Curriculum Vitae

Name & Surname: Esmaeil Hajjari

Date of Birth: Feb. 28, 1979

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PROFESSIONAL PROFILE:

Assistant Professor, Department of Materials Engineering, Faculty of Engineering, Shahid Chamran University of Ahvaz, Ahvaz, Iran

EDUCATION BACKGROUND:

Ph.D.: Materials Science and Engineering (2012), Iran University of Science and Technology (IUST), Tehran, Iran

Thesis Title:

"The Study of Effective Parameters on Bonding of Al/Mg Interface in Compound Casting Process"

M.Sc.: Materials Science and Engineering (2004), Iran University of Science and Technology (IUST), Tehran, Iran

Dissertation Title:

"Production and Study of Tensile Strength of Continuous Carbon Fiber Reinforced Aluminum Composite"

B.Sc.: Materials Science and Engineering (2001), University of Tehran, Tehran, Iran

TEACHING AND TRAINING EXPERIENCE:

Ph.D. courses

High Temperature Alloys

M.Sc. courses

Brazing and Soldering

Advanced Solidification Processes

M.Sc. courses

Welding and Joining of Materials

Non Destructive Evaluations

HONOURS AND AWARDS:

- Ranked 1st among all Ph.D. students of Materials Science and Engineering, Iran University of Science and Technology, 2012.
- Full scholarship, from Iran Ministry of Science and Education, for PhD program (2008- 2011).
- Visiting Scholar, Magnesium Research Center, Nagaoka University of Technology, Nagaoka, Japan, 2011.
- Received the Outstanding Teaching Award of the academic year in Shahid Chamran University of Ahvaz (2016 and 2021).

INTERESTS AND RESEACH FIELDS:

- Welding of steels and super alloys
- Compound casting
- Heat treatment

RESARCH ACTIVITIES:

PUBLICATIONS:

[1] **E. Hajjari**, M. Divandari, A.R. Mirhabibi, "The Study of Electroless Coating of Nickel on Carbon Fibers", Iranian Journal of Materials Science & Engineering, Vol. 1, No. 1, 2004, pp. 43-48.

[2] **E. Hajjari**, M. Divandari, "An Investigation on the Microstructure and Tensile Properties of Direct Squeeze Cast and Gravity Die Cast 2024 Wrought Al Alloy", Materials & Design, Vol. 29, 2008, pp. 1685-1689.

[3] **E. Hajjari**, M. Divandari, A.R. Mirhabibi, "The Effect of Applied Pressure on Fracture Surface and Tensile Properties of Nickel Coated Continuous Carbon Fiber Reinforced Aluminum Composites Fabricated by Squeeze Casting", Materials & Design, Vol. 31, 2010, pp. 2381-2386.

[4] **E. Hajjari**, M. Divandari, H. Arabi, "Effect of Applied Pressure and Nickel Coating on Microstructural Development in Continuous Carbon Fiber-Reinforced Aluminum Composites Fabricated by Squeeze Casting", Materials and Manufacturing Processes, Vol. 26, 2011, pp. 599-603.

[5] R. Taherzade Mousavian, **E. Hajjari**, D. Ghasemi, M. Kojouri Manesh, K. Ranjbar, "Failure analysis of a shell and tube oil cooler", Engineering Failure Analysis, Vol. 18, 2011, pp. 202-211.

[6] **E. Hajjari**, M. Divandari, S.H. Razavi, S.M. Emami, S. Kamado, "Estimation of the transient interfacial heat flux between substrate/melt at the initiation of magnesium solidification on aluminum substrates using the lumped capacitance method", Applied Surface Science, Vol. 257, 2011, pp. 5077-5082.

[7] **E. Hajjari**, M. Divandari, S.H. Razavi, S.M. Emami, T. Homma, S. Kamado, "Dissimilar joining of Al/Mg light metals by compound casting process", Journal of Materials Science, Vol. 46, 2011, pp. 6491-6499.

[8] **E. Hajjari**, M. Divandari, S.H. Razavi, T. Homma, S. Kamado, "Intermetallic compounds and antiphase domains in Al/Mg compound casting", Intermetallics, Vol. 23, 2012, pp. 182-186.

