Welcome to the 2018 edition of the UBT Research Electronic Newsletter. The Research E-Newsletter is being published for its third year to share, celebrate, and recognize the research work of UBT faculty members and students, their publications, their inventions, and their awards. In this issue, you will know more about services that facilities your study and research, you will find opportunities, and you will be inspired to excel. Enjoy reading, and wishing you more publications, inventions, conferences, awards, citations, etc.

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(15)

UBT at The Learning Technology Fair & Forum
(17)

Researcher of The Month
(40)

Bupa Arabia Challenge: Talent Wins
(60)

DATES TO REMEMBER
- DEADLINE FOR SUBMISSION
- Seed Fund Program submit before 30th January
- Research Symposium participate before 28th February
- DEADLINE FOR REGISTER
- Aeronautics/Aerospace apply before 5th April 2019
- Finance and banking/Project management apply before 6th June 2019
- The Fashion Market Course apply before 9th May 2019
- Social & Eco-Entrepreneurship apply before 9th May 2019

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ABOUT US

The Deanship of Scientific Research and Graduate Studies team

OUR VISION IS
to be the leaders in research excellence, creativity, and innovation that serves the community and solves current life problems.

OUR MISSION IS
to support faculty, staff, and students to perform creative and innovative scientific research to develop the business & Technology in the Kingdom of Saudi Arabia, commercialize, transfer technology, to serve the national and international economic development needs in different business sectors.
Welcome on Board

Congratulation for your New Role as The Vice Dean of Scientific Research and Graduate Studies. We are confident that you will bring great value with your contribution.

Over 15 years of industrial experience, number of academic qualifications and variety of personal skills development programs, Mohammed is keen to combine all these gained achievements for better community serving. In industry, Mohammed joined Ohod Electric (a Saudi retailing company) back in 2000. Currently, he acts as a CEO in the same esteemed company since 2015. In academia, Mohammed is a PhD who is pursuing his research in favor of the University of Business and Technology, Jeddah, Saudi Arabia. His PhD was conferred by the department of Electrical and Computer Engineering at the University of British Columbia in 2014. Both the B.Sc. in Electrical Engineering and the M.Sc. in Industrial Engineering were received from King Abdul Aziz University back in 2001 and 2007, respectively. His principle field of research is real-time simulation of complex systems with special interest in the resource allocation optimization within interdependent systems. He is currently studying and analyzing the behavior of the modeled interconnected critical infrastructure systems in both study-state and transient-state. The goal of the research is to optimize the system outcomes by properly reallocating the available limited resources using machine learning.
As University of Business and Technology aspires to develop the graduate studies organizational structure, and to meet the universal standard at universities, the Graduate Studies origination and development duties was given to The Deanship of Scientific Research, changing it to The Deanship of Scientific Research and Graduate Studies. This decision will support the future strategic plans, and would allow the support of new Msc and Ph.D. programs that supports the national and international market needs.

The Deanship of Scientific Research and Graduate Studies will serve graduate programs through the Graduate Studies Council, which is formed to ensure quality and to support all members who work or study in MBA or MEM, by:

- Suggesting general graduate studies strategies and ensuring the correct application
- Collaborating with collages to organize Graduate programs
- Suggesting general admission conditions and ensuring the correct application
- Making recommendations regarding new programs and comparing them with already existing programs
- Making recommendations regarding graduate studies curriculums
- Deciding on all matters concerning graduate students
- Setting rules and regulations for dissertations, scientific research, examiners comities, and research marking criteria
- Providing quality control
he Council of Graduate Studies meets regularly to serve graduate students. This semester, the council met six times and discussed:

- Students’ issues
- Strategic issues
- Scheduling
- Marketing
- Development

The council was able to solve many students’ issues. In addition, they provided many recommendations to improve, support, and maintain the quality of graduate studies at UBT.
SPSS Made Available for Researchers

In an attempt to support researchers at UBT, the Deanship of Scientific Research and Graduate Studies provided an IBM SPSS Statistics software to assist researchers in data analysis.

SPSS is installed on computers at the DRG Research Lab located on the second floor at the College of Engineering building at Dahban Campus. In addition, it is installed on DRG computers at the library in Sari campus.
The seven research flagships previously implemented in UBT has now increased to be nine flagships serving the axes of the economic development.

The research flagship is an interdisciplinary research group covering researches in nine areas from business, legal, science, technology, and advertising point of view. Registering your research interest will guarantee you better opportunities by connecting you with many researchers who are exploring your area of interest from different perspectives. Moreover, coordinating research efforts will take UBT a step closer towards operating the research roadmap effectively, which contribute to economic development and serve the community.

To register follow the link
https://docs.google.com/forms/d/e/1FAIpQLSevA5CklbdaLCQEPT7XlgVRCgBfA0NOEO Mtxvdwt57bCEQ-w/viewform?c=0&w=1
The Research Operation Supervisor is responsible for leading in the delivery of research administration services. Research Operations Supervisors are linked to faculties and Head of Departments (HOD). They will liaise with between faculty members, HODs and the Deanship of Scientific Research and Graduate Studies to ensure a coordinated approach to delivery and development of the UBT research objectives.

Your Research Operation Supervisor can assist you by:

- Providing information on Funded Research, Scientific Chairs and the application process
- Accessing research support (rewards, Compensation, publication fees)
- Providing you information on industry-based research projects
- Keeping you informed about workshops, announcement, deadlines, etc.
- Enabling you to implement a research strategy

Meet your Research Operation Supervisor:

**College of Business Administration**

Ladies:

Dr. Dina S. Fadaly
Head of Accounting Department

- Dina Fadaly is an Associate Professor of Accounting, received a PhD. in Accounting & Finance from De Montfort University, Leicester, UK (2008) and is currently Head of Accounting Department at CBA, Jeddah. She acted as Head of Postgraduate department at CMT, AAST, Alexandria, Egypt (2012-2017). She was also Head of International Relations office (2016-2017) and Assistant Dean for Training Affairs in Latakia, Syria (2010-2011). Her professional interests focus on research in Auditing. In addition, she is a member of the editorial board of the Eurasian Journal of Business & Management and the editorial board of the Academy of Business & Retail management, and Reviewer of Journal of Business & Retail Management Research (JBRMR).

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Dr. Mohammad Zulfeqar Alam

Dr. Mohammad Zulfeqar Alam completed his B.com Hons with distinction from Baba Saheb Bhim Rao Ambedkar University, Muzaffarpur, Bihar, India in 1995. Dr. Alam has obtained a Master degree in Business Management with specialization in Marketing from Aligarh Muslim University, Aligarh (AMU) in 1999. He was awarded PhD Degree in Agro Eco. & Business Management from Aligarh Muslim University, Aligarh (AMU), U.P. India in 2005 “The thesis written on marketing issues of alternative medicines in India”.

Dr. Alam started his carrier as a projects coordinator in the Institute of Objective Studies “IOS” in 2005. He is currently serving as Assistant Professor, Dept. of Marketing, UBT since 2008. During his academic career of more than ten years, Dr. Alam has taught various subjects in his field of expertise and guided a no. of Dissertations/Projects at PG/UG level.

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Dr. Mohammad Yousuf Altayeb

Dr. Mohammad Yousuf Altayeb graduated from King Abdulaziz University 2007 from engineering college and got BSc Production and Mechanical Design System Engineering. In 2013 he got a Master degree in Engineering Management (MEM) from Lamar University, Texas, USA. In 2017, he awarded a Doctor of Engineering in Industrial Engineering, Lamar University, Texas, USA. The Dissertation was “A Multi-level Modeling and Simulation Framework for Port Management”, the goal of this research is to provide multi-level simulation decision making tools for port management. The simulation framework is implemented with multi-method simulation software AnyLogic. Part of the Thesis was presented as:

- Mohammed Altayeb, Weihang Zhu, Port Piloting Discrete Event Simulation with GIS in Anylogic, INFORMS Annual Meeting 2017 Houston, October 22-25, Houston, USA
- Dr. Mohammad has Six Sigma Green Belt, Lean Green Belt from Texas, USA. Also, he honored by King Abdulaziz 3rd Degree Honor Award.
• As he graduated from College of Engineering, he worked as Aircraft Engineer, Saudi Airlines from May 2008 to Sep 2010 right after his graduation. In addition, he worked as Supply Chain Specialist at Nahdi Medical Company, Sep 2014 Jan 2016 after he got his master degree

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Jeddah College of Advertising
Dr. Khalid Al Shohaib
Assistant Professor

• Dr. Khalid Ali Alshohaib: Ph.D. in Mass Communication from The University of Southern Mississippi, USA (2005). Dr. Khalid comes with a huge wealth of academic knowledge, advisory practice, and administrative experience that he gained from a thirty plus years of service in the Saudi Arabian National Guard (SANG) as a highly decorated officer. Dr. Khalid’s experience includes working as an Assistant Professor and a researcher in the College of Liberal Arts & the Deanship of Scientific Research of King Abdul-Aziz University, Jeddah. His experience includes working for two years as an analyst and Official Representative for National Guard in the Saudi National Security Council (NSC). During his service as the military officer in SANG, Dr. Khalid Alshohaib worked as a Part-time Consultant for the Ministry of Health for two years. Among other accomplishments, he helped in the creation of “The eHealth Department”.

