



الجامعة الألمانية الأردنية  
German Jordanian University

# Research publications



Annual Report | 2016  
Innovative research, graduate learning and  
teaching, and creative practice

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## PREFACE

The German Jordanian University (GJU) has proven to be one of the leading universities in Jordan and its uniqueness comes from the design of its programs being responsive to the market demand and the needs of industry, management, and government.

Scientific research at GJU is considered to be one of the vital roles of faculty members. High caliber research has profound impacts on researchers, students, the institution and the country. It stimulates thought, expands horizons, enhances reputations, finds new topics for master theses students and solves important issues. The deanship is meant to help GJU achieve these goals. This is done through providing seed funding for research grants, supporting access to national and international funding, facilitating publication of research results, and encouraging faculty to participate in international scientific conferences. It is intended to establish profound research lines that will ultimately be self-sustaining. GJU provides limited funds to be used as seed grants, stop-gap grants, supplementary grants and student research grants.

This report provides an overview of research publication in all schools of GJU in 2016. We strive to provide a fascinating environment for innovative research, graduate learning and teaching, and creative practice so that our students receive a well-rounded education and our faculty get optimal support, while ensuring that codes of academic discipline are fulfilled to the maximum possible extent with transparency and equal opportunity for all.

Sincerely,

*Prof. Dr. Salem Al-Agtash*

Dean of Graduate Studies and Scientific Research

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## SCHOOL OF APPLIED HUMANITIES AND LANGUAGES

## DEPARTMENT OF LANGUAGES

## Head of Department: Dr. Reem Al-Rabadi

Faculty	Rank	Specialization
Prof. Dr. Salah Al-Salman	Professor	Philology of Semitic languages
Dr. Reem Rabadi	Associate Professor	Applied Linguistics
Dr. Omar Abu Nawwas	Associate Professor	Arabic Syntax
Dr. Haytham Althawbih	Associate Professor	Arabic Syntax
Dr. Hassan Ramadan	Associate Professor	German Language
Dr. Ragab Abdelatey	Assistant Professor	Translation (Arabic-German)
Dr. Gerhard Jaiser	Assistant Professor	German Literature
Dr. Oliver Ritter	Assistant Professor	Arabic Studies/Legal Translation
Dr. Karin Leich	Assistant Professor	Modern German Literature
Dr. Nicola Huson	Assistant Professor	German as a Foreign Language
Dr. Saleh Khalileh	Assistant Professor	Sociolinguistics
Dr. Dorothea Jecht	Assistant Professor	German as a Foreign Language
Dr. Thelal Oweis	Lecturer	English Language Curriculum and Instruction
Ms. Kinana Nasra	Instructor	Translation (Arabic-English)
Ms. Dina Omar	Instructor	German as Foreign Language
Ms. Mariam Abu Hussein	Instructor	German as Foreign Language
Ms. Raghad Al Hadidi	Lecturer	English Language

## PUBLICATIONS

1. Abdelaty, Ragab. (2016). Nonverbale Elemente in Fachtexten der Technik und der Medizintechnik. Anteil, Funktion und Übersetzungsmöglichkeiten. In: Fachkommunikation im Fokus – Paradigmen, Positionen, Perspektiven herausgegeben von Hartwig Kalverkämper 2016.
2. Althawbih, H. & Rabadi, R. (2016). Hindrances Encountering Undergraduate Jordanian Translation Students in Translating Islamic Terms. *Arab World English Journal*, 7 (3): 31-50.
3. Leich, Karin. (2016). Aufklärung ohne Ende? Soll man die großen Aufklärungsautoren im DaF-Unterricht behandeln. Akten des XIII. *Internationalen Germanistenkongresses Shanghai 2015*. Germanistik zwischen Tradition und Innovation. Herausgegeben von Jianhua Zhu, Jin Zhao und Michael Szurawitzki. Band 4. Peter Lang Frankfurt am Main 2016. 167-173.
4. Pötzl, V. (2016). Violence, Resistance, and Pleasure in Fadi Zaghmout's Novel. In: *International Journal of Liberal Arts and Social Science*. 4 (7).
5. Rabadi, R. (2016). Demonstrative Pronouns in English and Arabic: Are they Different or Similar?. *English Language and Literature Studies*, 6 (1): 16-27.

6. Rabadi, R. (2016). Vocabulary Learning Strategies Employed by Undergraduate EFL Jordanian Students. *English Language and Literature Studies*. 6 (1): 47- 58.
7. Ritter, Oliver. (2016). Das islamische Familienrecht und seine Relevanz für in Deutschland lebende Muslime. *Dissertation, DITIB-Verlag, Köln 2016*.
8. Thelal Oweis. (2016). Teacher Empowerment through Action Research, Contemporary trends in educational institutions, Reform, Development. *The 15th Annual International Conference of London Consulting and Research Center (ISSN:2313/1004-2016)*.



## SCHOOL OF APPLIED MEDICAL SCIENCES

### Dean: Dr. Adnan Al-Lahham

The School of Applied Medical Sciences (SAMS) was established in 2005. The SAMS offers undergraduate programs in two applied engineering disciplines giving the students the knowledge and skills they need for success in an applied medical engineering oriented career.

Graduates of the SAMS are expected to fill the gap in the Jordanian and the regional markets in critically needed disciplines concerning technology transfer and innovation. In addition, to deliver to the national/international industrial partners with qualified applied-based engineers.

The approach of the school is to foster applied learning in all courses offered via practical projects, teamwork, technical writing. The school capitalizes on the great opportunity of studying and training of its students in Germany during the fourth year to facilitate knowledge transfer through partnership with many reputable universities and specialized industrial partners in Germany.

The SAMS provides state-of-the-Art laboratories within the scope of teaching approach such as Biomaterials science, biomedical sensors and transducers, Medical Instrumentation, Instrumental analysis, separation, Pharmaceutical manufacturing and Industrial zone.

## DEPARTMENT OF BIOMEDICAL ENGINEERING

### Chair: Dr. Hussam Kloub

Faculty	Rank	Specialization
Dr. Adnan Al-Lahham	Associate Professor	Biology / Microbiology
Dr. Akeel Al-Kazwini	Associate Professor	Biophysics Radiology
Dr. Nasim Alnuman	Assistant Professor	Mechanical Engineering
Dr. Eyad Hamad	Assistant Professor	Biomedical Engineering
Dr. Hussam Kloub	Assistant Professor	Electronics and Microsystems Engineering
Dr. Walid Al-Zyoud	Assistant Professor	Molecular Pathology

The Academic Program of the Department of biomedical engineering of the best software engineering academic distinction at the level of the Hashemite Kingdom of Jordan. Biomedical Engineering was created in response to the constant changes in the world and the emergence of new technological areas, to keep pace with rapid advances in technology and bio-medical engineering graduates are directed towards the needs of the market and industry. Our mission at the Department of biomedical engineering is to provide graduates with the best practical and scientific experience in the field of biomedical engineering. Prepare graduates with the skills.

## PUBLICATIONS

1. Adnan Al-Lahham. (2016). Carriage of Streptococcus Pneumoniae in the Pediatric Population of Msdaba and Amman, Jordan, *10th International Symposium on Pneumococci and Pneumococcal Disease*, Scotland.

2. Adnan Al-Lahham, N Khanfar. (2016). Resistance of Streptococcus Pneumonia in Jordanian Pediatric Carriers 2015-2016, *International Meeting on Diseases and Surveillance (IMED)*. Vienna.
3. Akeel T. Al-Kazwini, Atta G. Attaelmanan. (2016). The Enhancement of Background Radiation as a Result of Using Natural Building Materials. *Journal of Community Medicine and Health Education*. Vol.6 No. 5, 2016.
4. Rami Alazrai, Ala Khlifeh, Nasim Alnuman, Deena Alabed, Yaser Mwafi. (2016). An Ensemble -Based Regression Approach for Continuous Estimation of Wrist and Fingers Movements from Surface Electromyography, *2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, USA*.
5. Rami Alazrai, Deena Alabed, Nasim Alnuman, Ala Khalifeh, and Yaser Mowafi. (2016). Continuous Estimation of Wrist and Fingers Joint Angles from sEMG Signals using Wavelet-based Features and Support Vector Regression. *The 2016 IEEE-EMBS Conference on Biomedical Engineering and Sciences, Malaysia*.
6. Walid A. Al-Zyoud, Robert Hynson, Till Boecking, Lawrence Lee, Dali Liu, Katharina Gaus, Joshua Ho, Eleni Giannoulatou, Alastair Stewart, Matthew Baker, Anthony Duff, Adelle Coster, Lorraine Ganuelas. (2016). Binding of transcription factor GabR to DNA requires recognition of DNA shape at a location distinct from its cognate binding site. *Oxford Journals, Nucl. Acids Res.* 44 (3): 1411-1420,2016.
7. Wahsha, M., Al-Absi, Bini, C., Bani Yassen, A., Al-Zyoud, & Al-Jawasreh. (2016). Effects of Toxic Elements on Leaf Morphology of Halophila Stipulacea Growinmine Dump Sediments in Southeast Jordan. *EQA – Environmental Quality*.21, 33–4,2016
8. Wahsha, M., Al-Absi, E., Manasrah, R., Al-Zyoud, W., & Bini, C. (2016). The Impact of Uranium Near a Phosphate Mining Port on The Environment (Gulf of Aqaba, Jordan). *EQA – Environmental Quality*, 22, 25–32,2016

## DEPARTMENT OF CHEMICAL AND PHARMACEUTICAL ENGINEERING

### Chair: Dr. Esra'a Albarahmieh

Faculty	Rank	Specialization
Prof. Manar Fayyad	Professor	Chemistry
Prof. Munib Saket	Professor	Pharmaceutical Sciences
Dr. Malyuba Abu Daabes	Associate Professor	Chemical Engineering
Dr. Samer Al-Gharabli	Associate Professor	Chemistry
Dr. Mohammad Alnaief	Assistant Professor	Chemical Engineering
Dr. Mohammad Khanfar	Assistant Professor	Chemistry
Dr. Ziad Abuelrub	Assistant Professor	Chemical Engineering
Dr. Balsam Mohammad	Assistant Professor	Chemical Engineering
Dr. Esra'a Albarahmieh	Assistant Professor	Pharmaceutical Technologies
Dr. Nafisah Al-Rifai	Assistant Professor	Chemistry

The pharmaceutical-chemical engineering program is a unique integration between chemistry, biochemistry, pharmacology and engineering branches. Students will be exposed to basic, cutting edge, and training courses in these different disciplines. Prospective engineers will be able to transfer raw materials into useful pharmaceutical and fine chemical products with commercial interest through systematic use of engineering concepts and methods.

