

ASU-ENG

Newsletter

ISSUE 02

SPRING 2018

EXCLUSIVE



**FUSION SUSTAINABLE
PARTNERSHIP**



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

Issue 02 Spring 2018

Newsletter

Inside this Issue

PUBLIC EVENTS

01

INTERNATIONAL COMPETITIONS

08

WORKSHOPS, SEMINARS
& CONFERENCES

12

HONORS & AWARDS

19



Faculty of Engineering
Ain Shams
University

“ FUSION SUSTAINABLE PARTNERSHIP ”

12th of May 2018



FUSION initiative aims at strengthening the partnership between the university and industry in order to realize the vision of the Country 2030 and contribute to the development of the Egyptian industries in all engineering fields in particular and the advancement of the Egyptian economy in general. It comes under the auspices of the Council of Ministers and the Ministry of Higher Education and Scientific Research.



The implementation of the fusion initiative will be on two parallel axes that complement each other; where the first is starting the implementation of the integrated plan for the development of laboratories and training workshops in the faculty, the second is establishing the "Oasis of Technology and Innovation" on the land allocated to the University Ain Shams in Abour City. The plan aims to prepare engineering graduates with innovative abilities to connect with the business community, and then involve the young graduates within the "Technology and Innovation Oasis" and engage them effectively in the world of industry and investment along with researchers and experts through the presence of companies.



On Saturday 12th of May the Faculty of Engineering, Ain Shams University witnessed a celebration for the initiation of FUSION with the presence of Prof. Abdul Wahab Ezzat, the University President, Dr. Abdul Ghaffar, Minister of Higher Education and Scientific Research, Eng. Tarek Gabeel, Minister of Commerce and Industry, Dr. Ali Gomaa the former Mufti, Prof. Abdel Nasser Snagab, Vice President for Postgraduate Studies and Research, Prof. Fathi El Sharkawy, Vice President for Education and Students Affairs, Mr. Tamer Abdel Fattah, Director of the Long Live Egypt Fund, Prof. Ayman Ashour, Dean Faculty of engineering, Prof. Omar EL husseiny, Director of Fusion, Prof. Mostafa Refat, Fusion Executive Committee Member, members of industry associations, and heads of boards of the largest industrial companies in Egypt. In the end, they all witnessed signing a cooperation protocol between the faculty and the Long Live Egypt Fund "Tahyaa Misr Fund". Also, number of cooperation protocols were also be signed with heads of industry associations and industry leaders in Egypt.



Strategic Partnership launching Tahya Misr & Faculty of Engineering Ain Shams University



The FUSION initiative at the Faculty of Engineering- Ain Shams University signed an MOU with the TAHIA MISR fund. The fund Director Mr. Tamer Abdelfattah, signed with the Faculty Dean Prof. Mohamed Ayman Ashour, for both entities to be in strategic partnership, as the faculty to act in full support to holistic technical development support in the diversity and multitude of specialities available at our Faculty. The Tahia Misr Fund is a fund that was announced as part of the initiative of President Abdel Fattah al-Sisi to support Egypt 's economy and overcome the difficult economic conditions experienced by the country and support social justice. The fund is under the direct supervision of President Abdel Fattah al- Sisi, and with the participation of the Grand Imam Ahmed al- Tayeb Sheikh Mosque of Al - Azhar , and Pope Pope Tawadros II of Alexandria Patriarch of Saint Mark, and the Governor of the Central Bank and subject to the full control of the Central Auditing Organization to follow up on aspects of spending in the framework of transparency and credibility. <https://tahyamisrfund.org/#>



The First ASU Industry Day

Wednesday 4th of April 2018

The 1st ASU Industry Day was created to bolster the strong relationship we have with our industry partners. We had speakers from 20+ companies from three countries in four main tracks in our mini conference . We had 30 major industry exhibitors looking for talents from all disciplines in our employment fair. We are glad that we were able to to serve the 2000+ guests that visited us on the day.



Many thanks to the University President, Vice Presidents, ASU Engineering Dean, and the University of Sussex Dean of Engineering for kicking off the day. A special thanks also goes to our sponsors and partners that supported us to the end. And a big thank you to the iHub Team and volunteers that made this come true in less than 3 weeks.



Signing Ceremony Hosted By Siemens, In Partnership With Ain Shams University

"Siemens has been a committed partner to Egypt since 1859. This long-term commitment is still intact," said Joe Kaeser. "At Ain shams university, we believe that education and youth empowerment are key to a sustainable future. This is why we are proud to work with Egypt's largest companies to educate the country's future leaders in industry, so they can support its vision to create a more diversified, knowledge-based economy."



At Ain shams university, the PLM software will be an integral component of the engineering programs. Over 35,000 Egyptian students will use the software for their Computer-Integrated Manufacturing, Robotics, Industrial Design, Work Design, Ergonomics, Material Science and Materials Processing courses and projects. Additionally, it will enable them to create digital twins (simulated versions) of their final products as a more efficient alternative to creating a physical prototype.



The grant was announced at a signing ceremony hosted by Siemens, in partnership with Ain shams university, and in the attendance of Egypt's Minister of Investment, Ain Shams university dean Dr. Ayman Ashour and International Cooperation, Dr. Sahr Nasr; Joe Kaeser, President and CEO of Siemens AG as well as Siemens executives.

TUM visit Cairo



TUM Global Incentive Fund

Ain Shams University and American University in Cairo
18th-22nd March

TUM Global Incentive Fund is a project that aims at establish future research collaboration between the Institute of Energy Efficient and Sustainable Design and Building in TU Munich and two of the most distinguished universities in Egypt and the MENA region, Ain Shams University and the American University in Cairo. The expected result of the project is to develop a joint application for third-party funding. The suggested topic for the joint research proposal is the development and construction of a Net-zero energy building prototype with a positive ecological footprint in Egypt.



Department of Architecture, Faculty of Engineering Ain Shams university hosted a delegation from TUM: Prof. Werner Lang (Professor of Energy Efficient and Sustainable Design and Building and the Head of the chair for Energy-efficient and Sustainable Design and Building, TU München), Dr. Wael Mousa (Postdoc), Mahmoud Gadelhak, M.Sc. (PhD candidate), Hannes Harter, M.Sc. (Research Assistant), Micheal Vollmer, M.Sc. (Research Assistant) all from the Chair for Energy-efficient and Sustainable Design and Building, TU München. On Sunday 18th of March 2018, an open seminar was held in the MPU in the CHEP building where an overview on both institutes and their teaching and research strategies was presented.