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College of Law
Dr. Nadia Salama
Assistant Professor

• Dr. Nadia Ramzy Salama, PhD University of Manchester, School of Law. Assistant Professor and Head of the Private Law Department (Sari Campus) at UBT, College of Law. Major of commercial law, international investment arbitration, and international commercial arbitration.

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Dr. Ayman Zerban
Was promoted to Full professor

Dr. Ayman Zerban holds Bachelor of Commerce from Faculty of Commerce, Accounting Major (Alexandria University, Grade Very Good, 1991), a Master of Business Administration (MBA) from the Arab Academy of Science and Technology (1998) and PhD Accounting and Finance from Essex University United Kingdom (2002). Dr. Zerban was the Chairman of the Accounting Department in College of Business Administration (CBA) Saudi Arabia since September 2004 until January 2006 and was a faculty member in the department until May 2009 after that appointed as Vice - Dean for Education at Graduate School of Business (Arab Academy for Science and Technology and Maritime Transport) from September 2009 - till August 2011. Dr. Zerban supervised many MBA students in their dissertation thesis as well as many DBA proposals. He is currently a faculty member for the accounting department at College of Business Administration Saudi Arabia and Director of Research Unit (CBA). Dr. Zerban interest is in the areas of Financial and Managerial Accounting, Islamic and Corporate Finance as well as Social and Environmental Accounting.

Dr. Ali El rashidi
Was promoted to Associate professor

Dr. Elrashidi received the B.Sc. degree in Electrical Engineering from Alexandria University in 2001, the MS Degree from the same University in 2007, and he received the Ph.D. degree in Computer Science and Engineering from the University of Bridgeport in 2012. From 2002 to 2008, he was with Electrical Engineering Department, Alexandria University, Egypt, as a lecturer. From August 2012 to August 2013 he was an assistant professor in the Alexandria University before he moved to University of Business and Technology. His research interests are in the areas of electromagnetics and wave propagation, Nanosensors and Nanoantennas.
In celebration of the International Day for Volunteering, the Deanship of Student Affairs have organized for students in Sari Campus to participate in the Joy of Youth campaign. The campaign is a community initiative in collaboration with AbouGhazalah Foundation and AlAhyaa that would serve more than 40 slums. It is estimated that more than 10,000 people will benefit from this campaign.

The campaign began on the 5th to the 8th of December, under the supervision of Miss. Wijdan Fatani the Supervisor of Student Activities.
The Deanship of Scientific Research and Graduate Studies arranged a meet and greet event on October 18th for members of the College of Engineering.

The purpose of the meeting was to assure that DRG is here to provide all types of support in:

- Research development, including; funding research, awards, financial support, data analysis, student assistantship, and arranging for visiting professor opportunities.
- Economic development, including; industry relations, intellectual property protection, and supporting entrepreneurs.
- Publication development, including; English editing/verification/translation, Graphical illustration, and workshops.
- International relations, by providing international training/work opportunities in universities and industry.
- Ph.D, including; communication with MOE, Ph.D. Preparation Program, and follow up.

The meeting was held in a friendly environment where all faculty and staff were able to meet the DRG team, ask questions, and get answers. CE members also registered in the Research Flagships on the spot.
BT has signed an agreement with NCAAA to initiate the program accreditation projects for the fourteenth programs of UBT on October 10th. The agreement states the accreditation for nine programs, which are: Industrial Engineering, Electrical Engineering, Software Engineering, Civil Engineering, Advertising Communication, Advertising Management, Advertising Creative Design, Supply Chain Management, and Insurance. In addition to the renewal of CBA five programs: Accounting, Finance, Human Resource, Management Information System, and Marketing.

**NCAAA Institutional Accreditation**

The journey of NCAAA institutional accreditation started in 2014.

- November 2014 – Started the NCAAA accreditation process
- April 2016 - Submitted the SSRI for institutional Accreditation
- January 2017 - resubmitted SSRI after clarifying NCAAA recommendation
- For Institutional Accreditation
- February & March 2017 - EEC - NCAAA Consultant, Dr. Nasir Sarhan visits UBT
- May 9 – 11, 2017 – Mock visit by External Expert
NCAAA Accrediting UBT Programs (continued)

- May 20 – 25, 2017 - EEC-NCAAA Review Panels Visit for institutional accreditation
- July 2017 - UBT received the final report including the recommendations provided by NCAAA
- July 2017 – UBT sent The action plans report
- December 2017 - UBT became institutional accredited for the period November 2017-October 2021

UBT received the accreditation result with the announcement that:

“UBT is institutionally accredited for the period 1st November 2017 to 31st October 2021 – National Center for Academic Accreditation and Assessment – Education Evaluation Commission”.
The Learning Technology Fair & Forum for the Middle East and Africa (LEARN-TECH MEA) was held on 25-28 November under the patronage of President Abdel Fattah Al-Sisi. It was aimed at bringing together governments, academics, educators, educational corporates and institutions to make education more relevant in the dynamic 21st century. Thousands of educators from across Africa and the Middle East gathered to deliberate the future of learning. The Conference allowed the opportunity to witness the latest educational technologies and trends, alongside conference sessions. LEARN-TECH MEA conference discussed approaches, methodologies and best practices in education to be adopted. The exhibition included the latest technology trends to change learning, such as:

**AI-Driven Customized Learning:**
Artificial Intelligence will play a key role in education to create customized learning paths for learners based on topics they have recently studied.

**Adaptive Learning:**
Its methodologies allow learners to move quickly through concepts they already know and focus on concepts they need to build skills on.
Microlearning:
A concept to be enhanced, as studies prove that retention is better when information is delivered in bite-size pieces focusing on a single topic.

Hands-On, Embedded Experiences:
Lab-delivery platforms and lab-style learning embedded within e-learning are hot matters, bringing e-learning closer to traditional

Social Learning:
To scale and provide the global learner base with a continuous learning environment, where they learn not just from experts but also from each other.

During the Forum, Dr. Abdulla Dahlan Spoke about “Social Impact of Driven Technology Education”. More over, the UBT participated in the exhibition, presenting the colleges and majors offered for undergraduate and graduate students, the research mission at UBT, and collaboration opportunities.
The UBT IAB semi-annual meeting was held on 9-11 December, the Board consists of:

- Prof. Hussein Al-Alawi, Jeddah, KSA
- Prof. Fayneese Miller, Minnesota, USA
- Prof. Nehale F. Mostapha, Lebanon
- Prof. Jan Sadlak, Paris, France
- Dr. Bakor Khoshaim, KSA
- Dr. Wafaa Elgarah, Morocco
- Dr. Ihsan Bu-Hulaiga, KSA
- Dr. Nabeel Koshak, KSA
- Dr. Said Al sheikh, Jeddah, KSA
- Eng. Ibrahim Mahlab, Cairo, Egypt

Many topics were discussed on the first day including:
- Smart Cities, Fourth Industrial Revolution and their implications for the University
- Impact: the Next level of Assurance of Learning
- Corporate Social Responsibility: The Role of Universities
- State of Graduate Studies and Scientific Research in the Arab World
- University Startups: Local Cases
- On the consecutive two days, deans and directors gave concise reports on current status, achievements, and plans.

The meeting was to evaluate UBT performance based on education, students’ outcome, national and international relations, research and innovation.
Boston University is a leading private research institution with three primary campuses in the heart of Boston, USA. It has over 33,000 undergraduate and graduate students from more than 130 countries, nearly 10,000 faculty and staff, 17 schools and colleges, and 250 fields of study. A delegation visited UBT on the 1st and 2nd of October and was welcomed by deans and directors and offered a tour at UBT.

The delegation was led by Dr. Tobe L. Berkovitz, Dean of College of Communication; they met at The Deanship of Scientific Research and Graduate Studies where the Research Roadmap and Research Flagships were explained. The delegation was pleased with the research approach and applications adopted at UBT and there will be areas of collaboration in the near future.
University of Strathclyde, Glasgow is a leading technological University with around 22,000 students from more than 100 nations. The university has an international reputation for teaching excellence with a five-star Overall Rating in the QS Stars University Ratings, and seven Times Higher Education awards for several years.