The main objective of the pharmaceutical-chemical engineering program is to generate a new type of professionals combining chemical process engineering basics along with the skills required to work in the pharmaceutical industry. This includes engineering aspects of drug manufacturing and pharmaceutical development with emphasis on unit pharmaceutical operations such as blending, compaction, crystallization, sampling and granulation.

## PUBLICATIONS

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1. A Al-Halhouli, H Qitouqa, N Malkosh, A Shubbak, S Al-Gharabli, E Hamad. (2016). LEGO Mindstorms NXT for elderly and visually impaired people in need. *A platform, Technology and Health Care* 24 (4), 579-585.
2. Aline Bussmann, Nadir Elagib, Manar Fayyad, Lars Ribbe. (2016). Sowing date determination for Sahlian rain fed agriculture in the context of agricultural policies and water management, *Land Use Policy*, 52,316-328, 2016
3. Esra'a Albarahmieh, H Almaharmeh. (2016). fabrication of hierachial polymeric thin films by spin coating towards production of amorphous solid dispersion for buccal drug delivary systems. *2016 AAPS annual meeting and exposition, USA*.
4. M. O. Mavukkandy, S. A. Gharabli, J. Kujawa, S. Chakraborty, H. A. Arafat. (2016). Chemical modification of poly (vinylidene fluoride) for hydrophilicity –ne-tuning and anchoring sites creation on microporous membranes, *16th Aachener Membran Kolloquium, Aachen, November 2–3, 2016*.
5. S Al-Gharabli, P Engeßer, D Gera, S Klein. (2016). Engineering of a highly efficient Xe 2\*-excilamp (xenon excimer lamp,  $\lambda$  max= 172 nm,  $\eta$ = 40%) and qualitative comparison to a low-pressure mercury lamp (LP-Hg,  $\lambda$ = 185/254 nm) for water purification. *T Oppenländer, Chemosphere* 144, 811-815.
6. S. Chakraborty, S. Loutatidou, M. O. Mavukkandy, S. A. Gharabli, G. Palmisano, H. A. Arafat. (2016). Hybridization of photocatalysis and nanocomposite membranes for the removal of industrial pollutants, *16th Aachener Membran Kolloquium, Aachen, November 2–3, 2016*.
7. Ziad Abuelrub, Gerrit Brem, Eddy Bramer. (2016). Parameters Affecting the Removal of Naphthalene over a Fixed Biomass Char Bed. *Venice 2016 Symposium :6th International Symposium on Energy from Biomass and waste, Italy*.

## SCHOOL OF APPLIED TECHNICAL SCIENCES

**Dean: Dr. Ala'adeen Al-Halhouli**

The School of Applied Technical Sciences (SATS) was established in 2005. The SATS offers undergraduate programs in three engineering disciplines giving the students the knowledge and skills they need for success in a technically oriented career.

Graduates of the SATS are expected to fill the gap in the Jordanian and the regional markets in critically needed disciplines concerning technology transfer, innovation, and management. The approach of the school is to foster applied learning in all courses offered via practical projects, teamwork, technical writing, and presentations. The school capitalizes on the great opportunity of studying and training of its students in Germany during the fourth year to facilitate transfer and management of technological resources via partnership with many reputable universities in Germany. The SATS provides labs in the following areas: materials science, manufacturing processes, industrial automation, work measurements, ergonomics, systems simulation, instrumentation and measurements, automatic control systems, hydraulic and pneumatic systems, and automotive maintenance. In addition, the SATS has a modern engineering workshop facility.

## DEPARTMENT OF MECHANICAL AND MAINTENANCE ENGINEERING

**Dean: Prof. Ala'adeen Al-Halhouli**

**Chair: Dr. Ma'en Sari**

Faculty	Rank	Specialization
Prof. Ziyad Masoud	Professor	Vibration and Control
Dr. Ismael Alhinti	Associate Professor	Thermal sciences and fluids/Renewable energy
Dr. Mohammad Nazzal	Associate Professor	Manufacturing processes
Dr. Ma'en Sari	Associate Professor	Applied Mechanics
Dr. Rafat Al-Waked	Associate Professor	Thermal sciences and fluids
Dr. Ahmad Almuhtady	Assistant Professor	Thermal sciences and fluids/Maintenance management
Dr. Wahib Owhaib	Assistant Professor	Thermal sciences and fluids
Eng. Ahmad Hammad	Lecturer	Thermal sciences and fluids/Applied Mechanics
Eng. Shorouq Shaweesh	Lecturer	Thermal sciences and fluids

The Academic Program of the Department of Mechanical and maintenance Engineering is one of the most outstanding engineering programs in the Hashemite Kingdom of Jordan. In addition to being the only program that grants a bachelor's degree in mechanical and maintenance engineering, the academic content for this program is a harmonic integration of mechanical engineering and maintenance engineering and management with equal focus on the theoretical and practical aspects of the two majors. The mechanical engineering aspect covers the traditional Thermofluid Science and Applied Mechanics. Via a large number of specialized courses that are taught using the latest educational and practical means including software and hardware laboratories. The maintenance engineering and

management side covers maintenance operations management and quality and efficiency control of products and production, in addition to warehouse management operations. Graduates of mechanical and maintenance engineering program will have the appropriate theoretical and practical background that qualifies them to work in a wide range of engineering fields.

## PUBLICATIONS

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1. Ahmad Hammad, Jamil AlAsfar. (2016). Comparative Study: The Direct Burning of Oil Shale and Coal. *The 11th International Symposium on Numerical Analysis of Fluid Flows, Heat and Mass Transfer –Numerical Fluids 2016*. Greece.
2. Ahmad Hammad and Raheel Qudisat. (2011 -2015). The Role of UNHCR in Refugees Crisis: The case of Refugees in Jordan *Proceeding of 1st International conference on migration and security*, Antalya – Turkey, 11-13 November, 2016.
3. Al-Kouz, W., Sari, M., Kiwan, S, and AlKhaldi, A. (2016). A Rarefied Flow and Heat Transfer Characteristics Over a Vertical Stretched Surface. *Advances in Mechanical Engineering*, Vol. 8, No. 8, 2016, pp. 1 – 13.
4. Al Asfar, J. J., Hammad, A., Sakhrieh, A. and Hamdan, M.A. (2016). Two-Dimensional Numerical Modeling of Combustion of Jordanian Oil Shale, *Energy Sources, Part A: Recovery, Utilization, and Environmental effects*, Vol. 38, No. 9, 2016, pp. 1189 – 1196.
5. Hammad, A., Al-Kouz, W., Alshare, A., Kiwan, S., and Alkhalidi, A. (2016). Flow characteristics for low pressure solar parabolic trough collector. *Proceeding of SEE 2016 conference*, Osaka – Japan, 21-23 November, 2016.
6. Ismael Alhinti. (2016). Energy Auditing of a Large Shopping Mall: A case Study from Riyadh, Saudi Arabia, *39th World Energy Engineering Congress, USA*
7. Kadhim S. K., Nasif M. S., Al-Kayiem H.H. and Al-Waked R. (2016). Using fluid structure interaction technique to investigate the effect of vibration on bileaflet mechanical heart valve deformation,” *ARPJ Journal of Engineering and Applied Sciences*, Vol. 11, No. 20, 2016, pp. 12192 – 12196.
8. Khaled Alhazza, Ziyad Masoud, and Nehal Alotaibi. (2016). A Smooth Wave-Form Shaped Command with Flexible Maneuvering Time: Analysis and Experiments. *Asian Journal of Control*, Vol. 18, No. 4, July 2016, pp. 1376 – 1384.
9. Khaled A. Alhazza and Ziyad N. Masoud. (2016). Waveform Command Shaping Control of Multimode Systems. *Journal of Sound and Vibration*, Vol. 363, 2016, pp. 126 – 140.
10. Nasif M. S., Kadhim S. K., Al-Kayiem H.H. and Al-Waked R. (2016). Using one-way fluid structure interaction coupling to investigate the effect of blood flow on the bileaflet mechanical heart valve structure. *ARPJ Journal of Engineering and Applied Sciences*, Vol. 11, No. 20, 2016, pp. 11971 – 11974
11. Nasif M. and Al-Waked R. (2016). Effect of air to air fixed plate enthalpy energy recovery heat exchanger flow profile on air conditioning system energy recovery. *Applied Mechanics and Materials*, Vol. 819, 2016, pp. 245 – 249.
12. Ouda O., Raza S., Nizami A., Rehan M., Al-Waked R. and Korres N. (2016). Waste to energy potential: A case study of Saudi Arabia. *Renewable and Sustainable Energy Reviews*, Vol. 61, 2016, pp. 328 – 340.
13. Sari, M.S. and Al-Qaisia, A. (2016). Nonlinear Natural Frequencies and Primary Resonance of Euler-Bernoulli Beam with Initial Deflection using Non-Local Elasticity Theory, *Jordan Journal of Mechanical and Industrial Engineering* 10 (3) (2016) 161-169.
14. Sari, M. S. and Al-Kouz, W. (2016). Vibration Analysis of Non-Uniform Orthotropic Kirchhoff Plates Resting on Elastic Foundation Based on Nonlocal Elasticity Theory. *International Journal of Mechanical Sciences*, Vol. 114, 2016, pp. 1 – 11.

