

Fahad Bin Sultan University
Faculty of Engineering
Mechanical Engineering Department

Jamal Mahmoud Nazzal

Education

Degree	Discipline	Institution	Year
Ph.D.	Mechanical Engineering, Fuel and Energy	Leeds University, UK	1996
MSC	Instrumentation and Analytical Engineering	UMIST University , UK	1993
BSC	Mechanical Engineering	Yarmouk University	1987

Academic experience

Institution	Rank	Title	Dates	Full Time or Part Time
Fahad Bin Sultan University	Professor	Dept. Chair	2020-Now	Full time
Alasala Colleges, KSA	Professor	Dept. Chair	2017-2020	Full time
Shaqra University, KSA	Professor	Dept. Chair	2011-2017	Full time
University of Buraimi, Oman	Professor	Vice-Chancellor	2010-2011	Full time
Amman University, Jordan	Professor	Dean of Engineering	1997-2008	Full time

Non-Academic Experience

Company or Entity	Title	Brief Description of Position	Dates	Full Time or Part Time
Jordan Cooperation Group, Jordan	Head of Dept. of Consultation	Consultation, Studies, Educational Services and Training.	2010	Full time
NYIT in the Middle East	Director	Business Development	2008-2009	Full time

Subjects taught over the past two academic years

Course Name	Institution	Credits
1. <i>Statics and Dynamics</i>	AU, SU and FBSU	3 C.hrs.
2. <i>Strength of Materials.</i>	AU, SU and FBSU	3 C.hrs.
3. <i>Mechanics of Machinery.</i>	AU, SU and FBSU	3 C.hrs.
4. <i>Mechanical Engineering Design I&II.</i>	AU, SU	3 C.hrs.
5. <i>Engineering Materials.</i>	AU, SU and FBSU	3 C.hrs.
6. <i>Thermodynamics I & II.</i>	AU, SU and FBSU	3 C.hrs.
7. <i>Thermal Fluids systems.</i>	AU, SU	3 C.hrs.
8. <i>Fluid Mechanics.</i>	SU	3 C.hrs.
9. <i>Power plants.</i>	SU and FBSU	3 C.hrs.
10. <i>Solar Energy.</i>	FBSU	3 C.hrs.
11. <i>Energy conversion.</i>	SU and FBSU	3 C.hrs.
12. <i>Internal Combustion Engines.</i>	SU and FBSU	3 C.hrs.

13. <i>Manufacturing processes I.</i>	SU and FBSU	3 C.hrs.
14. <i>Biomechanics.</i>	AN	3 C.hrs.
15. <i>Heat Transfer.</i>	SU and FBSU	3 C.hrs.
16. <i>Air Conditioning and Refrigeration cycles.</i>	SU and FBSU	3 C.hrs.
17. <i>Water Desalination.</i>	SU and FBSU	3 C.hrs.
18. <i>Industry and Environment</i>	AU, SU and FBSU	3 C.hrs.

Certifications or professional registrations

-Professional Engineer, *Jordanian Engineering Association*

Current membership in professional organizations

1. - *Member of the Jordanian Engineering Association.*
2. *Member of the Institute of Energy, UK.*
3. *Member of the Jordan Environment Society*

Honors and Awards

1. His Royal Highness the Crown Prince of Jordan, 1996. The first PhD degree in the field of Fuel & Energy (Oil Shale utilization & Environmental Impact Assessment).
2. His Royal Highness the Crown Prince of Jordan, 1987. The first graduation project (study) on the use of Jordan oil shale in the ICE, Yarmouk University.
3. Eligible for inclusion into 2008 Edition of the International Who's Who of Professional's .

