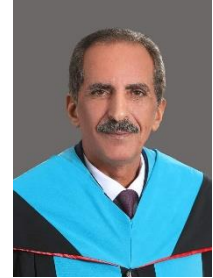


Date: 6/4/2025



## CURRICULUM VITAE

### PERSONAL INFORMATION

Faculty Member Name: Anwar Mazen Hamdan Al-Assaf  
Academic Rank: Associate Professor  
College: Engineering College  
Department: Renewable Energy Engineering  
Nationality: Jordanian  
Address: Tla'a Al-ali, Amman , Jordan  
Phone No: 0778555552  
E-mail: Anwar.Assaf@aau.edu.jo

### ACADEMIC QUALIFICATIONS

Degrees with fields, institution, and date

- B.S. in program, university, year. Electrical Engineering, Grade "GOOD" / National Technical University of Athens. 1989 B.Sc. project title: Using artificial techniques in the electrical and mechanical installations in buildings Diploma in English Language "distinguished" / USA- Air force academy. 2001
- M.Sc. in program, university, year. Embedded systems design / computer engineering, Grade "Excellent" / Yarmouk University
- Project / theses title: Network synchronization through the use of GPS satellite under Linux. 2004
- Ph.D. in program, university, year. PhD in Mechanical Engineering "Grade 3.79 out of 4, excellent", June, 2012 / Jordan University
- Dissertation title: "The effect of slip velocity and Temperature jump on the hydrodynamics and thermal behaviors of MHD flows in micro channels" . 2012

### ACADEMIC EXPERIENCE

- Duration: 2/2025 - present
- University: Amman Arab University
- Academic Rank: Associate Professor
- Date the rank was granted: 2/2025
- The body granting the rank: Engineering College Dean
- College: Engineering College
- Country: Jordan

دائرة الموارد البشرية  
**Human Resources Department**

- Duration: 09/2019 – 02/2025
- University: AMMAN Arab University
- Academic Rank: Assistant Professor
- Date the rank was granted: 05/2018
- The body granting the rank: Aviation sciences Dean
- College: Aviation sciences
- Country: Jordan

Job description and duties: PFTC grants Master Degree under the academic Umbrella of Yarmouk University in Embedded Systems design, Wireless communications and power engineering besides executing different special technical training courses. Other duties are: • Manage the educational process in the center upon its mission. • Plan the required training courses that satisfy the user requirements. • Ensure that the courses are given upon the course curriculum and revise them with the teaching staff. • Ensure that Labs are up to date. • Analyze customer's feedback for more development and enhancements. • Attend and Participate relative academic events

- Duration:
- University:
- Academic Rank:
- Date the rank was granted:
- The body granting the rank:
- College:
- Country:

Job description and duties: • Select and supervise the funded projects by King Abdullah Fund for Development (KAFD)

### NON-ACADEMIC EXPERIENCE

- Duration: 04/2017 – 04/2018
- Institution: King Abdullah II Design and Development Bureau (KADDB)
- Department:
- Country: Jordan

Job description and duties: • Select and supervise the funded projects by King Abdullah Fund for Development (KAFD)

- Duration: 6/2014 – 04/2017 Title: CEO Technical Deputy, King Abdullah II Design and Development Bureau
- Institution: (KADDB)

Job description and duties:

- Responsibility of running all KADDB technical projects, starting from collecting the user requirements, systems engineering, design, prototyping, and testing.
- Responsibility of assuring data pack readiness for mass production.
- Heading the design Critical review of all projects.
- Heading the project management committee.
- Heading the systems engineering committee.

دائرة الموارد البشرية  
**Human Resources Department**

- Revising all procedures and processes regarding QA and QC.
- Assuring the readiness of all department (Design, prototype, smart systems and testing) for the external auditing, and ISO preparations.
- Prepare and present the monthly report to the board of directors.

- Duration: 01/2011 – 06/2014
- Title: Head of Applied research,
- Institution: KADDB

Job description and duties:

- Writing research projects abstract to the different universities for selecting the best proposal that should the selected teams will work on under applied research supervision.
- Undergraduate KAFD funded project selection, supervising and guiding.
- Participating in all related workshops, conferences nationally and internationally.

