

# Professor Achilles Vairis



Nationality	Greek	Web page	<a href="https://sites.google.com/site/achillesvairis/">https://sites.google.com/site/achillesvairis/</a>
		ResearchGate	<a href="https://www.researchgate.net/profile/Achilles_Vairis">https://www.researchgate.net/profile/Achilles_Vairis</a>
		LinkedIn	<a href="http://www.linkedin.com/in/achilles-vairis-0a77848">http://www.linkedin.com/in/achilles-vairis-0a77848</a>

## **Executive Summary**

### **Objective**

Professor, leading and mentoring staff, performing and organising research, ensuring departmental goals are met in alignment with University goals, managing a pro-active internship programme and supporting strong student relations.

### **Qualifications**

Senior results-driven academic with an international research profile; broad experience in teaching mechanical engineering subjects in Greek and English; teaching and mentoring students; selecting and mentoring faculty; wide ranging professional activities.

### **Accomplishments**

**Teaching.** Over **18 years** of experience in various Universities in Europe and Asia; student assessment in courses taught is performed with continuous assessment methods, like group project work, and written examinations; increasing number of courses offered in English in the Mechanical Engineering department of the TEI of Crete and the Hellenic Mediterranean University to European Union exchange students; introducing novel course on intellectual property for engineers at an undergraduate and postgraduate level

**Higher education administration.** Graduate admissions officer for the Department of Mechanical Engineering of SUNY Korea; Chair of the Department of Mechanical Engineering of the Technological Education Institute (TEI) of Crete for 2 years; member of the Senate of the TEI of Crete for 2 years; produced a new mechanical engineering course syllabus; accrediting new mechanical engineering course with the Greek authorities; implementing quality assurance questionnaires in the internship programme; managed the joint Department of Mechanical Engineering which from 9/2013 has absorbed the previously independent Department of Civil Engineering.

**Research.** Long research experience on friction welding processes with collaborations in **China**, the **Russian Federation**, **South Korea**, the **UK** and **Italy**, which have produced joint publications on the subject. In addition research work has focused on nano-materials, modelling of complex systems and biomechanical systems, all of which have produced **79 journal papers**, **64 conference papers**, **1 book**, **1 book chapter** and **4 patents**. Publications have been cited over 2000 times with an impact of **an h-index of 18** and an **i-10 index of 39**. Encouraging focused undergraduate students to participate in research.

**Professional. Editor-in-Chief** in scientific journal **Welding International** published by Taylor & Francis, member of **editorial board** of *Journal of Engineering Research and Technology Review*, *Materials Technologies Design* and *Applied Engineering Letters*; guest editor for *Advances in Materials Science and Engineering* and the *Journal of Engineering Research and Technology Review*; **reviewer** for 31 scientific international journals; reviewer for research proposals in Greece, Italy, Portugal and Cyprus; reviewer for Italian research assessment (VQR); **lecturing** on friction welding in China, the Russian Federation and Italy.

# Curriculum Vitae

## Professor Achilles Vairis

### Academic Qualifications

December 1997      Doctor of Philosophy  
Department of Mechanical Engineering  
University of Bristol, Bristol, England

July 1988      Master of Engineering  
Department of Mechanical Engineering  
University of Bristol, Bristol, England

### Employment History

**5/2019 to present**      Professor,  
Department of Mechanical Engineering, Hellenic Mediterranean  
University, Greece  
Duties: teaching, research

8/2018 - 8/2019      Research Professor,  
Department of Mechanical Engineering, State University of New York,  
Korea  
Duties: research

8/2016 – 8/2018      Professor,  
Department of Mechanical Engineering, State University of New York,  
Korea  
Duties: teaching, research, administration

**9/2016 to present**      Adjunct Professor,  
School of Materials Science and Engineering, Northwestern Polytechnical  
University, Xi'an, China  
Duties: teaching, research

7/2014 - 5/2019      Professor,  
Department of Mechanical Engineering, Technological Education  
Institute of Crete  
Duties: teaching, research, administration, human resources  
management

10/2008 – 7/2014      Associate Professor,  
Department of Mechanical Engineering,  
Technological Education Institute of Crete  
Duties: teaching, research, administration, human resources  
management

6/2003 – 10/2008      Assistant Professor,  
Department of Mechanical Engineering,  
Technological Education Institute of Crete  
Duties: teaching, research, human resources management

5/2000 – 6/2003      Mechanical engineer  
Mint,  
Bank of Greece  
Duties: maintenance, printing machine repair, training, QA system

8/1998 – 12/1999 Research fellow  
National Technical University of Athens  
Duties: teaching, research

11/1999 – 5/2000 Teaching fellow  
Department of Energy Technology,  
Technological Education Institute of Athens  
Duties: teaching

9/1998 – 8/2000 Visiting Lecturer  
Military School of Aircraft Engineers, Attica  
Duties: teaching

9/1998 – 6/1999 Research fellow  
Physical Chemistry Institute,  
National Centre for Scientific Research “Demokritos”, Athens  
Duties: research

9/1998 – 6/1999 Lecturer  
Technical Training School of Army Officers, Athens  
Duties: teaching

2/1993 – 1/1995 Research Fellow  
Advanced Manufacturing and Automation Research Center, University of  
Bristol, England  
Duties: research

9/1992 – 1/1993 Mechanical engineer  
Industrial Property Organisation (Greek Patent Office), Athens  
Duties: patent classification

3/1991 – 9/1992 Mechanical engineer  
Toyota Hellas SA, Athens  
Duties: QA, guarantee manager, training, marketing

7/1990 – 3/1991 Mechanical engineer  
Intrasoft S.A., Athens  
Duties: industrial automation systems development

6/1987 – 8/1987 Sponsored mechanical engineering student  
6/1986 – 9/1986 Procter & Gamble Ltd. (U.K.), Newcastle Upon Tyne, England  
Duties: production database development, automation system  
development, workshop training