Then, a second meeting between the faculty members from the German Partner and Prof. Mostafa Refat (Prof. of Architecture, ICO director and the Unit Head of Environmental Architecture and Urbanism Program), was held at the Department of Architecture, ASU on Tuesday 20th March 2018 to discuss ways of research co-operation and partnerships between the two universities in the field of architecture and sustainable construction. Also, funding opportunities available at the DAAD were discussed with the presence of Mrs. Heba Afifi from TUM Liaison office Cairo.

As a next step it was agreed to organize an Industry Round Table discussion with both universities and representatives of the Egyptian building industry to discuss the initiation of a Living Lab for Energy Positive Buildings and Infrastructure. An approximate date for the meeting which should take place in Cairo was suggested to be in late May or early June 2018.

The Completion of The First Phase for Education Revolution in our Faculty

The first phase for Education Revolution in our Faculty; the workshop on Enhancing Engineering Education organized by KTH for ASU staff was completed. All in all, 40 ASU staff members attended this workshop from all departments and covered all types of programs.

One of the best outcomes of these workshops was that the ASU staff got to know each other better, and most important that they got to know that our Faculty is full of Excellent teachers who can really make a big impact on Engineering Education in Egypt.



We would like to Acknowledge the Erasmus+ Programme for funding these trips, and would like to Acknowledge the Group for Advanced Research in Dynamic Systems (ASU-GARDS) for re-allocating part of the budget for the four running projects with KTH to finance these trips. We would like to thank Dr. Wael Akl and Dr. Adel Elsabbagh with whom they are cooperating to run these projects, and last but not least the Accountant Mohamed Elgendy



Arbitration of the first International Design Competition for Zero Energy Residential Unit in Egypt

<http://isc.eng.asu.edu.eg/>
Sunday 25th of March 2018



The Environmental and Urbanism Research Center at Ain Shams University announce the first international design competition for all professional practitioners of Architecture and senior students to design a "TYPICAL ZERO-ENERGY RESIDENTIAL UNIT" to help improving the sustainable development within the building sector in Egypt. This competition challenges participants to improve the sustainability of the communities in which it works by supporting the development and delivery of innovative, sustainable residential building solutions. These efforts will minimize the negative impact of residential sector construction on the environment, reduce the energy and resource consumption of neighborhoods, and increase the economic sustainability of low-income families. Registration was open online through an official web page <http://isc.eng.asu.edu.eg/> and prizes were announced for three winners and three mentions. Contributions came from many countries and extended to include competitors from the Middle East, Europe and China that enrich the outputs and methods of handling different and how to deal with the challenges of the environment and the Egyptian climate.

ZERU Competition

VISION
"To improve the Sustainability of Communities by Supporting the Development and Delivery Of Innovative Building Solutions."

OBJECTIVE
The objective of the competition is to develop a 'Typical Zero-Energy Residential Unit Design'. The proposed design should at least reach 'Zero-energy consumption levels' or even 'Energy producing' levels through photovoltaic panels, smart grids, local treatment and freshwater generation in the building sector in Egypt.

COMPETITION TIMELINE
Competition Announcement: 18th of December 2017
Registration Deadline: 25th of February 2018
Submission Deadline: 1st of March 2018
Public Announcement of winners, press conference and opening exhibition: 25th of March 2018

JURY COMMITTEE
Prof. Mohamed Ayman, Ain Shams University
Prof. Sherif El-Din, Ain Shams University
Prof. Yousef Mousa, Member
Prof. Hagar Madaia, Member
Prof. Mohamed Anis, Member
Prof. Ghassan Karam, Member
Dr. Hana Elshahhat, Member

ORGANIZING COMMITTEE
Prof. Hebatalla Bahig
Dr. Ayman Farid
Eng. Mohamed Farid
Eng. Elwanis Farid
Eng. Hebatallah Gohar

PRIZES & AWARDS
The 1st prize winner: 5000 US Dollars
The 2nd prize winner: 2000 US Dollars
The 3rd prize winner: 1000 US Dollars

SPONSORED BY:
ASRAU MSR, ITCO, SIDA, etc.



The competition was sponsored by ABRAJ MISR urban development, ARCH PLAN architects and planners, and ARDIC for real estate development. Competition Organizing Committee: Prof. Mostafa Refat (competition Chair) and Dr. Ayman Farid with the supporting team Eng. Hussein Farid, Eng. Fatma Fathy, Eng Hebatallah Soliman. Competition Jury committee were professors of Architecture with different specialization: Prof. Yasser Mansour (Professor of Architecture, Ain Shams University), Prof. Moemen Afify (Professor of Architecture, Cairo University), Prof. Ahmed Abdeen (Professor of Architecture, Cairo University), Prof. Hanan Sabry (Professor of Architecture, Ain Shams University), Prof. Shaimaa Kamal (Professor of Architecture, Ain Shams University), Dr. Heba Elsharkawy (Lecturer, University of East London). Winners were then announced and projects were presented in SDBE 2nd sustainable workshop in Sonesta Hotel, Cairo at the end of March.



An Exhibition for the winning projects, honorable mentions, and selected projects was held at the Faculty of Engineering Ain Shams University. The projects were displayed in the Architecture building ground floor, inside the Architecture Research and Consultancy Unit,



Microsoft Egypt Announces National Winners of 16th Imagine Cup at An event at Ain Shams University

Microsoft Egypt has announced the national winners of its 2018 Imagine Cup at an event at Ain Shams University in Cairo. Now in its 16th year, the global technology competition aims to give young developers the opportunity to acquire new and critical technical, business and team-building skills — all while having fun along the way. During the first round, 21 competing teams were whittled down to just six finalists following an internal assessment by experts at Microsoft Egypt. The finalists went head-to-head, with Team "Beach Safer" emerging victorious, while the teams "Gather" and "Pharos" were adjudged second and third runners-up, respectively. The winning team received a cash prize of 30,000EGP, which was handed over by Dr. Essam Khamis, Deputy Minister of Higher Education, Azza El Shinawy, Public Sector Lead at Microsoft Egypt and Noha Labib, Education Lead at Microsoft Egypt

The Egypt winners of the 2018 Imagine Cup, will compete with other regional teams to move forward to the World finals vying for a grand prize of \$100,000, as well as the coveted Imagine Cup. "The quality of entries this year was remarkable, which is a clear indicator that technology students in Egypt are not only keeping pace with their international counterparts, but they are in a variety of ways spearheading technological innovation in the country. At Microsoft, we are proud to provide these young tech entrepreneurs the tools and the platform they need to succeed, and more importantly, make a positive difference in the world," commented Khaled Abd El Kader, General Manager, Microsoft Egypt.



