

# Curriculum Vitae

## Hossein Eskandari

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Persian Gulf University, Bushehr, Iran



### Background:

**First Name:** Hossein

**Family Name:** Eskandari

**Date of birth:** 23<sup>rd</sup> August, 1965

**Place of birth:** Kazeroon, Iran

**Status:** University lecturer (Associate Professor)

### Academic Achievements:

**Ph.D. : Materials Engineering - Identifying Materials and Manufacturing Methods of Metals**, School of Metallurgical and Material Science Engineering, College of Engineering, University of Tehran, 2004

**Concentrations:** Nanostructure and nano-composite materials, Explosive Compaction of Powders, Composites, Tribology, Powder Metallurgy

**Dissertation:** Tribological Behaviour of the Particular Al-Matrix Composites Produced by explosive Compaction

**M.Sc. : Materials Engineering - Identifying Materials and Manufacturing Methods of Metals**, Department of Material Science, School of Engineering, University of Shiraz, 1993

**Concentrations:** Wear

**Thesis:** *Wear, Principles and Measurement*

**B.A. : Materials Engineering - Metal Forming**, Department of Material Science, School of Engineering, University of Shiraz, 1988

## Research skills:

- Bio & Nano technology (Bio & Nano materials)
- Tribological Behaviour of the Composite Materials, Composite Materials
- FGM materials
- Shock Wave Consolidation of the Powders, Powder Metallurgy
- Corrosion

## Current research interests:

Nanomaterials and Nanocomposites, Comparative study of Tribological behavior of Al-matrix composites manufactured by various methods , FGM materials, Corrosion

## Languages:

- English (Reading/Speaking/Writing)
- Persian (native language)
- Japanese (elementary communication)

## Publications:

### ▪ Peer-reviewed journal papers:

1. H. Eskandari, H. M. Ghasemi and M. Emamy, "Microstructure and interface studies of Al/SiCp composites produced by dynamic compaction", *Materials Science Forum*, Vols. 465-466 (2004) pp. 213-218
2. H. Eskandari, K. Hokamoto, H. M. Ghasemi, M. Emamy, S. Borji, J. S. Lee, "Comparative Study of Al/SiCp Composites Manufactured by Direct and Underwater Explosive Compaction", *Materials Science Forum*, Vols. 465-466 (2004) pp. 433-438
3. H. Eskandari, H. M. Ghasemi, M. Emamy, K. Hokamoto, "Influence of sintering on bending strength of Al/SiCp composites using underwater shock consolidation", *Materials Science and Technology*, Vol. 22, No. 3, 2006, pp. 349-352
4. H. Eskandari, H. M. Ghasemi, M. Emamy, S Borji, "Study of microstructure of the Al-matrix composites manufactured by explosive compaction", *Journal of faculty of Engineering (special issue: Mechanical & Metallurgy Engineering)*, University of Tehran, Vol. 39, No.6 Feb. 2006, pp. 785-791
5. H. M. Ghasemi, M. Emamy, H. Eskandari, K. Hokamoto, M. Nishida and M. Matsuda, "Interfacial characterisation in Al-20vol.-%SiCp explosively compacted composite", *Materials Science and Technology*, Vol. 25, No. 1, 2009, pp. 108-110

6. H. Eskandari, H. M. Ghasemi, M. Emamy, K. Hokamoto," Comparative Study of Al/TiB<sub>2</sub> Composites Manufactured by Underwater and Direct shock wave consolidation ", *Materials Science Forum* Vol. 673 (2011) pp 231-236
7. H. Eskandari , R. Gholamipour, "Properties of Nd-Fe-B powder explosively compacted" *Materials Science Forum* Vol. 673 (2011) pp 237-242
8. H. Eskandari , K. Hokamoto," Underwater explosive consolidation of mechanically milled Al/TiB<sub>2</sub> composites", *Materials Science Forum* Vol. 673 (2011) pp 137-142
9. H. Eskandari , H. M. Ghasemi," Wear behavior of Al-20Vol. %SiC<sub>p</sub> composites manufactured by dynamic consolidation", *Advanced Materials Research*, Vol. 685 (2013) pp 40-44
10. F. Khodabakhshia, M. Abbaszadehb, H. Eskandarib, S.R. Mohebpour, "Application of CGP-cross route process for microstructure refinementand mechanical properties improvement in steel sheets", *Journal of Manufacturing Processes*, 01/2013; 15(4) pp533–541
11. H. Eskandari, Processing of Al/SiC/TiB<sub>2</sub> hybrid nanostructured composites by underwater shock wave consolidation, *Advanced Materials Research* Vol. 829 (2014) pp 157-162
12. F. Khodabakhshia, M. Abbaszadeh, S.R. Mohebpour, H. Eskandari, , "3D finite element analysis and experimental validation of constrained groove pressing–cross route as an SPD process for sheet form metals, *The International Journal of Advanced Manufacturing Technology*, May 2014
13. F. Khodabakhshia, M. Haghshenas, H. Eskandari, B. Koohbor, "Hardness-strength relationships in fine and ultra-fine grained metals processed through constrained groove pressing", *Materials Science & Engineering A*636 (2015) 331–339
14. H. Eskandari<sup>1</sup>, M. Vaghefi, K. Kowsari, "Investigation of mechanical properties of concrete influenced by hybrid nano silica and micro zeolite", *Buletin Teknologi Makanan* 2(5) 2015:157-161
15. H. Raanaei, H. Eskandari, Vahid Mohammad-Hosseini, Structural and Magnetic Properties of nanocrstallian Fe-Co-Ni alloy processed by mechanical alloying", *Journal of Magnetism and Magnetic Materials*, 398 (2016), 190-195
16. H. Eskandari, R.Taheri, F.Khodabakhshi , "Friction-stirprocessingofanAA8026-TiB<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> hybrid nanocomposite: Microstructural developments and mechanical properties" , *Materials Science & Engineering A*60(2016) 84-90

