professors



Head of Mechatronics Systems Engineering, Faculty of Engineering, MSA University

Prof. Mostafa Zaki Mohamed University Name: Leeds University, UK, 1985 Mansoura University 1997

Associate Professors



Assoc. Prof. Dr. Ahmed Badawy

- PhD from The University of SrathClude, UK, 2007.
- Associate Prof. in Military Technical College 2015.
- Former Head of Eng. Mechanics Department, MTC.



Assoc. Prof. Dr. Khaled N. Faris

- PhD from Cairo University, Egypt, 2006.
- Associate Prof. in Electronics Research Institute (ERI) National Research Centre (NRC) 2016



Assoc. Prof. Dr. Amgad Bayoumy

- PhD from University of Paul Sabatier, FRANCE, 2002
- Associate Prof. in Mechanical Engineering, 2020
- Former Head of Aircraft Mechanical Department, 2013.

Lecturers (PhD)



Dr. Hussein Hamdy Shehata

- PhD from Hamburg University of Technology
- GERMANY, 2014
- Assistant Prof. at Benha University, 2016
- Assistant Prof. at MSA University, 2019
- IEEE/iROS member, CLAWAR member

Assistant Lecturers



L.A. Wael Taie



L.A. Ahmed Mostafa

Teaching Assistants



T.A. Mina Sameh



T.A. Mahmoud Mostafa



T.A. Yossef Hossam



T.A. Mohamed Hazem



T.A. Abdullah **Ahmed Alamer**



T.A. Mohamed A. A. El Fayoumy



T.A. Omar M. Hassan







Mr. Emad M. Tawfik Mr. Mahmoud Gaber



1. Assoc. Prof. Amgad Bayomi

Youssef, Abdelrahman; Bayoumy, Amgad M; Atia, Mostafa R.A: "Investigation of Using ANN and Stereovision in Delta Robot for Pick and Place Applications" IIETA International Information and Engineering Technology Association, Mathematical Modeling of Engineering Problems; Vol. 8, No. 5, October, 2021, pp. 682-688.

Nada selim, Ahmed Masoud, and Amgad Bayoumy: "Driver-in-the-Loop for computer-vision based ADAS testing", Conference: 2021 3rd Novel Intelligent and Leading Emerging Sciences Conference (NILES) October 2021, DOI:10.1109/NILES53778.2021.9600491.

2. Dr. Hussein Shehata

- H. H. Shehata, Karoline Kamil A Farag, and H. El-Batsh, "Mobile Robot Obstacle Avoidance Based on Neural Network with a Standardization Technique", in Journal of Robotics, vol. 2021, Hindawi Publisher, ID 1129872, doi.org/10.1155/2021/1129872.
- **H. H. Shehata and J. Schlattman**n: "Best-Fit Parameters Optimization for Improving the Robot Path in Unknown Environments", International Journal of Robotics and Computer-Integrated Manufacturing (RCIM). In Press.

Academic Achievements

Supervision of Master and Doctoral Theses

☐ Prof. Mostafa Zaki Mohamed

- Examiner for the scientific work submitted to the Permanent Scientific Committee for Promotion of Assistant Professors and Professors in the field of Mechanical Engineering And Engineering Production since 2008 up to now.
 - Dr. Emad Aldin Farouq Alkashef Cairo University Promoted to Professor (2020).
- Examiner for The Scientific Work Submitted to the Permanent Scientific Committee for Promotion of Assistant Professors and Professors in the Field of Applied Art since 2010 up to now.
- The name "Mohamed, M.Z." is mentioned in 2113 papers uploaded to Academia.

Certifications

Dr. Khaled Faris

UoG PG Certificate in HE

- Dr. Khaled Faris has been awarded PGCert in Higher education from UoG, 11 th july, 2019.
- Dr. Khaled Faris is a Fellow of the UK higher education Academy, since 21/08/2019, under recognition reference PR 171170.





Dr. Hussien Shehata

Successful Patent Submission

- Successful Patent submission (Phase-2 completion) to the Deutsche Patent- und Markenamt (DPMA), intelligent sensor against car stealing. (2021)
- Head of R & D at Toshiba-El-Araby Group (2021 - present)
- Dr. Hussein Shehata holds a PhD from Hamburg University of Technology, GERMANY, 2014, and is a member of IEEE/iROS and CLAWAR.