Through Imagine Cup, the world's young, aspiring entrepreneurs and developers collaborate to build a technology application, create a business plan and gain a keen understanding of what is needed to bring a concept to market. Microsoft advocates that in a cloud-first, mobile-first world, creators and makers must work together to create a cloud for global good.



ASU Student's Proposal Ranked Among The Top 10 in The 2018 Undergraduate Seismic Design Competition

Los Angeles California, June 26th – 29th, 2018

Over 30 teams from universities across the US and around the world will be competing in the SDC. Each team has designed a complex tall building model made from balsa wood that will be tested on a shaking table. Student teams are judged on their oral design presentation, their summary poster, the model's architectural design, their ability to fit within the design criteria and constraints, their analytical prediction of their model performance, and the response of their model during shaking table testing.

The objectives of the competition are to:

Promote the study of earthquake engineering among undergraduate students.

Provide civil engineering undergraduate students with an opportunity to work on a hands-on project designing and constructing a cost-effective frame building to resist seismic loading.

Promote EERI activities among civil engineering students as well as the general public, and to encourage international participation in these activities.



The top ten design proposals are given below in alphabetical order:

- Ain Shams University (ASU)
- California State Polytechnic University, Pomona (Cal Poly Pomona)
- Cornell University
- Stanford University
- Technical University of Cluj-Napoca (TUCN)
- University of California, Berkeley (UCB)
- University of California, Irvine (UCI)
- University of California, Los Angeles (UCLA)
- University of Colorado, Boulder (CUB)
- University of Texas at Austin (UT Austin)



International Collaborative Design Studio



Architecture Graduation Project, Spring 2018

The first graduation project for architecture students combines three continents to support tourism development in Hurghada. The students visited the project site, which includes the tourist walk and the Marina area, to study how to develop these areas in order to prepare a graduation project that is compatible with the tourism development plan for the Red Sea.

Major General Ahmad Abdullah, Governor of the Red Sea, received Dr. Ayman Ashour, Dean of the Faculty of Engineering at Ain Shams University. He was led by a delegation of 20 students from the Faculty of Engineering at Ain Shams University and 21 students from the Faculty of Architecture and Urban Coordination at the University of Khou Dijong, China on 21st of March 2018.

This meeting comes within the framework of activating the joint international project between the North American continent, represented by the Faculty of Architecture and Urban Coordination at Clemson University of America and Asia represented by the Faculty of Architecture and Urban Coordination, the University of Khou Dijong of China and the African continent represented by the Faculty of Engineering, Ain Shams University. This project, which is the first international experience of its kind, aims at integrating the participating students into the tourism environment of other countries, representing a national dimension that will contribute to the promotion of tourism for each of the participating countries.



The Faculty of Engineering at Ain Shams University held a celebration at Al-Zaafan Palace to honor the members of the delegation participating in the international joint graduation project, which included three continents, from the Far East to the Far West.

The ceremony was held under the patronage of Prof. Dr. Nazmi Abdul Hamid, Vice President for Community Services and Environmental Development, and Dr. Ayman Ashour, Dean of the Faculty of Engineering, in the presence of Dr. Zhao Shi, President of the University of Khou Thong Agricultural, China, Dr. Hala Nassar, Dr. Robert Hewitt, representatives of the University of Clemson, From Ain Shams University, Dr. Mostafa Refaat, Director of the Office of International Cooperation, Ain Shams University, Dr. Hossam Al-Bromboli, Head of Engineering Department, Dr. Ayman Farid, Deputy Director of the International Cooperation Office, Dr. Ahmed Khaled, Team Leader, Eng. Mai Adel and Eng. Nada Tarek.

Dr. Ayman Ashour honored the representatives of the three universities from the faculty members and the and the organizers of the project, then honored all the participating students and handed over certificates of honor to them.



The International Joint Graduation Project Honoring Ceremony

Wednesday 4th of April 2018

The Faculty of Engineering at Ain Shams University held a celebration at Al-Zaafran Palace to honour the members of the delegation participating in the international joint graduation project, which included three continents, from the Far East to the Far West. The ceremony was held under the patronage of Prof Dr. Abdulwahab Ezzat the University President, and the presence of Prof. Dr. Nazmi Abdul Hamid, Vice President for Community Services and Environmental Development, and Prof. Ayman Ashour, Dean of the Faculty of Engineering, Dr. Zhao Shi, President of the University of Khu Thong Agricultural, China, Dr. Hala Nassar Prof. of Lansdscape at Celmsom University USA, Dr. Robert Hewitt, representatives of the University of Clemson, and from Ain Shams University, Prof. Mostafa Refat, Director of the International Cooperation Office at the Faculty of Engineering, Ain Shams University, Dr. Ayman Farid, Deputy Director of the International Cooperation Office, Dr. Hossam AL-Barmbali, Head of Architecture Engineering Department, , Dr. Ahmed Khaled, Team Leader, Engineer Nadi Tareq and Engineer Mei Adel from the Architecture Department.



Prof. Ayman Ashour, Dean of the Faculty of Engineering, thanked the members of the delegation and congratulated them on the completion of the first phase of the project. He concluded that this collaboration is running since 12 years on an annual basis.

The participants were invited to continue the march and complete the second phase of preparation and final vision after returning home. He also pointed out that it was agreed with the faculty members of the three universities to issue the Digital book on the contents of the project and distributed throughout the world to be the first joint international project, for this project to become the beginning of a future full of fruitful and constructive projects between the three universities. In the same context, Dr. Zhao Shi, president of the University of Khodong, China, expressed his deep interest in the cooperation with the University of Ain Shams, the ancient university that bears the civilization of the past and the bright future, and invited the students of Ain Shams University to complete their studies at a university in CHINA.

Then, Prof. Ayman Ashour honored the representatives of the three universities from the members of the Board and the organizers of the project, then honoured all the participating students and handed over certificates of honour to them.

At the end of the ceremony, he exchanged souvenirs and took some pictures from inside the palace of Saffron, hoping to expand the cooperation for the upcoming future cycles.