15. Sari, M.S. (2016). Superharmonic resonance analysis of nonlocal nano beam subjected to axial thermal and magnetic forces and resting on a nonlinear elastic foundation, *Microsystem Technologies*, DOI: 10.1007/s00542-016-3161-3.
16. Ziyad Masoud, Mohammad Nazzal, and Khaled Alhazza. (2016). Multimode input shaping control of flexible structures using frequency-modulation. *Jordan Journal of Mechanical and Industrial Engineering*, Vol. 10, No. 3, September 2016, pp. 179 – 188.

## DEPARTMENT OF INDUSTRIAL ENGINEERING

**Chair: Dr. Nidal Shawawreh**

Faculty	Rank	Specialization
Dr. Safwan Altarazi	Associate Professor	Industrial Engineering
Dr. Iyas Khader	Associate Professor	Mechanical Engineering
Dr. Hazem Kaylani	Associate Professor	Industrial Engineering
Dr. Rula Allaf	Assistant Professor	Industrial Engineering
Dr. Mahmoud El-Banna	Assistant Professor	Industrial Engineering
Dr. Anas Atieh	Assistant Professor	Materials and Manufacturing Engineering
Dr. Nidal Shawawreh	Assistant Professor	Materials Engineering
Eng. Dina Elayyan	Industrial Professor	Industrial Engineering
Eng. Sarah Qareish	Lecturer	Industrial Engineering
Eng. Emad Alzou'bi	Lecturer	Industrial Engineering

The program provides an interdisciplinary educational foundation for its graduates to understand problems and to find and implement solutions with a system engineering perspective; students are provided with the essential tools to consider the technological, business and human aspects of problems in complex systems. The program consists of the following areas of study: basic sciences; engineering materials and manufacturing processes; statistics and quality management; optimization, operations management and managerial sciences, ergonomics, economics and finance, and informatics. The department offers a B.Sc. in Industrial Engineering.

## PUBLICATIONS

1. Anas M. Atieh, et. al. (2016). Effect of Shot Peening on the Mechanical Properties & Weldability of TIG Welded Aluminum 6061-T6 Alloy, Proceedings of The Canadian Society for Mechanical Engineering International Congress 2016, *CSME International Congress 2016*, June 26-29, 2016, Kelowna, BC, Canada.
2. Andrea ConchadoPeiró, María del Carmen Bas Cerdá, Khaled M. Gharaibeh, and Hazem Kaylani. (2016). Influence of firm size on the competencies required to management engineers in the Jordanian telecommunications sector. *European Journal of Engineering Education*, 2016, pp. 1 – 14, published online.
3. Altarazi S.A. and Allaf R.M. (2016). Designing and analyzing a mixture experiment to optimize the mixing proportions of polyvinyl chloride composites. *Journal of Applied Statistics*, 2016, pp. 1 – 25, published online.
4. Altarazi S.A., Hijazi L., Kaiser E. (2016). Process Parameters Optimization for Multiple Inputs-Multiple-Outputs Pulsed Green Laser Welding via Response Surface Methodology. *2016 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)*, Bali, Indonesia, December 4-7, 2016.

5. Altarazi S.A., Sudani G., Rajab Z., Karadsheh Z., Bursheh A. (2016). A Taguchi-Continues Simulation Approach to the Injection Molding Blowing Process Quality Improvement. Proceedings of the 2016 *International Conference on Industrial Engineering and Operations Management, Kuala Lumpur, Malaysia, March 8 – 10, 2016*.
6. A. Renz, I. Khader, and A. Kailer. (2016). Tribochemical wear of cutting-tool ceramics in sliding contact against a nickel-base alloy. *Journal of the European Ceramic Society*, Vol. 36, 2016, pp. 705 – 717.
7. Atieh, A.M., Kaylani, H., Al-abdallat, Y., Qaderi, A., Ghoul, L., Jaradat, L. and Hdairis, I. (2016). Performance improvement of inventory management system processes by an automated warehouse management system. *Procedia CIRP*, Vol. 41, 2016, pp. 568 – 572.
8. Hazem Kaylani, Ahmad Almuhtady, and Anas M. Atieh. (2016). Novel Approach to Enhance the Performance of Production Systems Using Lean Tools. *Jordan Journal of Mechanical and Industrial Engineering*, Vol. 10, No. 3, June.2016, pp. 215 – 229.
9. Kaylani, H. and Atieh, A. (2016). Simulation Approach to Enhance Production Scheduling Procedures at a Pharmaceutical Company with Large Product Mix. *Procedia CIRP*, Vol. 41, 2016, pp. 411 – 416.
10. R. Raga, I. Khader, Z. Chlup, A. Kailer. (2016). Damage initiation and evolution in silicon nitride under non-conforming lubricated hybrid rolling contact, *Wear*, 360-361(2016)147-157.

#### DEPARTMENT OF MECHATRONICS ENGINEERING

**Chair: Dr. Mutaz Ryalat**

Faculty	Rank	Specialization
Prof. Ala'aldeen Al-Halhouli	Professor	Mechanical Engineering
Dr. Lamya Alchalabi	Associate Professor	Electrical Engineering
Dr. Aiman Alshare	Associate Professor	Thermal sciences and fluids
Dr. Wael Alkouz	Associate Professor	Mechanical Engineering
Dr. Louy Qoaidar	Associate Professor	Thermal sciences and fluids/Renewable energy
Dr. Nathir Rawashdeh	Assistant Professor	Electrical Engineering
Dr. Jumana Abu-Khalaf	Assistant Professor	Mechatronics Engineering
Dr. Mutaz Ryalat	Assistant Professor	Mechatronics Engineering
Dr. Hisham ElMoaqet	Assistant Professor	Mechatronics Engineering
Dr. Hani Muhsen	Assistant Professor	Electrical Engineering
Dr. Mariam Ibrahim	Assistant Professor	Electrical Engineering
Eng. Natheer Almtireen	Instructor	Mechatronics Engineering

Mechatronics engineering is an integrated approach to the design of computer controlled electro-mechanical systems. Mechatronic applications are pervasive in our everyday lives, so much so that we often take them for granted. Familiar examples of mechatronic systems include automotive anti-lock braking systems (ABS), SLR cameras, and aerospace "fly-by-wire" systems. These mechatronic designs are much more than simply the addition of a microcontroller to an existing mechanical system – their complete and properly integrated redesign is what makes them successful. An integrated design philosophy has been incorporated into the development of this program.

The Mechatronics Engineering program is specifically designed to provide a comprehensive, unique, and integrated curriculum. The Mechatronics Program is based on modeling, design, analysis and functioning of computer-controlled electronics/electrical mechanical systems. The program consists of primarily core courses that must be taken by all Mechatronics students, elective courses distributed throughout the program and a real hands-on training program for 6 months in Germany.

## PUBLICATIONS

1. Ahmad Hammad, Wael Al-Kouz, Aiman Alshare, Suhil Kiwan, Ammar Alkhalidi. (2016). Flow Characteristics for Low Pressure Solar Parabolic Through Collector. *Second International Conference on Science, Engineering, and Environment Flow Characteristics for Low*, Japan
2. Aiman Alshare, Wael Al-Kouz, Suhil Kiwan, Ammar Al-Kalidi, Montasir Hader. (2016). Computational modeling of gaseous flow and heat transfer in a wavy microchannel, *Jordan Journal of Mechanical and Industrial Engineering*, Vol 10, No.1 (2016) ISSN 1995-6665, Pages 75-83.
3. Aiman Alshare, and Bourhan Tashtoush. (2016). Simulations of Magneto-hemodynamics in Stenosed Arteries in Diabetic or Anemic Models," *Computational and Mathematical Methods in Medicine*, 2016, Article ID 8123930, 13 pages.
4. Ala'Aldeen Halhouli. (2016). design, fabrication and characterization of constant flow micropump, *journal of thermal science and engineering application*, Vol.8/021006-1.
5. Al-Halhouli A.T., Qitouqa H., Malkosh N., Shubbak A., Al-Gharabli S., and Hamad E. (2016). LEGO Mindstorms NXT for Elderly and Visually Impaired People In-need: A Platform. *Technology and Health Care*, Vol. 24, No. 4, 2016, pp. 579 – 585.
6. Al-Kouz, W., Sari, M., Kiwan, S., and AlKhalidi, A. (2016). A Rarefied Flow and Heat Transfer Characteristics Over a Vertical Stretched Surface. *Advances in Mechanical Engineering*, Vol. 8, No. 8, 2016, pp. 1 – 13.
7. Ammar AlKalidi, Suhil Kiwan, Wael Al-Kouz, Aiman Alshare. (2016). Conjugate heat transfer in rarefied gas in enclosed cavities, *Vacuum*, 130(2016) 137-145.
8. Ben Amara M., Eddhibi F., Qoaider L., Balghouti M., Guizani A. (2016). Optimization of LFC solar concentrator design under Tunisian Conditions, *5th Global conference on Renewable Energy and Energy Efficiency for the Desert Region (GCREEDER)*, 04 -06 April 2016, Amman, Jordan.
9. Hammad, A., Al-Kouz, W., Alshare, A., Kiwan, S., and Alkhalidi, A. (2016). Flow characteristics for low pressure solar parabolic trough collector. *Proceeding of SEE 2016 conference*, Osaka – Japan, 21-23 November, 2016.
10. H. ElMoaqet, D. M. Tilbury, and S. K. Ramachandran. (2016). A Probabilistic Approach for Evaluating Predictions of Critical Levels in Physiological Time Series. *Proceedings of the American Control Conference*, IEEE, 2016
11. H. ElMoaqet, D. M. Tilbury, and S.K. Ramachandran. (2016). Multi-Step Ahead Predictions of Critical Levels in Physiological Time Series. *IEEE Transactions on Cybernetics*, published on line, 2016. DOI: 10.1109/TCYB.2016.2561974
12. J. Kim, H. ElMoaqet, D. M. Tilbury, and S. K. Ramachandran. (2016). A New Algorithm for the Detection of Sleep Apnea Events in Respiration Signals. *In Engineering in Medicine and Biology Society (EMBC), 2016 IEEE 38th Annual International Conference of the IEEE* (pp. 3199-3202).
13. Ma'en Sari, Wael Al-Kouz. (2016). Vibration analysis of non-uniform orthotropic Kirchhoff plates resting on elastic foundation based on nonlocal elasticity theory, *International Journal of Mechanical Sciences*, 114(2016)1-11.
14. Mariam Ibrahim, Jun Chen, and Ratnesh Kumar. (2016). Quantification of Centralized/Distributed Secrecy in Stochastic Discrete Event Systems. *In Recent Advances in Systems Safety and Security*, Vol. 62, Chapter 2, ISBN: 978-3-319-32523-1, Springer International Publishing, 2016.

