

Belal Gharaibeh, PhD

1. Name and date of birth

Belal M.Y. Gharaibeh
Date of birth: April 27, 1978

2. Academic Rank

Full time associate professor of Systems Engineering

3. Degrees

Ph.D. in Mechanical Engineering, University of Kentucky, 2007
B.Sc. in Mechanical Engineering, Jordan University of Science and Technology, 2001

4. Service at this Institution

Chair: STEG program ABET Ad-hoc committee (March 13-May 19, 2022)
Member in the following committees:
Institutional Review Board-IRB (institution)- Oct. 27, 2021-current
Curriculum and Assessment Committee- CAC (CAES)-Oct. 26, 2021-current
Environmental Engineering Curriculum development committee - (CAES), April 22, 2022-current
Promotion committee (CAES) Feb. 10-2022-current
Resource Management and Planning Committee RMPC (CAES) Nov. 14, 2021-current
AY 21-22 Hiring Cycle - STEG Position (CAES) Dec. 2-Dec. 12, 2021

5. Professional Experience *(Related experience in other institutions: include locations and dates.)*

- Associate Professor
- American University of Kuwait/Collage of Engineering and Applied Sciences
 - Systems Engineering program 2021-current
- **Associate professor** 2015-2021
- The University of Jordan/Industrial Engineering Department
- **Chair of industrial engineering department** 2018-2019
- The University of Jordan/Industrial Engineering Department
- **Assistant Dean for students' affairs** 2014-2015
- The University of Jordan/Industrial Engineering Department
- **Assistant Professor** 2010-2011
- Philadelphia University/Mechanical Engineering Department
- **Research Associate** 2007-2010
Institute of Research for Technology Development (IR4TD), University of Kentucky

6. **Consulting Experience**

7. **Professional Registration**

8. **Publications**

a) Refereed Journals.

- Wafa' AlAlaween, Omar Abueed, Belal Gharaibeh, Abdallah Alalawin, Mahdi Mahfouf, Ahmad Alsoussi, Nibal Albashabsheh, "The development of a radial based integrated network for the modelling of 3D fused deposition". *Radial based integrated network*, 2022, accepted.
- Mohammad A. Gharaibeh, Hitham Tlilan & Belal M. Y. Gharaibeh. "Stress concentration factor analysis of countersunk holes using finite element analysis and response surface methodology". *Australian Journal of Mechanical Engineering*, 2019 ,(2) 13 2253-2204

b) Conferences

- Wafa' H. AlAlaween, Abdallah H. AlAlawin, Belal M.Y. Gharaibeh, Mahdi Mahfouf, Ahmad Alsoussi, "An Interval Type-2 Fuzzy Logic System for the Simulation of Fused Deposition". ICECCME2022, Maldives, November 16-18, 2022
- Wafa' H. AlAlaween, Abdallah H. AlAlawin, Belal M.Y. Gharaibeh, Mahdi Mahfouf, Ahmad Alsoussi, "A Type-1 Fuzzy Logic System for the Modelling of Fused Deposition", International Conference on Research in Science, Engineering and Technology(ICRSET), Barcelona, Spain, June, 23, 2022.
- Belal M.Y. Gharaibeh, Sa'ed Awni Musmar, Ehab Al-Zamer, Samer Al-Zamer, "ANALYTICAL HIERARCHY PROCESS-BASED DECISION MAKING FOR EVALUATING THE USE OF PYROLYTIC CARBON BLACK AS AN ALTERNATIVE SOURCE OF HEATING IN REFUGEE CAMPS IN JORDAN", IREC2021 conference. April 14-15, 2021

9. **Membership in Professional Societies**

- Institute of Industrial and Systems Engineering, since 2018.
- Member of the Institute of Research for Technology Development, since 2007.

10. **Patents, Honors and awards**

Patents

- Non-contact method for quantifying changes in the dynamics of microbial populations, US patent # 0311109, 2010.
- Method for detection defect in material and system for the method. International patent WO/2010/033113. 2010.
- Infrared Seed Inspection System for automotive coated surfaces, Toyota Motor Manufacturing, US patent # 0123093, 2011

- Method for reducing the curing time on of a painting composition. US patent, 0034980, 2010.

Awards

- Outstanding Regional Level Faculty Advisors Award-Middle East Region, 2021

11. Courses taught

a) Academic Courses

- STEG321+L Engineering Simulation, independent study, undergraduate
- ENGR200-Engineering Design, 5 lectures/week, undergraduate
- STEG330-Operations Research, 3 lectures/week, undergraduate
- STEG220-Engineering Statistical Analysis, 3 lectures/week, undergraduate
- ENGR 210-Engineering Entrepreneurship, 3 lectures/week, undergraduate
- STEG350-Human Factors, 3 lectures/week, undergraduate
- ELEG470, internship, undergraduate
- STEG470, internship, undergraduate
- Design for Manufacturing and Assembly, 3 lectures/week, undergraduate
- Metrology and Engineering Measurements, 3 lectures/week, undergraduate
- Manufacturing Processes, 3 lectures/week, undergraduate
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12. Research

- RADIATION EFFECTS ON MEDICAL DEVICES MADE BY 3D PRINTING, \$30,000, MIT International Science and Technology Initiatives, 2021-2022
- A sustainable heating system using Carbon Black Fuel source for Jordan's refugee camps and rural areas, 120,000 GBP, Royal Academy OF Engineering, the UK, 2020-2022.
- Right-First-Time Fused Deposition for Healthcare Manufacturing, 120,000 GBP, Royal Academy OF Engineering, the UK, 2020-2022.

13. Participation in Specific Programs

- Additive Manufacturing for Innovative Design and Production program, **MIT**, May 10-2021-Aug. 2-2021.
- NEET / J-WEL Educational Envisioning and Planning Workshop, **Abdul Latif Jameel World Education Lab & the New Engineering Education Transformation Program, Massachusetts Institute of Technology**, June 29, 2021, to July 1, 2021.
- IAEA organized training EVT1805448-0001-JOR in the field of Non-Destructive Testing for nuclear applications, **Center of Energy Research-Hungarian Academy of Science**, May 20-31, 2019.
- DIAMOND-SESAME Fellowship, **Diamond Light Source**, Jan-28, 2019 to Mar. 31, 2019
- SESAME1st industrial & Applied Science Workshop, **SESAME**, Oct. 28-29, 2019