- Duration: 06/2005- 02/2011
- Title: Instructor in Prince Faisal Information and Technology Center (PFITC)
- Institution: Yarmouk University Branch

Job description and duties:

Teaching Embedded Engineering courses for graduate students such as:

- C programming
- Linux operating system
- Advanced computer architecture,
- Embedded systems design
- Real time Embedded systems
- Supervising graduate students projects (Over 40 projects till now)
- Teaching special training courses in embedded systems.
- Fuzzy, Neural, machine learning • Administrative work of PFITC

- Duration: 06/ 2003-05/ 2005
- Title: Technical Manager,
- Institution: Royal Jordanian Air force (RJAF) calibration laboratories

Job description and duties:

- Managing a staff of about 10 Engineers and over than 80 Technicians.
- Responsible for maintaining and calibrating over than 5000 test equipment's for the military part, and about 3000 different type test equipment's for civilian companies for the purpose of ISO regulations.
- Issuing traceable certificates of the tested and calibrated items.
- Observing the specialized training for the staff internally and externally.
- Administrative work.

- Duration: 07/ 2002 -05/ 2003
- Title: Quality manager,
- Institution: calibration laboratories in the Royal Jordanian Air force (RJAF).

دائرة الموارد البشرية  
**Human Resources Department**

Job description and duties:

- Writing the procedures and forms needed to control work.
- Performing internal and external auditing.
- Training staff using auditing results feedback

- Duration: 07/ 2001-06/2002
- Title: Direct current Lab officer/supervisor of the calibration laboratories
- Institution: the Royal Jordanian Air force (RJAF).

Job description and duties:

- Supervising 20 Engineers and Technicians in the field of DC- 100Mhz test equipment's.
- Staff training.
- Maintaining the traceability on the range of DC- 100Mhz
- Insuring the calibration the correctness of calibration procedures used.
- Issuing calibration certificates.

- Duration: 09/1994-07/1999
- Title: Lecturer in Prince Faisal Technical College,
- Institution: Balqa'a University

Job description and duties:

Teaching the following courses for undergraduate students such as:

- Electronics
- Digital circuits.
- Radar
- Microwave and antennas.
- Navigation Systems.
- Statics, strength of materials
- Supervising the corresponding labs

- Duration: 09/ 1991-08/ 1994
- Title: Radar field maintenance Engineer and TSO "Transportable Special Equipment Special Equipment for special purposes "
- Institution: Engineer in different sites of the RJAF.

Job description and duties:

- Responsible of the maintenance of site radars, first line maintenance.
- Connecting radars to Command and Control sites.
- Managing the received data of the radars. Date:09/1990-08/1991 Tite: Radar workshop Maintenance Engineer, RJAF Radar Workshops. Job description and duties: • Maintain radar major components; TWT, Tx, Rx, Antenna, etc.

- Duration: 09/1990-08/1991

دائرة الموارد البشرية  
**Human Resources Department**

- Title: Radar workshop Maintenance Engineer.
- Institution: RJAF Radar Workshops.

Job description and duties:

- Maintain radar major components; TWT, Tx, Rx, Antenna, etc

### CERTIFICATIONS OR PROFESSIONAL REGISTRATIONS

- Microsoft applications, a 70 hours training course, RJAF computer centre, Jordan, Sep.1997.
- Training course in Greek Electrical Utility, DEH, 1988, Athens, Greece.
- Basic instructor Techniques, a 70 hours intensive course in the techniques of instructing, Prince Faisal Technical College, Jordan, Sep. 1998.
- Officer's Basic training, a 4 months intensive military course, Royal Army College, Jordan 1991.
- American Language course, \* weeks course held at Lack land Air Force Base, Texas, USA, June 1997.
- Diploma in English Language, English language Center, Defense Language Institute, Texas, USA, May 2001.
- Advanced Calibration, Measurement and diagnostics, 3 months advanced course (11 credit hours), KEESLER AFB, and MISSISSIPI, USA. July 2001.
- Certificate of Calibration, Department of Air force USA, 2001.
- USAF TQP orientation attendance, AF Metrology and calibration, USA 2001.
- Certificate of Metrology key stamp, RJAF, Jordan, Jan 2003. 36 Hours RAB - accredited QMS Lead
- Auditor Course with specific reference to ISO/IEC 17025 presented by Excel Partnership, Inc. Ohio, USA, 2004.
- Certificate of appreciation from AFMETCAL.
- Using Quality Tools for continuous Quality Improvement and Technical Assessment, JAS, Jordan, December 2005.
- Quality Management, Accreditation and assessment Techniques according to ISO/TEC 17025, JAS and D/P, Germany, Jordan program, June 2006.
- STI policy Monitoring and Evaluation, HCST ,Amman ,Jordan ,6-8 Dec. 2011
- PMP course
- CIM " Certified Innovation Manage

### CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- A member of Jordan Engineers Association (JEA) since 1989
- A member of the council of the Faculty of Engineering / Hashemite University.
- A member in the technical committee of ESCWA
- A member in the Industrial Advisory Committee at Sumayya University
- A member in the industrial Advisory Committee at Yarmouk University
- A member in the higher technical Committee of the Jordan Engineers Association
- A member in the RTO/NATO organization
- ABET industrial committee member in Jordan University
- Hashemite University board member

دائرة الموارد البشرية  
**Human Resources Department**

- Arab Robotic Association
- Armed Forces Communications & Electronics Association (AFCEA)
- A member of the council of the Faculty of Engineering / Zaytona University
- A member of the council of the scientific research / Zaytona University

### HONORS AND AWARDS

- Industrial partner for the project NATO SPS G4936 (Hybrid sensor networks for emergency critical scenarios)
- Scholarship from the Jordanian university as a distinguished PHD student 2008
- Royal Medal of faithful service, RJAF, 2007.
- Medal of Calibration, AFMETCAL, Ohio, USA, 2004.
- Certificate of Appreciation from AFMETCAL, Ohio, USA.
- Certificates of Appreciation from RJAF Commander for my achievements in training courses as getting the first ranks in many training courses.
- Royal Medal of Military worthiness, RJAF, 1994.
- National Economy ministry of Greece Scholarship, for B.Sc. in the national Technical university of Athens for 5 years

### SERVICE ACTIVITIES

- Frequency Tunable Antenna (FTA)
- Radio Frequency ID (RFID) \ Visitor Management System (VMS)
- Solar Tracking System
- GSM Based Patient Monitoring System
- Car Park guidance System
- Asthma Diagnosis from Cough Sound
- Earthquake Alarm and Mounting System Model
- Entrance Security System (ESS)
- Smart Irrigation System
- Height Finder
- A Wearable Obstacle Detector for the Blind
- Intelligent Central Heating Controller

### THE MOST IMPORTANT PUBLICATIONS IN LAST FIVE YEARS

- 1) Anwar Al –Assaf , Ammonia-hydrogen-air gas turbine cycle and control analyses International Journal of Hydrogen Energy,
- 2) Anwar Al –Assaf , Date Palm Fiber-Reinforced Recycled Polymer Composites: Synthesis and Characterization ,Advances in Polymer Technology 2022, 10
- 3) Anwar Al –Assaf ,Alternative sustainable aviation fuel and energy (SAFE)-A Review with selected simulation cases of study ,Energy Reports 11, 3317-3344

دائرة الموارد البشرية  
**Human Resources Department**

---

- 4) Anwar Al –Assaf FCM Clustering Approach Optimization Using Parallel High-Speed Intel FPGA Technology ,Journal of Electrical and Computer Engineering 2022
- 5) Anwar Al –Assaf ,Lightweight methane-air gas turbine controller and simulator, Energy Conversion and Management: X 15, 100242
- 6) Anwar Al –Assaf ,Quantifying CO2 Emissions and Energy Production from Power Plants to Run HVAC Systems in ASHRAE-Based Buildings.,Energies
- 7) Anwar Al –Assaf ,State of the art in humidified gas turbine configurations ,Energies 15 (24), 9527
- 8) Anwar Al –Assaf ,Accelerating FCM Algorithm Using High-Speed FPGA Reconfigurable Computing Architecture ,Journal of Electrical Engineering & Technology
- 9) Anwar Al –Assaf ,NH3-H2-Working Fluid-based Shell and Tube Heat Exchanger and the H2O-to-H2O Helical Heat Exchanger: A Novel Integration to Ammonia Production Plants.,Jordan Journal of Mechanical & Industrial Engineering 18 (2)
- 10) Anwar Al –Assaf PID Power Controller to a Setpoint of Fluid Level Height in a ,Reservoir for Unattended Human Monitoring ,Int. J. Electr. Electron. Eng. Stud 8, 1-13