Public Lectures

The faculty of engineering at Ain Shams University have organized a set of important and remarkable public lectures. The following are some of these lectures:

Rural Connectivity: Opportunities, Challenges and a Solution for Senegal

Dr. Assane Gueye
Assistant Professor - University Alioune Diop of Bambey Senegal
Research Associate - University of Maryland College Park
Guest Researcher - National Institute of Standards and Technology (NIST)

Dr. Assane Gueye is currently an Assistant Professor at the University Alioune Diop of Bambey Senegal. He also holds a Research Associate position with the University of Maryland in College Park and a Guest Researcher position with the National Institute of Standards and Technology (NIST). He received his PhD in Communication Systems Engineering from the University of Colorado in Broomfield, in May of 2011. He also holds an engineering degree in Communication Systems from Ecole Polytechnique Fédérale de Lausanne (EPFL). Dr. Gueye's research interests fall in two main areas: Innovative and Communication Technologies for Development (ICT4D) and ICT Security (CT). His current work includes developing models algorithms to quantify the resilience of large-scale complex systems and building a test-connectivity network in Senegal.

In this talk, I will explore the potential benefits offered by ICT networks. Then, I will talk about challenges to implementing such a network. Finally, I will present a solution we are currently developing in the state of Senegal, a city located 100km in the East of Dakar, the capital of Senegal.

Monday 12th February 2018 - 10:00 AM
IUSD Video Conference Hall, Architecture Building, Ground Floor
Faculty of Engineering, Ain Shams University

Introduction To The LIVING BUILDING CHALLENGE Zero Energy Units

Amira Ayoub Hassan
A USGBC® LEED & WELL Faculty™, authorized as experienced educator with strong backgrounds in both LEED and professional education. Prior working for more than seven years as an architectural engineer at the Al Habtoor Architecture, she is a LEED® AP BD+C and a WELL AP®, she also holds the credentials of a Green Globes Professional® and a Green Classroom Professional®.

Amira is using Future Accelerator™ and a Building Design Accelerator, she is collaborating with the International Living Future Institute™ of Collaborative Institute and Business Impact Collaborative, which is the lead in look for the future in Abu Dhabi Middle East and is working on several projects for the Living Building Challenge, and also working as a sustainability consultant and educator.

The Living Building Challenge™ is the built environment's most rigorous performance standard. Pioneered by the creation of building projects of all scales that operate as clean, beautiful and efficiently as natural landscapes, the program is led by the International Living Future Institute. It is a certification program that covers all building or all scales and is a unified tool for transformative design.

Learning Objectives:

- Identify the key components of the Living Building Challenge.
- Identify the Living Building Challenge's key performance indicators.
- Understand how the public and private work within the Living Building Challenge certification.
- Describe the different systems and components of a Living Building Challenge unit.

THE COURSE IS APPROVED FOR 1 AIA LUSIVE CREDIT, 1 GBCI CE, AND 1 USGBC FUTURE ACCREDITATION AND CE UNIT

Thursday 15th February 2018 - 10:00 AM - 11:30 AM
CHEP - MPU
Credit Hours Engineering Programs Building, Ground Floor
Faculty of Engineering, Ain Shams University

Zohr from dream to fact

Hesham Helmy El Khaffif
General Project Manager in Bechtel Petroleum Company Zohr offshore and Subsea manager

Hesham El Khaffif (1980) is a General Project Manager in Bechtel Petroleum Company since January 2017 and Subsea manager since November 2016. He has been a member of staff activities as Project Projects to different Oil and Gas projects. Hesham El Khaffif holds various positions of increasing responsibility of technical. He worked in several Oil & Gas Development Projects such as Gas development facilities including IP compressors and Long Distance Pipelines for more than 200 km including Iraq, Oman.

In addition to the above, he worked as Project Manager for Gasnet & Estimation (G&E) Subsea development Project.

Since November 2016 up to now he is working as Zohr Offshore & Subsea Manager.

Saturday 05th May 2018 - 10:00 AM
CHEP - MPU
Credit Hours Engineering Programs Building, Ground Floor
Faculty of Engineering, Ain Shams University

Systems Engineering: a Paradigm Shift towards Sustaining Life on Earth

Prof. Mohsen Tawfik
Institute of Environmental Studies and Research Ain Shams University

The last decade have witnessed a historical paradigm shift in the way we view life on earth. At last the dominant Cartesian-Newtonian-mechanistic model of life has been challenged by the developed systems view of life, represented by the observations in the field of systems sciences including systems engineering in particular. The presentation sheds light on the main concepts and developments of systems sciences including systems engineering, general systems theory and systems thinking with inputs from organic biology, ecology, theories of stability, quantum mechanics, psychology (cognition, consciousness, choice theory, fractals, geometry and modern mathematics).

It is a field to show how systems engineering, as an interdisciplinary field that focuses on design, modeling and managing complex systems over their life cycles, could play a decisive role in meeting the essential problems caused by the old paradigm and sustain life on earth.

أحدث العقد الماضي قد شهد تحولاً تاريخياً في الطريقة التي ننظر بها للحياة على الأرض. أخيراً، النموذج الكارتي-نيوتن-الميكانيكي السائد للحياة قد تم تحديده من قبل وجهة النظر المتطورة للأنظمة، المتمثلة في الملاحظات في مجال العلوم الأنظمة بما في ذلك الهندسة الأنظمة بشكل خاص. العرض يسلط الضوء على المفاهيم الرئيسية والتطورات في العلوم الأنظمة بما في ذلك الهندسة الأنظمة، ونظرية الأنظمة العامة ونظرية الأنظمة بشكل عام. يقدم مدخلات من البيولوجيا العضوية، والبيئة، ونظريات الاستقرار، وميكانيكا الكم، وعلم النفس (التفكير، والوعي، ونظرية الاختيار، والهندسة الكسوفية، والهندسة الحديثة والهندسة الرياضية).

هذا المجال لتبين كيف يمكن للهندسة الأنظمة، كمجال متعدد التخصصات يركز على التصميم، النمذجة وإدارة الأنظمة المعقدة على مدار دورة حياتها، أن تلعب دوراً حاسماً في معالجة المشاكل الأساسية التي تسببها الرؤية القديمة للحياة واستمرار الحياة على الأرض.

Sunday 29th April 2018 - 1:00 PM
Seminar Rooms, Library Building, Third Floor
Faculty of Engineering, Ain Shams University

Rural Connectivity: Opportunities, Challenges and a Solution for Senegal

Introduction To The LIVING BUILDING CHALLENGE Zero Energy Units

Zohr from dream to fact

Systems Engineering: a Paradigm Shift towards Sustaining Life on Earth



Dr. Assane Gueye
Assistant Professor - University Alioune Diop of Bambey Senegal
Research Associate - University of Maryland College Park
Guest Researcher - National Institute of Standards and Technology (NIST)

Amira Ayoub Hassan
A USGBC® LEED & WELL Faculty™, authorized as experienced education. she is a LEED® AP BD+C and a WELL AP®, she also holds the credentials of a Green Globes Professional® and a Green Classroom Professional®.