A delegation visited UBT on the 2\textsuperscript{nd} on October to discuss the scientific research in Saudi Arabia. Dr. Basma El Zein explained the research approach at UBT including the Research Roadmap and Research Flagships and how it must serve the community and economic development. The presentation also included numbers of publication and how these numbers have increased over the years.

The delegation was delighted to learn that UBT provides many support services and grants many national and international research projects.

As a result, Dr. Galloway and Mr. Shorthouse proposed:
- possible summer training,
- PhD co. supervision,
- participating in a research symposium in both universities,
- and faculty exchange opportunities.

Finally, Dr. Galloway said “UBT has a very good vision regarding research, its work in research is impressive” and he assured an MOU in the near future.
BT Executive Education (EE), headed by Dr. Amir Dhia met in the presence of Dr. Basma El Zein Dean of Scientific Research and Graduate Studies with Mr. Harriem Rozeir Attache de cooperation at the French Embassy and Mr. Karim Maatoug Attache de cooperation at the French Consulate in Jeddah and Mrs. Salma Attasi responsible campus France in Jeddah.

The parties discussed the potential areas of collaboration such as the student exchange program, conducting a summer training for the student in France, and the possibilities of having a visiting professor to our campus.
Tarek Noor Advertising (TNA) has been a pioneer in Advertising since its inception as the first Egyptian private sector Advertising Agency in 1978. Through three decades of listening to local consumers, the Egyptian psyche has become the bread and butter of TNA.

As a result of this understanding, and an uncompromising commitment to quality and innovation, TNA has become synonymous with successful and popular advertising campaigns that have achieved remarkable results for its clients and won the most prestigious local, regional and international awards. Amongst awards TNA won in 2014 are Egypt’s only Cannes Lions Health of the year and Egypt’s only AME Award for the world’s most effective advertising.

TNA visited UBT and toured all departments. The delegation was introduced to the research mission at UBT. There will be areas of collaboration in the near future.
Springer Nature is one of the world’s leading global research, educational and professional publishers, home to an array of respected and trusted brands providing quality content through a range of innovative products and services.

Springer Nature is the world’s largest academic book publisher, publisher of the world’s most influential journals and a pioneer in the field of open research. Springer Nature was formed in 2015 through the merger of Springer Science Business Media, Nature Publishing Group, Palgrave Macmillan, and Macmillan Education.

Nature Research Head of Institutional Partnerships Mr. Jon Giuliani, and Partnerships Manager Mrs. Shaheena Patel visited DRG on the 22nd of November where parties discussed Nature Research services and the potential cooperation between the two organizations.

Nature Research will soon conduct a series of workshops and training sessions at UBT for Peer Review, Author Training, and Editor Training. In addition, DRG will sign up for a master class aimed at UBT and non-UBT researches of all levels to give them a first-hand into publishing at top-tier journals.
he sales manager Mr. Hany Kandil visited UBT on the 6th of November and was greeted by the DRG team. Dr. Basma presented the research process at UBT. Following the parties discussed and reviewed multiple options for equipping labs for different specialties that supports UBT faculty and staff. Potential equipment provided may include:

- Power system sims
- Innovation center and fab lab
- Box ford and laser cutting
- Flexible Manufacturing Lab
The French Attaché de cooperation Mr. Hadrien ROZIER called to meet with University of Business and Technology to discuss the areas of collaboration between UBT Ph.D. students and French universities. Dr. Basma El Zein, Dean of Scientific Research and Graduate Studies, and Mr. Mohammad Shaker, International Relations Officer Visited the French Consulate the 4th of November. Mr. Hadrien began the meeting by discussing the output of his visit to Paris meeting with French universities and industry organizations. Then, Dr. El Zein presented the research mission at UBT, and told the success stories for many members of UBT who went to France in pursuit of getting their Ph.D. degree.

Following, both parties looked at areas of collaboration that would further support students, and both countries economy and culture, such as:

- Summer School, as Mr. Adrien suggested “Ecole Skema Business School”
- Doctoral programs
- French universities participating in the Gulf Education Conference
The Deanship of Scientific Research and Graduate Studies is pleased to announce that two professors will be joining UBT for a full semester to exchange knowledge and expertise with UBT faculty and students.

Prof. Issam Shahrour
Professeur, Université de Lille
Directeur du Laboratoire Génie Civil et géo-Environnement (LG CGE)

Graduate from the National School of Bridges and Roads (Ponts et Chaussées - Paris), I have been strongly involved in research, higher education and partnership with the socioeconomic sector. During the period 2007 -2012, I was Vice President “Research and industrial partnership” at the University Lille1. I was also president of the Innovation Agency “Lille Metropole Technopole” for regional economic development via innovation.

My research activity concerns smart and sustainable cities, sustainable management of natural resources and geotechnical and geoenvironmental Engineering. Currently, I’m director of the Regional Research Laboratory “Civil and Geo-Environment Engineering LGCGE” and head of the international master "Urban Engineering and Habitat."

Since January 2011, I coordinate a large-scale Smart City project “SunRise: a large-scale demonstrator of the smart and sustainable city” which involves a large partnership with local government, water, energy and information technology providers and startups. I coordinate also the French partners of the European project “SmartWater4Europe”.

I conducted an intensive research activity with a strong industrial partnership. My activity resulted in about 120 refereed journal papers and the supervision of around 80 PhD dissertations and more than 5 millions Euros of industrial and public contracts. Recently, I gave more than 30 lectures on the smart city concept and implementation, including two TEDx talks.

I addition to my courses at Lille University (Polytech’Lille), I give lectures about the Smart and Sustainable City in different institutions such as Tongji University in Shanghai, American University of Sciences and Technology (AUST) in Beirut and l’Ecole Nationale d’Administration (l’ENA – Paris).
As an expert in the area of Digital Construction Engineering - Management, I investigate how to improve collaboration in construction (project) management by using the state of the art of Digital Technologies such as: Gamification (Series Games), Unified Modelling Language (UML), Virtual Reality, Mobile Technologies, Internet of Things (IoT), Simulation, Virtual Reality, Dv Modelling (BIM) and Augmented Reality.

Currently George is employed as an Assistant Professor in Building Information Modelling at The University of Nottingham Ningbo Campus in China, a Russel Group University. As a research lead academic I am a core member of the International leading Center for Sustainable Energy Technologies, a member of the Digital Innovation Cities Lab and a member of the Structural Engineering and IT Research Center in the UK Campus. He completed his PhD in Construction and Project Management from the University of Salford – School of the Built Environment (THINKlab). Over the last years he had various academic positions in Russell Group Institutions such as School of Engineering, University of Cambridge; University College of London (UCL), Manchester Business School (Executive MBA), University of Manchester; School of Engineering and Warwick Manufacturing Group, The University of Warwick; York Management School, The University of York. George is a member of the peer review college of the Economic and Social Research Council (ESRC) since 2015 (after invitation). Moreover he started his career as a Financial Project Manager for an EU project in the Hellenic Ministry of Education between 2004 and 2007. Currently is a Non-Executive Director for Politia Group and lead Essex BIM Hub - part of UK BIM Alliance. Further to this he served as the Chairman for the Chartered Institute of Building (CIOB) for Coventry and Warwickshire, committee member of the West Midlands branch between 2013 and 2015.
Disaster mitigation of severe catastrophic events depend heavily on effective decisions that are made by officials. The goal of disaster management is to make decisions that properly reallocate and redistribute the scarce resources produced by the available interconnected-critical infrastructures (CI’s). This paper investigates the application of Monte Carlo (MC)-based policy estimation in reinforcement learning (RL) to mount up experience from a massive number of simulations. This method, in conjunction with an optimised set of RL parameters, will help the RL agent to explore and exploit those trajectories that lead to an optimum result in a reasonable time. It shows that a learning agent using MC estimation policy, through interactions with an environment of simulated disastrous scenarios (i2Sim-infrastrucuture interdependency simulator) is capable of making informed decisions for complex systems in a timely manner.