TRAINING COURSES IN PNEUMATICS/ ELECTRO PNEUMATICS AND BASIC AUTOMATION IN EGT ACADEMY

















Within the framework of integrating the job marketplace with the Academic curriculum that the students study in addition to MSA University's keenness to always provide training opportunities for the students that could enhance their skills and make them able to meet the expectations of the job marketplace, ten students from Faculty of Engineering—Mechatronics Department, were able to receive training courses in Pneumatics/ Electro Pneumatics and Basic Automation in the Egyptian German Technical Academy (EGT Academy) that is in cooperation with the multinational automation company Siemens.

These training courses were held from the 28th of March, 2021 till the 1st of April and from the 25th to the 28th of April, 2021. The students have received Certificates of Competence upon their course completion.



HONORING THE STUDENTS WHO WON SECOND PLACE FOR THE EGYPTIAN SPACE AGENCY'S UNIVERSITIES SATELLITE PROJECT 2021



MSA University, Faculty of Engineering, Department of Mechatronics, honored distinguished students: Greetings to Yehia Emad Rajaa, Yara Amr Ahmed Hanai, Mohammad Hassan Al-Nimros, Iyad Khaled, Mohamed Mohamed Ahmed Sudany, Nour Aladdin Hanafi Muharram, Nader Hamid Abdel-Alim, Sarah Hisham Al-Mursi and Abdel Rahman Tarek. This is due to their winning the second place over all public and private universities for the design and implementation of the Space Exploration Rover System through their participation in the Egyptian Space Agency's Universities' Satellite Project, consisting of a Mobile Robot.











Mobile Robot collects information images, and senses the environmental factors surrounding it, navigates it by itself, retains the information, then sends it to the ground control station through a special protocol, and controls the robot through the station perform various tasks remotely. In addition to that, the possibility of collecting data showing the actual state in which it is located, from the internal state or general capacity. The honoring was attended by Prof. Dr. Mohamed Al-Qusi, CEO of the Egyptian Space Agency, Prof. Dr. Mohamed Ibrahim Iraqi, Executive Vice President of the Space Agency, Eng. Wassim Issa, Director of the Universities' Moon Project and Supervisor of Student Training, Eng. Yousry Suleiman, Head of Software Development Department at Control Stations, and a high-ranking delegation. Level of the Engineers Association. The success achieved by the student Kunouz Hossam El-Din, Faculty student of the of Engineering, Department of Mechatronics, was also celebrated for winning second place in the smart cities project of Siemens 2021.



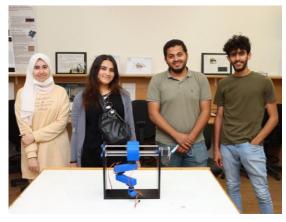




HONORING DISTINGUISHED STUDENTS OF THE ACADEMIC YEAR 2020/2021



The Faculty of Engineering at MSA University celebrated the achievements of the students of the Mechatronics Engineering Department, for the spring of 2021. Meetings were held with some of the students where they had a talk about the academic courses and their impressions on the university life.In addition, Prof. Dr. Nahid Sobhi, Dean of the Faculty, Prof. Dr. Mostafa Zaki, Head of the Department, and staff members of the department honored some students for their outstanding achievements.





A NOVEL " WHAT IS LEFT OF LOVE" IS PUBLISHED FOR MOHAMED KHALED FARRAG BY "KITABNA"











Mohamed Khaled Farrag, a student in the Department of Mechatronics, Faculty of Engineering, MSA University, has published a novel titeled "What's Left of Love" published by "Kotobna" publishing house. The novel is about the battles that in dividuals face in their love relationships. Writer and novelist Mohamed Khaled Farraj will participate in his first novel at the Cairo International Book Fair 2021.

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GENERAL SYSTEMS ENGINEERING DEPARTMENT



Professors



Head of GSE Department Prof. Hafez A. Radi



Prof. Magd Elias Kahil

April 2021 | Dr. Magd Kahil was promoted as a **Professor of Space Science** by the Supreme Council of Universities.