- 11) Anwar Al –Assaf ,An Exploration Into the Mechanisms and Evolution of GPT Models Impacts of Generative AI on the Future of Research and Education, 477-498
- 12) Anwar Al –Assaf ,An Exploration Into the Mechanisms and Evolution of GPT Models Impacts of Generative AI on the Future of Research and Education, 477-498
- 13) Anwar Al –Assaf ,Preliminary Design and Analysis of a Photovoltaic-Powered Direct Air Capture System for a Residential Building ,Energies
- 14) Anwar Al –Assaf ,State of the art in humidified gas turbine configurations Energies 15 (24), 1-32
- 15) Anwar Al –Assaf ,A review on the effects of ceramic sand particles on most casting defects ,Journal of Ceramic Processing Research. 23 (No. 3), 257~262
- 16) Anwar Al –Assaf ,ELECTRICAL UNMANNED GROUND VEHICLE CONTROLLER International Journal of Electrical and Electronics Engineering studies 7 (1 ...
- 17) Anwar Al –Assaf ,Two-Layer Thin Plate Temperature Control JJMIE 81 (3)
- 18) Anwar Al –Assaf .Waste Heat Recovery to Improve the Carbon Footprint a Case Study: Cement Industry in Jordan ,International Review of Civil Engineering (I.RE.C.E.) 14 (2), 144-152
- 19) Anwar Al –Assaf ,INCREASING THE ENERGY BALANCE OF HYDROCARBON PRODUCTION FROM B. BRAUNII WITH INCLINED SOLID-LIQUID SEPARATION AND EASY HYDROCARBON RECOVERY Interdisciplinary Journal of Agriculture and Environmental Sciences (IJAES ...
- 20) Anwar Al –Assaf ,PID power controller to a setpoint of fluid level height in reservoir for unattended human monitoring International Journal of Electrical and Electronics Engineering Studies 8 (1 ...
- 21) Anwar Al –Assaf ,Power Conversion Using Analytical Model of Cockcroft-Walton Voltage Multiplier Rectenna. Electronics 2021, 10, 881  
s Note: MDPI stays neutral with regard to jurisdictional claims in published ...



- 22) Anwar Al –Assaf ,Wireless Sensor Networks for Smart Cities: Network Design, Implementation and Performance Evaluation. Electronics 2021, 10, 218  
s Note: MDPI stays neu-tral with regard to jurisdictional claims in ...
- 23) Anwar Al –Assaf ,Hybrid wireless sensor networks: A prototype  
Human-Computer Interaction–INTERACT 2019: 17th IFIP TC 13 International ...
- 24) Anwar Al-Assaf Artificial intelligence Techniques. Al-Afaq Journal, RJAF,pp 83-87,first quarter Jan,2000.
- 25) Anwar Al –Assaf Mobile communication systems. Al Afaq Journal, RJAF, third quarter 1999. Conferences and workshops
- 26) Khalifeh, H. Salah, S. Alouneh, A. Al-Assaf, K. Darabkh , "Performance Evaluation of DigiMesh and ZigBee Wireless Mesh Networks", IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), March 2018 Chennai, India.
- 27) Anwar Al-Assaf, Factors Affecting the Performance of Photovoltaic Systems CATAEE-97, second international conference on Computational Aspects and their Applications in Electrical Engineering, pp 142- 156, , pp 142-156, Philadelphia university.1997
- 28) Anwar Al-Assaf et. all, Reconfigurable High performance Integrated Micro strip Yagi-Uda antenna for frequencies between 75- 100Ghz,Journal of Ubiquitous Systems and Persasive Networks, Sep./Dec. 2011 volume 3, pp 29-33
- 29) Anwar Al-Assaf et. all, The role of KADDB in the applied research crises of scientific research in Arab world, Princesses Sumyya University for Technology, 2011 8 | P a g e
- 30) Ahmad Al ja'afreh, Anwar Al-Assaf, A wireless sensor network design and implementation for vehicle detection, classification, and tracking, SPIE Defense, Security, and Sensing 2013, 29 April - 3 May, Baltimore, Maryland, United States.
- 31) Al-Sheikh,Bahaa ,Elshelbi, Ayah, Al-Assaf,Anwar , Sound source direction estimation in horizontal plane Using Microphone array, IEEEExplore, 2013