▪ **Book:**

Hossein Eskandari, *An Introduction to Welding in Shipbuilding Industry*, ISSN: 978-600-90138-7-6,1390, Publisher: Persian Gulf University

▪ **Peer-reviewed conference papers:**

1. H. Eskandari, H. M. Ghasemi and M. Emamy, "Microstructure and interface studies of Al/SiC<sub>p</sub> composites produced by dynamic compaction", First International Symposium on Explosion, Shock Wave and Hypervelocity Phenomena (1st ESHP Symposium), March 15-17, 2004 at Kumamoto University, Japan
2. H. Eskandari, K. Hokamoto, H. M. Ghasemi, M. Emamy, S. Borji, J. S. Lee, "Comparative Study of Al/SiC<sub>p</sub> Composites Manufactured by Direct and Underwater Explosive Compaction", First International Symposium on Explosion, Shock Wave and Hypervelocity Phenomena (1st ESHP Symposium), March 15-17, 2004 at Kumamoto University, Japan
3. H. Eskandari, H. R. Ghasemi, M. Emami, K. Hokamoto, " Study of Al-10vol.%SiC<sub>p</sub> Composite Manufactured by Underwater Explosive Compaction, ICRAMME 2005, 2005, Kuala Lumpur, Malaysia
4. H. Eskandari, "Nanocrystals observed in interface of Al/SiC<sub>p</sub> composite manufactured by explosive compaction", 1<sup>st</sup> NTC 2007(Nano Technology Conference), Shiraz, Iran
5. H. Eskandari, H. R. Ghasemi monfared rad , M. Emami , S. Borji, " Explosive Compaction of Al-base Composite Powders" , proc. of 2th science& application conf. Of Airspace industrial organization" , Feb. 2003 ,Tehran, Iran
6. H. Eskandari , " Shock Wave Consolidation of Ti<sub>3</sub>Al Intermetallic Powders", proc. of 2th seminar of maham institute, Jun. 2002, Tehran, Iran
7. H. Eskandari , "Dynamic Compaction Of Permanent Magnet Powders , proc. of 1th seminar of maham institute" , Jun.2001, Tehran, Iran
8. H. Eskandari, H. R. Ghasemi, K. Hokamoto,"properties of Al-20vol.%TiB<sub>2</sub> composites manufactured by underwater shock consolidation", International conference on science and technology of composite materials, COMATCOMP O9, Donostia-San Sebastian, 7-9 oct. 2009, Spain
9. A. Fiuoz, H. Eskandari, A. Saadat, "Mechanical and metallurgical examination of the worked structural steel rods befor and after rolling", 5<sup>th</sup> National Congress on Civil Engineering, 4-6 May,2010, Ferdowsi University of Mashhad, Mashhad, Iran
10. H. Eskandari , K. Hokamoto," Underwater explosive consolidation of mechanically milled Al/TiB<sub>2</sub> composites", International symposium on explosion, shock wave and high-energy reaction phenomena 2010 (3<sup>rd</sup> ESHP symposium), September 1-3, 2010, Seoul National University, Seoul, South Korea
11. H. Eskandari , R. Gholamipour, "Properties of Nd-Fe-B powder explosively compacted" , International symposium on explosion, shock wave and high-energy reaction phenomena 2010 (3<sup>rd</sup> ESHP symposium), September 1-3, 2010, Seoul National University, Seoul, South Korea
12. H. Eskandari, H. M. Ghasemi, M. Emamy, K. Hokamoto," Comparative Study of Al/TiB<sub>2</sub> Composites Manufactured by Underwater and Direct shock wave consolidation ", International symposium on explosion, shock wave and high-energy reaction phenomena 2010 (3<sup>rd</sup> ESHP symposium), September 1-3, 2010, Seoul National University, Seoul, South Korea
13. H. Eskandari," Properties of Al-30vol.%TiB<sub>2</sub>/SiC hybrid composites manufactured by underwater shock wave consolidation" 2<sup>nd</sup> International conference on smart materials

and nanotechnology in engineering (SMNE 2012), July 21-22, 2012, Dubai, United Arab Emirates

