Curriculum Vitae

Ali Farzadi

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Education

- **PhD in Materials -Welding Engineering** **2003-2008**
  Sharif University of Technology Tehran
  Total cumulative GPA: 17.13/20

  Sabbatical **2007-2008**
  Royal Institute of Technology (KTH) **Stockholm**
  Department of Mechanics

- **M. Sc. in Materials-Welding Engineering** **2000-2003**
  Sharif University of Technology Tehran
  Total cumulative GPA: 17.03/20

- **B. Sc. in Materials-Extractive Engineering** **1997-2000**
  Sahand University of Technology Tabriz
  Total cumulative GPA: 17.30/20

Accomplished Researches and Projects

- Repair Welding of Steel Continuous Casting Rolls, Kuzestan Steel Co., 2015.
- Failure Analysis Caused by In-service Welding of Gas Pipeline, National Iranian Gas Transmission Co., 2011.
- Simulation of Heat Transfer, Fluid Flow and GTA Weld Solidification Microstructure, **PhD Thesis**, Prof. Kokabi and Associate Prof. Serajzadeh, Sharif University of Technology, Oct 2008.
- Study of Metallurgical and Mechanical Properties of Iron Hardfacing Alloys, **M.Sc. Thesis**, Prof. Kokabi, Sharif University of Technology, Jan 2003.

- Bronze Electroplating, **B. Sc. Thesis**, Assistant Prof. Yousefnejad, Sahand University of Technology, Jun 2000.

- Repair welding of die casting dies, Internship project, Prof. Kokabi and Assitant Prof. Khomamizadeh, **Iran Khodro Co.** and Sharif University of Technology, Fall 2001.

- Design of size, construction procedure, welding joints, and inspection procedure of an oil storage tank, Design of welding joints, Associate Prof. Malek, Fall 2001.

Experiences

Teaching

Shahid Chamran University Ahvaz 2004

- Applications of Computer in Materials Engineering
- Extractive Metallurgy I

Shahid Chamran University Ahvaz 2009-2010

- Advanced Solidification
- Physical Chemistry
- Transport Phenomena
- Non-Destructive Tests (NDT)
- Solidification and Laboratory
- Welding Metallurgy

Petroleum University of Technology Abadan 2009

- Mechanical Metallurgy Laboratory
- Physical Metallurgy Laboratory

Sharif University of Technology Tehran 2010

- Stress Analysis in weldment
- Non-Destructive Tests (NDT)

Amir Kabir University of Technology Tehran 2010

- Advanced Welding Metallurgy
- Simulation in Materials Engineering
- Welding Metallurgy
- Error in Measurement
- Non-Destructive Tests (NDT)

Honors

- **Top student** with best total cumulative GPA in M. Sc. degree, Materials-Welding Engineering, Sharif University of Technology, 2003.
- **Top student** with best total cumulative GPA in B. Sc. degree, Materials Engineering, Sahand University of Technology, 2001.
- 2nd place in Materials Engineering PhD Entrance Examination, Sharif University of Technology, Tehran, 2003.
- 9th place in Materials Engineering M. Sc. Entrance Examination, Iran, 2001.

Patents & Publications

1. M. Hajizadeh, A. Farzadi, A. H. Kokabi and A. Ghasemi; "Repair welding of Aluminium die casting dies"; The Second International conference on Welding (ICW, Tehran), pp. 25-31, 2002.
2. A. Farzadi, S. Serajzadeh and A. H. Kokabi; "Modeling of transport phenomena in gas tungsten arc welding"; Archive of Materials Science and Engineering, Vol. 28, pp. 417-420, 2007.
3. A. Farzadi, S. Serajzadeh and A. H. Kokabi; "Modeling of heat transfer and fluid flow during GTA welding of commercial pure aluminum"; International Journal of Advanced Manufacturing and Technology, Vol. 38, pp. 258-267,2008.
4. A. Farzadi, S. Serajzadeh and A. H. Kokabi; "Prediction of solidification behaviour of weld pool through modeling of heat transfer and fluid flow during GTA welding of commercial pure aluminium"; Materials Science and Technology, Vo. 24, pp. 1427-1432, 2008.
5. H. Jamshidi Aval, A. Farzadi, S. Serajzadeh and A. H. Kokabi; "Theoretical and experimental study of microstructures and weld pool geometry during GTAW of 304 stainless steel alloy"; International Journal of Advanced Manufacturing and Technology, Vol. 42, No. 11-12, pp. 1043-1051, 2009.
6. A. Davoodi, A. Farzadi, J. Pan, C. Leygraf and Y. Zhu; "Developing an AFM-based SECM system; Instrumental setup, SECM simulation, characterization, and calibration"; Journal of the Electrochemical Society, Vol. 155, pp. C474-C485, 2008.
7. A. Farzadi, M. Do-Quang, S. Serajzadeh, A. H. Kokabi and G. Amberg; "Phase-field simulation of weld solidification microstructure in an Al-Cu alloy"; Modelling and Simulation in Materials Science and Engineering, Vol. 16, No. 065005 (18pp), 2008.

