

Resume of Dr. Safwan M. Al-Qawabah**Date of Birth:** 1/6/1972**Place of birth:** Tafila-Jordan**Material status:** Married. 5 children**Nationality:** Jordanian**National No.:** 9721046929**Passport No.:** J 953461**Address:** E-mail: safwan1q@gmail.com, safwan.q@zuj.edu.jo**Mobile Phone:** 00962777499418, *Mechanical Engineering Department, Faculty of Engineering, Al-Zaytoonah University of Jordan, Amman-Jordan, Phone №: +962-3-2250326-105,120, Postal Address: P.O. Box 13720, Amman 11942, Jordan, Web Site: <http://www.zuj.edu.jo>.***Academic Qualifications****Certificate of Consultant Engineer**, JCE in Mechanical Engineering / Engineering Education (2015).**PhD.** in Mechanical Engineering (Manufacturing), University of Jordan, (2008).**MSc.** In Industrial Engineering (Design and Manufacturing), University of Jordan, (2001).**BSc.** In Industrial Engineering, University of Jordan, (1995).**Professional Experience**

- 1995-1999: Teacher at Ministry of Education (Tafila Vocational Secondary School).
- 1999-2002: Lab supervisor (CNC) at Tafila Technical University.
- 2002-2008: Lecture at Tafila Technical University.
- 2009- 2013: Assistance Professor at Tafila Technical University.
- Head of Mechanical Engineering Department at Tafila Technical University (2014/2015)
- 2013-2017: Associate Professor at Tafila Technical University.
- 2015: Sabbatical Leave at Al-Zaytoonah University of Jordan
- 2017- Present: Associate Professor at Al-Zaytoonah University of Jordan.
- Vice Dean of Engineering and Technology Faculty at Al-Zaytoonah University Of Jordan (2017/2018).
- Dean of Engineering and Technology Faculty at Al-Zaytoonah University Of Jordan (2018 – up now).

CNC Training

- **CNC Training Course:** Excel Machine Tools Fagor 8055MC, Training Course for CNC Turret Mills, Electrical and Mechanical Maintenance, CNC part programming. (11 May 2003 - 2 August 2003) UK.
- **CNC Training Course:** Excel Machine Tools Fagor 8055MC, Training Course for CNC Turret Mills, Manual Operation, CNC Part Programming (25 July-2 August 2002) UK.



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Curriculum Vitae

- **CNC Training Course: 190MC** milling and 160TCL Lathe Machine at Boxford LTD (16-18 February 1999) UK.

Interests

- CNC Machines (Lathe and Milling, Water jet, Plasma cutters, 3D Scanner, 3D Printers, and CNC Water Jet Machines).
- Design and manufacturing of Different Dies (Extrusion, Deep Drawing, ..).
- Oxidation of Non Ferrous Alloys.
- Effect of Equal Angular Channel Extrusion on Non Ferrous Alloy.
- Mechanical Characteristics of Shape Memory Alloys and its Applications.
- Machinability and Surface Quality of Metallic Alloys.
- Welding of Metallic Materials.
- NDT (Non Destructive Testing).

Membership at Professional Organizations

- Jordanian Engineers Association (03/6668)
- Emerald Literati Network
- ASME

Professional Development activities

- Member in steering committee of 4th, 5th, 6th, 7th, 8th, 9th, 10th, and 11th National Technology Parade.
- Member in the Engineering Faculty Council at Tafila Technical University (2009-2011, 2013-2014, 2016).
- Industrial Consultant at Jordanian Engineers Association.
- Member in the ISBEIA 2012 (2012 IEEE Symposium on Business, Engineering & Industrial Applications)
- Reviewer of a set of International Journals.
- Member in the Branch of Mechanical Engineering Jordanian Engineers Association.
- Scientific Committee Member of International conference of Materials Research (ICAMR).
- Scientific Committee Member of 19th International conference of smart structure and Development.
- Scientific Committee Member of International conference of Mechanical Design and Engineering (ICMDE2018).
- Scientific Committee Member of EPPM 2017 Conference.
- Scientific Committee Member of 15th International Symposium of Advanced Materials ISAM.
- Scientific Committee Member of 9th Jordanian International Mechanical Engineering Conference.

JOURNAL PUBLICATIONS

1. O.V. Sobol', A.A. Andreev, R.P. Mygushchenko, V.M. Beresnev, A.A. Meylekhov, A.A. Postelnyk, S.A. Kravchenko, Taha A. Tabaza4, **Safwan M. Al-Qawabah**, Ubeidulla F. Al-Qawabeha, V.A. Stolbovoy, I.V. Serdyuk, D.A. Kolesnikov, M.G. Kovaleva, The Use of plasma based deposition with on implementation technology to produce super hard molybdenum based coatings in mixed (C₂H₂+N₂). **Problem Atomic Structure Technology**, Vol. 113, 2018.