15. Mariam Ibrahim, Jun Chen and Ratnesh Kumar. (2016). A Resiliency Measure for Electrical Power Systems. *IEEE International Workshop on Discrete Event Systems*, pp. 385 – 390, Xi'an, China, May 2016.
16. Mariam Ibrahim, Jun Chen and Ratnesh Kumar. (2016). Quantification of Distributed Secrecy Loss in Stochastic Discrete Event Systems under Bounded-Delay Communications. *IEEE International Workshop on Discrete Event Systems*, pp. 373 – 378, Xi'an, China, May 2016.
17. Matar M., Al-Halhouli A.T., Dietzel A, Büttgenbach S. (2016). Performance enhancement of the synchronous micropump based on experimental and numerical investigations of the magnetic field flux density in planar microcoils. *Transactions of the Institute of Measurement and Control*, 2016, online first.
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## SCHOOL OF ARCHITECTURE AND BUILT ENVIRONMENT

**Dean: Dr. Ziyad Haddad**

**Vice Dean: Dr. Maram Tawil**

The School of Architecture and Built Environment was founded in 2006. It is formed on an applied model of education that integrates academia with practice. Through its interactive learning environment, the school prepares the students for critical involvement with real practice and enhances their awareness and sensitivity to social responsibilities, sustainability and environmental intervention, and the benefits of research and innovation. Emphases are placed on teamwork, networking, and the integration of education and the market place.

## DEPARTMENT OF ARCHITECTURE AND INTERIOR ARCHITECTURE

**Chair: Dr. Feda Salah**

Faculty	Rank	Specialization
Prof. Natheir Abu Obaid	Professor	Architecture
Prof. Yasser Rajjal	Assistant Professor	Architecture and Urban Design
Prof. Majd Al-Homoud	Professor	Cultural /Socio-Behavioral Studies in Housing and Built Environment
Dr. Rami Daher	Associate Professor	Historic Preservation and Urban Regeneration
Dr. Maram Tawil	Assistant Professor	Spatial Planning, Urban & Regional Sociology
Dr. Janset Shawash	Assistant Professor	Development Planning
Dr. Omaimah Al-Arja	Assistant Professor	Building Sciences-Architectural Acoustics
Dr. Anna Konstantin	Assistant Professor	Science of Architectural focusing in Antique Landscape
Dr. Raed Al Tal	Assistant Professor	Architectural History/Contemporary Middle Eastern Architecture
Prof. Mohammad Kadhim	Industrial Professor	Urban Planning
Dr. Farouk Yagmour	Industrial Professor	Planning
Arch. Rejan Ashour	Industrial Professor	Architecture
Arch. Bisher Zureikat	Industrial Professor	Architecture
Arch. Mohammad Khaled	Industrial Professor	Architecture
Arch. Leen Fakhoury	Industrial Professor	Conservation studies
Arch. kamal Jalouqah	Industrial Professor	Urban Planning
Arch. Raed Al-Naber	Industrial Professor	Architecture

Arch. Amani Malhas	Industrial Professor	Architecture
Arch. Tha'er Qub'a	Industrial Professor	Architecture
Eng. Maryam Al-Azzeh	Instructor	Structural Engineering
Arch. Tala Awadallah	Instructor	Energy efficient buildings & architecture
Arch. Kawthar Alrayyan	instructor	Landscape Architecture
Arch. Muhammad Alfar	Full time lecturer	Architecture
Arch. Tala Mukheimer	Full time lecturer	Architectural Conservation

B. Sc. Program in Architecture:

Main Stream: Architecture

Interior Architecture Stream- the first and the only Program in Jordan in Interior Architecture.

M. Sc. Program in Spatial Planning – the first and only Program in Jordan in Spatial Planning.

Urban Design and Urban Regeneration

#### DEPARTMENT OF DESIGN AND VISUAL COMMUNICATION

**Chair: Arch. Rawan Majzoub**

Faculty	Rank	Specialization
Prof. Mohammad Yaghan	Professor	Design by Computer
Prof. Ziyad Haddad	Professor	Meta Criticism
Dr. Feda M. Salah	Assistant Professor	Architecture-Product and Spatial Design
Loozan Sabri	Assistant Instructor	Design and Visual arts
Arch. Caesar Jarrar	Industrial Professor	Temporary Architecture and Museum Design Birmingham Institute of Art and Design
Servet Golbol	Industrial Professor	Master of Fine Arts
Arch. Rawan Majzoub	Instructor	Msc. Design & Digital media
Lamis Mawafi	Full time lecturer	MFA Textiles
Nader Hammouqah	Instructor	Illustration & Animation
Arch. Mahmoud Hindawi	Industrial professor	animation
Hazar Marji	Lecturer	Design Master of Integrated

B.A.

Program in Design and Visual Communication:

An integrated design program incorporating graphic design, cinematography and TV production, multi-media and animation, and product design- the first and the only program in Jordan that deals with design and visual communication from an integrated perspective. It is also the first Program at the Bachelor level that concerns Cinema and TV Production.

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3. Haddad, N. A., & Fakhoury, L.A. (2016). Towards Developing a Sustainable Heritage Tourism Action Plan for Irbid historic core. *International Journal of Architectural Research (Archnet-IJAR)*, 10(3), pp. 36-59.
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## SCHOOL OF BASIC SCIENCES AND HUMANITIES

**Dean: Akeel Al-Kazwini**

**Vice Deans: Dr. Haytham Thawabieh,**

**Assistant Dean: Mrs. Iman Shashaa**

The School of Basic Sciences and Humanities was established at the beginning of 2015. The School is concerned with offering and teaching mandatory and elective university and schools course requirements for students towards fulfilling their Bachelor Degree requirements. The School offers courses in Mathematics, Physics, English and Arabic Language, National Education, Military Sciences, along with some Humanities elective courses.

Faculty	Academic Rank	Specialization
Prof. Nabil Ayoub	Professor	Physics
Dr. Omar Abu Nawas	Associate Professor	Arabic
Dr. Dia Zeidan	Associate Professor	Computational and Applied Mathematics
Dr. Husam Abu Safe	Associate Professor	Physics
Dr. Omar Alomari	Assistant Professor	Mathematics
Dr. Mohammad Abu Dayah	Assistant Professor	Mathematics
Dr. Mohammad AlQudah	Assistant Professor	Mathematics
Dr. Hussein Taani	Assistant Professor	Physics
Dr. Sameer Arabasi	Assistant Professor	Physics
Dr. Inshad Yousef	Assistant Professor	Physics
Dr. Haytham Thawabieh	Associate Professor	Arabic
Dr. Abdallah Al-Raggad	Assistant Professor	National Education
Dr. Safa Shweihat	Associate Professor	Education Fundamentals
Mrs. Iman Shashaa	Instructor	English Language
Mr. Adel Hawatmeh	Instructor	National Education
Mrs. Nidal Al-Hihi	Instructor	English Language
Mrs. Vera Khamashta	Instructor	English Language
Mrs. Dina Hindi	Instructor	English Language
Mrs. Eva Haddad	Instructor	English Language
Miss Basmah Al-Taher	Instructor	English Language
Mr. Laith Hawawsheh	Full time lecturer	Mathematics
Miss Anwar Bastanji	Full time lecturer	Mathematics
Mr. Mahmoud Algharram	Full time lecturer	Physics
Mr. Majdi Amr	Full time lecturer	Physics
Mrs. Nisreen Saleh	Full time lecturer	English Language
Mrs. Lamia Azoka	Full time lecturer	English Language

Dr. Kawther Karain	Full time lecturer	English Language
Mrs. Sausan Murthy	Full time lecturer	English Language
Dr. Dima Khasawneh	Full time lecturer	English Language
Miss Rasha Hijazeen	Full time lecturer	English Language

## PUBLICATIONS

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2. ALTaher, Bassmah. (2016). Embracing Afrocentricity: African-American Agency in Toni Morrison's BELOVED. *in the Sixth International Conference on Linguistics, Literature, and Translation at AlZaytoonah University of Jordan*. 34 Pages
3. Alice Kozakevicius, Alex A. Schmidt and Dia Zeidan. (2016). A WENO Wavelet Scheme for Solving Hyperbolic Equations of Two-Phase Flows. *Proceeding Series of the Brazilian Society of Computational and Applied Mathematics, CNMAC2016*.
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7. Dia Zeidan and Eric Goncalvès. (2016). A Numerical Study of Compressible Two-Phase Flows Shock and Expansion Tube Problems. *Proceedings of the 7th International Conference on Computational Methods (ICCM2016)*, 1–4 August 2016, Berkeley, USA, 2016
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19. Mohammad Abudayah, Omar Alomari, Hassan AlEzeh. (2016). Geodetic Number of Powers of Cycles, *The 48th SE International Conference on Combinatorics, Graph Theory, and Computing*, USA.
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28. Safa Shweihat. (2016). among German Jordanian University students. *Accepted for publication in Dirasat, Deanship of Academic Research, 01*, ISSN 1026-371.
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## SCHOOL OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY

### Dean: Dr. Sahel Alawneh

The school of Electrical Engineering and Information Technology was founded in 2005. The school offers undergraduate programs in three disciplines and two graduate programs to give students the knowledge and skills they need to succeed in the knowledge and technical professions.

