# Faculty of Engineering

| اسم عضو هيئة التدريس | الاسم باللغة الإنجليزية | الكلية | القسم | الاهتمامات البحثية | الايميل | التلفون |
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| **اقبال عبدالكريم محمود مرعي** | **Iqbal A/ Karim Marie** | كلية الهندسة | قسم الهندسة المدنية | Experimental Stress Analysis and Non destructive Testing<br>Materials | iqbal@hu.edu.jo | 4337 |
| **موسى سلامه عبدالله محسن** | **Mousa S Mohsen** | كلية الهندسة | قسم الهندسة الميكانيكية | Research Statement<br>My research interests are at the junction of two main branches of mechanical engineering, applied mechanics and thermo-fluids sciences. Specifically, my research interests are in continuum mechanics, fluid-solid interaction, renewable energy, energy systems, desalination and water treatment, environment and mechanical design.<br>In my research, I focus on both the theoretical aspects and the practical issues of the problems. I am interested in participating in interdisciplinary projects and developing generic methods with mathematically proven guarantees that also perform well in practice. More recently at the Hashemite University, I have been involved in two projects; the of design and construction of blood group analyzer, which combines the expertise of mechanical engineers, electronic and control engineers and biomedical engineers, and the environmental performance of accommodation sector in Jordan, this | msmohsen@hu.edu.jo | |

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| | | | | project combine the expertise of energy, water, environmental and tourism specialists. These experiences have taught me how to overcome the challenges of communication and the great value of collaborating with researchers from varied disciplines.<br>One principal component of my research was devoted to participate in solving my country's (Jordan) main challenge, which is the scarcity of energy and water. In addition to shortage of fresh water resources, Jordan is suffering from shortages in conventional energy sources such as petroleum and natural gas. The limited energy sources in Jordan makes considering renewable energy options such as solar, wind, and hydropower very attractive. I was involved in many research projects that address this important and vital issue. These projects include new type of solar water heating system, potentials of wind and solar energy development for water desalination, industrial wastewater reuse, energy savings in industry and residential buildings, utilizing oil shales, green house and gas emissions, and non-conventional water | | |

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| | | | | resources. Recently, I was awarded a grant from the NATO, Science for Peace and Security Program to implement my project that is entitled "New Desalination Process for Enhanced Recovery from Brackish Water: Smart System Utilizing Ultrasonic Reflectometry and Flow Reversal", in this project I propose to develop and build demonstration desalination pilot plant based on RO that would operate in Jordan on brackish groundwater. This plant will be set up to extract 90-95% of the groundwater as product water thereby generating ~50 m3/day of product water. In RO the feed stream is split into a product stream that passes through the membrane and a smaller reject stream at much higher concentration containing the rejected salts. To reach high recoveries many membrane elements are connected in series so the reject stream from one element becomes the feed stream for next element in the series and so on. By the time the reject stream leaves the last membrane element, it is so concentrated that scaling is likely. Scaling is of immense practical importance since it significantly degrades membrane performance and/or | | |

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| | | | | water quality and hence increases the cost of desalination. The innovation in this work is to prevent scaling by exploiting the fact that there is an induction time between reaching supersaturation and the start of scaling. In the proposed approach the direction of flow is reversed before the induction period is complete so feed is directed to the concentrate end and concentrate leaves from the feed end.<br>In my course of research I had used different types of decision-making methodologies and techniques such as Fuzzy logic, Neural networks, Neuro-Fuzzy programming and Analytic Hierarchy Process (AHP).<br>In the area of applied mechanics, I was involved in several projects such as vibration of beams with general boundary conditions due to a moving harmonic load, evaluation of in-situ pavement moduli using a high-resolution tiltmeter, an interactive computer software for disk cam system design, the effect of Hertzian, bending and shearing stiffness on noise and vibration, continuum theory for describing soft tissue behavior, Fuzzy auto-tuning system for the | | |