Hesham Helmy El Khaffif
General Project Manager in Bechtel Petroleum Company Zohr offshore and Subsea manager

Prof. Mohsen Tawfik
Institute of Environmental Studies and Research Ain Shams University

Monday 12th February 2018 - 10.00 AM IUSD Video Conference Hall, Architecture Building, Ground floor Faculty of Engineering, Ain Shams University

Thursday 15th February 2018 - 10.00 AM CHEP - MPU Credit Hours Engineering Programs Building, Ground Floor Faculty of Engineering, Ain Shams University

Saturday 5th May 2018 - 10.00 AM CHEP - MPU Credit Hours Engineering Programs Building, Ground Floor Faculty of Engineering, Ain Shams University

Sunday 29th April 2018 - 1.00 PM Seminar Room, Library Building, Third Floor Faculty of Engineering, Ain Shams University

ICT in Cultural Heritage seminar Faculty of Engineering - Ain Shams University

Monday 9th of April 2018

The first ever Thematic Networking Seminar under the title "ICT for Cultural Heritage" at Ain Shams University - Faculty of Engineering was successfully organized. Representatives from many universities and different horizons (Engineering, Archeology, Arts, Tourism, Science, etc.), and from the DAAD, Italian Cooperation and the EU... attended that seminar.

"The more important than the funding, is the networking and the good idea", this is an approximate quote from Claudio MARGOTTINI during his speech.

We managed to enhance and create new networks between scholars and practitioners interested in Cultural Heritage and Technology.

Dr. Tamer ELNADY and his team played a significant role as well as the team at the NEO-EGYPT.



SDBE 2nd Sustainable Workshop



Stakeholder Consultation Workshop Interdisciplinarity & Employability in Architecture Education



Sustainable Development of the Built Environment (SDBE)
Sunday 25th of March 2018

A stakeholder consultation workshop was organized and took place in Sonseta Hotel in Cairo under the title of "INTERDISCIPLINARY AND EMPLOYABILITY IN ARCHITECTURE EDUCATION". The aim of the workshop is to determine the needed 'Knowledge-based Skills' for Egypt's multidiscipline construction sector which aspires to advance sustainability in the built environment. It is the 2nd stakeholder consultation workshop that took place as one of the BC-SDBE project activities between the Faculty of Engineering Ain Shams University (FoEASU) and the University of East London (UEL). The workshop started with a welcoming speech by Prof. Ayman Ashour (Faculty Dean) and the aim of the workshop was introduced by Prof. Mostafa Refat (the Egyptian leader of BC-SDBE). Dr. Heba El Sharqawi (Principal investigator BC-SDBE) and Mr. Jack Clough (Research Assistant) from University of East London gave their speeches about education for sustainability. Then, Key note speeches were presented by Prof. Sherif Hammad (former Minister of Scientific Research in Egypt) and Arch. SeifAllah A. Alnaga (President of SEA).



Afterwards, workshop participants who were formed of academics, professionals, NGO, and Industry representatives as well as members from relevant Governmental bodies interacted and discussed in round tables two main themes: 1) interdisciplinary in architecture education, 2) Employability in architecture education. The workshop participants were divided into six groups each with moderator. The first round started with a 45 minutes discussion, then all six moderators switched tables in the second round starting another 45 minutes on the second theme. Each moderator started with welcoming the group and gave them a brief introduction of the theme to be tackled raising main questions that steered up the discussion.



2nd Cycle of BC-SDBE Training in London Sustainable Design Principles: Low Carbon Strategies

1st – 13th of April 2018



The aim of the BC-SDBE project is to build capacity in education, research, innovation, and exploitation of state-of-the art sustainable development strategies from a holistic sustainable development approach as an influential initiative to meet socio-economic demands in Egypt, <http://newton-sdbe.uk/>. Among the project activities, three training programs were planned to take place in London for a group of professors, lecturers and teacher assistants.



The first cycle of BC-SDBE training in London was the first step in the collaboration between Ain Shams University (ASU) and the University of East London (UEL). A group of delegates from Ain Shams visited the University of East London between the period of 3/09 and 11/09/2017, the group was lead by the Dean of the Faculty of Engineering, along with the Director of Credit Hours Engineering Programmes, and the Head and Coordinator of the Environmental Architectural and Urbanism Programme (ENVR).



The Second training event took place at the University of East London (UEL) in April 2018. The overall theme of the programme is Low Carbon Design Strategies and Renewable Energy. The training provided an in-depth understanding of low carbon technologies covering the technical design aspects, embodied energy and capital and running costs incurred when integrating strategies and systems into new and existing buildings. The training sessions comprised lectures, workshops and specialist software training; Integrated Environmental Solutions (IES-VE). Guest speakers from the Chartered Institution of Building Services Engineers (CIBSE), UK Green Building Council (UK GBC) and Building Research Establishment's Academy ran specialist workshops. Lectures were also facilitated by experts from UEL and the UoS. Site visits to Kings Cross area, the Olympic City in London, BRE Innovation Park, and office visits to Zaha Hadid Gallery have contributed in linking low carbon design principles with practice.



BC-SDBE Conferences



International Conference for Sustainable Design of the Built Environment (SDBE) was held in The Crystal, London, UK on 20th and 21st December 2017. The 2nd will be held on the 12th and 13th of September 2018, <http://newton-sdbe.uk/conferences/sdbe-2018/>. The SDBE conference is a unique opportunity for academics, researchers, architects, urban designers, engineers, building consultants and professionals to meet and share the latest knowledge, research and innovations on low carbon building design, building performance, simulation tools and energy efficient building related technologies. The conference focuses on sustainable design, building energy performance, sustainable planning of neighbourhoods and cities emphasizing a balanced approach to environmental, socio-economic and technical aspects of sustainability. The conference form a platform to demonstrate state-of-the-art strategies and best practice across the world for integrating sustainable development approaches in the built environment. Papers submitted and presented at SDBE are published in the conference proceedings with a unique ISBN.

Extended conference papers are invited for publication in a special issue of Sustainable Cities and Societies journal or a special issue of Arch-IJAR.