Dedication, collaboration, and inclusiveness are central to our mission. We coordinate with our German partners in teaching, sharing, and disseminating knowledge in order to provide a well-rounded informatics and computing education, as we diligently attend to market needs we acknowledge the importance of knowledge advancement as the primary engine for economic prosperity.

The vision of the school is to foster a high-quality, collaborative, industry-oriented educational model that brings together academic, public, and private institutions and research centers for the fulfillment of national prosperity; to create an atmosphere for applied research and development; and to produce highly skilled graduates who are ready to compete in today's industrial niches. The School provides a unique educational environment. It offers small classes, outstanding facilities, and an extremely supportive staff. In teaching and research, our faculty body is amongst the most caring and committed bodies, providing a dimension of personal attention not often found in similar programs at other peer institutions.

## COMPUTER ENGINEERING DEPARTMENT

### Head of Department: Dr. Rami Alazrai

Faculty	Rank	Specialization
Prof. Salem Al-Aqtash	Full Professor	Electrical and Computer Engineering
Dr. Sahel Alawneh	Associate Professor	Electrical and Computer Engineering
Dr. Rami Alazrai	Assistant Professor	Electrical and Computer Engineering
Dr. Mohammad Daoud	Assistant Professor	Electrical and Computer Engineering
Dr. Feras Al-Hawari	Assistant Professor	Computer Engineering
Dr. Omar Hiari	Assistant Professor	Computer Engineering
Dr. Ammar Gharaibeh	Assistant Professor	Computer Engineering

The Computer Engineering Department at GJU was established in 2008. The department has 6 faculty members all holding Doctoral degrees from top universities from all around the world. The faculty members are experts in their teaching areas and engaged in research activities in their fields. The Department of Computer Engineering offers the Bachelor of Science (B.Sc.) degree after successfully passing 176 credit hours. Most computer engineering courses have laboratories. During the period of study, the students take practical courses in the laboratories of the electrical engineering department. The laboratories included are Microprocessors Laboratory, Digital Systems Laboratory, Embedded Systems Laboratory, Operating Systems Laboratory, and Computer Networks Laboratory. In addition to

the bachelor program, this department offers a master's degree in computer engineering with the possibility of obtaining dual degree through our partners in Germany. This program focusses on developing graduates that can support both the local industry and academic needs.

## PUBLICATIONS

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1. Feras Al-Hawari. (2016). In-house Implementation of an Information Display system using open source technology. *2nd international conference on open source software computing OSSCOM*, Lebanon.
2. I. Hababeh, S. Alouneh and A. F. Khalifeh. (2016). A Position Aware Mobile Application for E-Health Services. *2016 7th International Conference on Intelligent Systems, Modelling and Simulation (ISMS)*, Bangkok, 2016, pp. 144-148.
3. Jose Schutt-Aine, Dennis Nagle, Feras Al-Hawari, Ambrish Varma, Jilin Tan, Ping Liu, Shangli Wu, Yubao Meng, Qi Zhao, and Zhongyong Zhou. (2016). System, method, and computer program product for input/output buffer modeling, *U.S. Patent 9,460,250*, issued October 4, 2016.
4. M.I. Daoud, T. Bdair, M. Al-Najar, and R. Alazrai. (2016). A Fusion-based approach for breast ultrasound image classification using multiple-ROI texture and morphological analyses. *Computational and Mathematical Methods in Medicine*, Submitted Aug. 2016, Provisionally Accepted, (Impact Factor: 0.887).
5. M.I. Daoud, AL. Alshalalfah, and M. Al-Najar. (2016). GPU Accelerated Implementation of Kernel Regression for Freehand 3D Ultrasound Volume Reconstruction. *2016 IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES 2016)*, Kuala Lumpur, Malaysia, December 4-8, 2016, In Press (Podium Presentation).
6. M.I. Daoud, A.A. Atallah, F. Awwad, and M. Al-Najar. (2016). Accurate and fully automatic segmentation of breast ultrasound images by combining image boundary and region information. *the 2016 IEEE 13th International Symposium on Biomedical Imaging (IEEE ISBI 2016)*, Proc. 2016 IEEE 13th Intl. Symp. Biomedical Imaging, pp. 718-721, Prague, Czech Republic, April 13-16, 2016 (Poster Presentation).
7. Mohannad J. Alhanahnah, Arshad Jhumka, and Sahel Alouneh. (2016). A Multidimension Taxonomy of Insider Threats in Cloud Computing, *The Computer Journal*, Vol. 59, Issue. 11, Nov, 2016
8. M.M. Baba, O. Ait Mohamed, F. Awwad, and M.I. Daoud. (2016). A low-cost camera-based transducer tracking system for freehand three-dimensional ultrasound. *the 2016 14th IEEE International NEWCAS Conference (IEEE NEWCAS 2016)*, Vancouver, BC, Canada, June 26-29, 2016, In Press (Poster Presentation).
9. Rami Alazrai, Mohammad Momani, Hussein AbuKhudair, Mohammad Daoud. (2016). EEG-based Tonic cold pain recognition system using wavelet-transform," under revision, *The Journal of Neural Computing and applications*.
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11. Rami Alazrai, Deena Alabed, Nasim Alnuman, Ala Khalifeh, and Yaser Mowafi. (2016). Continuous Estimation of Wrist and Fingers Joint Angles from sEMG Signals using Wavelet-based Features and Support Vector Regression. *Proc. of The 2016 IEEE-EMBS Conference on Biomedical Engineering and Sciences*, Malaysia.
12. R. El Bahsh and M.I. Daoud. (2016). Evaluating the Use of Moodle to Achieve Effective and Interactive Learning: A Case Study at the German Jordanian University. *The 2nd International Conference on Open Source Software Computing (OSSCOM 2016)*, Beirut, Lebanon, December 1-3, 2016, In Press (Podium Presentation)
13. Sahel Alouneh, Mazen Kharbutli, Rana Alqurem. (2016). Software Approach for Stack Memory Protection Based on Duplication and Randomisation. *International Journal of Internet Technology and Secured Transactions*, INDERSCIENCE, Volume 6, Issue 4, 2016.
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16. Salem Al-Aqtash. (2016). Africa information society and technology. *Internet2 Global Summit*, USA.
17. Yaser mowafi, Tareq Alaqarbeh, and Rami Alazrai. (2016). A Context-Based Personalization for Mobile Applications' Network Access. *Proc. of The 13th International Conference of Mobile Web and Intelligent Information Systems (MobiWIS)*, Vienna, Austria, 2016.

## DEPARTMENT OF ELECTRICAL AND COMMUNICATIONS ENGINEERING

### Department Head: Dr. Ala' Khalifeh

Faculty	Rank	Specialization
Prof. Labib Al-Khadra	Full Professor	Electrical Engineering
Prof. Nihad Deeb	Full Professor	Electrical Engineering
Dr. Raed Mesleh	Associate Professor	Electrical Engineering
Dr. Bassam Al-Asir	Associate Professor	Electrical Engineering
Dr. Ala'a Khalifa	Assistant Professor	Electrical and Computer Engineering

The Electrical and communication engineering department was established in 2009 and grants bachelor's degree in Communications Engineering. The department includes faculty members specialized in various fields of state-of-the-art technologies such as: wireless communication, fiber optics, electronics, digital signal processing, electromagnetics, microwave and antennas, and communication networks. It aims to graduate highly skilled engineers in Communication Engineering. The department is up-to date with the latest technologies in the field of wireless technologies, such as the Internet of Things and the 5<sup>th</sup> generation in mobile communication and other emerging technologies. It is anticipated that the demand for wireless communications will increase as a result of the emerging enhancements and innovations in technology, and the increasing reliance of societies/economies on wireless technologies. The department has the following labs and facilities: electronics lab, digital electronics lab, communication circuit lab, digital and analog communication lab, wireless communication lab, and the antenna and microwave lab.

## PUBLICATIONS

1. A. F. Khalifeh, M. A. Al-Taee, F. AlAbsi, S. Alrawi, A.N. Murshed. (2016). A videoconferencing platform for eHealth services in Jordan. *Proc. 3rd Middle East Conf. on Biomedical Engineering (MECBME'16)*, Beirut, Lebanon, 6-7 October 2016.
2. Ala'a Khalifa. (2016). Cloud Computing Security as A Service: Trends, Potential Growth and Challanegs. *72nd International Academic Conference on Development in Science and Technology (IACDST)*, Italy.
3. A. Khalifeh, S. Al-Aqtash and R. Tanash, M. AlQudah. (2016). Deploying Agents for Monitoring and Notification of Wireless Sensor Networks. *28th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2016)*.