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| | | | | conventional PID controller with application to the antilock braking, and a novel design for stone hammering machine. | | |
| اسامة محمد ارشيد العقيلي | **Osama . M. I. Al-Oquili** | كلية الهندسة | قسم الهندسة الكهربائية | Electronics design, control systems design and in Electrical power fields and energy utilization and conversion. A list of current research areas:<br><br>-Improving power plants efficiency and waste heat recovery in the Jordanian Central Electric Generation CO.<br><br>-Harmonic filter design for power factor correction in the large Jordanian industry<br><br>-Applying Cogeneration technology in the large Jordanian industry<br><br>-Signal Processing Techniques application for speech enhancements<br><br>-Radio frequency applications and modeling<br><br>-Control system modeling for applied to robotics technology | aloquili@hu.edu.jo | |

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| | | | | -Power Systems Modeling | | |
| سالم داود سالم نجمة | **Salem .D.S.Nijmeh** | كلية الهندسة | قسم الهندسة الميكانيكية | • Geothermal Energy<br>• Bioclimatic Building Design<br>• Parabolic Solar Collectors<br>• Solar Desalination<br>• Solar Tracking Systems<br>• Photovoltaic Systems<br>• Heat Pumps<br>• Application of renewable energy systems | drnijmeh@hu.edu.jo | 4339 |
| جمال ابراهيم عفيف النابلسي | **JAMAL IBRAHIM AFIF ALNABULSI** | كلية الهندسة | قسم الهندسة الطبية | 1. Microprocessor Biotelemetry systems of medical purpose.<br>2. Investigation of biological media conductance in high frequency electromagnetic field.<br>3. Analysis of medical equipment in Jordanian hospitals and clinics.<br>4. Heart sounds analysis.<br>5. Digitaizing ECG signal using digital image processing. | jian@hu.edu.jo | 4699 |
| عدنان احمد محمد البشير | **Adnan Al-Bashir** | كلية الهندسة | قسم الهندسة الصناعية | Quality Engineering,<br>Total Quality Management<br>Six Sigma<br>Statistically Designed Experiments<br>Regression Methods<br>Introduction to Statistics | abashir@hu.edu.jo | 4403 |

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| | | | | Advanced Applied Statistics<br>Business Process Reengineering<br><br>System Simulation<br>Operation Research & Optimization<br>Decision Analysis<br>Project Analysis and Design<br>Project Management<br>Quality Control<br>Risk Management<br>Cost Control & Cost Management<br>Performance Measures and Excellency awards | | |
| بسام عوده ابراهيم النعامي | **Bassam O. I. Al-Naami** | كلية الهندسة | قسم الهندسة الطبية | 1.Ergonomics in Computer Terminals:<br><br>- Virtual Reality Systems<br>- Design and Layout<br>- Human-Computer Interface / computer interaction<br>- Experimental design<br>2. Biomedical Signal and Image processing (Wavelets)<br>- ECG, Ischemia and Heart Sounds<br>- Cancer Images<br>- Diabetic Retinopathy<br>3. Artificial Intelligence in Medicine. | b.naami@hu.edu.jo | 4810 |

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|---|---|---|---|---|---|---|
| | | 4. Applications of Field Programmable Gate Arrays technology (FPGA) in biomedical engineering. | | | | |
| 4797 | nimrat@hu.edu.jo | digital signal procesing,statstical communication, detection , estimation, and dsp application in commmunication systems. | قسم الهندسة الكهربائية | كلية الهندسة | **Ahmad m. y. Al-Nimrat** | **احمد مفلح يوسف النمرات** |
| 4829 | mashaleh@hu.edu.jo | Contract administration and FIDIC conditions of contract<br><br>Information technology (IT) deployment and utilization in the construction industry<br><br>Benchmarking construction firm performance<br><br>Cost and schedule controls | قسم الهندسة المدنية | كلية الهندسة | **Mohammad Suleiman Odeh El-Mashaleh** | **محمد سليمان عودة المشاعلة** |
| 5012 , 4608 | alwidyan@hu.edu.jo | Robot design and control mechatronics systems:analysis,synthesis,and optimization Design theory | قسم هندسة الميكاترونكس | كلية الهندسة | **Khalid Al-Widyan** | **خالد محمود سالم الوديان** |
| 4895 | karim@hu.edu.jo | Digital communications systems in general, Wireless communications, statistical signal processing in blind detection and | قسم الهندسة الكهربائية | كلية الهندسة | **Abdul Karim Sadiq Mahdi Al-Bayati** | **عبد الكريم صادق مهدي البياتي** |