Keywords: artificial intelligence; critical infrastructure; disaster management; i2Sim real-time simulator; reinforcement learning agent; responsive crisis management; Monte Carlo policy estimation; decision support system; agent based modelling; machine learning
Impact of permanent magnet stirring on dendrite growth and elastic properties of Sn-Bi alloys revealed by pulse echo overlap method

A.A. El-Daly *, A.A. Ibrahiem, A.E. Hammad

ABSTRACT

Studying and understanding the dendritic growth process is a challenging topic related to liquid-solid phase transition, as it helps to predict the final microstructure controlling the solder properties. In a specific case of the design of Sn-Bi and Sn-Bi-Cu alloys, the solidification microstructures and corresponding electrical and elastic properties were studied with and without permanent magnetic stirring (PMS), as their influence on the growth morphology of dendrites is not yet fully assessed to date. We use pulse echo overlap (PEO) method for measuring the polycrystalline bulk modulus K, Young’s modulus E, shear modulus G, Poisson ratio ν and hardness H. The PMS-driven flow caused a disruption of the columnar b-Sn dendrites and columnar-to-equiaxed transition (CET). Such behavior is believed to evolve from dendrite fragmentation, arises through complex hyper-branched morphologies at the origin of Lorentz force and Seebeck effect that acting on the melt. Both the hardness and elastic modulus are increased as the Poisson’s ratio decreased. Moreover, the Pugh ratio clarified the ductility behavior of the alloy samples, while Poisson's ratio and electrical resistivity display slight decrease in the ionic contribution with applying PMS and/or Cu content. These results open new ways to predict the final microstructure controlling the dendritic growth in metallic alloys.

Keywords: Sn-Bi alloys, Microstructure, Elastic modulus , Magnetic stirring
The present work is concerned with studying the synthesis and characterization of hybrid aluminum bronze matrix strengthened with nano-aluminum oxide particles (n-Al2O3), and carbon nano tubes (CNTs). The selected matrix composite was successfully incorporated with different weighted percentages of CNTs (i.e. 1.0 and 2.0 wt.%) and/or n-Al2O3 (i.e. 1.0 and 2.0 wt.%) by sintering process. From the microstructure analysis, n-Al2O3 particles was dispersed uniformly and holding over the surface of aluminum bronze. Furthermore, some agglomeration was found due to reinforced CNTs into aluminum bronze matrix. From hardness tests, it was found that incorporated n-Al2O3 and CNTs into matrix increased the hardness of composites to be equal 230 HV, which is around 2.3 times higher than that of an aluminum bronze matrix. Moreover, the wear loss of CNTs-Al2O3/aluminum bronze composites diminished because of the impact of homogeneous circulation of CNTs in aluminum bronze and low corrosion coefficient of uncovered CNTs on the well-used surface. Notable from the results, the electrical resistivity of the hybrid composites are lower than the matrix. Hopefully, the findings are expected to provide profound knowledge and further reference towards the studied composites of the miniaturised electronic package.

Keywords: CNTs; Nano Al2O3, Electrical Resistivity, Hardness, Wear, Composites.
Decision support system for selecting optimal construction bid price

Yasser M.R. Aboelmagd

ABSTRACT

Most important construction problems facing building operations are how to choose a contractor specialized in implementing major projects. In addition to that the increasing costs of raw materials, work force leading to the rise of construction costs. Therefore in this paper hierarchy method has been studied and it has been identified for organizations allowing them to minimize common risks of the decision-making process and management. Construction contractor can be prequalification using Analytical Hierarchy Process (AHP) as powerful management technique. Prequalification contractor aims at eliminating in competent contractors in the bidding process. This kind of prequalification helps both of the public and private project owners to successful achieve for required project tasks. The project will be completed with is estimated cost and time because of the contractor’s skill, capability and efficiency. Case study gathers a number of contractor’s or companies data. After studying Analytical Hierarchy Process (AHP) of a set of criteria, table of contractor’s technical evaluation was concluded all experience, financial situation and the contractor’s classification in the Union of Contractors. In addition labor’s progress, availability equipment for contractor is applied using Value Engineering (VE) to raise the performance level and reducing costs. Hence, value engineering will be demonstrated, where its goal is to raise the performance level and functionality with the ability to reduce costs. The case study of this paper is a construction project of a hospital, administration building, and staff housing building. It was applied the Analytical Hierarchy Process (AHP) and was extracted contractor’s evaluation table of a set of criteria (the previous experience, financial situation and the contractor’s classification in the Union of Contractors. Also labor’s progress, available equipment for the contractor and

Keywords: Construction bid price, Contractors evaluation, Financial evaluation, Analytical Hierarchy Process (AHP), Value Engineering (VE), Cost saving, Optimization decision making
Linear programming applications in construction sites

Yasser M.R. Aboelmagd

ABSTRACT

More issues in construction management were found especially for decision making that related to the Arabian construction management office requirements. Operation research especially linear programming models considered one of the most important tool used in optimization applications at many fields of production engineering and mass production, also linear programming applications was developed to construction engineering field. This paper presents a linear programming technique to spotlight decision making application for optimizing competitive bidding strategy to select best tender as shown in real case study. Therefore, project manager or decision maker can use this concept for getting the best project cost. This paper give linear programming concepts that are reviewed to describe recent linear programming component which had large focus on related time-cost and time problems for studied project. Linear programming models are formulated to solve various cost and time problems by using LINDO software. The developed models had many limitations and restrictions for studied project. Construction managers can use it to explore more possible opportunities to predict influence of decision for construction to facilitate preferred different management objectives. Linear programming implementation shows the practice of wide variety for construction problems especially cost with time issues and it is more applicable to generate a shortest computational effort and time with low cost.

Keywords: Linear programming, Construction management, Cost optimization, Tendering strategy, Optimization model, Contractor selection, decision making
The present paper investigates the microstructural and mechanical properties of Sn-1.0Ag-0.5Cu (SAC105) solder alloy with 0.06 wt% Ni and 0.5 wt% Sb additions. The study revealed that the microstructure properties and elastic moduli of such solder alloy improved. Results indicated that Ni element diffused from the molten solder matrix into the IMC particles to form the Ni3Sn4 IMC phase during solidification. Thus, Ni improved the solder microstructure and increased the drop lifetime of the electronic assembly. Meanwhile, by adding Sb element, no new IMCs formed due to the high solubility of Sb in Sn, but provide solid solution strengthening. In terms of tensile behavior, the SAC105–0.5Sb exhibited the highest strength and largest ductility. As well, all examined alloys exhibited higher mechanical properties with increasing strain rate and/or decreasing testing temperature. Moreover, notable improvements of 31.25% and 101.1% in elongation were obtained with addition of Ni and Sb elements, respectively. Consequently, ductility was enhanced by Ni or Sb additions. Furthermore, the average activation energy (Q) for SAC105, SAC105-0.06Ni, and SAC105-0.5Sb solders were 49, 57 and 63.5 kJ/mol, respectively, which is close to that of pipe-diffusion mechanism in Sn-based solder matrix.

**Keywords:** Microstructure, Lead-free solder alloys, Intermetallic compound (IMC), Mechanical properties
Producers of ready mixed concrete think of improving concrete batch plants’ performance ratio to provide the construction market with high quality standards, save cost and time. Ready mixed concrete (RMC) is a mixture of different materials, which is delivered to customer in unhardened state and freshly mixed. Major objective of this study was to provide a clear understanding for predicting and improving the concrete batch plants’ performance ratio by use analysis of large collected data from more and different concrete batch plants and determining the most effective factors that have a great effect on concrete batch plants’ performance ratio. Predicting the actual future performance ratio and production rates for any concrete batch plant according to a groups of effective factors is the essential sector which is suggested in this paper using smart modeling analysis. Improving the performance ratio of concrete batch plant is selected because of its importance in construction field by studying and analyzing the most effective factors. The study will be done by collecting and studying large detailed data through start of 2012 till the end of 2016 and it will illustrate the time, quantities, distances and factors which affect concrete batch plants’ performance ratio. This paper is divided into six main groups, which are illustrated as follows: (1) It concludes the historical information about concrete batch plants and RMC, and introduces the objective of this paper and the most convincing definitions for productivity and Performance Ratio (PR). (2) It explains general information for ready mixed concrete batch plants, classifies plant types for determining criteria of pumping method and declares the modeling techniques, concept of standard performance, measuring productivity difficulties, productivity cycles, factors affecting equipment productivity, applications of construction productivity, concrete placement process, concrete equipment selection and methods of construction. Factors affecting.

**Keywords:** Ready mix concrete, Concrete batch plant, Productivity prediction, Factors, Performance ratio, Improvement
ABSTRACT

It is clear that most of mega and medium sized projects in Egypt are using ready-mix concrete in their construction work. It is important to improve the actual production rates of batch plant to optimize the usage of their outputs; the use of concrete batch plants by concrete mixers is rapidly increasing in the construction industry. This is an important step in securing high productivity in the industry. Concrete batch plant specialists are well aware of the importance of productivity, and hence, there is a great potential for productivity improvement in batch plant concrete industry. Batch plant of concrete is very essential part in construction process, which is defined as central plant on project site and is transported by transit mixers to projects, this paper attempts to classify, investigate, and sort causes that affect batch plant productivity. To perform that goal, researchers invited experts on this field by answering detailed a questionnaire survey. It was taken brain storming into consideration, through more effective causes was identified in batch plant. Totally, forty five (45) related causes are classified into five (5) major groups. This survey was done with representatives and experts from public and private automated batch plants. All data was analyzed by Analytic Hierarchy Process (AHP), ranking and simple percentages. All ranked causes were demonstrated and mentioned against their most effective causes to the batch plant productivity.