2. O.V. Sobol, A.A. Meylekhov, R.P. Mygushchenko, A.A. Postelnyk1, Taha A. Tabaza, **Safwan M. Al-Qawabah**, V.F. Gorban, V.A. Stolbovoy, The Influence of Layers Thickness on the Structure and Properties of Bilayer Multiperiod Coatings Based on Chromium Nitride and Nitrides of Transition Metals Ti and Mo, **Journal of Nano and Electronic Physics**, Vol. 10, (1), 2018.
3. V. V. Belozarov, O. V. Sobol, A. I. Mahatilova, V. V. Subbotina, Taha A. Tabaza, Ubeidulla F. Al-Qawabeha, **Safwan M. Al-Qawabah**, Influence of The Conditions of Micro plasma Processing of Aluminum Alloys in the Anodon Cathode Regime on Their Phase Composition”, **Eastern European Journal Enterprise Technologies**, Vol. 5(12), 2017.
4. O.V. Sobol, A.A. Postelnyk, R.P. Mygushchenko, Ubeidulla F. Al-Qawabeha, Taha A. Tabaza, **Safwan M. Al-Qawabah**, V.F. Gorban, V.A. Stolbovoy, Structure and properties of vacuum-arc coatings of chromium and its nitrides obtained under the action of constant and pulse high-voltage bias potential, **Journal of Nano and Electronic Physics**, Vol. 9(6), 2017.
5. **Safwan M. Al-Qawabah**, Nabeel Abu Shaban, Ahmad Aboushi, Investigation of burnishing process on the Mechanical Characteristics, Microstructure, and Microhardness of Al-4% wt. Cu Under Hot Conditions, **Lecture Notes in Mechanical Engineering**, Springer, 2018.
6. Nabeel Alshabatat, Adnan I.O. Zaid, **Safwan M. Al-Qawabah**, “Design of Zirconia-Aluminum Functionally Graded Material for Buckling and Vibration Characteristics Enhancement of Beam/Column Structure” **I. J. of Key Engineering Materials**, Vol. 735(2017), pp. 100-107.
7. Adnan I. O. Zaid, **Safwan M. Al-Qawabah**, "Considerations in the Design and Manufacturing of a Load Cell for Measuring Dynamic Loads" **Journal of Mechanical Science and Technology**, Springer, Accepted.
8. **Safwan M Al-Qawabah**, A I O Zaid, “Effect of Zr Addition on the Mechanical Characteristics and Wear Resistance of Al Grain Refined by Ti after Extrusion”, **Journal of Materials Science and Engineering. I.O.P**, (2016), pp. 1-8.
9. **Safwan M Al-Qawabah**, A I O Zaid “Comparison between Mo addition to Al Grain Refined by Ti and Ti+B on its Metallurgical and Mechanical Characteristics in the Cast and after ECAP Process Conditions” **I. J. of Key Engineering Materials**, Trans Tech Publications, Switzerland Vol. 689(2016), pp. 23-28.
10. Adnan I. O. Zaid, **Safwan M. Al-Qawabah**, “Effect of Copper Addition to Aluminum on its Metallurgical, Mechanical Characteristics and Surface Roughness after Rolling” **I. J. of Key Engineering Materials**, Trans Tech Publications, Switzerland Vol. 689(2016), pp. 12-16.
11. Nabeel Alshabatat, **Safwan M Al-Qawabah**, " Effect of Copper addition at a rate of 4% Cu on the Fatigue Life of Commercially Pure Aluminum" **Jordan Journal of Mechanical and Industrial Engineering**, Vol. 9, 4, August, 2015, pp. 297-301.