4. Ala'a Khalifa. (2016). An Open Source Platform for E- health Monitoring and fall Detection System for the Elderly People, *Istanbul 26th International Conference on Engineering & Technology, Computer, Basic & Applied Sciences*, Turkey.
5. Ala' F. Khalifeh, Adham Saleh, Mahmoud AL-Nuimat and Dhiah Abu Tair. (2016). An Open Source Cloud Based Platform for Elderly Health Monitoring and Fall Detection. *4th Workshop on ICTs for improving Patients Rehabilitation Research Techniques*, Lisbon, Portugal, 2016.
6. A. Afana; S. Ikki; R. Mesleh; I. Atawi. (2016). Spectral Efficient Quadrature Spatial Modulation Cooperative AFSpectrum-Sharing Systems. *in IEEE Transactions on Vehicular Technology*, vol. PP, no.99, pp.1-1. doi: 10.1109/TVT.2016.2580512.
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10. F. Bagci, A. Khalifeh. (2016). Cluster Communication Protocol for Wireless Sensor Networks. *Int. J. Sensor Networks, Inderscience*, Vo.20 No. 2, 2016.
11. H Farahneh, A Khalifeh, X Fernando. (2016). An outdoor multi path channel model for vehicular visible light communication systems. *Photonics North (PN)*, 2016.
12. H. Farahneh, C. Mekhiel, A. Khalifeh, W. Farjow, and X. Fernando. (2016). Shadowing Effects on Visible Light Communication Channels. *CCECE*.
13. I. A. Mahady, A. Afana, R. Mesleh, S. Ikki and I. Atawi. (2016). Cognitive MIMO quadrature spatial modulation systems with mutual primary-secondary co-channel interference. *2016 IEEE Wireless Communications and Networking Conference*, Doha, 2016, pp. 1-5. doi: 10.1109/WCNC.2016.7565136.
14. I. E. Atawi, O. M. Badarneh, M. Aloqlah and R. Mesleh. (2016). Spectrum-sensing in cognitive radio networks over composite multipath/shadowed fading channels. *Computers & Electrical Engineering*, Available online 12 January 2016, ISSN 0045-7906.
15. Khalifeh, A.F., Al-Taee, M.A. & Murshed, A.N. (2016). Network-status aware quality adaptation algorithm for improving real-time video streaming over the internet. *Multimed Tools Appl (2016)*.
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18. R. Mesleh and A. Younis. (2016). LOS millimeter-wave communication with quadrature spatial modulation. *2016 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT)*, Limassol, Cyprus, 2016, pp. 109-113.
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25. O. S. Badarneh and R. Mesleh. (2016). Spatial Multiplexing-Based Minimum Distance Detection in Additive Generalized Gaussian Noise. *in IEEE Wireless Communications Letters*, vol. 5, no. 4, pp. 360-363.
26. O. S. Badarneh and R. Mesleh. (2016). A Comprehensive Framework for Quadrature Spatial Modulation in Generalized Fading Scenarios. *in IEEE Transactions on Communications*, vol. 64, no. 7, pp. 2961-2970.
27. Nihad Dib. (2016). Synthesis of Antenna Arrays Using Symbiotic Organisms Search (SOS) Algorithm. *2016 IEEE AP-S International Symposium on Antennas and Propagation*, USA.
28. O. S. Badarneh and R. Mesleh. (2016). Cooperative Dual-Hop Wireless Communication Systems With
29. Beamforming Over  $\alpha$ - $\mu$  Fading Channels. *in IEEE Transactions on Vehicular Technology*, vol. 65, no. 1, pp. 37-46, Jan. 2016. doi: 10.1109/TVT.2015.2394465.
30. O. S. Badarneh and R. Mesleh. (2016). Performance of quadrature spatial modulation with imperfect channel information over correlated  $\alpha$ - $\mu$  fading channels," *2016 IEEE Wireless Communications and Networking Conference*, Doha, 2016, pp. 1-5. doi: 10.1109/WCNC.2016.7565128.
31. Shaimaa Naser and Nihad Dib. (2016). A Compact Printed UWB Pacman-Shaped MIMO Antenna with Two Frequency Rejection Bands. *Jordanian Journal of Computers and Information Technology (JJCIT)*, Vol. 2, No. 1, pp. 1-16, April 2016.
32. Shaimaa Naser and Nihad Dib. (2016). Design and Analysis of Super-Formula-Based UWB Monopole Antenna, *2016 IEEE AP-S International Symposium on Antennas and Propagation*, USA.
33. Shaimaa Naser and Nihad Dib. (2016). Analysis and Design of MIMO Antenna for UWB Applications Based on The Super-Formula. *5th International Conference on Electronic Devices, Systems and Applications (ICEDSA-2016)*, Ras Al Khaimah, UAE.
34. Yu Fu, Cheng-Xiang Wang, Yi Yuan, Raed Mesleh, el-Hadi M. Aggoune, Mohammed M. Alwakeel, and Harald Haas. (2016). BER Performance of Spatial Modulation Systems Under 3-D V2V MIMO Channel Models. *in IEEE Transactions on Vehicular Technology*, vol. 65, no. 7, pp. 5725-5730, July 2016. doi: 10.1109/TVT.2015.2461638.

## DEPARTMENT OF COMPUTER SCIENCE

**Department Head: Dr. Samer Nofal**

Faculty	Rank	Specialization
Dr.Dhiah el Diehn I. AbouTair	AssociateProfessor	Computer Science

Dr. Samer Nofal	Assistant Professor	Computer Science
Dr. Ismail Hababah	Assistant Professor	Computer Science
Dr. Ahmad Barghash	Assistant Professor	Computer Science

Computer Science (CS) is centered on the study of information, its storage, management and handling. Such activities comprise the backbone for a knowledge-based economy governing the lifestyles of today's information and knowledge society.

The computer science department provides one undergraduate program in computer science and one graduate program (Master of Enterprise Engineering Systems) in collaboration with Princess Summaya University of Science and Technology PSUT.

## PUBLICATIONS

1. Barghash, A., Golob-Schwarzl, N., Helms, V., Haybaeck, J., Kessler, S.M. (2016) Oncotarget. Elevated expression of the IGF2 mRNA binding protein 2 (IGF2BP2/IMP2) is linked to short survival and metastasis in esophageal adenocarcinoma.
2. Barghash, A., Arslan, T., and Helms, V. (2016). Robust detection of outlier samples and genes in expression, datasets. *Journal of Proteomics and Bioinformatics*, Vol. 9, p. 38-48, doi:10.4172/jpb.1000387.
3. Hababeh, Ismail, Sahel Alouneh, and Khalifeh Ala'F. (2016). A Position Aware Mobile Application for E-Health Services. *IEEE Proceedings of the 7th International Conference on Intelligent Systems, Modelling and Simulation (ISMS 2016)*. 25-27 January 2016, Bangkok, Thailand, pp. 144-148.
4. Ismail Hababeh, Issa Khalil, Abdallah Khrishah. (2016). Designing Secred inter -Cloud Data Migration Method to Upgrade Big Data Security Performance, *Kamera Journal*, vol44, no.1, 2016.
5. Ismail Hababeh, Issa Khalil, Abdallah Khreishah. (2016). Secure Inter Cloud Data Migration. *IEEE Proceedings of the 7th International Conference on Information and Communication Systems (ICICS 2016)*. Jordan University of Science and Technology (JUST) - Irbid, Jordan. 5-7 April 2016.
6. Samer Nofal, Katie Atkinson, Paul E. Dunne. (2016). looking -ahead in backtracking algorithms for abstract argumentation, *international journal of approximate reasoning*, ol:<http://dx.doi.org/10.1016/j.ijar.2016.07.013>.
7. Samer Nofal, Katie Atkinson, Paul Dunne. (2016). Looking- ahead in Bachtracking algorithms for abstract argumentation, *International Journal of Approximate Reasoning*, 78(2016)256-282.

## SCHOOL OF MANAGEMENT AND LOGISTICS SCIENCES

**Dean: Dr. Loay Salhieh**

**Vice Dean: Dr. Malek Alsharairi**

The School of Management and Logistic Sciences (SMLS) was established in 2005, (SMLS) is dedicated to fostering an environment that promotes high quality education and diverse learning experiences for all students. A collaborative learning approach is at the heart of the school curriculum, which is supported by an international exchange program.

This program provides students with an opportunity to acquire knowledge and competencies within an international setting in order to gain an edge in today's global business environment. A business degree from SMLS represents more than an accumulation of knowledge pertaining to business theory and methodology; it embodies a higher level understanding of management practices in real-life situations, and arms students with the skills and knowledge they need to succeed in the modern world.

SMLS is committed to contribute to the national and international workforce with potential highly qualified graduates who can conduct their adequate leadership training within the local and global markets. SMLS aspires to be globally distinguished throughout its sophisticated academic programs, adequate modern teaching methods, reputable professional team of lecturers, one-year internship and exchange programs with German Universities, and practical training experiences within both German business workforce and local companies.

SMLS is looking to instill the values of excellence and innovation in our students in order to empower them to play a positive and active role in their society. Through cooperation and collaboration with our partner universities, as well as the public and private sector, we deliver a distinctive learning experience that focuses on balancing theoretical and practical knowledge.

## DEPARTMENT OF MANAGEMENT SCIENCES

**Chair: Dr. Raed Khasawneh**

Faculty	Rank	Specialization
Dr. Metri Mdanat	Assistant Professor	International Economic
Dr. Ghazi Samawi	Assistant Professor	Economic
Dr. Serena Sandri	Assistant Professor	International Economic
Dr. Mohammad Ta'amnha	Assistant Professor	Human Resource Management
Dr. Omar Alshubailat	Assistant Professor	Industrial Engineering
Dr. Raed Alkhasawneh	Assistant Professor	Economic
Dr. Fathi Yousef	Assistant Professor	Human Resource Management
Dr. Rana Sabri	Assistant Professor	Management Science and Finance
Dr. Aziz Madi	Assistant Professor	Management information / knowledge management systems
Omar Bwaliz	Instructor	Industrial Engineering

Ghadeer Khartabil	Lecturer	Economic
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The department of management sciences offers high quality, hands-on education to prepare students for professional careers in business. The courses and programs offered by the department are designed to provide the students with the leadership and administrative skills necessary to succeed in today's business environment. The department has also a strong enterprise agenda fostered by its close link to the industry. This strong college industry interface is used to facilitate industry interaction and hands on training. The Department has acquired the services of highly qualified faculty. It includes those holding Ph. D degrees and MBAs with professional executive experience. A variety of teaching and learning techniques including lectures, case studies, field trips and simulation business games are employed to reinforce the knowledge and skills learned by students.