SECOND INTERNATIONAL CONFERENCE
for Sustainable Design of the Built Environment:

Research in Practice

Date: 12-13 September 2018
Venue: London

Conference Themes

- Education for sustainability
- Energy efficiency in buildings
- Low and zero carbon design strategies
- Environmental design strategies in practice
- Building performance evaluation and optimisation
- Thermal comfort, health and wellbeing
- Building performance simulation
- Building Information Modelling (BIM)
- Sustainable construction technologies
- Renewable energy and green technologies
- Sustainable urban design
- Resource efficiency

Key Dates

Abstract Submission Deadline: 23rd Feb 2018

Abstract Acceptance Notification With Comments: 16th March 2018

Full Paper Submission Deadline: 1st June 2018

Full Paper Acceptance Notification With Comments: 2nd July 2018

Deadline For Full Paper Submission: 3rd August 2018

Free conference registration for accepted papers funded by the British Council: 10th August 2018

Organizing Committee

University of East London	Ain Shams University
Dr. Heba Elsharkawy	Prof. Ayman Ashour
Prof. Hassan Abdalla	Prof. Mostafa Refai

We are pleased to announce the open call for papers to the Second International Conference for Sustainable Design of the Built Environment: Research in Practice (SDBE 2018) organised in London, UK on 12th-13th September 2018 (venue TBC). SDBE 2018 conference will be a unique opportunity for researchers, academics, architects, urban designers, engineers, building consultants and professionals to meet and share the latest knowledge, research and innovations in sustainable building design, building performance, simulation tools and low carbon building related technologies.

More information on submissions:
<http://newton-sdbe.uk/conferences/sdbe-2018/>
For Inquiries:
info@newton-sdbe.uk



7Th Annual International Ain Shams University Conference "Internationalization and Mobility"



In April 2018, Ain Shams University (ASU) convened its 7th annual international conference "Internationalization and Mobility." The conference target was to emphasize the role of ASU in developing various systems therein whether it is an educational and scientific research system or an administrative one.

The conference guest nation was China whereby Prof. Liang Guolu (Dean of Horticulture and Landscape Architecture at Southwest University, China), Prof. Wang Jing (Dean of International College at Southwest University, China), and Prof. Dingwei Ye (Vice President of the Shanghai Cancer Center, Zhongshan Hospital, Fudan University, Shanghai) attended the conference as well as other pioneer Chinese professors.

ASU has been honored also by the attendance of his excellency Prof. Nayef Bin Thaniah Al Saud (Dean of Faculty of Arts, King Saud University, Kingdom of Saudi Arabia), Prof. Soaad Abdelwahab (Dean of Faculty of Arts, Kuwait University), and Prof. Ali Al-Namla (Pervious Minister of Labor and Social Affairs at the Kingdom of Saudi Arabis) as well as other pioneer professors in the fields of History, Sharia'a (Islam for Social Services), and Mass Communication from the Kingdom of Saudi Arabia and Kuwait. In addition to the above, guest speakers from all over the world (USA, Spain, India, and Cote D'Ivoire) had given fruitful sessions throughout the conference.

The conference was held on the 2nd of April and ended on the 5th of April, 2018 enclosing five different scientific sectors; Engineering, Agriculture, Humanities, Medical, and Basic Sciences. The Engineering Sector sessions were held on the 4th of April. The scientific organizing committee of the Engineering Sector was very keen to present the updated scientific achievements in Engineering and Environment as well as Information Technology and where does Egypt stand in relation thereto.

On the last day of the conference, a closing ceremony was held during which the international Eng. Hani Azer, who graduated from the ASU Faculty of Engineering, has been granted an Honorary Doctorate by ASU. The members of the Scientific Organizing Committee of the Engineering Sector are as follows:



Prof. Dr. Ghada Bassioni
Head of the Engineering Sector
Professor
Department of Engineering Physics and Mathematics
Chemistry Division
Faculty of Engineering, Ain Shams University



Ms. Yousra K. Hemdan
Teacher Assistant
Department of Environmental Economic, Legal, and Management Sciences
Institute of Environmental Studies and Research
Ain Shams University



Eng. Alaa Mohsen Abdel Aziz Ahmed Shehata
Teacher Assistant
Department of Engineering Physics and Mathematics, Chemistry Division
Faculty of Engineering, Ain Shams University



Eng. Mahmoud Mohamed Abdel Momen El Sayed
Teacher Assistant
Department of Public Works
Faculty of Engineering
Ain Shams University



Eng. Ahmed Abdel Hamid Mamoun
Teacher Assistant
Department of Engineering Physics and Mathematics
Chemistry Division
Faculty of Engineering, Ain Shams University



Ain Shams University, Faculty of Engineering Awards

The General Directorate of Scientific Research at the University annually provides Ain Shams University Awards celebrating achievements of selected professors of the university. The selection criteria for the awards include international scientific publications, local scientific publication, supervision of projects, attendance of international conferences, etc...

Professors that were awarded by Ain shams university from the faculty of engineering this year are:



Prof. Dr. Mohamed Hazem

Design and production department, Technological science award.



Prof. Dr. Hany Fikry

Communication department, Engineering science award.



Prof. Dr. Mohamed Fathy

Architecture department, Architecture award.

Best Thesis Award in 2017 from The Faculty of Engineering

During the closing ceremony of the 7th scientific conference organized by Ain Shams University, and in the presence of Prof. Dr. Khaled Abdel Ghaffar, the minister of higher education and Prof. Dr. Abdel Wahab Ezzat Ain Shams university president, the master thesis of George Albert Adib, a teacher assistant in the department of Electronics and Electrical Communications Engineering was awarded the best thesis award in 2017 from the faculty of engineering. The master thesis entitled "Coupled Cavities Ring Laser" was under the supervision of Prof. Dr. Diaan Khalil and Dr. Yasser M. Sabry and lead to 8 international scientific publications.



George Albert Adib

Teacher Assistant, Department of Electronics and Electrical Communications Engineering. Faculty of Engineering, Ain Shams University

The New NARS 2018

Ain Sham University – Faculty of Engineering always sharing activities with the National Authority for Quality Assurance and Accreditation of Education (NAQAAE). The director of the Continuous Improvement and Quality Assurance Unit (CIQAU) in the faculty, shared the assigned committee to issue the new NARS 2018 based on competencies, released April 2018. Also he shared accreditation committee assigned to Aswan University Faculty of Engineering (April 2018) and Future University – Faculty of Engineering & Technology (May 2018).



Prof. Dr. Gamal M. Hashem

Director of "Continuous Improvement & Quality Assurance Unit"
 CHEP - Quality Coordinator
 Department of Electrical Power and Machines
 Faculty of Engineering, Ain Shams University

Best Paper Award in The 35th National Radio Science Conference (NRSC 2018)

Amr Osama Ghoname, a Teaching assistant and Msc student at Electronics and Communication (ECE) Department, Class 2016, has recently published a paper that was honored to win the best paper award in the 2018, 35th National Radio Science Conference (NRSC 2018). It's a part of his research work in the Optical Communication and Laser Lab (OCLL) and was funded by the technology innovation and entrepreneurship center (TIEC) in Egypt.