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| | | equalization, Blind Multiuser detection techniques (specifically in DS/CDMA systems), Co-channel Interference cancellation, detection in MIMO channels, OFDM, MC-CDMA, data precoding for detection and interference cancellation and equalization, Direction of Arrival (DOA) and delay estimation, Blind detection in multiuser space-time coded systems. | | | | |
| 4457 | ababneh@hu.edu.jo | Control Systems.<br>Renewable Energy.<br>System Modeling & Dynamics.<br>Linear and Nonlinear Systems. | قسم هندسة الميكاترونكس | كلية الهندسة | **Mohammad K. Ababneh** | **محمد خليل داود عبابنه** |
| 4708 | hqablan@hu.edu.jo | Finite Element Analysis, Composite Material, Time Dependent Analysis (Viscoelastic, Viscoplastic), Elastic-Plastic Analysis, Stress/Structural Analysis, Solid Mechanics, Material Ratchetting, Structural Stability, Life Prediction Analysis, and Material Characterization | قسم الهندسة المدنية | كلية الهندسة | **Husam Amjad Al Qablan** | **حسام امجد عبدالكريم القبلان** |
| 4383 | taleb@hu.edu.jo | Research interests are in Traffic safety studies, highway pavements and materials, evaluating pavement materials using Image analysis techniques, evaluating the use of recycled materials on pavement | قسم الهندسة المدنية | كلية الهندسة | **TALEB MUSTAFA TALEB AL-ROUSAN** | **طالب مصطفى طالب الروسان** |

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| | | performance | | | | |
| 4768 | hyari@hu.edu.jo | * Optimal planning and construction of infrastructure systems.<br>* Information technology in construction.<br>* Multi-objective optimization in construction<br>* Automated Decision Support Systems in construction. | قسم الهندسة المدنية | كلية الهندسة | **Khaled Hesham Radwan Hyari** | **خالد هشام رضوان الحياري** |
| 4326 | smadi@hu.edu.jo | Wireless Comm, Information theory and Coding, CDMA systems, DSP | قسم الهندسة الكهربائية | كلية الهندسة | **Mahmoud Smadi** | **محمود عبد الرحمن احمد الصمادي** |
| 4649 , 4483 | eloas2@hu.edu.jo | Antennas<br>Frequency selective surfaces<br>Metamaterials<br>Genetic Algorithms<br>SAR effect<br>Renewable Energy | قسم الهندسة الكهربائية | كلية الهندسة | **OMAR AQEEL NAZAL SARAEREH** | **عمر عقيل نزال الصرايره** |
| 5006 | nabeelma@HU.EDU.JO | Production Planning and Control<br><br>Human Factor<br><br>Logistic and Supply Chain Managemenet | قسم الهندسة الصناعية | كلية الهندسة | **Nabeel Fawaz Mandahawi** | **نبيل فواز نايف مندحاوي** |
| 4681 | srababeh@hu.edu.jo | Dr. Shaher Rababeh, the author of How Petra was Built, is an assistant professor of architecture, the head of the Department of Architecture, and the director of the Department of Engineering Projects at the | قسم هندسة العمارة | كلية الهندسة | **Shaher Moh'd Ahmed Rababeh** | **شاهر محمد احمد ربابعه** |

