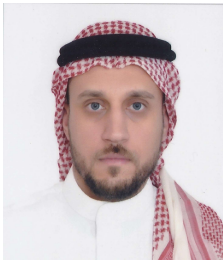


Research @ CEL

Department of Electronics & Communications Engineering

Brief research profiles



Dr. Ahmed Almusallam, *Head of Electronics and Communications Department,
College of Engineering-Al-Lith, (Umm AlQura University)*

BSc (Umm AlQura University), MSc & PhD (University of Southampton, United Kingdom)

Worked at:

- University of Southampton (part-time researcher).

Research Interests:

- Flexible electronics and E-textiles.
- Micro ElectroMechanical Systems (MEMS).
- Thick and Thin film technologies.
- Piezoelectric sensors, energy harvesters and actuators.
- Flexible thermoelectric energy harvesters and flexible photovoltaic cells.
- Piezoelectric nano-composite materials.
- BioMEMS and Lab-on-a-Chip.

Last Publication

A. Almusallam, Z. Luo, A. Komolafe, K. Yang, A. Robinson, R. Torah and S. Beeby, "Flexible piezoelectric nano-composite films for kinetic energy harvesting from textiles," *Nano Energy*, vol.33, p.11, 2017 (Impact factor: 13)

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Dr. Jahangir H. Sarker, M. Sc. (Tech.), Lic. Sc. (Tech.), D. Sc. (Tech.) [Aalto University, former Helsinki University of Technology, Finland]

Worked at:

- School of Electrical Engineering & Computer Science (SEECs), University of Ottawa, Ottawa, Canada.
- École de technologie supérieure, Université du Québec, Montreal, Canada.
- Communication Platforms, VTT Technical Research Centre of Finland.
- Communications Laboratory, Helsinki University of Technology, Finland.
- Department of Information Technology, Espoo-Vantaa Institute of Technology, Finland

Research Interests:

- Emerging Wireless Communications Systems,
- Device-to-device communication and Internet of Things (IoT),
- Distributed wireless networks, Power System and Smart Grid,
- Software defined radio, smart antennas, wireless system localization,
- DSP, optimization techniques, information and coding theory,
- Wireless channel characterization and estimation, RF systems on a chip (SoC),
- Mission Critical Wireless Networking systems for Unmanned Aerial Vehicles (UAVs) and Unmanned Ground Vehicles (UGVs),
- Cybersecurity in Internet of Things (IoT), cloud and fog/edge computing, big data, RFID etc.
- Optical Communications Systems.

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Dr. Mohamed Ali BELAID, BSc (Tunisia), MSc & PhD (Uni. of Rouen- France)

Worked at:

- Sousse University 2011-2014 (Tunisia)
- Gabes University 2008-2010 (Tunisia)
- Rouen University 2005-2007 (France)

Research Interests:

- Failure analysis of electronic devices and systems,
- Reliability devices.
- Simulation and characterization.

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Dr. Mirza Imran Baig BSc(Sir Syed Uni.-Pakistan) MSc & PhD (MIT- Japan)

Worked at:

- Umm Al Qura University, Makkah, KSA.
- Sir Syed University of Engineering and Technology, Karachi, Pakistan.
- Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), Karachi, Pakistan.

Research Interests:

- Optical fiber communication.
- Optical fiber characterization.
- Non-linear optics.
- Optical fiber Bragg grating sensors.
- Solar PV cell power generation system.
- Maximum Power Point Tracking.



Dr. Rudi Heriansyah, B.Eng. Electrical (UMP-Palembang, Indonesia), M.Eng & Ph.D. Electrical (UTM-Skudai, Malaysia)

Worked at:

- Umm Al-Qura University, Saudi Arabia, Dec. 2012 – Current
- Multimedia University, Malaysia, Jan. 2009 – Dec. 2012
- Universiti Teknologi Malaysia, Malaysia, Jun. 2001 – Dec. 2008
- PT Tania Selatan, Indonesia, Dec. 1999 – May 2001
- CV Multidata Palembang, Indonesia, Aug. 1999 – Nov. 1999

Research Interests:

- Digital Image Processing, Computer Vision, Pattern Recognition,
- Artificial Neural Network, Deep Learning, Machine Learning,
- Internet of Things, Data Science, Cloud Computing

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Dr. Waleed Zein, (BSc, MSc, Phd Ain Shams University)

Worked at:

- Ain Shams University (Eqypt).
- AAST (Egypt).

Research Interests:

- Modeling & Simulation of Nanoelectronic devices and Spintronics.
- Diluted magnetic materials.