Associate Professors



Assoc. Prof. Ghada Abdelhady



Assoc. Prof. Mohamed S. H. Fahmy



Assoc. Prof. Nabila Nowaira

Associate Professors



Dr. Maha Ibrahim Abd El Aleem



Dr. Mohamed Khalil Ibrahim Khalil



Dr. Ahmed Mustafa Mohamed Hamed

Assistant Lecturers



LA. Noha M. M. Rashad



LA. Dahlia M. Ismail Omran



LA. Nora H. I. Shaheen



LA. Nesma Nour-Eldin Ali



LA. Hoda Anwar

Teaching Assistants



TA. Diaa Hafez Ibrahim



TA. Ateya M. S. Shawarb



TA. Esraa Sayed Hussien Ameen



TA. Farah Gamal Awad



TA. Hana Alaa M. Ali



TA. Mohamed Wael S. S. Khalil



1. Magd E. Kahil

• Kahil, Magd E. "Spinning and spinning deviation equations of bimetric type theories." Indian Journal of Physics 95.6 (2021): 1283-1293.

https://link.springer.com/article/10.1007/s12648-020-01793-5

• Distance learning in higher education during coronavirus (covid-19) outbreak, **M. Khalil**, M. Afifi, W. El-Nahal, SPC Journal of Education, 3 (1) (2020) 60-62. https://www.sciencepubco.com/index.php/JE/article/view/30788

- The New Shape of Global Higher Education in COVID-19 Era, M. Khalil, M. Afifi, SPC Journal of Education, 3 (2) (2020) 92-95. https://www.sciencepubco.com/index.php/JE/article/view/31052
- M. Khalil, M. Said, A. Ibrahim, M. Gamal, M.A. Mobarak, Tracking Comets and Asteroids Using Machine Learning and Deep Learning: A Review, International Journal of Advanced Astronomy, 9 (1) (2021) 26-27.

https://www.sciencepubco.com/index.php/IJAA/article/view/31466

- Dark comets: the cosmic catastrophic threat to earth, **M. Khalil**, M. Said, H. Osman, N. Younis, N. Khaled, Y. Amr, N.A. Mohamed, A. Ibrahim, IJAA, 8 (1) (2020) 27-28. https://www.sciencepubco.com/index.php/IJAA/article/view/30740
- The Dazzling Comet C/2020 F3 (NEOWISE): The Comet of The Century, M. Khalil, M. Said, H. Osman, N. Younis, N. Khaled, Y. Amr, N.A. Mohamed, A. Ibrahim, IJAA, 8 (2) (2020) 35-36. https://www.sciencepubco.com/index.php/IJAA/article/view/31149

2. Mohamed Said Hussein

- The Dazzling Comet C/2020 F3 (NEOWISE): The Comet Dark comets: the cosmic catastrophic threat to earth, M. Khalil, **M. Said, H.** Osman, N. Younis, N. Khaled, Y. Amr, N.A. Mohamed, A. Ibrahim, IJAA, 8 (1) (2020) 27-28. https://www.sciencepubco.com/index.php/IJAA/article/view/30740
- The Dazzling Comet C/2020 F3 (NEOWISE): The Comet of The Century, M. Khalil, M. Said, H. Osman, N. Younis, N. Khaled, Y. Amr, N.A. Mohamed, A. Ibrahim, IJAA, 8 (2) (2020) 35-36. https://www.sciencepubco.com/index.php/IJAA/article/view/31149
- M. Khalil, M. Said, A. Ibrahim, M. Gamal, M.A. Mobarak, Tracking Comets and Asteroids Using Machine Learning and Deep Learning: A Review, International Journal of Advanced Astronomy, 9 (1) (2021) 26-27. https://www.sciencepubco.com/index.php/IJAA/article/view/31466

3. Ghada Abdelhady

- Ghada Abdelhady, Y. H. Elhabashy, A. I. Ahmed, A. Zaki "Egyptian Icities planning based on deep learning," International Conference, The path to city resilience, held in MSA University, October 10-11, 2020, Egypt.
- Ghada Abdelhady, M. Abdelmouez, "Survey on IoT Based Education System, Case study: MSA University," 3rd Smart Cities Symposium (SCS 2020), p. 498 502, DOI 10.1049/icp.2021.0929, September 21-23, 2020, IEEE.