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Curriculum Vitae

12. Adnan I. O. Zaid, **Safwan M. Al-Qawabah**, Effect of Cutting Parameters on the Quality of the Machined Surface Of Cu-Zn-Al Shape Memory Alloy, SMA” **Advanced Materials Research**, Trans Tech Publications, Switzerland Vol. 1105 (2015) pp. 93-98.
13. Adnan I. O. Zaid, J. A. S. Alkasasbeh, **Safwan M. Al-Qawabah**, “Effect of Addition of Some Grain Refiners to Zinc-Aluminum 22, ZA22, Alloy on its Grain Size, Mechanical Characteristics in the Cast and after Pressing by the Equal Channel Angular Pressing, ECAP” **Advanced Materials Research Journal** , Trans Tech Publications, Switzerland Vol. 1105 (2015) pp. 172-177.
14. Adnan I. O. Zaid, **Safwan M. Al-Qawabah**, “Investigation on the Effect of Geometrical Shape of Cold Direct Extrusion on Commercially Pure Aluminum Alloyed by 4% Cu” **Advanced Materials Research Journal**, Trans Tech Publications, Switzerland Vol. 1105 (2015) pp. 182-189.
15. **Safwan M Al-Qawabah**, A I O Zaid “Effect of Copper Addition at a Rate of 4 % Weight on the Machinability of ZA-21Al Cast Alloy by CNC Milling” **Journal of Materials Science and Engineering. I.O.P.**, Vol. 60 (2014) pp. 1-9.
16. Ubeidulla F Al-Qawabeha, **Safwan M Al-Qawabah**, “Effect of Roller Burnishing on Pure Aluminum alloyed by Copper” **Industrial Lubrication and Tribology**, Vol. 65 (2) (2013) pp. 71-77. (ISI), Impact factor (0.82).
17. A.I.O. Zaid and **Safwan M Al Qawabah**, "Effect of Zr Addition on the Grain Size and Mechanical Behavior of Aluminum Grain Refined by Titanium Plus Boron (Ti+B) in the as Cast and Cold Extrusion Conditions”, **I. J. of Key Engineering Materials**, Trans Tech Publications, Switzerland Vol. 510-511 (2012) pp 241-247-25. Impact factor (0.51).
18. **Safwan M Al-Qawabah**, “Effect of Direct Extrusion on the Microstructure, Microhardness, Surface Roughness and Mechanical Characteristics of Cu-Zn-Al Shape Memory Alloy, SMA”, **Jordan Journal of Mechanical and Industrial Engineering**, Jordan, Vol.6 (2) (2012) pp. 161-167.
19. **Safwan M Al-Qawabah**, “Investigation of Roller Burnishing on Zamac5 Cast Alloy Alloyed by Copper” **Industrial Lubrication and Tribology**, Vol. 63 (6) (2011) pp. 399-403. (ISI). Impact factor (0.82).
20. A.I.O. Zaid and **Safwan M Al Qawabah**, "Effect of Zr Addition on the Mechanical Behavior, Ductility and Wear Resistance of Aluminum Grain Refined by Titanium", **Key Engineering Materials**, Trans Tech Publications, Switzerland Vol. 442 (2010) pp. 15-25.
21. Tareq A. Abu Shreehah, **Safwan M Al-Qawabah**, “Ball Burnishing Tool with Corrective Mechanism Position” **International Journal of Surface Science and Engineering, Inderscience publications**, Vol. 3 (4) (2009) 374-385. (ISI) Impact factor (0.84).



22. A. E. Al-Rawajfeh, **Safwan M Al-Qawabah**, "Investigation of Copper Addition on the Mechanical Properties and Corrosion Resistance of Commercially Pure Aluminum" **Emirates Journal for Engineering Research**, Vol. 14 (1), (2009) pp. 47-52.

Conferences

1. A.I.O.Zaid and **Safwan M Al-Qawabah**, "Effect of Ti and Ti+B on the mechanical strength and fatigue life of zinc aluminum alloy zamac5", **8th International Symposium on Advanced Materials**, 2004, pp. 278-283.
2. A.I.O.Zaid and **Safwan M Al-Qawabah**: "Effect of Zr addition on the mechanical behavior and extrusion of aluminum grain refined by Ti" **The 13th International Conference on Machine Design and Production, UMTIK13**, 03 - 05 September 2008, Istanbul, Turkey.
3. A.I.O. Zaid and **Safwan M Al-Qawabah** "Effect of Zr addition on the mechanical behavior, ductility and wear resistance of aluminum grain refined by titanium" **11th International Symposium on Advanced Materials (ISAM-2009)** Islamabad, Pakistan 8-12/2009. Including attending a workshop on smart materials.
4. A.I.O. Zaid and **Safwan M Al-Qawabah** "Effect of Zr addition on the mechanical behavior, ductility and wear resistance of aluminum grain refined by titanium and boron" **The 14th International Conference on Machine Design and Production, UMTIK14**, 29 - 03 July, 2010, Cyprus, Turkey.
5. A.I.O. Zaid and **Safwan M Al-Qawabah** "Effect of zirconium addition on the grain size and mechanical behavior of aluminum grain refined by titanium plus boron (Ti+B) in the as cast and extruded conditions" **12th International Symposium on Advanced Materials (ISAM-2011)** Islamabad, Pakistan.
6. A.I.O. Zaid and **Safwan M Al-Qawabah** M.A. Nazzal." Effect of Titanium or Titanium+Boron Addition on the Formability of Commercially Pure Aluminium", **21th International Conference on Production Research, 21 ICPR**, Stuttgart, Germany, 2011.
7. M.A. Nazzal, A.I.O.Zaid and **Safwan M Al-Qawabah**" Finite Element Simulation of Hybrid Forming Process: Deep Drawing and Superplastic Forming", **21th International Conference on Production Research, 21 ICPR**, Stuttgart, Germany, 2011.
8. A.I.O. Zaid and **Safwan M Al-Qawabah**, "Effect of Grain Refining Aluminum by Titanium or Titanium plus Boron on its Weldability using Gas Tungsten Arc Welding", **The 2012 International Conference on Industrial Engineering and Operations Management Istanbul, IEOM**, Turkey, July 3-6, 2012, pp.902-909.