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| | | | | Hashemite University, Jordan, as well as a member of its Department of Conservation Sciences. He received his BSc in Architectural Engineering from Yarmouk University in 1987. From the University of Oxford he was awarded his MSt in Classical Architecture and DPhil. in Architectural Construction Techniques and Methods of Design, in 2005. His interests include architectural history, construction methods and technology, architectural design and building conservation. His work has covered many major monuments in Jordan, ranging from Petra and Gerasa, the Desert Palaces, to modern buildings. As a result of his combination of academic qualifications, knowledge, experience, and skills he is making a unique contribution to researching and teaching architecture in Jordan. His experience as a practicing architect has given him firsthand knowledge of using the construction materials naturally available in Jordan. He has then applied this to his study of Nabataean construction techniques, discovering and demonstrating how the Nabataeans worked with these to develop their own construction techniques. | | |

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| | | | | He has applied this same knowledge to study modern Jordanian architecture, and how identity is expressed in both its ancient and modern forms. Rababeh's focus on buildings involves architectural aspects, such as analyzing how space is used and how this changed with time. His interests are focused on the symbolism of the building and its connection with both the architectural design and the construction techniques used to create spectacular architectural achievements. These include analysis of the structural system employed and the way the building site was organized for large structures. He looks at particular building methods relating to materials and techniques that were developed to allow the builders to construct larger and more complex structures. He then relates these techniques to the social and economic contexts in which they occur and explores how these change over time; from the earliest buildings to the present. His examination of building techniques also demonstrates how the building industry worked, taking into account the availability | | |

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| | | of the building materials. He has also collaborated with scholars from other disciplines, such as geology, which provides information about the availability of building materials, how this affects earthquake damage.<br><br>•Cultural Resources Management<br>•Architectural History and Archaeology<br>•Construction Methods and Techniques<br>•Rock-Cut Architecture<br>•Architectural Design and Conservation<br>•Urban Planning and Landscape<br>•Museum Architecture<br>•Classical and Islamic Architecture<br>•Evaluating the Stability of Historic Buildings and their Restoration<br>•Tourism Industry<br>•Environmental Control and Cultural Heritage Protection<br>•Quality Assurance<br>•Construction Management and Safety | | | | |
| 4897 | drhadi@hu.edu.jo | -Design, analysis and simulation of modern active filter circuits including , OTA-C, MOSFET-C and current conveyor active filter. | قسم الهندسة الكهربائية | كلية الهندسة | **HADI MOHAMMED DAHIR AL - ITHAWI** | **هادي محمد ظاهر العيثاوي** |

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|---|---|---|---|---|---|---|
| | hijazi@hu.edu.jo | Solid & Fracture Mechanics. Experimental Mechanics, Advanced Experimental Techniques. Material and Structural Testing. Composite Materials. Non-destructive Testing and Evaluation. Remote Sensing, Applied Optics. | قسم الهندسة الميكانيكية | كلية الهندسة | **Ala L Hijazi** | **علاء لطفي احمد حجازي** |
| 5029 | ghandoor@hu.edu.jo | Energy modeling, Forecasting and Optimization. • Decomposition Analysis. • Exergy Analysis. • Energy Auditing. | قسم الهندسة الصناعية | كلية الهندسة | **Ahmed Mahmoud Ahmed Al-Ghandoor** | **احمد محمود احمد الغندور** |
| 5011 | hmdwairi@hu.edu.jo | * Earthquake Engineering, analysis and design. * Performance-based seismic engineering. * Behavior and design of reinforced concrete and Prestressed concrete structures. * Sound waves propagation and noise isolation | قسم الهندسة المدنية | كلية الهندسة | **Hazim M M Dwairi** | **حازم مصطفى محمد الدويري** |
| 4463 | hitham@hu.edu.jo | (i) Strength and fracture mechanics of notched bars. (ii) Stress-concentration factor, conventional and new strain-concentration factors under different types of loading, (static tension, bending, combined loading, | قسم الهندسة الميكانيكية | كلية الهندسة | **Hitham Mahmmoud Naser Tlilan** | **هيثم محمود ناصر تليلان** |