Dr. Ashraf M. Abdelhamid, B.Sc., M.Sc. and Ph.D. Minia University

Worked at:

- Al-Qunfudah College of Technology, Technical and Vocational Training Corporation, TVTC.

Research Interests:

- Robust control to Multi-Area Load Frequency Control (LFC) System.
- Power System Control.
- Optimal control to MIMO systems.
- Decentralization Control to large-scale systems.

Last Publication

Ashraf M. Abdelhamid and Ahmed A. M. Elgaafary, "Optimal Decentralized LQR Control to Enhance Multi-Area LFC System Stability", Mathematical Problems in Engineering, 2018. (I F =1.145).

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Engr. Muhammad Irfan ul haq Malick B.E. (Bahria University, Pakistan), MSc (Linköping University, Sweden)

Worked at:

- Linköping University (part-time researcher).

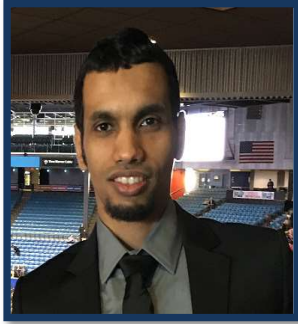
Research Interests:

- Passive planner transmit arrays antenna.
- Ultra-Wide Band Low Noise Amplifiers.
- Embedded Systems.

Research Publication:

A MULTIWIDEBAND Planar Monopole Antenna for 4G devices (MICROWAVE AND OPTICAL TECHNOLOGY LETTERS / Vol. 55, No. 3, March 2013).

Linearly-polarized transmit-arrays for mm wave applications; comparative study and perspective (Antennas and Propagation (EuCAP), IEEE, 2016 10th European Conference 10-15 April 2016, DOI: 10.1109/EuCAP.2016.7481101).



Eng. Mohammed Almatrafi, BSc (Umm Al-Qura University, SA), MSc (University of Dayton, USA), PhD (In progress)

Research Interests:

- Signal and image processing
- Computer vision
- Motion estimation (optical flow)
- Dynamic and active vision sensor (DVS and DAVIS) related work (e.g. denoising, classification and motion estimation)

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Research @ CEL

Department of Environmental Engineering

Brief research profiles



Dr. Ashraf Bakkar, BSc & MSc in Metallurgical Engineering (Suez Canal University),
PhD in Materials Science & Corrosion (TUC- Germany)

Worked at:

- Sues-Canal University (Eqypt).
- TUC (Germany).
- Institute for Material Testing & Technology (Germany).

Research Interests:

- Corrosion & protection of metals through surface treatment and metallic coatings).
- Electrodeposition of reactive metals and semiconductors from ionic liquids (Electrochemical synthesis of semiconductive thin films utilized in PV cells)
- Recycling of iron- and steel-making dusts
- Recycling of residual oil fly ash (Recovery of vanadium and nickel)

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Dr. Mohammad Raji Qasaimeh, BSc. Chem. Eng. (Punjab Uni.- Pakistan), MSc (JUST-Jordan), PhD (McGill- Canada)

Worked at:

- Al-Balqa Applied University (Jordan).
- McGill University (Canada)
- Ministry of Higher Education of Jordan

Research Interests:

- Retention aid systems; high molecular and neutral polymer retention aids
- Retention of colloids and fines; particle adsorption on surfaces flocculation
- Separation processes water and environmental treatments, recycling Processes
- Deinking and papermaking processes
- Thermals and solar processes
- Modeling

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Department of Environmental Engineering

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Dr. Sami GOREN, BSc (Istanbul Technical University, Turkey), MSc & PhD (Kanazawa University, Japan),

Worked at:

- Research & Teaching - University (Japan, Turkey, Saudi Arabia)
- Consulting – Ministry & Municipality
- Project Management – Academic & Engineering

Research Interests:

- Solid and Hazardous Waste Management (Integrated Waste Management, Energy Recovery)
- Life Cycle Analyses (Resource, Production, Carbon Foot Print)
- Waste Mechanics (Stability of Landfill & Embankments)
- Seismic Isolation Constructions (Earthquake Proof Structures)
- Geotechnical Engineering (Soil Reinforcement, Prestressed Retaining Walls)
- <https://scholar.google.com/citations?user=0dcGRZoAAAAJ&hl=en&oi=ao>
- https://www.researchgate.net/profile/Sami_Goeren



Eng. Saeed Harb, BSc in Chemical Engg. (Tuzla University, Yugoslavia), MSc in Environmental Engg. (Al Balqa University, Jordan)

Worked at:

- Al Balqa University, Jordan
- Arab Potash Company, Jordan

Research Interests:

- Separation processes
- Water treatments
- Recycling processes
- Air pollution

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