Service Activities (within and outside of the institution)

1. Member of Editorial Board:

- 1) Member of Editorial Board, Shaqra University Journal of Applied Sciences, 2015-2018.
- 2) Member of Editorial Board, Journal Energy Science & Technology, Canadian Research & Development Center of Sciences & Cultures.
- 3) Member of Editorial Board, Thermal Energy and Power Engineering, (TEPE), American V-King Scientific Publishing.
- 4) Member of Steering Committee, WAP Conference Series: Engineering and Technology Frontier (ETF).

2. Chairman / Chairman of the Organizing Committee of the following Conferences:

1. **Chairman & plenary speaker** of SCESA-2013, *Spring Conference on Energy Science and Application / SCESA 2013*, organized by ASSE (American Society of Science and Technology), May 24 - 26, 2013, Hubei, China.
2. **Chairman** of the 1st Jordanian International Biomedical Engineering Conference (JIBEC 07), 4-8 November 2007, Amman, Jordan.
3. **Chairman** of the Youth and the Social Environment Conference, Amman University & Ministry of higher Education, Amman, Jordan, Nov. 2005.
4. *Member of the organizing and scientific committee of the 3rd and the 4th Jordanian*

- Mechanical & Industrial Engineering Conference., Amman, Jordan 1999 and 2001.*
3. External examiner of many MSc, and PhD thesis, faculty of Engineering, The University of Jordan and Jordan University of Science and Technology (JUST).
 4. Chairman of Committee, JEA competition of the graduation projects, Mechanical Engineering branch, 2001-2003
 5. Member of the Reviewing Committee, Elhijawi prize, 2002-2004.
 6. Member of the organizing Committee of many national and international conferences and symposiums.

Principal Publications and Presentations:

1) Selected Journal Publications:

1. **AN Sharkawy, JM Nazzal**, *Design and Manufacturing Using 3D Printing Technology of A 5-DOF Manipulator for Industrial Tasks*, International Journal of Robotics and Control Systems 4 (No. 2.), pp. 893-909, 2024.
2. **Jamal M. Nazzal & Ammar N. Natsheh**, *Chaos control using sliding-mode theory*, Chaos, Solitons & Fractals, Volume 33, Issue 2, July 2007, Pages 695-702.
3. **Ammar N. Natsheh, J. Gordon Kettleborough, & Jamal M. Nazzal**, *Analysis, Simulation & Experimental Study of Chaotic Behavior in Parallel-Connected DC-DC Boost Converters*, Chaos, Solitons & Fractals, 39 (2009), pp. 2465-2476.
4. **Jamal M. Nazzal**, "The Influence of grain size on the products yield & shale oil composition from the Pyrolysis of Sultani oil shale", *Journal of Energy Conversion & Management*, 49 (2008), P 3278.
5. **Jamal M. Nazzal**, *The presence of Polycyclic Aromatic Hydrocarbons (PAH) in the Oil derived from the pyrolysis of Jordan Oil Shale*, *Oil shale Journal*, Vol.24, No. 3, 2007.
6. **Jamal M. Nazzal**. 'Al-Balqa Journal for research & Scientific Studies, Vol. (12) No. (1), 2007.
7. **Jamal M. Nazzal**, **Salam A. Najim & Ibrahim M. El- Emary**, *Investigating Jordan Oil Shale Properties Using Artificial Neural Network (ANN)*, *World Applied Sciences Journal* 5 (5): 553-559, 2008.
8. **Jamal M. Nazzal**, **Salam A. Najim & Ibrahim M. El- Emary**, *Multilayer Perceptron Neural Network (MLPs) For Analyzing the Properties of Jordan Oil Shale*, *World Applied Sciences Journal* 5 (5): 546-552, 2008.
9. **Jamal M. Nazzal. & Williams, P. T.**, 'Influence of temperature & steam on the products from the flash pyrolysis of Jordan oil shale', *International Journal of Energy Research*, 2002; 26: 1207-1219.
10. **Jamal M. Nazzal** 'Influence of Heating Rate on the pyrolysis of Jordan oil shale', *Journal of Analytical & Applied Pyrolysis*, 62 (2002) 225-238.
11. **Jamal M. Nazzal** 'Gas evolution from the pyrolysis of Jordan oil shale in a fixed-bed reactor' *Journal of Thermal Analysis & Calorimetry*, Vol. 65 (2001).
12. **Jamal M. Nazzal** 'Pyrolysis of Scrap Tires: Environmental Impact of the Derived Oil'; *Jordanian Journal of Energy Abstracts, the National Energy Research Center*, Vol. 4, No. 1, March 2000.
13. **Williams, P. T., & Jamal M. Nazzal** 'Polycyclic Aromatic Compounds in Shale Oils: Influence of Process Conditions', *Environmental Technology*, 2000, Vol. 19,