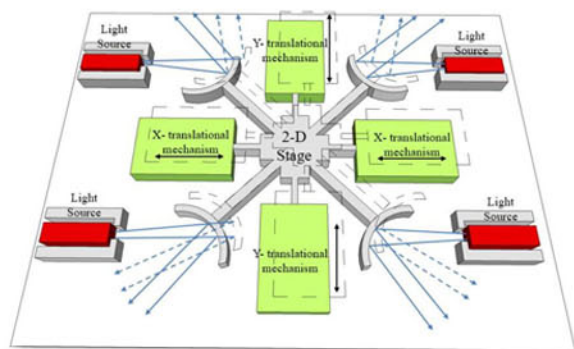


Illustration of the proposed idea in the paper



Photo of the paper's 1st author (Amr Ghoname) and advisor (Dr. Yasser Sabry)



Group Photo in the conference with Prof. Diaan Khalil, Dr. Yasser Sabry and the participating team from OCLL

The paper is titled: "Omnidirectional Optical MEMS Scanner Based on Two Degrees-of-Freedom Translation of Acylindrical Micromirrors". Authors: Amr O. Ghoname, Ashraf Mahmoud, Yasser M. Sabry, Diaan Khalil.

In the paper, they presented the design and the numerical simulation of a novel omnidirectional optical Micro Electro Mechanical System (MEMS) scanner, in which the light is travelling in-plane with respect to the chip substrate. Two degrees-of-freedom (2-DOF) MEMS actuator with decoupled motion in the two in-plane directions is used to drive 4 acylindrical mirrors required for the 360-degrees scanning. The 2-DOF is needed to achieve linear displacement-to-angle conversion and uniform optical beam spot size. The actuator is capable of achieving stable static 2-DOF displacement of 110 μm at an applied voltage of 30 V in a total design area of (5mm*5mm).



Faculty Academic Selected as TWAS Young Affiliate 2017-2021



Dr. Yasser M. Sabry, an Assistant Professor in the Electronics and Comm. Engineering Dept. has been selected as the Young Affiliate for 2017-2021 by The World Academy of Sciences Arab Regional Office (TWAS-ARO). The Young Affiliates must live and work in a developing country and have an excellent record of accomplishment of at least 10 international publications. Their selections were based on the merits of their contribution to the advancement of science. Every year, TWAS's Regional Offices select up to 25 scientists younger than 40 as Young Affiliates. During their five-year tenure, Young Affiliates build networks with other affiliates, with elected TWAS Fellows, and attend international conferences such as the TWAS General Meeting.

TWAS – The World Academy of Sciences for the advancement of science in developing countries – works to support sustainable prosperity through research, education, policy and diplomacy. TWAS is a global science academy based in Trieste, Italy. TWAS was founded in 1983 by a distinguished group of scientists from the developing world, under the leadership of Abdus Salam, the Pakistani physicist and Nobel laureate. They shared a belief that developing nations, by building strength in science and engineering, could build the knowledge and skill to address such challenges as hunger, disease and poverty.



Ass. Prof. Yasser M. Sabry

Assistant Professor
Department of Electronics and Communication
Engineering
Faculty of Engineering, Ain Shams University

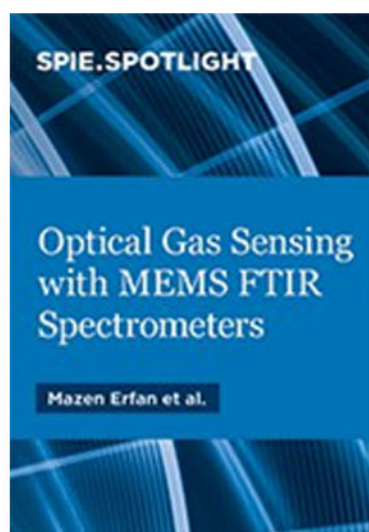
New SPIE SPOTLIGHT Book Authored by Faculty Members

Eng. Mazen Erfan, Dr. Yasser M. Sabry, Dr. Marwa M. Ragheb and Prof. Diaan A. Khalil have authored a book on optical gas sensing using the MEMS FTIR spectrometers. This Spotlight focuses on the use of MEMS Fourier-transform infrared spectrometers as a core building block in optical gas sensing. Micro-optical bench technology is discussed, followed by the basics of the sensing technique. An overview of the system components and their state of the art is given, including the light source, the miniaturized interferometer and gas cell, the optical connectivity, and detection for both the near-infrared and the mid-infrared spectral ranges.

A comparison shows the pros and cons of each regime, accounting for the absorption cross-sections of the gases and the signal-to-noise performance of the system components. The impact of the limitation on the signal-to-noise ratio and spectral resolution due to miniaturization on the gas sensor performance is also discussed.

An experimental setup to evaluate the sensor performance and extract its sensitivity is explained, and experimental results of detecting acetylene and carbon dioxide gases are presented. The book concludes with a discussion of the foreseen challenges and potential.

<http://spie.org/Publications/Book/2283087>



Faculty of Engineering
Ain Shams
University

Abeer Elshater's, the RSA Egyptian Ambassador Speech on the Women's Day

The 8th March 2018 is International Women's Day, a global celebration of the social, economic, cultural and political achievements of women. Gillian Bristow remembers the fantastic work and influence of the late Doreen Massey who inspired and paved the way in understanding regional studies, space, and place. Today, at the Regional Studies Association, we wanted to raise awareness of some of the inspirational women who currently work in the fields of regional studies and regional science.

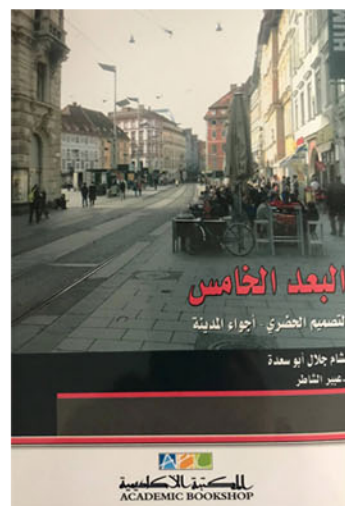
The RSA prides itself on having an internationally diverse membership and facilitates the highest standards of theoretical development, empirical analysis and policy debate of issues at sub-national levels. Abeer Elshater, the RSA Egyptian Ambassador emphasises how 'Worldwide, women possess a quintessential part of the enlightenment. Today, in the Middle East and particularly in Egypt, the role of women in terms of social stability and a woman's right to the city has doubled in importance and women are able to provide many of the answers'. Regions are a significant spatial scale for examining the nature and impacts of political, economic, social and environmental change and innovation. 'The structure of regions and cities are products of design phenomena based on contributions from different genders and age groups,' says Abeer Elshater. She continues 'Future city policy and planning practice must demand of us to consider ways to empower children, especially females in developing countries; to reflect their preferences, aspirations and visions for planning urban change.'