## **Publications**

### **Journal Publications**

1. Vairis, A., "Investigation of frictional behaviour of various materials under sliding conditions", *European Journal of Mechanics A - Solids*, 1997, vol.16, no.6, pp.929-945. (IF : 2.931) (Q1)
2. Vairis, A., Frost, M., "High frequency linear friction welding of a titanium alloy", *Wear*, 1998 vol.217, no.1, pp.117-131. doi.org/10.1016/S0043-1648(98)00145-8 (IF : 2.950) (Q1)
3. Vairis, A., Frost, M., "On the extrusion stage of linear friction welding of Ti 6Al 4V", *Materials Science and Engineering: A*, 1999, vol.271, pp.477-484. doi.org/10.1016/S0921-5093(99)00449-9 (IF : 3.414) (Q1)
4. Vairis, A., Frost, M., "Modelling the linear friction welding of titanium blocks", *Materials Science and Engineering: A*, 2000, vol.292, no.1, pp.8-17. doi.org/10.1016/S0921-5093(00)01036-4 (IF : 3.414) (Q1)
5. Vairis, A., Frost, M., "Design and commissioning of a friction welding machine", *Journal of Materials and Manufacturing Processes*, 2006, vol.21, no.8, pp. 766-773. doi.org/10.1080/03602550600728356 (IF : 2.274) (Q1)
6. Vairis, A., Christakis, N., "The development of a continuum framework for friction welding processes with the aid of micro-mechanical parameterisations", *International Journal of Modelling, Identification and Control*, 2007, vol.2, no.4. pp.347-356. doi.org/10.1504/IJMIC.2007.016417 (IF: 1.229) (Q3)
7. Christakis, N., Vairis, A., "An Analytical Description of the Frictional Behaviour of a Titanium Alloy", *Research Letters in Materials Science*, vol.2007, article ID 92170. (IF : 1.399) (Q2)
8. Vernardou, D., Kenanakis, G., Vlachou, K., Koudoumas, E., Kiriakidis, G., Vairis, A., Katsarakis, N., "Influence of Solution Concentration and Temperature on the Aqueous Chemical Growth of Zinc Oxide Structures", *Physica Status Solidi A*, 2008, vol.5, no.10, pp.3348 – 3352. doi.org/10.1002/pssc.200778879 (IF : 3.721) (Q2)
9. Vairis, A., "Superplasticity Effects and Strain Rate Dependency in a Material Joining Process", *Journal of Engineering Science and Technology Review*, 2008, vol.1, pp.28-32. (Q3)
10. Vairis, A., Petousis, M., "Designing experiments to study welding processes: using the Taguchi method", *Journal of Engineering Science and Technology Review*, 2009, vol.2, no.1, pp.99-103. (Q3)
11. Petousis, M., Vairis, A., Kandyla, B., Stefanoudakis, G., Vidakis, N., "A study on a reconstructed anterior cruciate ligament", *Advanced Materials Research*, 2012, vol.433-440, pp.763-769. doi.org/10.4028/www.scientific.net/AMR.433-440.763
12. Li, W.Y., Shi, S.X., Wang, F.F., Ma, T.J, Li, J.L., Gao, D.L., Vairis, A., "Heat Reflux in Flash and Its Effect on Joint Temperature History during Linear Friction Welding of Steel", *International Journal of Thermal Sciences*, 2013, vol.67, pp.192-199. doi.org/10.1016/j.ijthermalsci.2012.12.004 (IF : 3.488) (Q1)
13. Yamileva, A.M. Medvedev, A.Yu. Nasibullayev, I.Sh., Selivanov, A.S., Gazizov, R.K , Vairis, A., "A two-parameter 2D-model of the elastic stage of linear friction welding using ANSYS Mechanical finite element analysis programme", *Journal of Engineering Science and Technology Review*, 2012, vol.5, no.3, pp.6-9. (Q3)
14. Vairis, A., "Mathematical modelling of the linear friction welding process", *Journal of Engineering Science and Technology Review*, 2012, vol.5, no.3, pp.25-31. (Q3)
15. Medvedev, A., Vairis, A., Nikiforov, R., Supov., A., "Energy balance of the linear friction welding process", *Journal of Engineering Science and Technology Review*, 2012, vol.5, no.3, pp.20-24. (Q3)

16. Yamileva, A.M., Medvedev, A.Yu, Nasibullayev, I. Sh. Alexandrov, I.V., Vairis, A., «Construction of two-dimensional model of a linear friction welding process including forging stage», *Vestnik USATU*. Ufa, Russia, 2012. vol.16, No 7 (52). pp.117-121. (In Russian).
17. Chukalova, A.O., Yamileva, A.M., Nasibullayev, I.Sh., Vairis, A., “The influence of the material parameters varying on dynamics of linear friction welding process”, *Vestnik USATU*. Ufa, Russia, 2012. vol.16, No 7 (52). pp.128-132. (In Russian)
18. Favvas, E., Stefanopoulos, K., Vairis, A., Nolan, J., Joensen, K., Mitropoulos, A., “In situ SAXS investigation of dibromomethane adsorption in ordered mesoporous silica”, *Adsorption*, 2013, vol.19, no.2-4, pp 331-338. doi.org/10.1007/s10450-012-9455-6 (IF : 1.731) (Q2)
19. Fang, F., Li, W.Y., Li, J.L., Vairis, A., “Process parameter analysis of inertia friction welding nickel-based superalloy”, *International Journal of Advanced Manufacturing Technology*, 2014, vol.71, pp.1090-1919. doi.org/10.1007/s00170-013-5569-6 (IF : 2.496) (Q1)
20. Vairis, A., Petousis, M., Vidakis, N., Stefanoudakis, G., Kandyla, B., “Finite element modelling of a novel anterior cruciate ligament repairing device”, *Journal of Engineering Science and Technology Review*, 2013, vol.6, no.1, pp.1-6. (Q3)
21. Li, W.Y., Wang, F.F., Shi, S.X., Ma, T.J, Li, J.L., Vairis, A., “3D Finite Element Analysis of the Effect of Process Parameters on Linear Friction Welding of Mild Steel”, *Journal of Materials Engineering and Performance*, 2014, vol.23, no.11, pp.4010-4018. doi.org/10.1007/s11665-014-1197-z (IF: 1.476) (Q2)
22. Vairis, A., Petousis, M., Vidakis, N., Kandyla, B., Tsainis, A.M., “Evaluation of a PCL deficient human knee joint finite element model”, *QScience Connect*, 2014, issue 2014.
23. Buffa, G., Cammalleri, M., Campanella, D., Fratini, L., Vairis, A., “Effective Linear Friction Welding Machine Redesign through Process Analysis”, *Key Engineering Materials*, 2014, vol. 622-623, pp.484-491. doi.org/10.4028/www.scientific.net/KEM.622-623.484 (Q3)
24. Li, W.Y., Vairis, A., Ward, R.M., “Advances in friction welding”, *Advances in Materials Science and Engineering*, 2014, vol.2014, art.no.204515. dx.doi.org/10.1155/2014/204515 (IF : 1.399) (Q2)
25. Li, W.Y., Guo, J., Yang, X., Ma, T., Vairis, A., “The effect of micro-swinging on joint formation in linear friction welding”, *Journal of Engineering Science and Technology Review*, 2014, vol.7, no.5, pp.55-58. (Q3)
26. Atroshenko, A., Vairis, A., Bichkov, V., Nikiforov, P., “ANSYS simulation of residual strains in butt-welded joints”, *Journal of Engineering Science and Technology Review*, 2014, vol.7, no.5, pp.9-11. (Q3)
27. Khalikova, G.R., Bikmeyer, A.T., Gazizov, R.K., Vairis, A., “A 2D Computer Model of Cutting of the A2024 Aluminum Alloy”, *Journal of Engineering Science and Technology Review*, 2014, vol.7, no.5, pp.24-28. (Q3)
28. Li, Y., Guo, J., Ma, T., Vairis, A., “Numerical Modeling of Linear Friction Welding: A literature review”, *China Welding*, 2014, vol.23, no.4.
29. Vairis, A., Stefanoudakis, G., Petousis, M., Vidakis, N., Tsainis, A.M., Kandyla, B., “Evaluation of an Intact, an ACL-Deficient and a Reconstructed Human Knee Joint Finite Element Model”, *Computer Methods in Biomechanics and Biomedical Engineering*, 2016, vol.19, no.3, pp.263-270. doi.org/10.1080/10255842.2015.1015526 (IF : 1.610)(Q3)
30. Zhang, Z., Li; W., Li; J., Chao; Y.J., Vairis, A., “Microstructure and anisotropic mechanical behavior of friction stir welded AA2024 alloy sheets”, *Materials Characterization*, 2015, vol.107, pp.112-118. DOI:10.1016/j.matchar.2015.06.039 (IF : 2.892)(Q1)