https://ieeexplore.ieee.org/document/9545513

https://digital-

library.theiet.org/content/conferences/10.1049/icp.2021.0929

Ghada Abdelhady, Y. H. Elhabashy, A. I. Ahmed, "Deep-Learning and IoT Emphasis in I-Cites," 3rd Smart Cities Symposium (SCS 2020), p. 214 – 219, DOI 10.1049/icp.2021.0928, September 21-23, 2020, IEEE.

https://ieeexplore.ieee.org/document/9545513

https://digital-

library.theiet.org/content/conferences/10.1049/icp.2021.0928

4. Noha Mostafa Rashad

- N. M. Rashad and A. A. M. Khalaf, "Modified Design and Fabrication of a broadband Millimeter-Wave Ankh-Key Antenna for 5G and Next Generations Applications," 2020 International Conference on Innovative Trends in Communication and Computer Engineering (ITCE), 2020, Aswan, Egypt, pp. 322-325, DOI: 10.1109/ITCE48509.2020.9047793.
- N.M. Rashad, Ashraf A.M. Khalaf, "Design and Simulation of Millimeter-Wave Broadband Modified Ankh-Key Antenna for 5G and Beyond Technologies Applications," 17th International Learning & Technology Conference 2020 (lt2020), Jeddah. KSA, 2020
- N.M. Rashad, Ashraf A.M. Khalaf, "Design and Simulation of Millimeter-Wave Broadband Modified Ankh-Key Antenna for 5G and Beyond Technologies Applications", Procedia Computer Science, Volume 182, 2021, Pages 21-27, ISSN 1877-0509, https://doi.org/10.1016/j.procs.2021.02.004.

https://www.sciencedirect.com/science/article/pii/S18770509210046 83

Certifications and Funding

ENG. NORA SHAHEEN RECEIVES CERTIFICATIONS FROM IBM AND MICROSOFT

Artificial Intelligence Analyst 2021 - Instructor Award

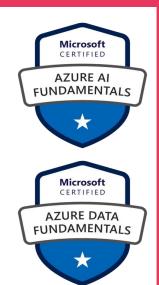
In August 2021, Eng. Nora Shaheen has been certified as AI-Analyst instructor in IBM Skills Academy for delivering AI Analyst program course on how to apply machine learning algorithms and build AI solutions by using IBM Watson.



Microsoft Certified Azure AI and Data Fundamentals

In June 2021, Eng. Nora Shaheen earned Azure AI Fundamentals certification having demonstrated foundational knowledge of machine learning (ML) and artificial intelligence (AI) concepts and related Microsoft Azure services.

Also, in November 2021, Eng. Nora Shaheen earned Azure Data Fundamentals certification having demonstrated foundational knowledge of core data concepts and how they are implemented using Microsoft Azure data services.



ASSOC. PROF. GHADA ABDELHADY RECEIVES FUNDING FOR STUDENT PROJECTS

- Received funding from the Academy of Scientific Research and Technology (ASRT) Egypt to fund the "An Efficient Speech Recognition System" project, 30,000 EGP, Fall 2020.
- Received funding from the Academy of Scientific Research and Technology (ASRT) Egypt to fund the project "Wireless controlled robotic arm using a brain-computer interface", 9,000 EGP, Fall 2020.



ORIENTATION DAY FOR THE FACULTY OF ENGINEERING FRESHMAN STUDENTS







With safety precautions being fully taken into consideration, the newcomers of the Faculty of Engineering for have been wlelcome for joining MSA University's family. As the orientation day started, the staff members of the Faculty gave a welcome speech and provided the attendees with significant amount of information that are related to the university and the faculty, such as how the credit hours system works and how the attendance, grades and GPA get calculated. Later, the students took a tour around the campus to see more of the university and its facilities. This highlights the importance of attending the orientation day!

EDITORIAL TEAM



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Dr. Karim M. Ayyad



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T.A. Jessy Tarek



L.A. Yosra Mohamed