

Personal Information

Name: Falah Mustafa Suleiman Al-Saraireh .

Place and date of birth: Jordan – karak – soul 02.05.1966.

School: Ja'afar bin Abi Talib secondary school on 23.07.1984.

Address:

MUTAH UNIVERSITY/ Faculty of Engineering/mech.eng.dept.

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Academic qualifications

BSc and **MSc** in industrial production engineering, Technology of machine design, (metal cutting machines, tools, and instruments). Voroshilovgrad Machine Building Institute – Ukraine 1990, (Design of National Automobile Repair Enterprise under conditions of Jordan).

Ph.D. in manufacturing engineering, (processes and machines of by pressure shaping), East Ukrainian State University – Ukraine 2004. (Numerical Method for calculating the energy required for manufacturing processes carried out by crank–sheet stamping machines).

Academic activities

*Assistant professor in the faculty of engineering of Al-Qaseem University /Saudi Arabia. (2008-2010).

*Assistant professor in the faculty of engineering of Mutah University (2010- 2018)

*Associate Professor A in the faculty of engineering of Mutah University (2018 -2025)

* Full Professor in the faculty of engineering of Mutah University (12.08.2025 – till now)

*Dean's assistant of the Faculty of Engineering, Mutah University. (2010-2014)

*Head of the mechanical engineering department at Mutah University (2017/2018)

Research Interests

- Manufacturing process.
- Materials science.
- Metal casting.
- Machinability.
- Thermodynamics.
- Renewable energy.

Expertise

* Worked in the Al-Karak municipality as a mechanical engineer from 05.01.1992 till 15.05.1992.

* Worked in Mu'ab establishment as a mechanical maintenance engineer from 16.11.1990 till 11.10.1992.

* Worked in Mu'tah University workshops as a production engineer from 15.10.1991 till 15.05.1992.

* Worked in Mu'tah University /Faculty of Engineering/Mechanical Engineering labs. (1993-2010)

Training Courses

Heat treatment, Quality improvement, planning of effective teaching, SPSS, Personal efficacy of teaching members, and teaching technology. e-learning technology, ECO car training course at Budapest University/Hungary. ECO car training course at L'Aquila University/Italy, and ECO car training course at Jordanian University, digitalization: new and emerging technologies in higher education..

Computer Capabilities
ICDL, MECH.DESKTOP, MATLAB, Labview, Autocad, And Arduino

Memberships

- * Member of the Jordanian Engineering Society.
- * Jury member of the program Giftedness and Creativity (mawhibah) for science and engineering, supported by King Abdul-Aziz and his companion, the Foundation for Giftedness and Creativity (KSA).
- * Member of the Permanent Higher Committee of Advising at Qassim University. (KSA)
- * Member of the assessment committee for ABET in QEC(KSA).
- * Member of many different committees at Mutah University.
- * Member of the academic center council at Mutah University, 2010-2011.
- * Member of the Curriculum Development Committee at the Jordanian Ministry of Education for Vocational Education 2016.

Subjects I have taught:

No	Subject	
1	Materials science and engineering	0402260
2	The technology of metal forming	0402314
3	The technology of metal cutting	0402312
4	Joining and casting	0402461
5	Engineering polymers	0402368
6	Composite materials	0402462
7	Ceramic and engineering materials	0402263
8	Engineering measurements	0402510
9	Design of jigs, fixtures, and molds.	0402562
10	Product design	0402415
11	Measurement systems and devices	0406345
12	Design of industrial facilities	0406568
13	Analysis and design of industrial systems	0406432
14	Manufacturing processes and product planning	0406362
15	Management of industrial projects	0406433
16	Engineering drawing	0403198

17	Machine drawing	0402218
18	Principles of vehicle maintenance	0402110
19	Engineering workshops	0402110
20	Welding and joining workshops	0402463
21	Advanced engineering workshops	0402214
22	Strength of materials lab	0402228
23	Engineering materials lab	0402265
24	Cutting and manufacturing processes lab,	0402414
25	Theory of machines lab.	0402525
26	Mechanical vibrations lab.	0402422
27	Measurements lab.	0402213
28	Safety of industrial systems	0406465
29	Polymers and ceramics lab.	0402565
30	Introduction to Tribology	0402521
31	advanced manufacturing processes (for master's degree)	0402738
32	Training	0402401
33	Supervision of graduation projects and Master's Degree Thesis	0402521

Publications:

1. **Falah Mustafa Al-saraireh** The effect of current and voltage on mechanical properties of low carbon steel products .. International Journal of Mechanical Engineering and Technology (IJMET) Volume 9, Issue 3, March 2018 ([Scopus](#)).
2. **Falah Mustafa Al-saraireh**, an assessment of the efficiency of utilizing complex modifiers for softening the liquid-glass mixtures to improve iron and steel casting. ARPN Journal of Engineering and Applied Sciences VOL. 13, NO. 9,2018 ([Scopus](#)).
3. **Falah Mustafa Al-saraireh** Improving steel casting quality using resins with increased thermal stability. Journal of Engineering and Applied Sciences Medwell 13 (20):860913,2018 ([Scopus](#)).
4. **Sultan A. Tarawneh, Emhaidy S. Gharaibeh, Falah M. Saraireh** Effect of using steel slag aggregate on mechanical properties of concrete. American Journal of Applied Sciences 11 (5): 700-706, 2014 ISSN: 1546-9239 ©2014 Science Publication ([Scopus](#))

5. **Albzeirat, M. K., Hussain, M. I., Ahmad, R., Al-Saraireh, F. M., Salahuddin, A.** A Novel Mathematical Logic for Improvement Using Lean Manufacturing Practices. *Journal of Advanced Manufacturing Systems* VOL. 17, NO. 03 (2019) ([Scopus](#)).
6. **Malek, A. K., Muhammad, H. I., Rosmaini, A., Alaa, A. S., & Falah, A. M.** Improvement of nuclear power plants within the perspective of applications of lean manufacturing practices. *AIP Conference Proceedings* Volume 1885, Issue 1,26 Sept.2017 10.1063/1.5002309 ([Scopus](#)).
7. **Malek, A. K., Muhammad, H. I., Rosmaini, A., Alaa, A. S., & Falah, A. M.** Applications of Lean Manufacturing Practices in Power Plants within a Future Vision. *AIP Conference Proceedings*. 2030, 020098 (2018) November 2018 ([Scopus](#)).
8. **Falah Mustafa Al-saraireh** Vibrations of systems with one degree of freedom in the presence of coulomb friction. *industrial engineering letters*. 13(7), 5528-5533..
9. **Falah Mustafa al-saraireh.** Analytical Method for Calculating the Exact Value of Friction Coefficient for Crank-Connecting Rod Sheet Metal Forming Press Mechanism. *Industrial Engineering Letters* www.iiste.org ISSN 2224-6096 (Paper) ISSN 2225-0581 Vol.5, No.3, 2015.
10. **Mohammad A. Saraireh*, Falah M. Alsaraireh, and Saad S. Alrwashdeh.** Investigation of heat transfer for staggered and in-line tubes. *'International Journal of Mechanical Engineering and Technology (IJMET)* Volume 8, Issue 11, November 2017, pp. 476–483, Article ID: IJMET_08_11_051 ISSN Print: 0976- 6340 and ISSN 0976-6359. ([Scopus](#))
11. **Malek Khalaf Albzeirat Falah Mustafa Al-Saraireh Muhammad Iqbal Hussain Rosmaini Ahmad** Jordan Energy Sector Choices and Challenges *SEISENSE Journal of Management* Vol 1 No 5 (2018): ([Scopus](#))
12. **Saad S. Alrwashdeh 1 *, Falah M. Alsaraireh 1, Mohammad A. Saraireh 1** Solar radiation map of Jordan governorates. *International Journal of Engineering & Technology Research* paper 7 (3) (2018) 1664-1667. ([Scopus](#))
13. **Saad S. Alrwashdeh1, *, Falah M. Alsaraireh1, Mohammad A. Saraireh1, Henning Markötter2, Nikolay Kardjilov2, Merle Klages3, Joachim Scholten3 and Ingo Manke** In-situ investigation of water distribution in polymer electrolyte membrane fuel cells using high-resolution neutron tomography with 6.5 μm pixel size. *AIMS Energy*, 6(4).2018.4 .607 20 August 2018. ([Scopus](#))
14. **Malek Khalaf Albzeirat1, *, Muhammad Iqbal Hussain1, Rosmaini Ahmad1, Alaa Salahuddin1, Falah Mustafa Al-Saraireh2, Nazih Bin Abdun3** Literature Review: Lean Manufacturing Assessment During the period (2008-2017). *International Journal of Engineering Management*. Vol. 2, No. 2, 2018, pp. 29-46.
15. **Falah Mustafa Al-saraireh & Yuri Svinoroev.** Assessment of casting binding materials based on modified technical lignosulfonates. *International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)* ISSN (P): 2249–6890; ISSN (E): 2249–8001 Vol. 10, Issue 2, Apr 2020, 335–346 © TJPRC Pvt. Ltd. ([Scopus](#))
16. **Falah Mustafa Al-saraireh & Yuri Svinoroev.** Production of high-quality casting binders from materials containing lignosulfonates. *International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)* ISSN(P): 2249- 6890; ISSN(E): 2249-8001 Vol. 10, Issue 3, Jun 2020, 14575-14584. ([Scopus](#))
17. **Malek Khalaf Albzeirat Rosmaini Ahmad Muhammad Iqbal Hussain Falah Mustafa Al-Saraireh Asia KhalafAlbzeirat.** Employment of Set Operations to Improve LMP Assessments Design and Implementation. *SEISENSE Journal of Management* Vol 2 No 1(2019) ([Scopus](#))
18. **Saad S. Alrwashdeh and Falah M. Alsaraireh.** Wind energy production assessment at different sites in Jordan probability distribution .. *ARPN Journal of Engineering and Applied Sciences* ©2006-2018 Asian Research Publishing Network (ARPN). ([Scopus](#))
19. **Saads. Alrwashdeh 1 *, Falah M. Alsaraireh.** Investigation of solar radiation distribution over three zones north, middle, and south of Jordan. *International Journal of Engineering & Technology*, 7 (4) (2018) 5047-5050. ([Scopus](#))