31. Li, W., Vairis, A., Preuss; M., Ma, T., "Linear and Rotary Friction Welding review", *International Materials Reviews*, 2015, vol.61, no.2, pp.71-100. doi.org/10.1080/09506608.2015.1109214 (IF : 7.48)(Q1) **REVIEW PAPER**
32. Alexopoulos, A., Favvas, E.P., Vairis, A., Mitropoulos, A.Ch., "MWCNTs/resin nanocomposites: structural, thermal, mechanical and dielectric investigation", *Journal of Engineering Science and Technology Review*, 2015, vol.8, no.4, pp.7-14. (Q3)
33. Nikiforov, R., Medvedev, A., Tarasenko, E., Vairis, A., "Numerical simulation of residual stresses in linear friction welded joints", *Journal of Engineering Science and Technology Review*, 2015, vol.8, no.6, pp.49-53. (Q3)
34. Yamileva, A., Gazizov, R.K., Vairis, A., "Computer modelling of the effect of clamping in linear friction welding", *Journal of Engineering Science and Technology Review*, 2015, vol.8, no.6, pp.65-68. (Q3)
35. Bikmeyer, A.T., Gazizov, R.K., Yamileva, A., Vairis, A., Zheleznov, F.O., "On the visualization of joint formation during linear friction welding", *Journal of Engineering Science and Technology Review*, 2015, vol.8, no.6, pp.69-72. (Q3)
36. Vairis, A., Petousis, M., Vidakis, N., Savvakis, K., "On the Strain Rate Sensitivity of Abs and Abs Plus Fused Deposition Modelling Parts", *Journal of Materials Engineering and Performance*, 2016, DOI:10.1007/s11665-016-2198-x. (IF : 1.476)(Q2)
37. Vidakis, N., Vairis, A., Diouf, D., Petousis, M., Savvakis, K., Tsainis, A.M., "Effect of the tool rotational speed on the mechanical properties of thin AA1050 friction stir welded sheets", *Journal of Engineering Science and Technology Review*, 2016, vol.9, no.3, pp.123-129. (Q3)
38. Vidakis, N., Vairis, A., Petousis, M., Savvakis, K., Kechagias, J., "Fused Deposition Modelling Parts Tensile Strength Characterisation", *Academic Journal of Manufacturing Engineering*, 2016, vol.14, no.2, pp.87-94. (Q2)
39. Vairis, A., Papazafeiropoulos, G., Tsainis, A.M., "A Comparison Between Friction Stir Welding, Linear Friction Welding and Rotary Friction Welding", *Advances in Manufacturing*, 2016, vol.4, no.4 pp.296-304. doi.org/10.1007/s40436-016-0163-4 (IF : 1.603)(Q1)
40. Fu, Y., Li, W., Yang, X., Ma, T., Vairis, A., "The effects of forging pressure and temperature field on residual stresses in linear friction welded Ti6Al4V joints", *Advances in Manufacturing*, 2016, vol.4, no.4 pp.314-321. DOI:10.1007/s40436-016-0161-6 (IF : 1.603)(Q1)
41. Wang, X.Y., Li, W., Ma, T., Vairis, A., "Characterisation studies of linear friction welded titanium joints", *Materials and Design*, 2017, vol.116, pp.115-126. DOI: 10.1016/j.matdes.2016.12.005 (IF : 4.364)(Q1)
42. Ma, T.J., Li, Y.G., Li, W.Y., Zhang, Y., Shi, D.G., Vairis, A., "Studies of the interfacial structure of a linear friction welded Fe/Ni joint: First principles calculation and TEM validation", *Materials Characterization*, 2017, vol.129, pp.60-66. doi:10.1016/j.matchar.2017.04.008 (IF : 2.892)(Q1)
43. Vidakis, N., Petousis, M., Vairis, A., Savvakis, K., Maniadi, A., "On the compressive behavior of an FDM Steward Platform part", *Journal of Computational Design and Engineering*, 2017, vol.4, no.4, pp. 339-346. doi.org/10.1016/j.jcde.2017.06.001 (IF : 1.775)(Q1)
44. Niu, P., Li, W.Y., Yang, X., Vairis, A., "Effects of microstructural asymmetries across friction-stir-welded AA2024 joints on mechanical properties", *Science and Technology of Welding and Joining*, 2017, DOI:10.1080/13621718.2017.1328765. (IF : 2.050)(Q1)
45. Li, W.Y., Li, N., Yang, X.W., Feng, Y., Vairis, A., "Impact of cold spraying on microstructure and mechanical properties of optimized friction stir welded AA2024-T3 joint", *Materials Science and Engineering A*, 2017, vol.702, pp. 73-80. doi.org/10.1016/j.msea.2017.07.003. (IF : 3.414)(Q1)