Keywords: Concrete batch plants, Ready-Mixed Concrete (RMC), Ranking, Causes, Analytic Hierarchy Process (AHP), Construction Industry
Engineering approach to allocate and evaluate performance influencing factors for ready mixed concrete batch plant under different effects

Remon Fayek Aziz

ABSTRACT

Growth of construction motion in the world specially Egyptian construction areas and ready mixed concrete production growth mainly in mega projects such as real estate projects, tourism projects and infrastructure projects, which they want high quality ready mixed concrete. The main objective of this paper is to analyze a clear understanding for measuring any concrete batch plant performance ratio by using analysis of collected data from more real concrete batch plants and determining the most effective factors that have great affect on concrete batch plants performance ratio. Predicting the actual future performance ratio and production rates for any concrete batch plant according to groups of effective factors is the essential sector which is suggest in this study using smart modeling analysis. Improve performance ratio of concrete batch plant was selected because of its importance in construction field by studying and analyzing the most effective factors. The study will be done by collecting and studying large detailed data through start of 2012 till the end of 2016 and it will be illustrated the time, quantities, distances and factors which affecting concrete batch plants performance ratio. This paper will be divided into main three groups, which are illustrated as follows: (1) It was mentioned the designing tables which is divided into three levels: (A) Field data recording sheet; (B) Field data processing sheet and (C) Field data analysis sheet to observe the most convincing variables that has large affect on concrete batch plant performance ratio. It was analyzed and checked the concrete batch plant performance ratio by optimizing its most effective variables. (2) It was mentioned how to analyze and use the collected detailed data from field and classified their variables affecting concrete batch plant performance ratio and getting the relation between concrete batch plant performance ratio and each variable separately considering all remaining variables are obviated then all statistical analysis were mentioned, all relations were proved to get proportion correlation for each variable. (3) It was summarized the conclusion.

Keywords: Ready mix concrete, Concrete batch plant, Construction projects, Productivity, Factors, Performance ratio, statistics package for social science (SPSS)
This research is an entrance to develop a scientific methodology to assess sustainable tourism development projects with popular participation where the search is supposed to (the sustainability of tourism development projects in traditional areas occur through the activation of the roles of key sectors to participate in the development process of the various stages, as well as must those be of an economic return of projects ensures continuity and sustainability. Through theoretical studies of sustainable tourism development and heritage the most important challenges and obstacles to implementation, as well as knowledge of the three main sectors involved in that process roles (government, private, NGO’S ) in the face of these challenges in various stages of the development process and through the analysis of a range of international experiences in terms of sustainable tourism development and heritage of which can extract used in these experiments, which represents the initial framework for the formation of the proposed methodology as well as the analysis of a set of economic evaluation of projects for sustainable tourism development globally models to reach more economic evaluation methods used in the work methodologies this type of projects and determine the advantages and disadvantages of each method and steps from them. Thus we can reach to develop evaluation criteria used in the proposed methodology based on key dimensions of sustainable development (economic, environmental, social ) in addition to the institutional dimension that ensures the activation of different sectors roles in the stages of the development process. The proposed methodology is based on the phases of design steps Value Engineering approach, namely, (information gathering, functional analysis solution put forward alternatives, evaluate, and implement the best alternative choice, the final evaluation and development proposals ) . The test proposed methodology and computer program through their application on a sample selected study sample in research (sustainable development experience – (Derayaa – KSA / Siwa Oasis - Egypt ), which represents a global role model in the field of heritage tourism development popular participation.

**Keywords:** Tourism – Heritage - Sustainable tourism heritage tourism Development popular participation – Economic evaluation.
The preservation of urban valuable heritage areas between concept and application

Neama Hassan Elsayed Omar

ABSTRACT

Most of the heritage buildings or historical values are located in a surrounding urban space, which is characterized by life, which creates a mutual effect between the impact and the surrounding urban space and makes dealing with the ocean impact is not less important in dealing with the same effect. The Islamic monuments are characterized by vibrant life, where the social and cultural pattern of the region is one of the most important influences on the identity and personality of the place. The concept of conservation from the architectural aspect explains the process of rehabilitation of buildings and historical areas as a process that aims to develop and protect areas of value and continuous work to confirm the personality of civilization through its revival and preservation with the protection of the social and cultural personality of the community in which it can be described. Maintenance and preservation of historical buildings while controlling the dynamics of change accompanying the urban, social and economic development processes to ensure that all material and moral values are preserved.

The objective of the research is to clarify the methodology of urban conservation, which includes the stages of collecting information, analysis, preparation of alternatives and evaluation of the optimal selection and its application in the projects of conservation systems for the development of valuable urbanization with the study of the experience of improving the Bab al-Sha’riya district in Fatimid Cairo, where it is considered the most successful experiments covered by almost all the keys of content and controls Control of construction as one of the mechanisms of conservation and control in modern construction.

Keywords: Architectural & Urban preservation - Urban Texture - Urban Development.
RESEARCHER OF THE MONTH

Yasser Abuel-Magd
College of Engineering

Ahmad Hammad
College of Engineering

Remon Eskander
College of Engineering

Amna Omar
College of Engineering

OCTOBER

HOW MANY PUBLICATIONS I HAVE?
I GOT AN AWARD!
I HAVE AN INVENTION/Creative Idea!
I HAVE A HIGH CITATION!

NOVEMBER

HOW MANY PUBLICATIONS I HAVE?
I GOT AN AWARD!
I HAVE AN INVENTION/Creative Idea!
I HAVE A HIGH CITATION!

DECEMBER

HOW MANY PUBLICATIONS I HAVE?
I GOT AN AWARD!
I HAVE AN INVENTION/Creative Idea!
I HAVE A HIGH CITATION!

JANUARY

HOW MANY PUBLICATIONS I HAVE?
I GOT AN AWARD!
I HAVE AN INVENTION/Creative Idea!
I HAVE A HIGH CITATION!
Each month, the Deanship of Scientific Research and Graduate Studies acknowledges the efforts of faculty and staff and honors them by nominating a researcher of the month and featuring them on the website, and on the DRG E-Newsletter. The choice is made by the researcher’s:

- publications
- awards
- innovative ideas
- citation index
- conference participation

During the Research Integrity workshop held on the 15\textsuperscript{th} of November, DRG Presented certificates of appreciation to the researched attending. These were:

- Dr. Ahmed Shawqi, chosen for April 2018, and
- Dr. Hakim Garalleh, selected for August 2018.
Marquis Who's Who has chosen the Dean of Scientific Research and Graduate Studies Dr. Eng. Basma El Zein as one of Marquis Who's Who Top Scientists, to be featured on the website for the duration of two years. In addition, she will be featured in the first chapter of the Life Time Achievement book, where the top 100 scientists of the world are featured.
DRG supports UBT’s research mission and solves problems facing the business sector and the whole economy in Saudi Arabia and the region, in line with Saudi Vision 2030 and the Development Plan 2020. The Deanship brings together faculty members, staff, and students, unifying their efforts to develop interdisciplinary approaches to goal-oriented problems by linking researchers and the industry together, providing an opportunity to solve current issues facing the Saudi community and economy.

On this note, DRG organized the Research Integrity Workshop on 15th of November at Dahban Campus.

The workshop was attended by more than 25 members of UBT faculty.