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| | | | | dynamic loading).<br>(iii) Elasticity.<br>(iv) Plasticity. | | |
| محمد صالح محمود وديان | **Mohammad Saleh Mahmoud Widyan** | كلية الهندسة | قسم الهندسة الكهربائية | 1) Conventional and Permanent-Magnet Electrical Machines Design.<br>2) Finite Element Technique.<br>3) Bifurcation Theory, Nonlinear Dynamics and Control.<br>4) Subsynchronous Resonance in Power Systems (Analysis & Control).<br>5) Power System and Electrical Machine Dynamics.<br>6) Renewable and Hybrid Energy Systems (Wind and Photovoltaic)<br>7) Dynamical Analysis of Various PV-Powered and Hybrid Electrical Systems. | mohammadwidyan@hu.edu.jo | |
| زياد سالم ذياب الطراونه | **Zeyad Salem Tarawneh** | كلية الهندسة | قسم الهندسة المدنية | Hydrology and Water Resources Modeling<br>Drought Characterization<br>Water Policy<br>Environmental Engineering | zeyadt@hu.edu.jo | 5134 |
| احمد محمد احمد الجراح | **Ahmad M. AL-Jarrah** | كلية الهندسة | قسم هندسة الميكاترونكس | Mechatronics systems, Robotics, and Intelligent control systems | jarrah@hu.edu.jo | |
| راما ابراهيم صليبا الربضي | **Rama Ibrahim Saleba Al Rabady** | كلية الهندسة | قسم هندسة العمارة | Integrated Heritage Management Information and Communication Technology Application in Heritage | ramarabady@@hu.edu.jo | |

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| | | Management<br>Good Governance and Sustainable Heritage Management | | | | |
| 4958 | atarabsheh@hu.edu.jo | 1. Semiconductor Materials and Devices<br>2. Solar Energy<br>3. Photovoltaic cells | قسم الهندسة الكهربائية | كلية الهندسة | **Anas Ibrahim Qasem Al Tarabsheh** | **انس ابراهيم قاسم الطرابشه** |
| 4767 | thakir2000@hu.edu.jo | Biofluids, computational fluid dynamics, Biomechanics, Biomaterials. | قسم الهندسة الطبية | كلية الهندسة | **Thakir Damin AlMomani** | **ذاكر ضامن جديع المومني** |
| | msalah@hu.edu.jo | • Nonlinear Control Design for Mechatronics Systems<br>• Robotic Systems<br>• Control of MEMS<br>• Renewable Energy Systems<br>• Automotive Systems<br>• Hydraulic and Pneumatic Control Systems<br>• Applications of PLC in Industrial Automation | قسم هندسة الميكاترونكس | كلية الهندسة | **Mohammad Salah** | **محمد حسن عبدالله صلاح** |
| 4701 | altamimi@hu.edu.jo | Linear/nonlinear control application for electromechanical systems using different techniques such as Approximate dynamic programming and Neural Network | قسم هندسة الميكاترونكس | كلية الهندسة | **Asma Al-Tamimi** | **اسماء عزمي منير التميمي** |
| 4449 | banihani@hu.edu.jo | Artificial Intelligence<br>Applying genetic algorithms for numerical integration on complex domains for meshfree methods.<br>Applying fuzzy logic and neural networks | قسم هندسة الميكاترونكس | كلية الهندسة | **Suleiman BaniHani** | **سليمان محمد سليمان بني هاني** |

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| | | | | for nonlinear control problems. Using genetic algorithms for optimal control problems. Numerical integration in R3: In this thesis we discuss efficient techniques for numerical integration in R1 and R2. The next step is to expand numerical integration for the method of finite spheres to three-dimensions. Three-dimensional numerical integration on an arbitrary domain is the first step in applying the method of finite spheres to more realistic and complex problems. • Application to large deformation and fracture problems: One of the key advantages to the method of finite spheres is the potential to model problems with large deformation and fracture without the need for remeshing. Our next step in this research is to advance the computational technology to handle such problems. The use of the lookup table approach for the total Lagrangian technique is straightforward. However, its use with the updated Lagrangian formulation would | | |