14. H. Eskandari, H. M. Ghasemi, "Wear behavior of Al-20Vol. %SiC<sub>p</sub> composites manufactured by dynamic consolidation", 3rd International conference on Advanced Materials Research (ICAMR 2013), January 19-20, 2013, Dubai, United Arab Emirates
15. M. Joukar, A. Davoodi, H. Eskandari, "Electrochemical Behavior of Al/SiC<sub>p</sub> composites manufactured by Underwater explosive consolidation in Sea Water", The first national conference on new technologies in chemical and chemical engineering, May 16, 2013, Tehran, Iran
16. K. Kosari, H. Eskandari, M. Vaghefi, "The first national conference on nanotechnology in oil, gas and petrochemical industries, May 14, 2014, Bushehr, Iran
17. H. Eskandari, M. Mofarahi, R. Poladi, H. Baniasadi, F. Khamseh, A. Pakdaman, "Manufacturing of a novel nanofiber jet spinning apparatus applicable in oil and gas industry, "The first national conference on nanotechnology in oil, gas and petrochemical industries", May 14, 2014, Bushehr, Iran
18. M. Kiani, H. Mouji, H. Eskandari, "Functionalized of Fullerene with 4-benzo-9-crown-3 ether as a phase transfer catalyst", The first national conference on nanotechnology in oil, gas and petrochemical industries, May 14, 2014, Bushehr, Iran

### **Accomplished or in-progress research projects:**

- Influence of Density on wear behavior of the Al/SiC<sub>p</sub> composites manufactured by dynamic compaction
- Sliding wear behavior of the Al/SiC<sub>p</sub> composites manufactured by explosive compaction
- Manufacturing a centrifugal casting apparatus to manufacture functionally graded materials
- Properties of Nd-Fe-B powder explosively compacted
- Underwater explosive consolidation of mechanically milled Al/TiB<sub>2</sub> composites
- Manufacturing Al/TiB<sub>2</sub>/SiC hybrid composites using underwater shock wave consolidation
- A novel technique for development of Aluminum alloy matrix/TiB<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> hybrid surface nanocomposite by friction stir processing

### **Patents:**

- Explosive compaction of Al/SiC<sub>p</sub> composites, 32044

- Manufacturing a Rubber Wheel/Dry Sand Wear apparatus, 32043
- Under Water explosive compaction of Al/TiB<sub>2</sub> composites, 56396
- Manufacturing a Wear measurement apparatus (rotational cylinder), 56397
- Manufacturing Nd-Fe-B magnetic parts using dynamic compaction, 75466
- Manufacturing a centrifugal casting apparatus (for producing functionally graded cylinder), 75459

## Professional experience:

- **Teaching**

Departement of Mechanical Engineering, Persian Gulf University, 1994-present

**Courses taught:**

Material Science, Manufacturing Methods, Welding Theory, Corrosion, Welding Lab., Casting Lab. (B.S), Nondestructive Testing (NDT)(M.S)

- **Professional memberships:**

- Iranian Corrosion Association
- Iranian Association of Naval Architecture & Marin Engineering
- Academic staff Assembly of Iranian universities - NGO - (**Founder**)
- Iranian Nano Technology Society (**Founder & Head of INS-Bushehr Branch**)

**Organizer of Nanotechnology exhibition:** (Persian Gulf University, Bushehr, Iran, February 2013, 2014)

**Organizer of National nanotechnology competition:** (Persian Gulf University, Bushehr, Iran, April 2013)

**Organizer of National nanotechnology competition:** (Persian Gulf University, Bushehr, Iran, April 2014)

## Awards:

- **Young Scientist certificate** by organizing committee of First International Symposium on Explosion, Shock Wave and Hypervelocity Phenomena (1st ESHP Symposium), March 15-17, 2004 at Kumamoto University, **Japan**
- **Distinguished lecturer**, (Persian Gulf University, 2010)
- **Distinguished lecturer**, (Persian Gulf University, 2014)

## **Workshops attended:**

- 1- Carbon nano tube manufacturing methods, 1<sup>st</sup> NTC 2007 (Nano Technology Conference), Shiraz, Iran
- 2- Nanoscale Characterization, part(1): Morphology, Iranian Polymer and Petrochemical institute, 6-7March 2007, Tehran, Iran
- 3- Cathodic protection: application of cathodic protection systems in reinforced concrete & steel structures, Iranian corrosion Association, 19-24Feb. 2006, Tehran, Iran