**The workshop included:**
- What is research
- The research team
- Publication
- Authorship
- Research manuscript
- Publication Process
- Research misconduct
RESEARCH WORKSHOP

About the Speaker:

Dr. Basma El Zein
Dean of Scientific Research at the University of Business and Technology (UBT), Jeddah, Saudi Arabia

Dr. El Zein has 18 years of experience in academic and research institutions and is a renowned guest speaker at many international conferences on renewable energy and nanotechnology. Dr. El Zein is a grand Judge at Intel ISEF-USA, examiner at King Abdul Aziz city for science and Technology (KACST), and a board member of Arab Investor Award. She is a chair or co-chair on committees of different international conferences. Her research interest is currently in Energy Conversion and Energy Storage. She is also exploring Printed Metal Oxide Batteries. Her previous research included Telecommunication, Artificial Intelligence, auto-control and auto-command by programmable logic controllers, and Computer Vision. She has a textbook entitled “Nanostructured materials for Photovoltaic applications”. Additionally, she has one patent filed in the USA related to materials for Solar Cells. Dr. Basma graduated from the University of Lille, France with a Ph.D. in Nanotechnology Engineering with High Distinction for her research Zinc Oxide Nanostructures for Photovoltaic Applications. Her master degree was from the Lebanese University, Lebanon in the field of Electrical and Electronics Engineering with Distinction.
ATTENTION

Deanship Of Scientific Research

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Award Categories

MEDIA

ACADEMIA

Submission Closes 15th January, 2019

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In Collaboration With Faculty Development Center
you are cordially invited to attend

Tips For A Successful Proposal

DRG is Organizing a Workshop:

The Deanship of Scientific Research and Graduate Studies (DRG) supports UBT’s research mission and solve problems facing the business sector and the whole economy in Saudi Arabia and the region, in line with Saudi Vision 2030 and the Development Plan 2020. The Deanship brings together faculty members, staff, and students, unifying their efforts to develop interdisciplinary approaches to goal-oriented problems by linking researchers and the industry together, providing an opportunity to solve current issues facing the Saudi community and economy.

DRG is organizing many Workshops to introduce and inform UBT members about the services provided through its Research Development Department, Economic Development Department, Publication Department, International Relation, Scholarship, Graduate Studies and Consultancy services.

It will include the following topics:

Tips For A Successful Proposal

- Motivation to write the proposal
- The sponsor
- Team
- The reviewer/ evaluator
- Common mistakes
- Proposal sections
- Guidelines

PRACTICAL INFORMATION

- Presented by: Dr.Eng. Basma El Zein
- When: 17th of January 2019
- Time: from 11:00 am -1:00 pm
- Where: CE Building, Workshop Room

For further information
please contact us on: DSR@ubt.edu.sa; +966122159353
In Collaboration With Faculty Development Center
you are cordially invited to attend

Serve The Community Through Consultancy Projects

DRG is Organizing a Workshop:

The Deanship of Scientific Research and Graduate Studies (DRG) supports UBT’s research mission and solve problems facing the business sector and the whole economy in Saudi Arabia and the region, in line with Saudi Vision 2030 and the Development Plan 2020. The Deanship brings together faculty members, staff, and students, unifying their efforts to develop interdisciplinary approaches to goal-oriented problems by linking researchers and the industry together, providing an opportunity to solve current issues facing the Saudi community and economy. DRG is organizing many Workshops to introduce and inform UBT members about the services provided through its Research Development Department, Economic Development Department, Publication Department, International Relation, Scholarship, Graduate Studies and Consultancy services.

It will include the following topics:

Serve the community through consultancy project

- Introduction
- Consultancy services
- Process
- Templates

PRACTICAL INFORMATION

- Presented by: Dr.Eng. Basma El Zein
- When: 17th of January 2019
- Time: from 11:00 am -1:00 pm
- Where: CE Building, Workshop Room

For further information please contact us on: DSR@ubt.edu.sa; +966122159353
Are you involved in an interesting research Project or in a collaborative research that you would like to discuss or show to your UBT colleagues?

Why not present your work in the DRG 4th Research Symposium (Poster session) that will be held in March in the Library Dhahban Campus.

DRG welcomed you to participate in its 4th research symposium, where the best poster for each college will be awarded and recognized on that date. The selection of the best fourth posters from each college will be done by a panel of judges from UBT.

Instructions:

1. You can participate with max 3 posters
2. Please fill in the registration form
3. Use the attached Poster template
4. Send you PPT version to DRG Publicationservices by max 28th Feb

Looking forward to meeting you there.

For any further information: DSR-Publicationservices@ubt.edu.sa
Conference Participation

In order to being recognized internationally, UBT encourages its faculty members to be exposed to the international scientific community, to reflect the visibility of their scientific work and their effective contribution.

Benefits of participating in Scientific Events

Faculty members who will participate in Scientific Events will benefit from:

- Learning new information from presenters
- Positioning themselves as an expert
- Networking with new people within their field
- Sharing their ideas and get immediate feedback from credible individuals
- Collecting presentation materials to take home for later reference and study
- Learning about facts and statistics that will help them to better understand the market and the industry
- Putting UBT on the international level by passing out their business cards or UBT brochures
- Building strategic collaboration with peers
- Marketing their research papers to increase their citations

Process:

Every faculty member should go through the 3 phases of Conferences participation Process:

1. Pre-Award: Preparation
   - Faculty member submit his application to HOD
   - HOD review, if approved transfer to Vice Dean

2. Phase 2
   - Vice Dean review, if approved transfer to Dean
   - Dean review, if approved transfer to Dean of Scientific Research and Graduate studies
   - Dean of Scientific Research and Graduate studies review, if approved submit to Rector for final decision

3. Post-Award: Scientific Participation

Deanship of scientific research recommends based on the following criteria:

- Type of participation (Oral, Poster, Invited talk (renowned speaker))
- Number of participation per year
- Importance of the participation in achieving the UBT objectives
- Importance of the Conference
- Importance of the organizer of the conference
# Academic Landscape in Germany: Study, Research and Funding

The DAAD supports academic exchange in three main areas:

- **Scholarships for the Best**
- **Structures for Internationalisation**
- **Expertise for Academic Collaboration**

## It will include the following programs:

<table>
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<tr>
<th></th>
<th>Green Talents</th>
<th>Bilateral exchange of academics</th>
<th>DFG</th>
<th>Alexander von Humboldt</th>
<th>Research stays for university</th>
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<tr>
<td><strong>In Brief</strong></td>
<td>Trips to leading German centres of environmental research, followed by funded research stay</td>
<td>Research and study visits as part of bilateral exchange of researchers and scholars with partner countries</td>
<td>Grant for initiating bilateral collaboration or preparing a concrete joint research project</td>
<td>Long-term research project with an academic host in Germany</td>
<td>Short-term research stay at state or state-recognised university or non-university research Institute in Germany</td>
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<td><strong>Who?</strong></td>
<td>Master students, PhD students and postdocs; Junior researchers with a focus on sustainable development</td>
<td>Postdocs / Junior researchers; Senior researchers</td>
<td>Postdocs / Junior researchers and senior researchers (at German research institutions)</td>
<td>Postdocs / Junior researchers; Senior researchers</td>
<td>Postdocs / Junior researchers; Senior researchers</td>
</tr>
<tr>
<td><strong>Duration?</strong></td>
<td>Two-week science forum in Germany; research stay of up to 3 months</td>
<td>2 weeks - 3 months</td>
<td>Max. 3 months for trips abroad and guest visits; all activities to take place within 12 months</td>
<td>6 - 24 months</td>
<td>1 - 3 months</td>
</tr>
<tr>
<td><strong>Value?</strong></td>
<td>Grant for a research trip and research stay</td>
<td>Fellowships 2,000 - 2,150 €/month</td>
<td>Grant: 105 - 160 €/day or monthly allowances for participation in events in partner country + travel allowances</td>
<td>Fellowship: 2,050 €/month + additional allowances</td>
<td>2,000 - 2,150 €/month, incl. travel allowance</td>
</tr>
</tbody>
</table>

Further Information

please contact us

[+966 (12) 2159335] [DSR@UBT.EDUSA]
PhD Students, Postdocs & Junior Academics

Ireland/United Kingdom

Research Grants – Short-Term Grants
(for up to 6 months)

The grants are offered to enable well-advanced PhD students and junior scholars to carry out dissertation or post-doctoral research at libraries, archives, institutes or laboratories in Germany for a period of one to six months.

Applications

Applicants are expected to establish direct contact with the institutions and make all arrangements concerning their visit. Furthermore, applicants should possess adequate knowledge of the German language to carry out their proposed research, unless conducted in English.

Application Deadlines

- 24 September 2018 (for visits starting between January and June 2019)
- 4 March 2019 (for visits starting between July and December 2019)
- Applications must be submitted via the DAAD online portal by 10.59pm on the closing date.

Value

EUR 1,200 per month and a lump sum towards travel.

Further Information

please contact us

+966 (12) 2159353  DSR@UBT.EDU.SA
PhD Students, Postdocs & Junior Academics

Ireland/United Kingdom

Research Grants – One Year Grants
(for more than 6 months)

This scholarship provides funds for doctoral students to do research at any German university, university of applied sciences, research institute, music academy or art college for between seven months and one academic year. The stay at a German institution of higher education should be for the undertaking of PhD or post-doctoral work in Germany.

Applications

Students should have an adequate knowledge of German to carry out study/research, unless conducted in English. The DAAD expects applicants to have already contacted an academic supervisor at the German host institution for support. An acceptance letter from such a supervisor should be submitted along with the application papers.