20. *Falah Mustafa Al-Saraireh* . Improving Steel Casting Quality Using Resins with Increased Thermal Stability. Journal of Engineering and Applied Sciences Year: 2018 Volume: 13 Issue: 20 Page No.8609 – 8613. (Scopus)

21. *Falah Mustafa Al-saraireh & Yuri Svinoroev*. Application of binders based on technical lignin in the production of casting. ARPN Journal of Engineering and Applied Sciences VOL. 15, NO. 24, DECEMBER 2020. (Scopus)

22. *Falah Mustafa Al-saraireh*. Natural Polymer Materials for The Synthesis of Environmentally Cleaned Casting Technologies. ARPN Journal of Engineering and Applied Sciences. vol. 17, NO. 21, November 2022 (Scopus).

23. *Falah Mustafa Al-Saraireh*. Cold-curing mixtures based on biopolymer lignin complex for casting production in single and small-series conditions. AIMS Materials Science, 10(5): 876–890. 27 September 2023. (Scopus).

24. *Falah Mustafa Al-Saraireh* Experimental Study on the Effect of Oxidation on the Compressibility of Iron Powder. Manufacturing Technology Engineering Science And Research Journal year 2023, Volume 23, Issue 3 (Scopus).

25. *Falah Mustafa Al-Saraireh* Experimental Investigation of Thermofriction's Impact on Surface Hardness of Steel Products. Manufacturing Technology, Engineering Science, And Research Journal, August 2024, Vol. 24, No. 4 (Scopus).

26. *Falah Mustafa Al-Saraireh**, *Shatha Adel Suhymat* Effect Of Gas Nitriding Parameters On The Micro-Hardness Of High-Speed Steel-Cutting Tools. Journal Of Applied Engineering Science, Vol. 22, No. 3, 2024. (Scopus).

27. *Falah Mustafa Al-Saraireh*, Production of High-Quality Casting Cores From Lignin-Based Binders Using Blow-Out Method. «EUREKA: Physics and Engineering» vol 5 (2024). (Scopus).

28. *Saad S. Alrwashdeh^a,*, Mohammad R. Almajali^b, Falah Mustafa Alsaraireh^a, Ala' M. Al-Falahat^a*, Green performance enhancement of marine engines via turbocharger compression ratio optimization. Results in Engineering, Volume 24, December 2024, 102989 (Scopus)

29. *Falah Mustafa Al-Saraireh*, Impact of Cutting Fluid Velocity and Flow Rate on Wear and Surface Roughness in Turning Operations. «EUREKA: Physics and Engineering» vol 6 (2024). (Scopus).

30. *Falah Mustafa Al-Saraireh*, Study of Factors Affecting the Strength of Briquettes Made of Aluminum and Nickel-Containing Slags vol 3 (2024) (Scopus).

31. *Mohammad S. Al-Saraireh, Falah Al-Saraireh and Yassin Nimir*, advanced deep learning models for comprehensive analysis and optimization of nucleate boiling heat transfer systems, ARPN Journal of Engineering and Applied Sciences, vol 19, no. 14, July 2024 (Scopus)

32. *Falah Mustafa Al-Saraireh*, The Effect of Annealing Conditions on Copper's Brittleness and Powder Production Efficiency ,Manufacturing Technology, Engineering Science, And Research Journal, Year 2025, Volume 25, Issue 3 (Scopus).

33. <https://www.researchgate.net/profile/Falah-Al-Saraireh>

34. <https://scholar.google.com/citations?user=H4KthcUAAAAJ&hl=ar>