Assoc. Prof. Abeer Elshater
Associate Professor
Department of Urban Planning
Faculty of Engineering, Ain Shams University

The Fifth Dimension: Urban Atmospheres: Dr. Abeer Elshater's Latest Book

A recent book in Arabic of the authors Abusaada, H. and Elshater, A. The Fifth Dimension: Urban Atmospheres (April 2018) reveals the untold story of the urban design implemented in new cities according to the nature of being a singular city. The singularity of various patterns is attempting to re-emerge with a shape distinctive from the users. The meaning is that there will be a distinction, in post-singularity, from one city and the other. That is not only based on architectural form and formation but also in the differentiation of the design ideas at the level of creating the city and the implicit meaning of dead or inaccessible places of the public realm. The book comprises three questions. The first question is why the images of the new cities no longer affect the collective consciousness of the city residents like the traditional cities do? What made the absence of singularity of cities a dominant state? Moreover, how can we handle this lack of singularity possessed by cities? In perspective, the contribution of this book is that it describes a new trend and concepts of urban design to suggest an innovative approach based on the idea of 'Trans-Paradigms City' and cities of singularity.



For the idea of the book, the authors believe that many cities in developing countries and the even in the US not only the Egyptian suffers from the loss of identity. This problem matches what Aldo Rossi and Diane Ghirardo (1982) in their manuscript the Architecture of the City. The Fifth Dimension: Urban Atmospheres similar to other scholars' contributions that developed the concept, the authors of the current book try to highlight the term of singularity. The new contribution realises the link between the what literature widely discussed and the affective atmospheres in urban places. This relation can provide an answer to the question of why some areas do better than others. Further, the outcomes will provide the readers with design and urban planning approach and guidelines of good urban atmosphere that achieve the singularity.



Ramadan Iftar - FUSION

Monday 11-6-2018

An Iftar was arranged on the 26th of Ramadan this year under the auspices of the Faculty dean Prof. Mohamed Ayman Ashour and fusion members were appreciated with the attendance of the director of Fusion Prof. Omar el Hussein, Vice dean for Education and students affairs Prof. Tamer El Nady, Vice dean for graduate studies Dr. Daa Khalil, Vice dean for community and Environment and research Prof. Ismail Hafez and professors and teaching assistants from all faculty departments. The dean started his speech by congratulating the audience on the holy month of Ramadan and praising fusion team members for their efforts then group photos were taken.



Calls for Scholarships

Best Grants, Scholarships & Financial Aid for College & University Students

Recent Calls



PhD Scholarship in Engineering for International Students at Cardiff University in UK, 2018

<https://www.cardiff.ac.uk/study/postgraduate/funding/view/phd-in-engineering-optimisation-for-novel-structural-material-configuration>

Deadline September 30, 2018



RWTH International Academy Engineering Scholarship for Women in Germany, 2018

https://www.academy.rwth-aachen.de/files/rwth/downloads/ENS-Dateien/Master%20Degree%20Programs/_Uebergreifende%20Dokumente%20Master/Scholarships/Women%20in%20Engineering%20Scholarship%20Regulations%20JG%2018.pdf

Deadline March 1 each year



PhD Scholarship in Chemical Engineering at University of Nottingham Ningbo China, 2018

<https://www.nottingham.edu.cn/en/graduateschool/phd-scholarships/chemicaleng.aspx>

Deadline June 5, 2018



100 FEBE International Undergraduate Scholarships at University of Newcastle in Australia, 2018

https://www.newcastle.edu.au/scholarships/ENGB_012

Deadline Open



Master Scholarship for International Students at Technical University of Berlin in Germany, 2018/19

https://www.campus-elgouna.tu-berlin.de/v_menu/admission_process/scholarships/

Deadline June 10, 2018



Engineering International Scholarship at University of Sheffield in UK, 2018

<https://www.sheffield.ac.uk/international/enquiry/money/ugengineering>

Deadline open for the year 2018



SLTS Scholarship at Saxion University of Applied Sciences in Netherlands, 2018

<https://www.saxion.edu/site/studying-at-saxion/international/getting-started/scholarships/saxion-scholarships/living-technology-scholarship/>

Deadline September intake the deadline to apply for a scholarship is 15 April, for the February intake the deadline is 1 December.



Call for Scholarships for foreign students admitted to the Master's Degree in "Biomedical Engineering"

http://www.univpm.it/Entra/Call_for_Application_for_scholarships_for_International_students_admitted_to_the_Master8217s_Degree_in_8220Biomedical_Engineering8221

Deadline 15th June 2018.



Never Miss an Online Scholarship Deadline



European Master Scholarship Programme in Software Engineering (EMSE), 2018/2020

<http://em-se.eu/index.php/2nd-call/>

Deadline June 15, 2018



50 Melbourne Graduate Scholarships for International Students in Australia, 2018

<https://scholarships.unimelb.edu.au/awards/melbourne-graduate-scholarship>

Deadline No application is required. You will be automatically considered for this award.



Engineering (Management) Masters Scholarship for Outstanding International Students

<https://www.uts.edu.au/scholarship/engineering-management-masters-scholarship-outstanding-international-students>

Deadline 17/06/2018



Engineering International Undergraduate Excellence Scholarship

<https://www.uts.edu.au/scholarship/engineering-international-undergraduate-excellence-scholarship>

Deadline 17/06/2018



Engineering (Technical) Masters Scholarship for Outstanding International Students

<https://www.uts.edu.au/scholarship/engineering-technical-masters-scholarship-outstanding-international-students>

Deadline 17/06/2018



Masters Scholarships for International Students at Örebro University in Sweden, 2018-2019

<https://www.oru.se/english/study/master-students/scholarships/orebro-university-scholarship/>

Deadline open for the year 2018

For More Info:

info.ICO@eng.asu.edu.eg

© 2017-2018 Copyright:
All Rights Reserved to
the International Collaboration
Office -
Faculty of Engineering -
Ain Shams University



ICO