- pp 775-787.
14. Williams, P. T., & **Jamal M. Nazzal**, 'Oil Shale Pyrolysis, Influence of particle grain size & steam on the polycyclic aromatic compounds in the derived shale oils', *Journal of the Institute of Energy*, June 1999, 72, pp 48-55.
 15. Williams, P. T., **Jamal M. Nazzal** 'Polycyclic Aromatic Compounds in Oils derived from the Fluidized Bed pyrolysis of Oil Shale', *Journal of Analytical & Applied Pyrolysis*, 35 (1995), 181-197.
 16. Williams, E. A., **Jamal M. Nazzal**, Nugr&, N., & Williams, P. T., 'Thermogravimetric Analysis of a Renewable Source of Energy', *Renewable Energy*, 5, 2073-2075, 1994.
 17. Anabtawi, M. Z., & **Jamal M. Nazzal** 'Effect of Composition of El-Lajjun Oil Shale on its Calorific Value' *Journal of Testing & Evaluation*, Vol. 22(2), 1994, 175.
 18. **Jamal M. Nazzal** 'Geochemistry of El-Lajjun Oil Shale', *AlMohandis Alordoni Journal*, 40, Jordan Engineering Association, 1988.

2) Selected Conferences Attendance and Publications:

1. S. Hemidat, I. Jalham, and **J. M. Nazzal**, *Evaluation of Sultani Oil Shale Exploitation, GCREEDER 2013, Amman, Jordan, Sept. 10th – 12th, 2013.*
2. **Jamal M. Nazzal**, "The Sustainable Developments in the Biotechnology", the 5th International Conference of Biotechnology & Environmental Sciences, 12-15 November, 2007, Faz-Morocco.
3. Sameh El-Shaero & **Jamal M. Nazzal**, " Systematic Approach in Studying Biomedical Engineering", The First Biomedical & Clinical Engineering Conference in Arab Countries, 12-14 January 2008, Riyadh, Saudi Arabia.
4. **Jamal M. Nazzal**, The Characteristic aspects of potential environmental effects on translocation in Plants from carbonaceous-spent shale, The 4th International Conference of Biotechnology & Environmental Sciences, 19-24 November, 2006, Mahdia-Tunis.
5. Rada Hussain, Sameh El-Shaero & **Jamal M. Nazzal**, *Utilizing System Approach in Biomedical Engineering & Health Care, 1st Jordanian Egyptian Conference: The system Approach & its applications in Science, 18-21 July, 2005, Irbid, Jordan.*
6. **Jamal M. Nazzal**, The Quality Assurance Management in the Engineering Studies, The new techniques in the Engineering Learning Conference, Federation of Arab Engineers, 30-31/8/2005, Cairo, Egypt.
7. **Jamal M. Nazzal** & Williams, P. T., 'Pyrolysis of U.K. Oil Shale in A semi-continuous Fluidized Bed Reactor', in proceeding of the 1996 IChemE research event-second European Conference for Young Researchers in Chemical Engineering, University of Leeds, 2-3 April 1996.
8. **Jamal M. Nazzal**, Williams, P. T., & Ahmed, N., 'Some Characteristics of El-lajjun Oil Shale', in proceeding Int. Conf. On Advances in Strategic Technology, Bangio, Malasia, 12-15 June 1995.
9. Ahmed, N., Williams, P. T., & **Jamal M. Nazzal** 'Chemical Analysis of Pakistani Oil Shales' Int. Conf. On Advances in Strategic Technology, Bangio, Malasia, 12-15 June 1995.
10. **Jamal M. Nazzal** "Gas Evolution during Jordan Oil Shale pyrolysis in a Fixed