Application Deadlines

11 January 2019
Applications must be submitted via the DAAD online portal by 10.59 pm on the closing date.

Value

EUR 1,200 per month plus initial extra payment and a lump sum towards travel.

Further Information

please contact us

+966 (12) 2159353  DSR@UBT.EDU.SA

DAAD
Deutscher Akademischer Austauschdienst
German Academic Exchange Service
PhD Students, Postdocs & Junior Academics
Ireland/United Kingdom

DLR-DAAD Research Fellowship Programme
are jointly offered by the DLR (German National Research Centre for Aeronautics and Space) and the DAAD.

Application Period
New fellowship offers are issued throughout the year.

Applications
The DLR carries out extensive research and development projects in the areas of Aeronautics, Space, Transportation and Energy. The fellowship programme is aimed at highly qualified doctoral and postdoctoral students as well as senior scientists worldwide. DLR-DAAD Fellowships offer outstanding scientists and researchers the opportunity to conduct research at one or more of the DLR institutes in Germany. DLR-DAAD Fellowships are awarded on an individual basis.

Further Information
please contact us
+966 (12) 2159353 DSR@UBT.EDU.SA

Deutscher Akademischer Austauschdienst
German Academic Exchange Service
PhD Students, Postdocs & Junior Academics

Research Grants – Cotutelle Doctoral Programmes

The grants provide doctoral candidates, young academics and scientists with an opportunity to carry out research or continue their education in Germany. Funding is available for various qualification phases and stages in a career. The grants also promote the exchange of experience and networking amongst colleagues.

Application Deadlines

11 January 2019

Applications can be submitted via the DAAD online portal by 10.59pm on the closing date.

Value

EUR 1,200 per month plus initial extra payment and lump sum towards travel.

Further Information

please contact us

+966 (12) 2159353  DSR@UBT.EDU.SA

Deutscher Akademischer Austauschdienst
German Academic Exchange Service
The Institute of Electrical and Electronics Engineers (IEEE) is a globally renowned nonprofit organization dedicated to the development and innovation in the fields of electro-technology and allied sciences. To benefit humanity and the 'profession', IEEE also produces 30% of the world’s published literature in many areas such as electrical engineering, computers & control technology. Having more than 360,000 members in 150 countries, over 70,000 student members, more than 300 local sections, nearly 1500 student branches, 39 societies, 5 technical councils and more than 1500 technical chapters, IEEE is considered the world’s largest professional technical society.

IEEEExtreme is one of the global challenges in which teams of IEEE Student members—advised and proctored by an IEEE member, and often supported by an IEEE Student Branch—compete in a 24-hour time span against each other to solve a set of programming problems.

IEEE UBT Students Branch in its first year participated in this global competition with three groups, each composed of 3 students from CEIT and proctored by its faculty. This year, four groups and a total of 11 students participated in the challenge.
UBT hosted Bupa Arabia to start the Bupa Arabia Challenge: Talent Wins. The event was a result of cooperation between The Deanship of Scientific Research and Graduate Studies, The Deanship of Student Affairs, College of Engineering, and College of Business Administration. This challenge represents a journey where fresh innovative ideas will transform into value creation for Bupa Arabia’s business outlook. The challenge began on Sunday the 7th of October at Sari campus with a Business Case Briefing “Digital Customer Experience”, which was also presented again for students in Dhahban on Wednesday the 10th. This year, the challenge to “Deliver Wow Digital Customer Experience” Following, groups from CE and CBA have been selected to work on the case right after attending the Business case briefing session for the duration of two weeks. Only one group will be selected to compete against other winning groups from other universities. Total of 32 students, forming 10 teams have participated. Projects included: App Improvements, Aps to fa-
ciliate communication and advertising, Anti-Criterias, Smart healthcare and digital Healthcare system, fitness app, and insurance group. During these two weeks, UBT has offered all support to its students. The Deanship of Scientific Research and Graduate Studies had met with participating teams in Dhaban campus to practice their pitch to give feedback on their presentations. While in Sari campus teams were under the direct supervision of Dr. Ghadeer Kayal and Dr. Moamen Mohammed Ali from the insurance department. The award ceremony was held on the 28th of October at Bupa Arabia, Jeddah. Team Dana Alaki, Gena Alaam, Rotainah Kattan, and Lamia Qiblawi came in second for their project “Bupa App”
In collaboration with Social Development Bank, the DRG has celebrated the Global Entrepreneurship Week by hosting a talk on entrepreneurship and idea generation on the 18th of November. MR. Mansoor elaborated on the self-employment, who is suited for self-employment, why is the market headed towards self-employment, opportunities, and decision making. The talk is presented as an interactive session, where Mr. Mansoor invited students on stage to give all a remarkable experience. More than 100 students and staff attended the events and reported positive feedback. Moreover, Mr. Mansoor himself was pleased with the audience; he stated that “I saw the Vision of His Royal Highness Crown Prince Mohammed bin Salman is reflected in UBT students through their input during the talk”.

About Social Development Bank:
The Social Development Bank was established in 1977. In its early days, the bank activities focused mainly on social loans, services expanded later on to include career loans. In 2006, the new banking system was introduced. Thus, The Social Development Bank became a pillar of the Saudi government system for Social loans. Moreover, in an attempt to develop and facilitate the loaning process, The Social Development Bank developed Masarat Program. The offered social loans allow citizens to be productive members working towards achieving the Development Plan. In addition, it supports small business and startups which reflects positively on the Saudi economy.
Introduction to Entrepreneurship and Idea Generation (continued)

About the Speaker:

Mr. Mansoor Khalik Al-Nahdi
A Consultant & a trainer with relevant experience in mentoring upcoming entrepreneurs and interested in promoting the values of entrepreneurship by spreading the culture of entrepreneurship in the society. He is currently an Entrepreneurship Specialist at The Social Development Bank. He participated effectively & efficiently in providing a number of non-financial products. In addition, he a Member of the Bank’s representative mission on the Career Day in the United States, and the implementation of two workshops entitled "Introduction to Entrepreneurship".

Previously, he was a Primary Trainer at Jeddah College of Technology, where he: participated in the scientific conference (IV) & (V), supervised more than (50) entrepreneurs, Implemented the first edition of KAB program at the Kingdom level, prepared training material; approved in the curriculum of the technical colleges, established the Entrepreneurs Club, Prepared a training portfolio; approved in the curriculum of Industrial Secondary Institutes, implemented of the second version of the national competition to prepare small business plans and provided consultations, and Initiated of more than (10) training programs in the field.
KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

hosted the Saudi Electricity Company (SCE) on the 8th of November to pitch the ESC challenge concerning Innovation Energy. University of Business and Technology was represented by the DRG. A total of 11 groups have formed from bachelor degree students from different Saudi Universities such as Effat University and Princess Nora Bint Abdul Rahman University.

The groups worked to develop innovative ideas to solve real problems faced in Saudi Electricity Company in different areas including:

- Waste management
- Auditing
- Energy control, etc.

Innovation Energy Event at KAUST
Under the patronage of HRH Prince Khalid Al-Faisal, Advisor to the Custodian of the Holy Mosques, Governor of Makkah Region, Small & medium enterprises General Authority (Monsha’at) organized Startup Saudi Arabia Forum from the 24th to the 26th of November. The forum included a conference, an exhibition, and seminars as well as short presentations for investors. The forum is considered as a networking venue for entrepreneurs, startup owners, and venture capitalists seeking investments that encourage their initiatives and change them from startups into small and medium size projects as a major contribution to development. Decision makers, men of expertise, local and international companies participated in the forum sessions with a view to achieving sustainable development in line with the Kingdom Vision 2030 in terms of supporting national knowledge based economy, regional leadership, expanding the productive base through entrepreneurship and creating a congenial environment for an incubator of knowledge and technological creativity and innovation. Among them was the UBT, represented by Dean of Scientific Research and Graduate Studies Dr. Basma El Zein, and Ms. Haneen Osta from UBT Executive Education. Dr. Basma explained “Universities Yielding Discoveries With Commercial and Economic Departments”.
The Seed Fund is a funding mechanism to transfer innovative ideas / research projects to industry by forming new businesses at UBT through the Seed Fund Office, Entrepreneurship Unit / Deanship of Scientific Research.

**OBJECTIVES**

- To support UBT student with an early stage fund to be future leaders.
- To build new generations of Saudi entrepreneurs and leaders.

**OUR SERVICES:**

- Provides funds up to 20,000 SAR.
- Equipped office space to early stage startup including an access to a shared office and desk, shared meeting room and internet.
- Mentorship and advisorship to entrepreneurs within their journey in developing their own startup.