- 32) Design and development of 6-Flight Simulator prototype Using Stewart platform, Al, khedher Mohammad, Al-Assaf, Anwar, 2nd Arab Robotics conference, 2013
- 33) Smart pharmacy System, Abu Hammour Zaer, Al Assaf, Anwar, 2nd Arab Robotics Conference, 2013.
- 34) Mon`d Nimer, Anwar Al-Assaf, Mohamad Hamdan, The effect of slip velocity and temperature jump on the Hydrodynamics and thermal behaviors of MHD Forced Convection Flows in Horizontal Microchannels, the 8th international mechanical Engineering Conference 2013.
- 35) Anwar Al-Assaf, A.AINimer and Mohammad A. Hamdan. "The effect of slip velocity and temperature – jump on the Hydrodynamics and thermal behaviors of MHD free convection flows in vertical Microchannels ". The 8th international mechanical Engineering Conference 2013.
- 36) Anwar Al-Assaf et. all, Increasing the saturated output RF power for RF amplifiers using passive technique, DOI:10.1109/JIEEEC.2015.7470740. Conference: 2015 9th Jordanian International Electrical and Electronics Engineering Conference (JIEEEC)
- 37) Anwar Al-Assaf et. all, Single loop synthesizer and SDR modulator, DOI: 10.1109/IACS.2017.7921971 Conference: 2017 8th International Conference on Information and Communication Systems (ICICS)

### INSTITUTIONAL PROFESSIONAL DEVELOPMENT ACTIVITIES IN THE LAST FIVE YEARS

#### Renewable Energy

- Design of parabolic trough collector system for domestic heating and air conditioning.
- Use of Recycled Vertical Flow Constructed Wetland Operated by Solar Energy to Treat Grey water for Irrigating Home
- Gardens in the Deir Alla District in the Central Jordan Valley. 9 | P a g e Conferences, competitions and workshops
- Phase Change Materials for solar thermal energy storage.
- Solar panel cleaner
- An integrated solar desalination system for enhanced performance.
- Concentrating solar power via the use of parabolic trough technology.
- Design of a solar cooling system of a capacity 1.5 tons (5 kW) for doctors office in Jordan university of science and technology.

دائرة الموارد البشرية  
**Human Resources Department**

---

- Solar desalination.
  - Standalone Off-Grid Closed- Loop tow – Axis Photovoltaic Solar Tracker: Design, Fabrication.
  - Series hybrid kart.
  - High Performance Hybrid Vertical Wind-Solar Turbine.
  - Design and Construction of a Testing Setup for Solar Water Heaters.
  - The commercial version of the Automated Dual Solar-Diesel Thermal System for Residential Space and Water Heating phase II.
  - Design and implementation of electro-mechanical Sun tracking device for different solar distillation systems.
  - Solar Air Conditioning. Communication, control and Embedded System (undergraduate)
  - GPS Vehicle management System
  - Efficient wireless Electricity Transfer
  - Vacuum tubes for Non-radiative wireless power transfer
  - Entrance Security System
  - Design of liquid filling machine
  - Unmanned Mine detection system
  - Two dimensional coordinate Measuring machine using a laser sensors
  - Laser guided UGV
  - Intelligent traffic light
  - Automated parking management system
  - VTOL for quad UAV
  - heart monitoring system
  - Mobile jamming system
  - RFID applications
  - Voice commanded robotic arm
  - Smart wireless irrigation and forest protection System
  - Sound source localization system
  - Smart pharmacy system
  - Video jamming System
  - Unmanned submarine
  - 6 DOF flight simulator
- 
- Radar systems.
  - Hydrogen Fuel
  - Antenna design.
  - Embedded systems design.
  - Electronic circuits modelling.
  - GPS applications.

دائرة الموارد البشرية  
Human Resources Department

- Microwave systems.
- MEMS.
- microfluidics.
- Controllers.
- Robotics
- Optimization
- Heat transfer
- Renewable energy

**RESEARCH LINK (Scopus and Google Scholar)**

- <https://scholar.google.com.my/citations?hl=en&pli=1&user=W56BqLQAAAAJ>
- <https://www.scopus.com/authid/detail.uri?authorId=55810606800>
- <https://orcid.org/0000-0002-4491-1020>
- <https://www.researchgate.net/profile/Anwar-H-Al-Assaf>

**LANGUAGES**

- Arabic Language العربية
- English Language الإنجليزية
- Greek Language اليونانية

المعرفون

Department of Renewable Energy Technology, Faculty of Engineering and Technology, Applied Science Private University, P.O. Box 541350, Amman 11937, Jordan; [mo\\_ahmad@asu.edu.jo](mailto:mo_ahmad@asu.edu.jo)

[malnimr@just.edu.jo](mailto:malnimr@just.edu.jo) Mechanical Engineering Department / Jordan University of Science and Technology / Irbid / Jordan

Jordan University [alhuniti@ju.edu.jo](mailto:alhuniti@ju.edu.jo) الأستاذ الدكتور ناصر الحنيطي الجامعة الأردنية