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| | | | | require further work.<br>• Application to multiscale problems: Although there is significant research to develop continuum theories for problems with micron and nano scale, most of these theories cannot cover the wide range of material behavior at the different length scales. Multiscale modeling is being widely investigated because of its ability to describe and model material behavior at deferent length scales, and using meshfree methods such as the method of finite spheres offer a great flexibility for adopting and incorporating different models and material behavior. There are two ways the new integration method may be used to advantage. In hierarchical multiscale methods such as the ones based on asymptotic homogenization and structural enrichment-based techniques, highly complex domain integrals arise which may be efficiently computed using this method. In concurrent multiscale methods, where continuum and atomistic methods are coupled in a single simulation scheme, | | |

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| | | the new integration approach may be used for the continuum for seamless message passing to and from the nonlocal parts of the computational domain. • Application to other meshfree methods: Most meshfree methods use rational nonpolynomial interpolation functions and the integration domains are usually more complex the in the traditional finite element method. Using the new numerical integration method with different meshfree methods will result in a more efficient approximation schemes and will open the opportunity to explore the potential of these methods. | | | | |
| 4691 | alzube@hu.edu.jo | Modeling and Simulation of Bio-systems<br>Tissue Engineering<br>Stem Cell Research<br>Human Motion Analysis | قسم الهندسة الطبية | كلية الهندسة | **Loay AW H Al-Zube** | **لؤي أحمد وصفي حسن الزعبي** |
| 4587 | sulobeidat@hu.edu.jo | CAD/CAM Apllications, CAD Directed Inspection, CAD Tissue Engineering, Manufacturing Processes, Lean/Six Sigma | قسم الهندسة الصناعية | كلية الهندسة | **Suleiman Mahmoud Suleiman Obeidat** | **سليمان محمود سليمان عبيدات** |
| 4585 , 4467 | bkhammad@hu.edu.jo | (Micro-Electro-Mechanical System)<br>- Transducers and Interfacing | قسم هندسة الميكاترونكس | كلية الهندسة | **Bashar K. Hammad** | **بشار خليل نمر حماد** |

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| | | | | - Nonlinear Dynamics/Vibrations<br>- Perturbation Techniques<br>- Applied Mechanics<br>- Flutter Analysis<br>- Control Systems | | |
| عوني حسين علي اطرادات | **Awni Hussein Ali Itradat** | كلية الهندسة | قسم هندسة الحاسوب | General research areas are high-level synthesis and parallel architectures. Research interests include scheduling and resource allocation, reconfigurable computing, ASIC synthesis, graph theory, Network on chip, Networks and information security, and computer architecture and organization | itradat@hu.edu.jo | 4828 , 4110 |
| بسام جميل رشيد محمد | **Bassam Jamil Rasheed Mohammed** | كلية الهندسة | قسم هندسة الحاسوب | • DSP VLSI Design<br>• FPGA VLSI Design<br>• Steganography and Setagonalysis<br>• Low Power VLSI Design<br>• High-Performance VLSI Circuits | Bassam@hu.edu.jo | 5126 |
| سامر عزت حسن عوض | **Samer Izzat Hassan Awad** | كلية الهندسة | قسم الهندسة الطبية | Medical 3-D ultrasound imaging<br>Ultrasonic elasticity imaging<br>Signal and image processing | samer.awad@hu.edu.jo | 4765 |
| محمد عبد العزيز جمعه الطراونه | **Mohammad Abdulaziz Joma'h AL-Tarawneh** | كلية الهندسة | قسم الهندسة الميكانيكية | Heat transfer in porous media (single and two phase flow) in Air Conditioning Field.<br>• Solar Energy and renewable energy<br>• Air conditioning and Refrigeration(Alternative Refrigerants) | Mohmmad.Tarawneh@hu.edu.jo | 5106 |