46. Li, W.Y., Chu, Q., Yang, X.W., Shen, J.J., Vairis, A., Wang, W.B., "Microstructure and morphology evolution of probeless friction stir spot welded joints of aluminum alloy", *Journal of Materials Processing Technology*, 2018, vol.252, pp. 69-80, DOI:10.1016/j.jmst.2018.03.009. (IF:3.647)(Q1)
47. McAndrew, A., Colegrove, P.A., Buhr, C., Flipo, B., Vairis, A., "A Literature Review of Ti-6Al-4V Linear Friction Welding", *Progress in Materials Science*, 2018, vol.92, pp.225-257, DOI:10.1016/j.pmatsci.2017.10.003. (IF: 31.140)(Q1) **REVIEW PAPER.**
48. Li, N., Li, W.Y., Yang, X.W., Feng, Y., Vairis, A., "An investigation into the mechanism for enhanced mechanical properties in friction stir welded AA2024-T3 joints coated with cold spraying", *Applied Surface Science*, 2018, vol.439, pp.623-631, DOI:10.1016/j.apsusc.2018.01.049. (IF: 3.387)(Q1)
49. Chu, Q., Li, W.Y., Yang, X.W., Shen, J.J., Vairis, A., Feng, W.Y., Wang, W.B., "Microstructure and mechanical optimization of probeless friction stir spot welded joint of an Al-Li alloy", *Journal of Materials Science and Technology*, 2018, vol.34, no.10, pp.1739-1746. DOI:10.1016/j.jmst.2018.03.009 (IF:2.764)(Q1)
50. Ma, TJ, Tang, LF, Li, WY, Zhang, Y, Xiao, Y, Vairis, A, "Linear friction welding of a solid-solution strengthened Ni-based superalloy: Microstructure evolution and mechanical properties studies", *Journal of Manufacturing Processes*, vol.34, pp.442-450. DOI:10.1016/j.jmapro.2018.06.011 (IF: 3.462)(Q1)
51. Yang, K., Li, W., Yang, X., Xu, Y., Vairis, A., "Effect of heat treatment on the inherent anisotropy of cold sprayed copper deposits", *Surface & Coatings Technology*, vol.350, pp.519-530. DOI:10.1016/j.surfcoat.2018.07.046 (IF:2.906)(Q1)
52. Chu, Q., Yang, X.W., Li, W.Y., Zhang, Y., Lu, T., Vairis, A., Wang, W.B., "On visualizing material flow and precipitate evolution during probeless friction stir spot welding of an Al-Li alloy", *Materials Characterization*, 2018, vol.144, pp. 336-344. DOI: 10.1016/j.matchar.2018.07.026 (IF:2.892)(Q1)
53. Su, Y., Li, W.Y., Wang, X., Ma, T., Yang, X., Vairis, A., "On microstructure and property differences in a linear friction welded near-alpha titanium alloy joint", *Journal of Manufacturing Processes*, 2018, vol.36, pp.255-263. DOI.org/10.1016/j.jmapro.2018.10.017 (IF: 3.462)(Q1)
54. Chu, Q., Yang, X.Y., Li, W.Y., Wang, Vairis, A., Wang, WB., "Numerical analysis of material flow in the probeless friction stir spot welding based on Coupled Eulerian-Lagrangian approach", *Journal of Manufacturing Processes*, 2018, vol.36, pp.181-187. doi.org/10.1016/j.jmapro.2018.10.013 (IF: 3.462)(Q1)
55. Wang, X., Li, W.Y., Ma, T., Yang, X., Vairis, A., "Microstructural evolution and mechanical properties of a linear friction welded two-phase Ti-6.5 Al-3.5 Mo-1.5 Zr-0.3 Si titanium alloy joint", *Materials Science and Engineering A*, 2018, vol.743, pp.12-23, DOI:10.1016/j.msea.2018.11.059. (IF:3.414)(Q1)
56. Chu, Q., Li, WY., Hou, HL., Yang, XY., Vairis, A., Wang, C., Wang, W.B. "On the double-side probeless friction stir spot welding of AA2198 Al-Li alloy", *Journal of Materials Science and Technology*, 2018, vol.35, no.5, pp.784-789. DOI:10.1016/j.jmst.2018.10.027 (IF: 2.764)(Q1)
57. Chu, Q., Yang, X.W., Li, W.Y., Lu, T., Zhang, Y., Vairis, A., "Impact of surface state in probeless friction stir spot welding of an Al-Li alloy", *Science and Technology of Welding and Joining*, vol.24, no.3, pp.200-208, 2019, DOI:10.1080/13621718.2018.1517966.(IF: 2.050)(Q1)
58. Li, N., Li, W.Y., Yang, X.W., Xu, Y., Vairis, A., "Corrosion characteristics and wear performance of cold sprayed coatings of reinforced Al deposited onto friction stir welded AA2024-T3 joints", *Surface & Coatings Technology*, vol.349, pp.1069-1076. DOI:10.1016/j.surfcoat.2018.06.058. (IF: 2.906)(Q1)

59. Niu, P.L., Li, W.Y., Vairis, A., Chen, D.L., "Cyclic deformation behavior of friction-stir-welded dissimilar AA5083-to-AA2024 joints: Effect of microstructure and loading history", *Materials Science & Engineering A*, vol.744, pp.145-153. DOI:10.1016/j.msea.2018.12.014 (IF: 3.414)(Q1)
60. Su, Y., Li, W.Y., Wang, X., Ma, T.J., Yang, X., Vairis, A., "Linear friction welding of titanium alloys: state-of-the-art and perspectives", *Materials China*, vol.36, no.11, pp.852-859. **REVIEW PAPER**
61. Patel, V., Li, W.Y., Wang, G., Wang, F., Vairis, A., Niu, P., "Friction Stir Welding of Dissimilar Aluminum Alloy Combinations: State-of-the-Art", *Metals*, vol.9, no.3, art.270, 2019, DOI:10.3390/met9030270.(IF: 2.259)(Q2) **REVIEW PAPER**
62. Su, Y., Li, W.Y., Wang, X., Ma, T.J., Li, Y., Liu, Y., Vairis, A., "On the Process Variables and Weld Quality of a Linear Friction Welded Dissimilar Joint between S31042 and S34700 Austenitic Steels", *Advanced Engineering Materials*, 2019, vol.21, no.7, art.no,1801354, DOI: 10.1002/adem.201801354.(IF: 2.906)(Q1)
63. Patel, V., Li, W.Y., Vairis, A., Badheka, V., "Recent Development in Friction Stir Processing as a Solid-State Grain Refinement Technique: Microstructural Evolution and Property Enhancement", *Critical Reviews in Solid State and Materials Sciences*, 2019, vol.44, no.5, pp. 378-426, DOI: 10.1080/10408436.2018.1490251.(IF: 3.462)(Q1)
64. Wang, X., Li, W.Y., Ma, T., Yang, X., Vairis, A., "Effect of welding parameters on the microstructure and mechanical properties of linear friction welded Ti-6.5Al-3.5Mo-1.5Zr-0.3Si joints", *Journal of Manufacturing Processes*, 2019, vol.46, pp. 100-108, DOI:10.1016/j.jmapro.2019.08.031.(IF: 3.462) (Q1)
65. Su, Y., Li, W.Y., Patel, V., Vairis, A., Wang, X., "Formability of an AA5083 aluminum alloy T-joint using SSFSW on both corners", *Materials and Manufacturing Processes*, 2019, vol.34, no.15, pp.1737-1744. DOI: 10.1080/10426914.2019.1669799 (IF: 3.350) (Q1)
66. Vidakis, N., Petousis, M., Vairis, A., Savvakis, K., Maniadi, A., "A parametric determination of bending and Charpy's impact strength of ABS and ABS-plus fused deposition modeling specimens", *Progress in Additive Manufacturing*, 2019, vol.4, no.3, pp.323-330. DOI:10.1007/s40964-019-00092-8 (IF: 2.591)(Q1)
67. Wen, Q., Li, W.Y., Patel, V., Gao, Y., Vairis, A., "Investigation on the Effects of Welding Speed on Bobbin Tool Friction Stir Welding of 2219 Aluminum Alloy", *Metals and Materials International*, 2019, accepted. DOI:10.1007/s12540-019-00450-9. (IF: 1.647) (Q1)
68. Brown, S., Vairis, A., Petousis, M., Masoumifar, A., "Common problems with the conventional design of crutches: proposing a safer design and discussing the potential impact", *Technology in Society*, 2020, vol.60, art.101215. Doi:10.1016/j.techsoc.2019.101215 (IF:1.67) (Q2)
69. Wang, X., Li, W.Y., Qing, Y., Yang, X., Ma, T., Vairis, A., "Linear Friction Welding of a Beta Titanium Alloy: Experimental Investigations on Microstructure Evolution and Mechanical Properties", *Science and Technology of Welding and Joining*, 2020, vol.25, no.8, pp. 625-636. Doi:10.1080/13621718.2020.1823636 (IF: 2.050) (Q1)
70. Su, Y., Li, W.Y., Liu, X., Gao, F., Vairis, A., "Strengthening mechanism of friction stir welded alpha titanium alloy specially designed T-joints", *Journal of Manufacturing Processes*, 2020, vol.55, pp.1-12. Doi:10.1016/j.jmapro.2020.03.032 (IF:4.086) (Q1)
71. Vidakis, N., Petousis, M., Maniadi, A., Koudoumas, E., Vairis, A., Kechagias, J., "Sustainable Additive Manufacturing: Mechanical Response of Acrylonitrile-Butadiene-Styrene over Multiple Recycling Processes", *Sustainability*, 2020, vol.12, no.9, pp.3568. Doi: 10.3390/su12093568 (IF: 2.592) (Q2)
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## Conferences