## PUBLICATIONS

1. Aziz Madi. (2016). Using values to segment virtual consumers on social networking sites. *Marketing Intelligence & Planning*, Vol. 34 Issue: 5, pp. 623-645, doi: 10.1108/MIP-11-2015-0223
2. B.lbele, Sandri, S. & Zikos, D. (2016). Endogenous versus Exogenous Rules in Water Management: An Experimental Cross-country Comparison, *Mediterranean Politics*, 2016, <http://dx.doi.org/10.1080/13629395.2016.1241612>
3. Ghazi A. Samawy, Metri F. Mdanat, Fathi A. Yosef and Bandar K. Abutayeh. (2016). Formal versus Informal Financing SMEs in the Libyan context: the case of Gharian city. *proceedings of the 33rd International Business Research Conference*, Dubai, UAE.
4. Ghazi Samawi. (2016). On the Role of Supply Chain Management in Facing Natural Resources Scarcity for Business Growth, *7th Annual Global Business Conference*, Croatia.
5. L. Salhieh and I. Abushaikha. (2016). Assessing the driving forces for greening business practices: Empirical evidence from the United Arab Emirates' logistics service industry. *South African Journal of Business Management*, Volume 47(4).
6. Mohammad Ta'amnha. (2016). The Impact of Boundaryless International Internship Program on Students' Career Capital: The case of the German –Jordanian University. *AICIBS 2016 (Oxford): Academic International Conference on Interdisciplinary Business Studies*.United Kingdom.
7. Ghazi Samawi. (2016). The TQM Practices and Organizational Excellence: The Case of Private Service Firms in Jordan, *kuala Lumpur 21st International Conference on Business, Economics, Social Science & Humanities- BESSH-2016*, Malyzia,
8. Omar Bwaliz. (2016). Impact of Lean Warehousing Practices on Organizational Financial Performance, *Kuala Lumpur 21st International Conference on Business, Economics, Social Science & Humanities- BESSH-2016*, Malaysia.
9. Rana El Bahsh, Mohammad Daoud. (2016). Evaluating the Use of Moodle to Achieve Effective and Interactive learning: A case Study at the German Jordanian university, *The 2nd International Conference on Open Source Software Computing (OSSCOM 2016)*, Lebanon.
10. Sandri, S. (2016). The Need for Entrepreneurial Education in Jordan - An Empirical Investigation. *Jordan Journal of Business Administration*, Volume 12, No. 2, 2016.
11. Sandri, S.; Alshyab, N.; Ghazo, A. (2016). Trade in Goods and Services and Its Effect On Economic Growth – The Case of Jordan. *Applied Econometrics and International Development*, 16(2), 2016.

## DEPARTMENT OF LOGISTICS SCIENCES

**Chair: Dr. Abdelrahim Alsoussi**

Faculty	Rank	Specialization
Prof. Dr. Dorit Schumann	Full Professor	Logistics Sciences.
Dr. Loay Salhieh	Associate Professor	Industrial Engineering
Dr. Ismail Abushaikha	Assistant Professor	Logistics Sciences
Dr. Mohammad Alshbol	Assistant Professor	Supply Chain Management
Dr. Abdulraheem Alsosi	Assistant Professor	Logistics and Operation Management
Nizar Alshbaikat	Lecturer	Logistics Sciences
Ahmed Alabadleh	Lecturer	Supply Chain Management
Maha Ali	Industrial Professor	international trade, trade policies and industrial policies

The Logistic Sciences department is a pioneer as it offers the first Logistics degree in Jordan and the Arab region. Logistics and supply chain management has become very important to maintain competitive advantage and ensure operational excellence due to several factors. These factors are affected by recent market changes including globalization, increased competition, advances in information technology and increased customer expectations. The program aims to provide students with the required skills to build and manage product and information flow within supply chain systems. The program provide students with knowledge and skills in three different pillars; logistics processes expertise, analytical capabilities to support decision making, and utilizing information technology to facilitate business supply chain operations. The logistics program has an interdisciplinary nature to achieve the expected outcome. The department courses are taught by faculty and industry experts with tens of years of industrial experience enabling students to relate the theory and practice in the field.

The program provides an interdisciplinary educational foundation for its graduates to understand problems and to find and implement solutions with a system engineering perspective; students are provided with the essential tools to consider the technological, business and human aspects of problems in complex systems. The program consists of the following areas of study: basic sciences; engineering materials and manufacturing processes; statistics and quality management; optimization, operations management and managerial sciences, ergonomics, economics and finance, and informatics. The department offers a B.Sc. in Industrial Engineering.

## PUBLICATIONS

1. Abushaikha, I.; Schumann-Bölsche, D. (2016). Mobile phones: Established technologies for innovative humanitarian logistics concepts, *in: Procedia Engineering, Humanitarian Technology: Science, Systems and Global Impact*.

2. Al-Shboul, M. (2016). Enhancing Transit Trade, Facilitation System and Supply Chain Security for Local, Regional and an International Corridor. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, Vol:10, No:10, pp. 3409-3419.
3. J. L. Salhieh and I. Abushaikha. (2016). Assessing the driving forces for greening business practices: Empirical evidence from the United Arab Emirates' logistics service industry. *South African Journal of Business Management*, Volume 47(4).
4. Ismail Abushaikha, Mohd Alshboul, and AbdelRahim Alsoussi. (2016). On the Role of Supply Chain Management in Facing Natural Resource Scarcity for Business Growth BESSH. *21st International Conference - September, 2016, Malaysia*.
5. Ismail Abushaikha, Mohd Alshboul, and AbdelRahim Alsoussi. (2016). On the Role of Supply Chain Management in Facing Natural Resource Scarcity for Business Growth. *BESSH 21st International Conference - September, 2016, Malaysia*.
6. Omar Hiari, Dhiah el Diehn Abou Tair, Ismail Abushaikha. (2016). An IoT-based virtual addressing framework framework for intelligent delivery logfistics, *8th icatse conference on information science and applications*,
7. Schumann-Bölsche, D. (2016). Katastrophen- und Risikomanagement in der humanitären Logistik, in: *Risikomanagement in der Logistik*, published by Michael Huth und Frank Romeike, *Wiesbaden 2016*, pp. 359-377.
8. Schumann-Bölsche, D. (2016). Opportunities and limits of information technologies in humanitarian logistics, in: *WorldRiskReport 2016*, published by Bündnis Entwicklung Hilft and United Nations University, pp. 22-30.

## DEPARTMENT OF INTERNATIONAL ACCOUNTING

### Chair: Dr. Mohammad Alomari

Faculty	Rank	Specialization
Dr. Ali Attar	Assistant Professor	Accounting
Dr. Ahmed Abulkhail	Assistant Professor	Finance and Accounting
Dr. Malek Alsharairi	Associate Professor	Accounting
Dr. Bassam Ma'ali	Associate Professor	Accounting
Dr. Mohammad Alomari	Assistant Professor	Financial Sciences
Loay Aburajab	Instructor	Finance and Accounting
Lama Obaiedat	Instructor	Accounting
Balqees Setaboha	Lecturer	Banking and Financial Sciences

The International Accounting department offers a unique student experience through the international aspect of studying both in Jordan and Germany, and constantly dealing hands-on with international accounting legislation. The department seeks to provide quality education to students that is relevant to the working environment, for instance through application-based courses. The International Accounting degree equips students with knowledge in a variety of subjects, including all aspects of accounting, in particular legislation according to International Accounting Standards and US Generally Accepted Accounting Principles. Students shall be trained to work in all areas of accounting, such as controlling, auditing and financial consultancy, and therefore be employable of fields of business. In this context, the department's aim is to employ staff with PhD and MBA qualifications from well-known home and international institutions, in order to provide the quality, input the educational experience requires.

## PUBLICATIONS

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1. Al-Hamadeen, R., Alsharairi, M. and Qaqish, H. (2016). Intangibles Disclosure: Evidence from Annual Reports of the Jordanian Industrial Public Listed Companies. *Springer Proceedings in Business and Economics: New Trends in Finance and Accounting*. pp. 385-396
2. Bassam Ma'ali. (2016). Transparency Disclosure and Cultural Values: A Test for Multinational Corporations, *The Allied Business Academies Conference, USA*.
3. Malek Alsharairi et. al. (2016). Event-Specific Earnings Management: Additional Evidence from US M&A Pre- and Post-SOX. *Journal of Financial Reporting and Accounting*. Forthcoming.



## SCHOOL OF NATURAL RESOURCES ENGINEERING AND MANAGEMENT

### Dean: Dr. Munjed Al-Sharif

Founded in 2005, The School of Natural Resources Engineering and Management (SNREM) is comprised of two Departments:

- Department of Energy Engineering.
- Department of Water and Environmental Engineering.

The SNREM vision is to be Jordan's leading research and teaching School with a reputation for excellence in scholarship and industrial cooperation, and to achieve regional recognition in the fields of Energy, Water, and Environment Engineering, in both worlds of research and academia.

Our mission is to transfer leading edge technologies in Energy, Water and Environmental Engineering into our community and throughout the region leveraging the unique abilities of GJU graduates. Allowing as well, a stronger engagement in research and development ventures, that would contribute to addressing many challenges facing energy, water and environmental sectors in Jordan and the region.