## Faculty of Engineering

| اسم عضو هيئة التدريس | الاسم باللغة الإنجليزية | الكلية | القسم | الاهتمامات البحثية | الايميل | التلفون |
|---|---|---|---|---|---|---|
| | | | | • Linear and nonlinear vibrations (chaotic motion).<br>• Fluid mechanics and Computational fluid dynamics (CFD).<br>• Theory of elasticity and plasticity. | | |
| محمود محمد احمد ربابعه | **Mahmoud Mohammad Rababah** | كلية الهندسة | قسم الهندسة الميكانيكية | Applied mechanics and materials science<br>CAD/CAM<br>composite materials<br>vibrations<br>non-traditional machining | | 4684 |
| محمد مصباح علي الجراح | **Mohammad Musbah Aljarrah** | كلية الهندسة | قسم الهندسة الصناعية | (a)Thermodynamic of materials<br>(b) Alloy development<br>(c) Structure-Property relationships<br>(d) Modeling using computational tools<br>(e) Machining, end-milling<br>(f) Modeling of mechanical response of materials<br>(g) Nano-materials | maljarrah@hu.edu.jo | 4892 |
| احمد نهار احمد قطوم | **Ahmad Nahar Ahmad Quttoum** | كلية الهندسة | قسم هندسة الحاسوب | DataCenter Networks.<br>Cloud Computing Networks.<br>Virtualized Networks.<br>Behavior-Based Network Security.<br>Markov Decision Theory. | quttoum@hu.edu.jo | 4859 |
| اسامه تيسير راشد المنيزل | **Osama Taisir Rashed Al Meanazel** | كلية الهندسة | قسم الهندسة الصناعية | Engineering Safety, Human Factors Engineering, Maintenance management, Production Planning and Control, Healthcare Management | | |

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| اسم عضو هيئة التدريس | الاسم باللغة الإنجليزية | الكلية | القسم | الاهتمامات البحثية | الايميل | التلفون |
|---|---|---|---|---|---|---|
| رنده عقاب محمد مجلي | **Randa Oqab Mohammad Mujalli** | كلية الهندسة | قسم الهندسة المدنية | traffic safety,transportation planning and management,and Artificial intelligence and soft computing applications in transportation engineering. | RandaO@hu.edu.jo | 4777 |
| اسلام ثابت حسن الملكاوي | **Eslam Thabet Almalkawi** | كلية الهندسة | قسم هندسة الحاسوب | • Wireless Sensor Networks<br>•Multimedia Networks<br>•Cross-Layer Optimization Design<br>•Security and Key Management<br>•Energy Efficiency and Green Computing<br>•Distributed Systems | eslam.malkawi@hu.edu.jo | 4964 |
| احمد خالد نايل المقدادي | **Ahmad Khaled Nayel ALMIGDADY** | كلية الهندسة | قسم الهندسة الميكانيكية | Renewable Energy<br>Heat Transfer<br>Computational Fluid Mechanics "CFD"<br>Nano-scale Fluid-Structure interaction (Molecular Dynamics)<br>Nano-scale Heat transfer and Fluid mechanics (Molecular Dynamics) | | |
| محمود مصطفى محمود نعيرات | **Mahmoud Mustafa Mahmoud Nairat** | كلية الهندسة | قسم الهندسة الميكانيكية | Applied Mechanics and Renewable Energy | MahmoudM_Ma@hu.edu.jo | |
| مازن حمزه عبدالله عبيدات | **Mazin Hamzeh Abdullah Obaidat** | كلية الهندسة | قسم الهندسة الصناعية | renewable energy, photovoltaic cell | Mazin@hu.edu.jo | |
| انس عبدالجليل عيد المجالي | **Anas Abdel Jalil Eid Al Majali** | كلية الهندسة | قسم هندسة الحاسوب | Computer Security<br>Computer Networks Security<br>Smart Grids Security<br>Cyber-physical Systems | almajali@hu.edu.jo | 4654 |
| ضياء غازي ياسين مصطفى | **Dheya Ghazi Yassin Mustafa** | كلية الهندسة | قسم هندسة الحاسوب | Computer Architecture. multicore systems. maniy integrated core systems. SOC design. | dheya@hu.edu.jo | |