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2. Christakis, N., Vairis, A., "The application of computer-aided methodologies in industrial process optimisation", 4th International Conference in Industry, Business and Education, Corfu, 25-26 August 2005, pp.322-328, ISBN 960-85316-9-1.
3. Vairis, A., Kavoussanos, M., Kteniadakis, M., "Reshaping a mechanical engineering course to address modern society's needs", WSEAS International Conference on Engineering Education, Athens, 8-10 July 2005, pp.89-93, ISBN 960-8457-28-9.
4. Karachalios, E., Vairis, A., "The study of design constants in sheet metal forming", 2nd International Conference "From Scientific Computing to Computational Engineering", Athens, 5-8 July 2006, ISBN 960-530-080-X.
5. Vairis, A., "Material flow modelling in a manufacturing process", 8th HSTAM International Congress on Mechanics, Patras, 12 – 14 July, 2007, pp.773-778.
6. Christakis, N., Vairis, A., Kountouriotis, Z., "A study of the frictional behaviour of a titanium alloy with the use of an analytic contact model", 8th HSTAM International Congress on Mechanics, Patras, 12 – 14 July, 2007, pp.623-628.
7. Karachalios, E., Vairis, A., "Bend Allowance Constants For Use In Sheet Metal Forming", 2nd International Conference on Experiments / Process / System / Modelling / Simulation & Optimization, Athens, 4-7 July 2007, ISBN 960-530-090-7.

8. Nitodas, S.F., Favvas, E., Romanos, G.E., Vairis, A., Kanellopoulos, N.K., Mitropoulos, A.Ch., "Production and characterisation of alumina-silica membrane for gas separation", 3<sup>rd</sup> Panhellenic Porous Media Symposium, Athens, 1-2 November 2007.
9. Petousis, M., Vairis, A., Yfanti, S., Vidakis, N., Sakkas, N., "Cluster development in the EU construction industry: experience in different regions", 3rd International Conference "From Scientific Computing to Computational Engineering", Athens, 9-12 2008.
10. Vairis, A., Petousis, M., Vidakis, N., Sakkas, N., Koudoumas, M., "East Mediterranean Technology Transfer Unit: bringing together business and academia", 6th International Conference "New Horizons in Industry, Business and Education", Santorini, 27-28 August 2009, pp.307-313.
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12. Yfanti, S., Temple, B., Edgar, D., Sakkas, N., Vairis, A., "Construction clusters and Innovation in the region of Crete", 6th International Conference "New Horizons in Industry, Business and Education", Santorini, 27-28 August 2009.
13. Timmons, W., Vairis, A., Kalyvianakis, A., Pateromichelakis, N., "Equipment assisted study of point technique", 19th Annual Meeting International Association for Dance Medicine and Science, The Hague, 29-31 October 2009.
14. Karnavas, Y., Vairis, A., "Modelling of frictional phenomena with the aid of neural networks", International Conference BALTRIB'2009, Lithuania, 19-21 November 2009.
15. Vairis, A., Petousis, M., Vidakis, N., Stefanoudakis, G., "Modelling a knee ligament repair device", IEEE 9th International Symposium on Distributed Computing and Applications To Business, Engineering & Science DCABES 2010, Hong Kong, 10-12 August 2010.
16. Yfanti, S., Temple, B., Sakkas, N., Vairis, A., Petousis, M., "Create an opening for clustering by analyzing new product design processes in small/medium sized Greek enterprises", 9th Special Conference of the Hellenic Operational Research Society (HELORS), Agios Nikolaos, 27-29 May 2010.
17. Yfanti, S., Temple, B., Edgar, D., Sakkas, N., Vairis, A., "Clustering approach in Crete", 2nd International Conference "The Economies of Balkan and Eastern Europe Countries in the changed world" EBEEC, Kavala, 7-9 May 2010.
18. Vairis, A., Petousis, M., Vidakis, N., Stefanoudakis, G., Kandyla, B., "A study on a reconstructed anterior cruciate ligament", 2011 International Conference on Mechanical and Aerospace Engineering (CMAE 2011), New Delhi, India, March 21-23 2011.
19. Karnavas, Y., Vairis, A., "Modelling of frictional phenomena using neural networks: friction coefficient estimation", The 19th IASTED International Conference on Applied Simulation and Modelling ASM 2011, Crete, June 22 – 24 2011.
20. Petousis, M., Vairis, A., Yfanti, S., Kandyla, B., Chrysulakis, C., "Study of a 3D knee model", 7th International Conference "New Horizons in Industry, Business and Education", Chios, 25-26 August 2011.
21. Vairis, A., Christakis, N., "On the effects of global climate change on cropland productivity", 7th International Conference "New Horizons in Industry, Business and Education", Chios, 25-26 August 2011, pp.233-238.
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27. Vairis, A., Loulakakis, K., Petousis, M., "The role of internships in a higher education institute", World Congress on Engineering Education 2013, Doha, 7-9 January 2013.
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29. Vairis, A., Petousis, M., Vidakis, N., Kandyla, B., Chrisoulakis, C., Tsainis, A.M., "Evaluating the efficacy of a numerical model of a human anatomy joint", 4th EAEEIE Annual Conference, Chania, 30-31 May 2013.
30. Vairis, A., Alexopoulos, N., Favvas, E.P., Nitodas, S., " Strain sensing of glass fiber reinforced coupons by using carbon nanotube doped resin", American Society of Mechanical Engineers-International Mechanical Engineering Congress & Exposition, San Diego, 15-21 November 2013.
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32. Vairis, A., Petousis, M., Stefanoudakis, G., Vidakis, N., Kandyla, B, Tsainis, A., "Studying the intact, ACL-deficient and reconstructed human knee joint using a finite element model", American Society of Mechanical Engineers-International Mechanical Engineering Congress & Exposition, San Diego, 15-21 November 2013
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37. Buffa, G., Cammalleri, M., Campanella, D., Fratini, L., Vairis, A., "Effective Linear Friction Welding Machine Redesign through Process Analysis", 15th International Conference "Metal Forming 2014", Palermo, 21-24 September 2014 also published in Key Engineering Materials 2014, vol. 622-623, pp.484-491.
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40. Vairis, A., Loulakakis, K., Petousis, M., “The role of internships in a higher education institute”, World Congress on Engineering Education 2014, Doha, 9-11 November 2014.
41. Vairis, A., Petousis, M., “Intellectual property teaching as part of an engineering degree”, World Congress on Engineering Education 2014, Doha, 9-11 November 2014.
42. Bikmeyer, A.T., Yamileva, A.M., Gazizov, R.K., Vairis, A., Khalirahmanov, D.I., “On the Visualization of the Dynamics of Material Flow and Adhesion During Linear Friction Welding”, The International Symposium on Visualization in Joining & Welding Science through Advanced Measurements and Simulation, Osaka, 26-28 November 2014.
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45. Khalikova, G.R., Bikmeyer, A.T., Gazizov, R.K., Vairis, A., “A 2D Computer Model of Cutting of the A2024 Aluminum Alloy”, Simulation of Manufacturing Technologies 2014 Workshop, Ufa, 23-25 June 2014. also published in Journal of Engineering Science and Technology Review, 2014, vol.7, no.5, pp.24-28
46. Karantzis, P., Favvas, E.P., Alexopoulos, A., Vairis, A., Mitropoulos, A.Ch., “A study of MWCNTs behaviour as filler material in P84 polyimide films”, Fourth International Symposium Frontiers in Polymer Science, Riva del Garda, 20-22 May 2015.
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49. Vidakis, N., Petousis, M., Vairis, A., Tsainis, M.A., Stivaktakis, M., Vasilopoulou, I., “Computational biomechanical modelling of the human lumbar spine: a literature review and an example”, 9th International Conference “New Horizons in Industry, Business and Education”, Skiathos, 27-29 August 2015, pp.87-92.
50. Vidakis, N., Petousis, M., Savvakis, K., Vairis, A., Maniadi, A., Arapis, M., “Experimental Determination of Fused Deposition Modelling Parts Compressive Strength”, 9th International Conference “New Horizons in Industry, Business and Education”, Skiathos, 27-29 August 2015, pp.93-98.
51. Vidakis, N., Petousis, M., Vairis, A., Savvakis, K., “Effect of Strain Rate on the Tensile Strength of Fused Deposition Modelling Parts”, International Conference ‘Science in Technology’ SCinTE 2015, Athens, 5-7 November 2015