Bestowed with a professional group of faculty members and staff, the school conjointly has industrial professors and flying faculty from Germany, of whom 20 hold PhD degrees from the world's most prestigious and reputable universities.

At the beginning of the Academic Year 2008/2009, the total student enrollment in the School was 82 students in all. The number has gone up to more than 500 students in 2015/2016.

The School has many teaching and research laboratories in Energy and Water and Environment. Additionally, the school has access to all labs and faculties allocated at other GJU schools.

Our programs are unique in many ways; they are designed along the German Applied Universities model. They aim to develop and foster well-educated graduates with the practical skills, attributes and knowledge that enable them to practice effectively as professional engineers.

### DEPARTMENT: ENERGY ENGINEERING DEPARTMENT

#### Head: Dr. Ammar Alkhalidi

Faculty	Rank	Specialization
Ahmad Harb	Professor	Electrical Engineering
Ammar Alkhalidi	Assistant Professor	Mechanical Engineering
Mohammad Al-Addous	Assistant Professor	Energy Engineering
Zakariya Dalalah	Assistant Professor	Electrical Engineering
Firas Alawneh	Industrial Professor	Electrical Engineering
Ayman Batayneh	Assistant Professor	Renewable energy

Energy crises constitutes some of the most pressing issues evident to everybody. One of the options is to look for new sources of sustainable energy. Renewable energy is available in all kinds of forms: Solar, Wind, and Biogas to mention just a few. Therefore, GJU has established this unique Department to respond to the urgent need for graduates equipped with the proper knowledge in the field of energy engineering. The uniqueness of this Department arises from the type of education it provides for Jordan and the entire region for the first time.

Energy Technology refers to the knowledge of and usage skills required for conversion, production, transfer, distribution and use of energy. This leads to the mastering of technology based on the laws of nature, as a result of which different forms of energy can be used to serve the needs of mankind in such a way that nature is spared and the limited economic resources of society are taken into consideration.

Energy and the environment is a new and rapidly growing field of sustainability, which is "meeting the needs of the future without compromising the ability of future generations". This is critically relevant to how it evolves in the near future.

Solving global energy problems poses a great challenge to human ingenuity. What would make a reliably lasting source of energy for years to come? Is it oil, nuclear energy, or would it be renewable energy sources, viz., Solar, Wind, Water, biomass, waves ...etc.

Most countries around the world have declared strategies to switch towards renewable energy sources away from the use of fossil fuels. It is incumbent upon every society to implement this imperative, to preserve energy efficiency and reduce/eliminate environmental pollution.

The study program of energy engineering offers students the opportunity to acquire extensive skills for jobs that require expertise in energy technology across all sectors of society.

The study program is designed to give a graduate with a B.Sc. degree of engineering in energy technology diverse skills in the dimensioning of equipment in the field of energy technology and in the technical and economical design of equipment and distribution systems.

The areas of emphasis of the degree program are technical expertise, the management of environmental effects in energy-economic processes, the business economic design of an entire energy conversion cycle, production, distribution, and usage processes, environmental technology and international energy business.

The Energy Engineering Program consists of two specializations (streams) as follows:

- A: Electric Power Engineering
- B: Renewable Energy Engineering

## PUBLICATIONS

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1. Ahmad Hammad, Wael Al-Kouz, Aiman Alshare, Suhil Kiwan, Ammar Alkhalidi. (2016). Flow Characteristics for Low Pressure Solar Parabolic Through Collector, *Second International Conference on Science, Engineering, and Environment Flow Characteristics for Low*, Japan.
2. A. Alkhalidi, P. Bryar, and R. Amano. (2016). Improve Mixing in Water Aeration Tanks Using Innovative Self-Powered Mixer and Power Reclamation from Aeration Tank, *Jordan Journal of Mechanical and Industrial Engineering*, 2016, Vol. 10 (3), 2016, pp. 253 - 261

3. A. Alkhalidi, S. Kiwan, W. Al-Kouz, and A. Alshare. (2016). Conjugate Heat Transfer in Rarefied Gas in Enclosed Cavities, *Vacuum*, Vol. 130, 2016, Pp. 137–145. Doi: 10.1016/J.Vacuum.2016.05.013.
4. A. Alkhalidi, H. Al Ba'ba'a, And R. Amano. (2016). Wave Generation in Subsurface Aeration System: A New Approach to Enhance Mixing in Aeration Tank in Wastewater Treatment. *Desalination and Water Treatment*, 2016, Doi:10.1080/19443994.2016.1172263.
5. A. Alshare, W. Al-Kouz, M. Hader and A. Alkhalidi. (2016). Heat Transfer Characteristics in Sinusoidal Wavy Microchannels. *JIMME*, Vol. 10 (1), 2016, Pp. 75- 83.
6. Ayman Batayneh. (2016). Dariusz Alterman, Adrian Page, Behdad Moghtaderi, Discrepancies in peak temperature times using prolonged CFD simulations of housing thermal performance, *alternative and renewable energy quest in architecture and urbanism*, Spain.
7. Louy Qoaider, Ammar Alkhalidi and Nouf Alheyari. (2016). Investigation of The Cooling of PV Modules Using Phase Change Materials, *Proceedings of Seep2016*, 22-25 September 2016, Kayseri-Turkey.
8. Wael Al-Kouza, Suhil Kiwan, Aiman Alshare, Ahmad Hammad, and Ammar Alkhalidi. (2016). Two Dimensional Analysis of Low Pressure Flows in The Annulus Region Between Two Concentric Cylinders with Solid Fins. *Jordan Journal of Mechanical and Industrial Engineering*, 2016, Vol. 10 (4), 2016. pp. 211-214
9. W. Al-Kouz, M. Sari, S. Kiwan, and A. Alkhalidi. (2016). Rarefied Flow and Heat Transfer Characteristics Over a Vertical Stretched Surface, *Advances in Mechanical Engineering*, 2016. Vol. 8(8) 1–13.
10. W. Al-Kouz, S. Kiwan, A. Alshare, and A. Alkhalidi. (2016). Flow and Heat Characteristics of Low Pressure Flows in The Annulus Region Between Two Concentric Horizontal Cylinders, *9th International Conference on Thermal Engineering: Theory and Applications*, March 24-26 2016, Abu Dhabi, UAE.
11. W. Al-Kouz, A. Alshare, A. Alkhalidi, and S. Kiwan. (2016). Two-Dimensional Analysis of Low Pressure Flows in The Annulus Region Between Two Concentric Cylinders, *Springerplus*, 2016, Vol. 5, pp. 5-29, Doi 10.1186/S40064-016-2140-6.
12. Zakariya Dalalah, Zaka Zahid, Jih-ASHeng. (2016). Modeling and Controller Design of a Bidirectional DC\_DC Resonant Converter for Battery Charging Applications, *IEEE Asian Conference on Energy, Power and transportation electrification*, Singapore.
13. Zaid AlQaisi, Ahmad Harb. (2016). Dynamic Analysis and Stability study of small scale Hybrid (PV\Wind) System as Micro-Grid, *Fifth international conference on water, energy and environment (ICWEE/5)*, UAE.

## WATER AND ENVIRONMENTAL ENGINEERING

**Head: Dr. Arwa Abdelhay**

Faculty	Rank	Specialization
Dr. Nizar Abu-Jaber	Professor	Geology
Dr. Muna Hindiyeh	Associate Professor	Water Quality
Dr. Munjed Al-Sharif	Assistant Professor	Water resources and Environmental Engineering
Dr. Qasem Abdelal	Assistant Professor	Civil and Environmental Engineering
Dr. Jamal Nejem	Assistant Professor	Civil and Environmental Engineering
Dr. Arwa Abdelhay	Assistant Professor	Chemical Engineering
Dr. Abdallah Malkawi	Assistant Professor	Geo-technical Engineering
Dr. Muna Albanna	Assistant Professor	Environmental Engineering
Dr. Mohammad Smadi	Assistant Professor	Land and Water Resources Engineering

Eng. Fatimeh Hadidi	Instructor	Water and Environmental Engineering
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With the natural water scarcity in the region as a whole and Jordan in particular, with the rapid and unnatural increase in population due to fluxes of refugees, and with the climate change that adversely impacts our already short water supply, it makes perfect sense that water and environmental issues are very high on everyone's agenda.

Food, Water and Energy are perhaps the three main focal points of the whole world now. One has to manage the three simultaneously to ensure a sustainable supply. This is why our school of Natural Resources Engineering has the two departments of Water and Environmental Engineering and Energy Engineering. This reflects the far sight GJU has and its progressive model of teaching engineering.

Our vision at the Department of Water and Environmental Engineering, the German Jordanian University (GJU), is to be the lead educator of young engineers in the fields of water and environment in Jordan and the region.

To realize this vision, our mission is to:

- Provide the suitable educational experience to our students where they are educated, challenged, and their leadership skills enhanced.
- Attract the best educators with a diverse background experience and knowledge and excellent communication abilities.
- Encourage interaction between the various national and international water and environment stakeholders and our department's students and educators.

## PUBLICATIONS

1. Abu-Jaber, N. and El-Naser, H. (2016). Geology and hydrochemistry of the deep sandstone aquifers of Jordan. *Environmental Earth Sciences* 75: 875.
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## TALAL ABU-GHAZALEH GRADUATE SCHOOL OF BUSINESS

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Dr. Samer AlMohammad	Associate Professor	Marketing
Dr. Bana AbuZayed	Associate Professor	Banking & Finance
Dr. Majdy Zuriekat	Associate Professor	Accounting
Dr. Abdallah Abdallah	Associate Professor	Quality Management
Dr. Muhannad Atmeh	Assistant Professor	Accounting
Dr. Heba Ajlouni	Assistant Professor	Finance
Dr. Kawlah Obeidat	Assistant Professor	Measurement & Statistics

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