**TERMS OF PARTICIPATION:**

- Cross disciplinary projects involving team members from other colleges. Faculty/staff/external partners are only advisors.
- Team with a minimum of one UBT student.
- The idea or research projects must be new and innovative solving a real world problem serving vision 2030.
- The registration will be closed on 30th of January to be awarded in February.

For further information: please contact us on: DSR@ubt.edu.sa; +966122159353
Sustainability Snapshot: Organizational Sustainability Trends in Saudi Arabia

Strategic Sustainability Solutions (3S), is a Saudi fast growing company, providing consulting services in sustainability. In this Research, 3S conducted a tactical national survey, the objective of which was to acquire information with regard to existing local sustainability practices by various Saudi organizations and to initiate a discussion concerning the applicability of sustainability-related concepts in an organizational context.

The development and implementation of sustainability strategies in Saudi organizations provide a unique opportunity today for Saudi Arabia. Furthermore, the continued adaptation of sustainable policies will enable the nation to gain a strategic advantage from business-based initiatives providing an asset for Saudi society as it further transitions to a diversified, knowledge-based economy which will advance the Kingdom’s standing among the sustainability global ranks.

Key Findings:
- **Opportunities are rising**
  Sustainability leaders in Saudi Arabia have an important role to play in encouraging further development of sustainability initiatives.
- **Need for structured and dedicated teams**
  Organizations that have set up structured and dedicated teams to develop and manage sustainability programs operate at a more optimal level.
- **Empowering staff and build competencies**
  Training is a key factor in achieving success in terms of sustainability programs.
- **Increasing the emphasis on environmental issues**
  Saudi organizations have been active in field related to social and philanthropic causes (youth, employment, education, and gender). In this regard, there is a need to increase awareness of the importance of environmental sustainability.
- **Enhancing stakeholder engagement and dialogue**
  Stakeholder engagement and dialogue are critical to the success of achieving effective sustainability strategies.
- **Sharing of knowledge**
  Organizations should be encouraged to assess, report, and share the knowledge learned from others, both from internal and external sources.
- **Aligning strategies with the national vision**
  Success in achieving sustainability is more likely in those organized that systematically and deliberately link business strategies with national initiatives and goals.
The Association of Accredited Small Business Consultants® (AASBC) is the only global association on training and certification of small business and SME consultants with proprietary educational materials and practice aides explicitly designed to develop proficiency in the specialized area of small business and SME consulting. Accredited Small Business Consultants and Accredited SME Consultants have the knowledge and credibility to assist clients in improving operational efficiency leading to increased profitability and business value.

For the second consecutive year, UBT was proud to host Prof. Richard Weinberger, Chief Executive Officer from AASBC for the first time in the Gulf region to present the ASMEC workshop. The Accredited SME Consultant™ is a three-day workshop with a certification exam on the final day. The workshop started on the 19th of November at the King Road Tower, Jeddah, Saudi Arabia and was attended by 17 professionals and business persons. The workshop explained the small business & SME today and gave a general financial statement review, and then elaborated on topics like ratio analysis, SWOT analysis, operational management, and strategic planning among others.
**About The Trainer:**
Dr. Weinberger has over 30 years experience as a financial and management consultant dealing exclusively with small businesses and SMEs providing a diversity of services to a wide range of clients in all industries. He is an international speaker and has taught numerous continuing education courses for entrepreneurs and professionals. In addition to his business experience, Dr. Weinberger has been a full-time professor, adjunct professor, small business/entrepreneurial university program coordinator, prior member of the Colorado State University System Board of Governors, and a past elected school board trustee. He holds a Doctor of Philosophy degree in organization and management from Capella University, a Master of Business Administration degree in management from West Texas A&M University, a Bachelor of Business Administration degree cum laude in accounting from West Texas A&M University, and a Bachelor of Business Administration degree in marketing from The University of Texas at Austin. He is a Certified Public Accountant and has held numerous other professional certifications and designations. Dr. Weinberger serves in the capacity as the Chief Executive Officer of the Association of Accredited Small Business Consultants. He is the author of the SEMP Approach: Simplified Examination to Maximize Profit, which is the foundation of the educational training for the AASBC and, also, the author of the best-selling book, Propel Your Small Business to Success, a forward-thinking systems approach for small business owners and entrepreneurs. He is also a contributing guest expert to AllBusiness.com, one of the world’s largest online resources for small businesses.
AQADAM is KAUST Startup accelerator for ideas that are pushing the boundaries of Science and Technology. Over the course of 6 months we help aspiring entrepreneurs bring their ideas to market through mentorship and training on topics such as ideation, product design, marketing and fundraising. Accepted teams will receive SR 75,000 in grant funding and access to co-working space in the KAUST Entrepreneurship center and Prototyping Core Lab. At the completion of the program selected graduates are eligible for zero-equity follow on funding of 375,000.
THE HAPPY CITIES PROGRAM
11-12 November 2018
SPONSORED BY DUBAI REAL ESTATE INSTITUTE
hosted the Target: students in Engineering and technology
Place: n+i Paris and Toulouse, France
Duration: 2 weeks

About:
- Science and technology visits
- Cultural activities and touristic discoveries
- Conference on aerospace industry
- Conference on drones
- AIRBUS: flight simulation
- Conference CNES on perspectives for satellites; and more

Register with your Dean and apply before 05 April 2019
For more information, contact the Deanship of Scientific Research and Graduate Studies on: dsr@ubt.edu.sa
hosted the Target: students
Place: SKEMA Business School, Paris, France
Duration: 2 weeks

About:
Two weeks summer school gives the opportunity to study two business modules in English combined with an optional course of French language and culture. Modules are Finance and banking, and project management. Students can choose one or two modules.

Details:
Finance and banking include:
- Financial degradation
- Credit risk management
- Teamwork + final essay

Project management include:
- Initial capture strategies and negotiation
- Knowledge of area
- Crises management and project recovery

Register with your Dean and apply before 06 June 2019
For more information, contact the Deanship of Scientific Research and Graduate Studies on: dsr@ubt.edu.sa
hosted the Target: students

Place: University Cattolica, Milan Campus, Italy

Duration: 2 weeks

About:
The course provides an overview of the fashion industry. The aim of the course is to address the main strategic and managerial characteristics related to fashion with a global focus, analyzing the new challenges that fashion are facing nowadays: the digital and the sustainability revolution.

Course Contents:
1. Managing fashion businesses
2. Branding as positioning
3. Managing product strategies
4. Managing communication strategies
5. Managing distribution strategies
6. New challenges: branding and sustainability
7. New challenges: social media and e-commerce in fashion

Register with your Dean and apply before 09 May 2019
For more information, contact the Deanship of Scientific Research and Graduate Studies on: dsr@ubt.edu.sa
hosted the Target: students
Place: SKEMA Business School, Paris, France
Duration: 2 weeks

About:
This course deals with the concepts of social and environmental entrepreneurship, which are receiving increasing attention from all over the globe – with no exception in Italy. In this course, the Italian trend of establishing and scaling up entrepreneurial initiatives with social and environmental purposes is presented and analyzed through case studies, guest speakers and field visits to selected Italian best practices.

Course Contents:
1. MSetting the boundaries of social and eco-entrepreneurship.
2. The main social and environmental issues.
3. Opportunity recognition in the social and environmental sectors.
5. Strategies for scaling up the impact.

Register with your Dean and apply before 09 May 2019
For more information, contact the Deanship of Scientific Research and Graduate Studies on: dsr@ubt.edu.sa
Strategic Management and Entrepreneurship

**hosted the Target:** students  
**Place:** University Cattolica, Milan Campus, Italy  
**Duration:** 2 weeks

**About:**  
The global economic crisis has threatened the accessibility of youth to easy-to-get, and secure job positions in large multinational companies such rest in the labor market dose constitute a major challenge in the Italian context. Within such a difficult context, entrepreneurship is emerging as one of the most powerful responses as an effective and valuable professional career alternative. The Entrepreneurial process and its main output the creation of small and medium enterprise are the core of this course.

**Course Goals:**
1. To explore the main dimensions of the entrepreneurship  
2. To point out the out the main issues related to running a business with a specific focus on SMEs  
3. To get familiar with the main dimensions of a successful business model  
4. To deepen knowledge about peculiar Italian sector

**Register** with your Dean and **apply** before **30 May 2019**  
**For more information**, contact the Deanship of Scientific Research and Graduate Studies on: **dsr@ubt.edu.sa**
EPITECH BOOTSTRAP
Summer 2019
Project-based learning and prototyping
From July 1st to 20th, 2019
> 1 project
> 6 ECTS

- AI and robotics
- Blockchain
- Internet of things
- Video games

MORE INFO ON summer-schools.fr/epitech
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For any further information please contact us