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54. Bikmeyer, A.T., Gazizov, R.K., Vairis, A., Yamileva, A.M., "Particularities of simulation of friction welding processes, as an additive technology for manufacturing parts of modern aero-space systems", National Supercomputer Forum (NSKF 2015), Russia, 24-27 November 2015.
55. Bikmeyer, A.T., Gazizov, R.K., Yamileva, A., Vairis, A., Zhelezov, F.O., "On the visualization of joint formation during linear friction welding", Simulation of Manufacturing Technologies 2015 Workshop, Ufa, 22-23 September 2015. also published in Journal of Engineering Science and Technology Review, 2015, vol.8, no.6, pp.68-72.
56. Moutzouroglou, N., Kosheleva, R.I., Michailidi, E.D., Favvas, E.P., Vairis, A., Mitropoulos, A.Ch. , "Interpreting research efforts on nanomaterials", 7<sup>th</sup> Panhellenic Symposium on Porous Materials, Ioannina, 2-4 June 2016
57. Stivaktakis, M., Petousis, M., Vairis, A., Vidakis, N., "Developing a Phaistos disk geometric model with 3d scanning", 11<sup>th</sup> Annual MIBES International Conference, 22-24 June 2016.
58. Vairis, A., Tsainis, A.M., Papazafeiropoulos, G., "Comparison of friction welding processes", 4th Linear Friction Welding Symposium, Cambridge, 16-17 March 2017.
59. Ye, Q., Li, W.Y., Ma, T., Yang, X., Vairis, A., "3D finite element analysis of the linear friction welding of a beta Titanium alloy", 12th International Seminar "Numerical analysis of weldability", Graz, 23-26 September 2018.
60. Vairis, A., Kim, S.H., Brown, S., Masoumifar, A., "A proposed design of a versatile mobility aid for challenging environments", TENCON 2018, S.Korea, 28-31 October 2018, Art.8650509, pp.712-716.
61. Vairis, A., Tsainis, A.M., "On dynamically modifying the LFW process", 5th Linear Friction Welding Symposium, Cambridge, 20-21 March 2019
62. Li, N., Li, W.Y., Yang, X., Feng, Y., Vairis, A., "An investigation into the mechanism for enhanced mechanical properties in friction stir welded AA2024-T3 joints coated with cold spraying", International Thermal Spray Conference, ITSC 2018; Orlando; United States; 7 - 10 May 2018.
63. Brown, S., Vairis, A., Masoumifar, A., Petousis, M., "Enhancing Performance of Crutches in Challenging Environments: Proposing an Alternative Design and Assessing the Expected Impact", TENCON 2019, India, 17-21 October 2019, Art.8929341, pp.1717-1724.
64. Vairis, A., Boyack, J., Brown, S., Bess, M., Bae, K.H., Petousis, M., "Gait analysis using video for disabled people in marginalized communities", 12th International Conference on Intelligent Human Computer Interaction (IHCI-2020), Daegu, South Korea

## Books

1. Li, W., Yang, X., Vairis, A., "Solid State Welding", Science Press, 2017, China (in English)

## Book chapter

1. Wang, X., Li, W.Y., Ma, T., Vairis, A., (2019) 'Linear friction welding', in Vora, J., Badheka, V.,

(eds.)” Advances in welding technologies for process development”. New York, CRC Press, pp.191-209.

## Patents

- Mitropoulos, A., Vairis, A., Stefanopoulos, K., “Mercury porosimeter accessory”, Greek Patent 1003538, 1 March 2001
- Vairis, A., Kalivianakis, A., Timmons, W., Pateromichelakis, N., “Device for assessing dance exercise”, Greek Patent 20090100586, 26 October 2009
- Vairis, A., “Friction welding process control”, 201600931, 11 April 2016
- Vidakis, N., Vairis, A., Lontos, A., Gramatikakis, I., Petousis, M., Maniadi, A., Arapis, E., “Smart percussion tool”, Greek Patent 1009101, 11 April 2016

## **Teaching Experience**

### **Undergraduate level**

- 2019 -
- Machine elements I (3<sup>rd</sup> semester)
  - Machine elements II (4<sup>th</sup> semester)
  - Mechanical engineering design II
  - Language: Greek
  - Average class size 150 students
  - Duties: teaching, teaching material preparation, example classes, exams, eclass material

#### **Department of Mechanical Engineering**

##### **Hellenic Mediterranean University, Greece**

- 2019 -
- Machine elements I
  - Machine elements II
  - Mechanical engineering design II
  - ERASMUS European Union exchange students – Language: English
  - Average group size 5 students
  - using self-study methods and tutorial sessions
  - Duties: tutorials, exams, eclass material
  - These courses are offered in addition to normal duties as member of staff (after normal working hours without additional pay)