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Curriculum Vitae

9. **Safwan M Al-Qawabah** and A.I.O.Zaid “Effect of Copper Addition at a Rate of 4 % Weight on the Machinability of ZA-21Al Cast Alloy by CNC Milling” *13th International Symposium on Advanced Materials (ISAM-2011)*, 23-27/2013. Islamabad, Pakistan.

10. A.I.O. Zaid; **Safwan M Al-Qawabah** "Effect of Zr Addition on the Grain Size, Mechanical Characteristics and Wear Resistance of Aluminum Grain Refined by Titanium after direct Extrusion". The 16th International Conference on Machine Design and Production June 30 – July 03 2014, İzmir, Turkey.

11. **Safwan M Al-Qawabah** and A.I.O.Zaid “Effect of Copper Addition at a Rate of 4% Weight on the Microstructure, Mechanical Characteristics, and Surface Roughness on the Hot Extrusion of Aluminum”, *13th International Symposium on Advanced Materials (ISAM-2011)*, 23-27/ 2013. Islamabad, Pakistan.

12. A.I.O. Zaid , A. M. Atieh and **Safwan M Al-Qawabah**," Effect of Molybdenum addition to Aluminum Grain Refined by Titanium Plus Boron on its Grain Size and Mechanical Characteristics in the Cast and after Pressing by the Equal Channel Angular Pressing, ECAP, Conditions" ESAFORM, FILAND, 2014.

13. A.I.O. Zaid, J. A. S. AlKasasbeh, **Safwan M Al-Qawabah**, "Effect of molybdenum addition at a rate ranging from 0.05 wt% - 0.15 wt% to zinc-aluminum 22, ZA22, alloy on its grain size and mechanical characteristics in the as cast and after pressing by the equal channel angular pressing, ECAP. The 16th International Conference on Machine Design and Production June 30 – July 03 2014, İzmir, Turkey.

Course Taught

Under graduate courses

Static, Dynamic, Mechanical Design, Engineering Metrology, Vibration, Theory of Machines, Strength of Materials, Material Science, Metallurgy Processes, Manufacturing processes, Finite Element, Numerical Analysis, CAD/CAM.

Graduate Courses

- Manufacturing Processes / Metal Cutting Course, (JU), (2010/2011)
- Computer Integrated Manufacturing (CIM) Master Course, (JU), 2011/2012.
- Supervised of More than 50 Undergraduate Graduation Projects.

GRANTS

- 1- KADDB, No. 8/2011, “Design and manufacturing of forward extrusion die to investigate the mechanical properties of Cu-Zn-Al shape memory alloy”.
- 2- Faculty for Factory Program (FFF) 2011, “Enhancement of the Fatigue Life of Produced Dies and Molds in Jordan industry”
- 3- Faculty for Factory Program (FFF) 2012, “A study to operate the heat treatment unit in professional factory for molds”



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Curriculum Vitae

- 4- Tafila Technical University: No. 8/2010, "Effect of Vanadium Addition at a Rate of 0.1 % on the Mechanical Characteristics, Microstructure, and Microhardness of Al-Cu Casted Alloys".
- 5- Tafila Technical University: No. 56/2011 "Design and manufacturing of wear testing machine"
- 6- Tafila Technical University: No. 56/2013 "Investigation on the Effect of Geometrical Shape of Direct Extrusion on Commercially Pure Aluminum".

Honors and Awards

- Best session presentation of the 8th international conference on engineering, project and product management. (Sep. 2017).