## Faculty of Engineering

| التلفون | الايميل | الاهتمامات البحثية | القسم | الكلية | الاسم باللغة الإنجليزية | اسم عضو هيئة التدريس |
|---|---|---|---|---|---|---|
| | | Performance evaluation and tuning. | | | | |
| | ManarA@hu.edu.jo | Smart grid modeling and simulation<br>Mathematical optimization.<br>Artificial intelligence and machine learning<br>Internet of things | قسم هندسة الحاسوب | كلية الهندسة | **Manar Ahmad Yousef Jaradat** | **منار احمد يوسف جرادات** |
| | fmaloqla@hu.edu.jo | Sustainable Materials and Technology<br>Mechanical Design (Mechanical behaviour of materials, Material selection)<br>Composite Materials, Material Characterization<br>Bio-based Composites and Green Composites(Polymeric-based composites, Natural fiber composites).<br>Computational Material Science(Material modeling, FEA, Optimization).<br>Materials for Energy Saving/Harvesting<br>Operational Research and Decision Making Methods (AHP, Fuzzy-linguistic-AHP, TOPSIS). | قسم الهندسة الميكانيكية | كلية الهندسة | **Faris Mohammed Khair Faris AL-Oqla** | **فارس محمد خير فارس العقله** |
| 4894 | MohammadA_Fa@hu.edu.jo | Electronic Packages Characterization and Finite element Modeling<br>Finite Element Model Correlation and Validation<br>Vibration Testing/Measurement<br>Mathematical Modeling. | قسم الهندسة الميكانيكية | كلية الهندسة | **Mohammad A Gharaibeh** | **محمد احمد فلاح غرايبه** |

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| اسم عضو هيئة التدريس | الاسم باللغة الإنجليزية | الكلية | القسم | الاهتمامات البحثية | الايميل | التلفون |
|---|---|---|---|---|---|---|
| اكرم صالح موسى السكر | **Akram Saleh Mousa AlSukker** | كلية الهندسة | قسم الهندسة الصناعية | Optimization, Feature/Variable Selection Algorithms<br>Artificial Intelligence, Neural Network, GA, PSO, ANT, DE<br>Data Analysis<br>Quality Control<br>Operation Management | akramalsukker@hu.edu.jo | |
| محمد راضي محمد هياجنه | **Mohammad Radi Mohammad Hayajneh** | كلية الهندسة | قسم هندسة الميكاترونكس | Multi-robotic systems, UAVs, Robotics and Automation | | |
| عمرو مروان محمد عبيدات | **Amr M Obeidat** | كلية الهندسة | قسم الهندسة الكهربائية | Renewable Energy<br>Electrochemical Supercapacitor Materials and Devices<br>Photovoltaic Energy Conversion | | 4468 |
| احمد ابراهيم احمد بني ياسين | **Ahmad Ibrahim Ahmad Bani yaseen** | كلية الهندسة | قسم الهندسة الميكانيكية | Solar energy and renewable energy<br>Thermal and fluid sciences<br>Applied Mechanics | AhmadI_Ah@hu.edu.jo | |
| جمال نزال العثمان الكركي | **Jamal Nazzal Al-Othman Al-Karaki** | كلية الهندسة | قسم الهندسة الكهربائية | - Wireless Networking and Mobile Computing<br>- Internet QoS<br>- Performance Evaluation | jkaraki@hu.edu.jo | |
| زهرة يوسف عبدالرحيم "العبدالصالح" | **zahra yousif abdalraheem Ghanem** | كلية الهندسة | قسم الهندسة الكهربائية | amplifiers, instrumentations, and electronics | zahra@hu.edu.jo | |
| فضائل الرحمن محمود | **"Fadael Al-** | كلية الهندسة | قسم هندسة | urban design | fadaela@hu.edu.jo | |

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| اسم عضو هيئة التدريس | الاسم باللغة الإنجليزية | الكلية | القسم | الاهتمامات البحثية | الايميل | التلفون |
|---|---|---|---|---|---|---|
| محمد الطموني | **Rahman" Mahmoud Mohammad Al-Tammoni** | | العمارة | Architectural design and communication | | |