#### **Department of Mechanical Engineering**

##### **Hellenic Mediterranean University, Greece**

- 2018-2019
- 2017-2018
- MEC 499 Research in Mechanical Engineering
  - MEC 410 Design of Machine Elements
  - MEC 440 Mechanical Engineering Design I
  - MEC 499 Research in Mechanical Engineering
  - MEC 214 Probability and Statistics for Mechanical Engineers
  - MEC 310 Introduction to Machine Design
- 2016-2017
- MEC 101 Freshman Design Innovation
  - Language: English
  - Duties: teaching, teaching material preparation, exams

#### **Department of Mechanical Engineering**

##### **State University of New York, Korea**

- 2003 – 2016
- Machine elements I (3<sup>rd</sup> semester)
  - Machine elements II (4<sup>th</sup> semester)
  - Industrial control systems (5<sup>th</sup> semester)
  - Industrial maintenance (5<sup>th</sup> semester)
  - Engineering design (1<sup>st</sup> semester)
  - Patents for engineers (7<sup>th</sup> semester)
  - Language: Greek
  - Average class size 100 students
  - Duties: teaching, teaching material preparation, example classes, exams, eclass material

**Department of Mechanical Engineering  
TEI of Crete, Greece**

2008 - 2016

- Machine elements I
- Machine elements II
- Patents for engineers
- ERASMUS European Union exchange students – Language: English
- 15 students for Machine elements I & II course, 2 students for Patent for engineers course (to present)
- using self-study methods and tutorial sessions
- Duties: tutorials, exams, eclass material
- These courses are offered in addition to normal duties as member of staff (after normal working hours without additional pay)

**Department of Mechanical Engineering  
TEI of Crete, Greece**

1998 - 2000

- Mechanical technology (1<sup>st</sup> year)
- Mechanical Vibrations
- Technical drawing (1<sup>st</sup> year)
- Mechanical drawing (2<sup>nd</sup> year)
- Language: Greek
- Average class size 50 students
- Duties: teaching, teaching material preparation, example classes, exams

**Air Force Engineers Training School, Athens, Greece**

1998

- Automatic control systems
- Language: Greek
- Average class size 20 students
- Duties: teaching, teaching material preparation, example classes, exams

**Army Officers Higher Education Technical School, Athens, Greece**

Advisor of 51 undergraduate diploma theses.

**Postgraduate level**

2017-2018

- MEC 525 Product Design, Concept Development and Optimization
- MEC 502 Conduction and Radiation Heat Transfer
- Language: English

**Department of Mechanical Engineering  
State University of New York, Korea**

2013 -2016

- Innovation & Intellectual property (3<sup>rd</sup> semester)
- MSc in “Advanced production, automation and robotics systems”
- Language: Greek
  - Average class size 20 students
  - Duties: teaching, teaching material preparation, exams, eclass material

**TEI of Crete, Greece**



2013

- Rock mechanics

MSc in “Oil and gas technology”

- Language: English
- Class size 40 students
- Duties: teaching, teaching material preparation, exams.

**TEI of Kavala, Greece**

1998 - 1999

- Laboratory exercises

MSc in “Materials Science and Technology”

Language: Greek

**National Technical University of Athens, Greece**

Advisor of 2 postgraduate diploma theses

## Research Experience

- 2020 – 2022      Co Principal Investigator  
“Redesigning Mobility Aid to Function in Challenging Environments and Limited-Resource Settings”  
Awarding body: Grand Challenges Canada, Canada
- 2015              Researcher  
“Elaboration and industrial development of high-precision shaping coordinated technologies and superficial hardening of responsible details from Al-alloys with heightened constructional energy efficiency”  
Awarding body: Ufa State Aviation Technical University, Russian Federation
- 2012 – 2015      Leading scientist  
“NANO-strength Development of carbon fibre nano-composites for high strength applications”  
Archimedes III research project,  
Awarding body: General Secretariat of Research and Technology, Greece
- 2012 – 2015      Researcher  
“NANO-SKAI carbon fibre nano-composites for gas separation and hydrogen production uses”  
Archimedes III research project,  
Awarding body: General Secretariat of Research and Technology, Greece
- 2012 – 2015      Researcher  
“NANO-capillary”  
Thales research project  
Awarding body: General Secretariat of Research and Technology, Greece
- 2011 – 2012      Researcher  
“Creation of technologies and industrial production of knots and vanes gas turbine engine with alleviated high-impact construction for new generation engines”  
Awarding body: Ufa State Aviation Technical University, Russian Federation
- 2008 - 2010      Researcher  
“REG CON - Support action for innovation driven clusters in construction. Regional approaches, multi-stakeholder engagement and cross regional co-operation”  
Awarding body: European Union FP7-REGIONS-2007
- 2004 – 2006      Leading scientist  
“ZnO coatings to use in sensors for oxidizing gases”  
Archimedes II research project  
Awarding body: General Secretariat of Research and Technology, Greece
- 1999              Researcher  
“Thermal sprayed coatings to reduce wear in engineering components in Greek industry. Alternative techniques”

EKVAN industrial research project  
Awarding body: General Secretariat of Research and Technology, Greece

1998 – 1999      Research fellow  
“ROBOWELDER - EE 552”  
PAVE project of industrial research  
Awarding body: General Secretariat of Research and Technology, Greece

1993 - 1995      Research fellow  
“High frequency linear friction welding investigation”  
Awarding body: Human Capital Mobility Programme, University of Bristol,  
England

### **Research Interests**

I am currently pursuing research in the following areas:

- Linear friction welding
- Frictional behaviour
- Numerical modelling of complex systems
- Analytical modelling
- Joining processes
- Manufacturing processes
- Machine design
- Biomechanical engineering
- Assistive Technologies

I have pursued research in the following areas:

- Coatings / Thin Films
- Environmental studies
- Business development

## Professional Activities

### Journals

- **Editor-in-Chief** of ***Welding International*** published by Taylor & Francis .(ISSN: 0950-7116)
- Member of the editorial board of the *Materials Technologies Design*. (ISSN: 2466-4677)
- Member of the editorial board of the *Journal of Engineering Science and Technology Review*. (ISSN:1791-2377)
- Member of the editorial board of *Applied Engineering Letters*. (ISSN: 2466-4677)
- Guest editor of the *Journal of Engineering Science and Technology Review* for the special issue for the conference proceedings of the “Simulation of manufacturing technologies - 2014” which took place in Ufa 23-25 June 2014.
- Guest editor for the *Advances in Materials Science and Engineering* journal for the special issue “Advances in Friction Welding” (October 2013-March 2014).
- Guest editor of the *Journal of Engineering Science and Technology Review* for the special issue for the conference proceedings of the “Simulation of manufacturing technologies - 2012” which took place in Ufa 10-13 April 2012.
- Reviewer of International Journals
  - *Acta Materialia* (IF: 5.058)
  - *Advanced Engineering Materials* (IF:2.319)
  - *Advances in Manufacturing*
  - *Advances in Materials Science and Engineering* (IF: 0.897)
  - *CIRP Journal of Manufacturing Science and Technology* (IF: 1.732)
  - *Computational Materials Science* (IF: 1.574)
  - *Construction and Building Materials* (IF:3.169)
  - *DYNA*
  - *International Journal of Advanced Manufacturing Technology* (IF: 1.779)
  - *International Journal of Computer Assisted Radiology and Surgery* (IF:2.155)
  - *International Journal of Material Forming* (1.750)
  - *International Journal of Modelling, Identification and Control*
  - *International Journal of Thermal Sciences* (IF:2.769)
  - *Journal of Adhesion Science and Technology* (IF:1.153)
  - *Journal of Alloys and Compounds* (IF:3.014)
  - *Journal of Engineering Science and Technology Review*
  - *Journal of Materials Engineering and Performance* (IF: 1.094)
  - *Journal of Materials Science & Technology* (IF: 2.267)
  - *Journal of Materials Processing Technology* (IF:3.147)
  - *Materials and Design* (IF: 3.501)
  - *Materials Characterization* (IF: 2.383)
  - *Materials Letters* (IF: 2.437)
  - *Mechanism and Machine Theory* (IF: 1.689)
  - *Metallurgical and Materials Transactions A* (IF: 1.749)
  - *Metals* (IF: 1.574)
  - *North American Manufacturing Research Institution of SME (NAMRI/SME)*
  - *Qscience Connect*
  - *Steel Research International* (IF: 1.021)
  - *Surface and Coatings Technology* (IF: 2.139)

- *The Journal of Manufacturing Processes (IF:1.771)*
- *The Knee (IF: 1.446)*
- *Welding in the World (IF: 1.278)*

### **Organization of International Conferences**

- Member of the International Scientific Committee of “17th International Conference on Sheet Metal – SheMet 2017”, Palermo, Italy, 10-12 April 2017.
- Member of the Organising Committee of “Simulation of manufacturing technologies - 2015”, Ufa, Russian Federation, 22-23 September 2015.
- Member of the Organising Committee of “Simulation of manufacturing technologies - 2014”, Ufa, Russian Federation, 23-25 June 2014.
- Member of the Organising Committee of “Simulation of manufacturing technologies - 2012”, Ufa, Russian Federation, 10-13 April 2012.
- Member of the scientific committee of “2nd International Conference on Experiments / Process / System / Modelling / Simulation & Optimization”, Athens, 4-7 July 2007.
- Chairman of the Session "Static and dynamic Behaviour of Structures" of the “2nd International Conference “From Scientific Computing to Computational Engineering”, Athens, 5-8 July 2006.
- Member of the Organising Committee for the 2006 IASME/WSEAS Conference Water Resources, Hydraulics and Hydrology, Chalkis, 8-10 May 2006.

### **Professional Qualifications**

- Member of the Technical Chamber of Greece (Greek equivalent to CEng status)
- Member of the Greek Society of Mechanical and Electrical Engineers

### **Invited Talks**

June 2019	AVIC Manufacturing Technology Institute – AVIC Corp. Beijing, P.R.China
July 2013	Beijing Aeronautical Manufacturing Technology Research Institute (BAMTRI) – AVIC Corp. Beijing, P.R.China
June 2013	University of Palermo, Italy
June 2012	Northwestern Polytechnical University, XiAn, P.R.China
August 2011	Northwestern Polytechnical University, XiAn, P.R.China
June 2011	Ufa State Aviation Technical University, Bashkortostan, Russian Federation
August 2010	Northwestern Polytechnical University, XiAn, P.R.China

### **Administrative appointments**

10/2020	Reviewer for Italian research proposal call "AVVISO PRESENTAZIONE PROPOSTE PROGETTUALI DI RICERCA Covid-19"
6/2020 – 10/2020	Reviewer for Portuguese 2019 Call for Scientific Research and Technological Development (SR&TD) projects (Mechanical Engineering and Engineering Systems panel) of Fundação para a Ciência e a Tecnologia, I.P. (FCT)

<b>5/2020 -</b>	Member of Coordinating Committee of the <i>Institute of Emerging Technologies</i> of Hellenic Mediterranean University
5/2020 - 10/2020	Reviewer for Portuguese 2019 Stimulus of Scientific Employment, Individual Support Call (CEEClnd2020) (Civil and Mechanical Engineering and Engineering Systems panel) of Fundação para a Ciência e a Tecnologia, I.P. (FCT)
7/2019 - 9/2019	Reviewer for Portuguese 2018 Call Stimulus of Scientific Employment, Individual Support (CEEClnd2018) (Civil and Mechanical Engineering and Engineering Systems panel) of Fundação para a Ciência e a Tecnologia, I.P. (FCT)
9/2018 – 11/2018	Reviewer for Italian research proposal call PRIN 2017 (Progetti di ricerca di Rilevante Interesse Nazionale)
<b>3/2018 -</b>	Member of PhD Board, course “Technological Innovation Engineering”, Dipartimento di Innovazione Industriale e Digitale, University of Palermo
4/2018 - 6/2018	Reviewer for Portuguese 2017 Call STIMULUS OF SCIENTIFIC EMPLOYMENT, INDIVIDUAL SUPPORT (Mechanical Engineering and Engineering Systems panel) of Fundação para a Ciência e a Tecnologia, I.P. (FCT)
8/2017 – 10/2017	Reviewer for Portuguese 2017 Call for Scientific Research and Technological Development (SR&TD) projects (Mechanical Engineering and Engineering Systems panel) of Fundação para a Ciência e a Tecnologia, I.P. (FCT)
6/2016 – 12/2016	Assessor for Italian research assessment VQR 2011-2014 (Valutazione della Qualità della Ricerca (VQR) 2011-2014) - Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca
9/2016 – 6/2018	Graduate program director, State University of New York Korea
1/2013 – 10/2015	Chair of Department of Mechanical Engineering, TEI of Crete
9/2013 – 10/2015	Member of the Senate, TEI of Crete
2014 - 2015	Member of mechanical engineering course revision committee
2009	External research proposals reviewer <ul style="list-style-type: none"> <li>• Greek Secretariat of Research and Technology</li> <li>• Greek Ministry of Education</li> <li>• Research Promotion Foundation of Cyprus</li> </ul>
2012 -2016	Internal QA group TEI of Crete, Greece
2010 - 2014	Internship, TEI of Crete <ul style="list-style-type: none"> <li>• Head of committee of the Department of Mechanical Engineering</li> <li>• Project leader of EU sponsored Internship project to enhance departmental internship activities</li> </ul> TEI of Crete, Greece
2008 – 2016	Member of inter-departmental Steering Committee of the MSc in “Advanced production, automation and robotics systems” TEI of Crete, Greece
2004 - 2013	Member of the visiting staff recruitment committee TEI of Crete, Greece
2005 - 2006	Member of the Technical chamber of Greece’s Committee on Mechanical Engineering Education