8. A. Farzadi, S. Serajzadeh and A. H. Kokabi; “Investigation of weld pool in aluminum alloys: geometry and solidification microstructure”; International Journal of Thermal Sciences, Vol. 49, No. 5, pp. 809-819, 2010.

9. M. Yousefi, M. H. Farghadin, A. Farzadi; “Investigating the causes of cracks in welded 310 stainless steel used in the flare tip”; Engineering Failure Analysis, Vol. 53, pp. 138-147, 2015.

10. A. Farzadi; “Modeling of isothermal recovery and recrystallization kinetics by means of hardness measurements”; Wissenschaft und Werkstofftechnik (Materials Science and Engineering Technology), Vol. 46, No. 12 pp. 1218-1225, 2015.

11. A. Farzadi; “Gas Pipeline Failure Caused by In-Service Welding”; Journal of Pressure Vessel Technology, Vol. 138, No. 1, pp. 11405(1-9), 2016.

12. A. Farzadi; "Correlation between precipitate microstructure and mechanical properties in AA7075-T6 aluminum alloy friction stir welded joints”; Materialwissenschaft und Werkstofftechnik (Materials Science and Engineering Technology),, Vol. 48, No. 2, pp. 151-162, 2017.

13. M. Morakabian Esfahani, E. Hajjari, A. Farzadi, S. R. Alavi Zaree; "Prediction of the contact time through modeling of heat transfer and fluid flow in compound casting process of Al/Mg light metals"; Journal of Materials Research, Vol. 32, No. 11, pp. 2135-2142, 2017.

14. A. Farzadi, M. Bahmani, D. F. Haghshenas; "Optimization of Operational Parameters in Friction Stir Welding of AA7075-T6 Aluminum Alloy Using Response Surface Method"; Arabian Journal for Science and Engineering, Vol. 42, No. 11, pp. 4905-4916, 2017.

15. H. Esmaeili, S. E. Mirsalehi, A. Farzadi; "Effect of joining atmosphere in transient liquid phase bonding of Inconel 617 superalloy"; Metallurgical and Materials Transactions B-process Metallurgy And Materials Processing Science, Vol. 48, No. 6, pp. 3259-3269, 2017.

16. A. Farzadi, M. Morakabian Esfahani, S. R. Alavi Zaree; “Theoretical and experimental investigation of gas metal arc weld pool in commercially pure aluminum: Effect of welding current on geometry0”; Journal of Central South University, Vol. 24, No. 11, pp. 2556-2564, 2017.

Research Interest

- Advanced welding processes (FSW, TLP, Laser, RSW, FW)
- Metallurgy of welding
- Simulation and Modeling in Materials Processing such as welding, solidification, and etc.

Membership

- Member of "National Elite Foundation"

Computer Skills

- **OS** Dos, Windows, Linux
- **Programming Languages** Pascal, C++, MATLAB, Maple
- **Engineering Software** FLUENT, ANSYS, COMSOL
- **General Software** Microsoft Office, LaTex, …

Language Skills

English with TOEFL degree

References

- Professor Amir Hossein Kokabi, Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Email: kokabi@sharif.edu
- Associate Professor Siamak Serajzadeh, Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Email: serajzadeh@sharif.edu
- Professor Gustav Amberg, Department of Mechanics, Royal Institute of Technology (KTH), Stockholm, Sweden, Email: gustava@mech.kth.se
- Associate Professor Mehrdad Taghizadeh Manzari, Department of Mechanical Engineering, Sharif University of Technology, Tehran, Email: mtmanzari@sharif.edu