- Bed Reactor” in Proceeding of the Third Jordanian Mechanical & Industrial Engineering Conference, May 9-12 1999, Amman–Jordan.*
11. Al-Tahinah, H. A., **Jamal M. Nazzal** & Tahat, M., “Mini Solar Pond Performance at Irbid” in *Proceeding of the Third Jordanian Mechanical & Industrial Engineering Conference, May 9-12 1999, Amman–Jordan.*
 12. **Jamal M. Nazzal**, “Pyrolysis of Jordan Oil Shale: The presence of PAH in the derived oil” in the proceeding of the 6th combustion Symposium, July, 19-22, 1999, Istanbul-Turkey.
 13. **Jamal M. Nazzal** ‘The presence of Polycyclic Aromatic Hydrocarbons in the pyrolysis of Jordan Oil shale’ In the proceeding of the International Conference of Energy Systems, ICES, 2000, University of Jordan, Sept., Amman, Jordan.
 14. **Jamal M. Nazzal** & Williams, P. T., ‘Influence of temperature of the products from the flash pyrolysis of Jordan oil shale’ *Proceeding of the Fourth Jordanian International Mechanical Engineering Conference*, 8-10 October 2001, Amman University.
 15. **Jamal M. Nazzal** ‘Influence of Pyrolysis Temperature on the products of Jordan Oil Shale in A Semi-Continuous Fluidized Bed Reactor’, Arab Energy & Sustainable Development Symposium, AESD 2000, Damas, Syria, 2000.
 16. **Jamal M. Nazzal** ‘Hydrogen as a new Energy Carrier workshop, Cairo, Egypt, Feb. 2001.
 17. Program report Workshop, Quality Control unite, Shaqra University, 10/12/2011.
 18. Description of Program Workshop, Quality Control unite, Shaqra University, 17/10/2011.
 19. Description of Course Workshop, Quality Control unite, Shaqra University, 30/10/2011.
 20. National Conference for the development of Study Plans, Teaching & Learning & Scientific Research, 15-17 June 2010, MoHE, Amman, Jordan.
 21. Conference of High Education E-learning, 2009, MoHE, Riyadh, Saudi Arabia.
 22. Learning Management System (LMS), Amman University, 18/1/2007.
 23. The society of the Engineering Colleges, Ein-Shams University, 19-21/2/2006, Cairo, Egypt.
 24. The day of Energy, Jordan University of Science of Technology (JUST), 16/11/2005, Irbid, Jordan.
 25. Oil Shale, An alternative Source of the imported crude oil, Jordan Engineers Association (JEA), August 2005, Amman, Jordan.
 26. The future of the University Atmosphere, Muta’a University, 19/3/2005, Kerak, Jordan.
 27. The new aspects of the Engineering Learning, Philadelphia University, 8/2/2005, Amman, Jordan.
 28. The high Education in Jordan, Amman University, 6/2/2005, Amman, Jordan.
 29. The environment Assessment, the Natural gas transferring Egyptian-Jordanian project, Phase II, RSS, 16/2/2004, Amman, Jordan.
 30. Towards a high education quality Assurance, Central Bank of Jordan, 23/10/2003, Amman. Jordan.
 31. The Technical Learning Economy, Al-Quds Open University, 31/8-4/9/2003, Amman, Jordan,

3) BOOKS

Jamal M. Nazzal. & Abdullah M. 'Basic Engineering Drawing for Engineering with AutoCAD', Al-Basheer 2000.