

Curriculum Vitae



NAME & SURNAME: Mohammadreza Tavakoli Shoushtari

DATE OF BIRTH: 16/06/1984



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PROFESSIONAL PROFILE:

Assistant Professor of Materials Science and Engineering in Shahid Chamran University (SCU) of Ahvaz.

EDUCATION BACKGROUND:

Ph.D.: Materials Engineering (2018), Iran University of Science and Technology (IUST), Tehran, Iran

Thesis Title:

“Investigation of Titanium addition on Microstructure and Sliding Wear of the Fe-C-B Hardfacing alloys using by Open Arc Welding”

M.Sc.: Materials Engineering (2008), Ferdowsi University of Mashhad, Mashhad, Iran

Dissertation Title:

“Investigation of corrosion behavior in repaired weldment of 17-4 PH stainless steel”

B.S.: Materials Engineering (2006), Shahid Chamran University of Ahvaz, Iran

TEACHING AND TRAINING EXPERINCE:

B.Sc. course:

- Materials Science
- Principles of Polymer Engineering
- Metal Forming

M.Sc. course:

- Fracture Mechanics
- Welding inspection and quality control
- New methods of studying materials

Ph.D. course:

- Advanced engineering mathematics

HONOURS AND AWARDS:

- Welding Metallurgy and Technology
- Tribology
- Hardfacing

RESEARCH ACTIVITIES:

PUBLICATIONS:

1. Galvanic Corrosion of Gas-Tungsten Arc Repair Welds in 17-4 PH Stainless Steel in 3.5% NaCl', Corrosion Engineering Science and Technology, Volume 46, Number 4, June 2011, pp. 406-414(9).
2. Post-weld heat treatment influence on galvanic corrosion of GTAW of 17-4PH stainless steel in 3.5% NaCl', Corrosion Engineering Science and Technology, Volume 46, Number 4, June 2011, pp. 415-424(10).
3. Effect of ageing heat treatment on corrosion behavior of 17-4 PH stainless steel in 3.5% NaCl', International Journal of ISSI, Vol.7, 2010, No.1, pp. 33-36.
4. Electrochemical Corrosion Behavior of Repaired Welds of 17-4 PH Stainless Steel in 3.5% NaCl, Journal of Advanced Design and Manufacturing Technology, Volume 4, Issue 2, 2010, pp. 9-17.
5. Effect of interlayers on the microstructure and wear resistance of Stellite 6 coatings deposited on AISI 420 stainless steel by GTAW technique', Surfaces and Interfaces, Vol. 9, 2017, pp. 79-92.
6. Investigation of Microstructure and Dry Sliding Wear of Hardfaced Layers Produced by FCAW Using Cored Wire Fe-B-C-Ti Alloy', Iranian Journal of Materials Science and Engineering, Volume 15, Issue 4, December 2018, pp. 19-32.
7. The effect of carbon and boron addition on microstructure and hardness of iron – based hardfacing layer using flux-cored arc welding, Jouranl of science &Technology of Composites, Vol.5, Issue 2, 2018, pp.245-252.

8. Investigation on Composition and Microstructural Morphology of the Fe-B-C Hardfacing Layers, Journal of Environmental Friendly Materials (JEFM), Volume 3, Issue 1 - Serial Number 5, Winter and Spring 2019, PP. 1-7
9. Corrosion performance of polypyrrole-coated metals: A review of perspectives and recent advances, Synthetic Metals, Volume 274, April 2021, 116723
10. Chapter 23, Electrochemical impedance spectroscopy (EIS) for biosensing, book: Nanosensors for Smart Manufacturing, 1st Edition, Elsevier, June 2021, Pages 533-554.

CONFERENCE PRESENTATIONS:

1. Galvanic Corrosion in Gas Tungsten Arc Welding of 17-4 PH Stainless Steel, In proceeding of: International conference on welding and joining technologies, Ankara, Turkey, 2009.
2. Studies corrosion behavior of as-weld and PWHT of 17-4 PH stainless steel GTA repair welds in 3.5% NaCl solution, In proceeding of: 4th IMS International Conference, Sharjah, UAE, 2010.
3. Studies on microstructure and mechanical behaviour of as-weld and PWHT of 17-4 PH stainless steel GTA weld, In proceeding of: International Conference on Materials Heat Treatment (ICMH 2010), Islamic Azad University, Majlesi Branch, May 2010, Isfahan, Iran.
4. Investigation of the Effect of Interval Between Perlite Layer in Steel 1080 on its Tribological Properties, Eighth National Seminar on Surface Engineering and Heat Treatment of Iran, May 2007, Kerman, Iran.
5. Investigation of sliding wear and erosion characteristics of aluminum alloy 5083, Ninth National Seminar on Surface Engineering and Heat Treatment of Iran, May 2008, Tehran, Iran.
6. Effect of Post weld heat treatment on microstructure and hardness of 17-4 PH, repaired by welding method, Second joint conference of the Society of Iranian Metallurgical Engineers and Iranian Society of Casting, November 2008, Karaj, Iran.
7. The effect of aging heat treatment on sliding wear behavior of 17-4 PH stainless steel, Steel Symposium 2009, March 2009, Ahvaz, Iran.
8. Investigation of pitting corrosion in 17-4 PH stainless steel repaired by welding method in 3.5% NaCl solution, Steel Symposium 2009, March 2009, Ahvaz, Iran.
9. Comparison of corrosion behavior of ceramic coatings by electrolytic method in aluminum alloy 5083 in seawater, The third joint forum of the Society of Metallurgy Engineers and the Iranian Society of Scientific Engineers, November 2009, Kerman, Iran.
10. Investigating the behavior of sliding wear of 17-4 PH using pin-on-disk, The third joint forum of the Society of Metallurgy Engineers and the Iranian Society of Scientific Engineers, November 2009, Kerman, Iran.
11. Effect of aging heat treatment on corrosion resistance of 17-4 PH stainless steel in NaCl solution, Steel Symposium 2010, March 2010, Yazd, Iran.
12. Electrochemical corrosion behavior of repaired welds of 17-4 PH stainless steel in 3.5% NaCl, International Conference on Materials Heat Treatment (ICMH 2010), Islamic Azad University, Majlesi Branch, May 2010, Isfahan, Iran.
13. Investigation of the Properties of Sliding and Erosion Characteristics of Martensitic Stainless Steel 420 in Steam Power Industries, Twelfth National Seminar on Surface Engineering, May 2011, Isfahan, Iran.
14. Surface hardening of low pressure steam turbine blade 15X11M□□ According to the

- Russian standard with a Stellite 6 using welding method, Thirteenth National Surface Engineering Seminar, May 2012, Tabriz, Iran.
15. Microstructural morphology study in the interface between hardened coated layers with Fe-B and Fe-B-C base cored wires, Second National Conference on Materials Engineering, Metallurgy and Mining, January 2019, Ahvaz, Iran
 16. Effect of heat input on the microstructure of dissimilar joint of 2507 dual phase stainless steels and 316TI austenitic steels, 1st International Conference & 4th National Conference on Materials, Metallurgy & Mining, February 24, 2021, Ahvaz, Iran.
 17. Effect of electromagnetic vibration on microstructure and dissimilar joint hardness of 2507 dual phase stainless steels and 316TI austenitic steels, 1st International Conference & 4th National Conference on Materials, Metallurgy & Mining, February 24, 2021, Ahvaz, Iran.
 18. Investigation of the effect of heat input on the properties of 100-HSLA steel joints using by SMAW process, 3rd International Conference on Welding and Non-Destructive Testing of Iran, 21st National Conference on Welding and Inspection and 10th National Conference on Non-Destructive Testing, March 4, 2021, Isfahan, Iran.
 19. Hardfacing the crane wheels by submerged arc welding method, 1st International Conference & 4th National Conference on Materials, Metallurgy & Mining, February 24, 2021, Ahvaz, Iran.
 20. Manufacturing of automatic TIG welding machine and checking the quality of welding and the resulting metallurgical microstructure in the welding line on St37 steel with 308L stainless steel electrode, 1st International Conference & 4th National Conference on Materials, Metallurgy & Mining, February 24, 2021, Ahvaz, Iran.
 21. Effect of over-aging heat treatment on microstructure and hardness of 17-4PH stainless steel, 1st International Conference & 4th National Conference on Materials, Metallurgy & Mining, February 24, 2021, Ahvaz, Iran.
 22. Investigation of HIC corrosion behavior of 17-4PH stainless steel joint area Over-aged, 1st International Conference & 4th National Conference on Materials, Metallurgy & Mining, February 24, 2021, Ahvaz, Iran.
 23. Effect of overageing heat treatment on microstructure and mechanical properties of stainless steel 17-4PH joint zone, 9th international conference on materials engineering and metallurgy, November 11, 2020, Tehran, Iran.

RESEARCH PROJECTS:

- Investigation of Abrasive Wear in Precipitation Hardening Stainless Steel, 2010.
- Investigation of applied polymers in gas pipeline repair by split sleeve pipe method, plans with Khuzestan National Gas Company, 2021.

PROFESSIONAL MEMBERSHIPS:

- Iron & Steel Society of Iran
- Iranian institute of welding and nondestructive testing
- Iranian Society of Surface Science & Technology
- Iranian Corrosion Association

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LANGUAGES:

PERSIAN: Native
ENGLISH: Intermediate