[9] **E. Hajjari**, M. Divandari, S.H. Razavi, T. Homma, S. Kamado, "Microstructure characteristics and mechanical properties of Al 413/Mg joint in compound casting process", Metallurgical and Materials Transactions A, Vol. 43, 2012, pp. 4667-4677.

[10] S.M. Emami, M. Divandari, H. Arabi, **E. Hajjari**, "Effect of melt to solid insert volume ratio on Mg/Al dissimilar metals bonding", Journal of Materials Engineering and Performance, Vol. 22, 2013, pp. 123-130.

[11] S.M. Emami, M. Divandari, **E. Hajjari,** H. Arabi, "Comparison between conventional and lost foam compound casting of Al/Mg light metals", International Journal of Cast Metal Research, Vol. 26, 2013, pp. 43-50.

[12] A.R. Khalifeh, A. Dehghan, **E. Hajjari,** "Dissimilar joining of AISI 304L/St37 steels by TIG welding process", Acta Metallurgica Sinica, Vol. 26, 2013, pp. 721-727.

[13] M. Morakabian, **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, 2017, pp. 2135-2142.

[14] B. Salehnasab, **E. Hajjari,** S.A. Mortazavi, "Failure assessment of the first stage blade of a gas turbine engine", Transactions of the Indian Institute of Metals, Vol. 70, 2017, pp. 2103-2110.

[15] A.H. Saedi, **E. Hajjari**, S. Mohsen Sadrossadat, "Microstructural characterization and mechanical properties of TIG welded API 5L X60 HSLA steel and AISI 310S stainless steel dissimilar joints", Metallurgical and Materials Transactions A, Vol. 49, 2018, pp. 5497-5508

[16] Jamalpour, **E. Hajjari**, S. M. Lari Baghal, "Effect of rejuvenation heat treatment on microstructure and hot corrosion resistance of a service-exposed nickel-based gas turbine blade", Materials Research Express, Vol. 6, 2019, pp. 1265

[17] R. Chaharlang, **E. Hajjari**, S.M. Lari Baghal, M. Siahpoosh, "Premature damage of the second stage nozzle guide vanes of a gas turbine made of Inconel 738LC", Engineering Failure Analysis, Vol. 105, 2019, pp. 803-816

[18] M. Afzali, R. Dehmolaei, **E. Hajjari**, "Improvement of impact toughness of API-X70 steel weld metals with electromagnetic vibration", Journal of Welding Science and Technology of Iran, Vol. 8, 2019, pp. 93-104

[19] H. Naseri, S.M. Sadrossadat, **E. Hajjari**, "Investigation the effect of preweld heat treatment on the liquation cracking of GTD-111 superalloy", Materials Transactions, Vol. 61, 2020, pp. 903-908

[20] A.H. Saedi, **E. Hajjari**, S. Mohsen Sadrossadat, "Investigation the effect of welding heat input on microstructure and mechanical properties of AISI310 stainless steel and API5LX60 low alloy steel dissimilar joint", Journal of Mechanical Engineering University of Tabriz, Vol. 50, 2020, pp. 107-114

[21] Rezaeian, M. Keshavarz, **E. Hajjari**, "Mechanical properties of steel welds at elevated temperature", Journal of Constructional Steel Research, 2020, In press

RESEARCH PROJECTS:

[1] The study of corrosion in Karkheh power plant oil coolers and suppression of that, Khuzestan Water and Power Organization, 2008

[2] Technical knowledge preparation of rejuvenation and repair of Ruston TB4000 gas turbine blades, Nopooyan Turbomachinery Group, 2017

[3] Technical knowledge preparation of repair and reconstruction of the cracks on BJ hook block, National Iranian Drilling Company, 2017

[4] The study of mechanical properties of Alform high strength steels and their weldments at high temperature service conditions, Sage Steel Company, 2018

[5] Preparation of repair welding procedure for Ruston TB4000 gas turbine nozzles, Nopooyan Turbomachinery Group, 2018

PROFESSIONAL MEMBERSHIPS:

- Iranian Metallurgical and Materials Engineering Society
- Iranian Institute of Welding and Non Destructive Testing
- Iran Society of Engineering Education

LANGUAGES:

Persian (native)

English (good)