

Resume

ALI HAERIAN ARDAKANI

Professor in Materials Engineering, Sadjad University of Technology
Professor Emeritus, Ferdowsi University of Mashhad

I. PERSONAL

Name: Ali Haerian Ardakani

Birth: 10-4-1946, Ardakan, IRAN

Marital Status: Married with two children

Wife: Jamileh Fazel aged 62. B.A. in Persian Literature

Daughters:

- **Laila** aged 40, PhD in Industrial Engineering (Ohio State University, 2008)
- **Laleh** aged 34, PhD in Industrial Engineering (University of Auckland, NZ, 2011)

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II. EDUCATION

B. Eng in **Refinery Engineering**, Abadan Institute of Technology, Abadan IRAN (1969)

MSc in **Production Engineering**, University of Strathclyde, Glasgow, UK (1973)

PhD in **Metallurgy**, University of Strathclyde Glasgow, UK (1976)

III. ACADEMIC STATUS

Assistant Professor, 1976-1983 in Mechanical Engineering Department, FUM

Associate Professor, 1983-1992 in Mechanical Engineering Department, FUM

Professor, 1992- in Materials Engineering and Metallurgy Department, FUM

IV. TEACHING EXPERIENCE

Taught courses in **Metallurgy, Materials Science, Engineering Materials, Engineering Mechanics, Engineering Design, Engineering Economy, Quality Control, and Dental Materials** to students at **BSc, MSc, and PhD** levels.

V. PUBLICATIONS

Original:

22 papers on powder metallurgy, mechanical metallurgy, and dental materials in international and national **journals** (list attached)

16 papers on powder metallurgy and other subjects in **international gatherings** (list attached)

Translations:

25 books on materials and manufacturing processes, mechanical metallurgy, engineering mechanics, powder metallurgy, and selection of materials for engineering design (list attached)

VI. POSITIONS HELD

Academic and administrative positions held in FUM:

- **Chairman, Mechanical Engineering Department (1977-78);**
- **Dean, School of Engineering (1978-81), (1986-1990);**
- **Chairman, University Publishing Council (1982-83);**
- **Vice Chancellor for Research and Technology (1998-2003);**
- **Member of board of trustees, Northeast Universities (1999-2007);**

Other positions:

- **Member of board of governors (founders), Sadjad Institute of Higher Education (1996-);**
- **Member of board of trustees, Sadjad Institute of Higher Education (1996-2007);**
- **Member of board of trustees, Khayyam Institute of Higher Education (2013-);**
- **President, Sadjad Institute of Higher Education (2006-);**
- **Head of metallurgical projects, Qeshm Free Area (1992-1996)**

VII. MEMBERSHIPS

-Iran Academy of Sciences

-Editorial Board of:

- **Iranica Scientia**
- **Journal of Engineering, IRI (Associate editor)**
- **Iranian Journal Crystallography and Mineralogy**
- **Journal of School of Engineering , FUM (Founder)**
- **Journal of Materials and Metallurgy, FUM (Editor)**

VIII. HONORS

Best Technical Translation, 1983, award given by the President of the Islamic Republic of Iran

Best Technical Translation, 1998, award given by the Minister of Science, Research and Technology

Best Technical Translation, 2001, award given by the President of the Islamic Republic of Iran

Distinguished Professor of the year in Engineering, 2001, award given by the Minister of Science, Research and Technology

Best Technical Translation on 12 occasions by different Universities in Iran (1980-2012), award given by Chancellors of Universities: Tehran, Amir Kabir, Ferdowsi

IX. RESEARCH AREAS

Powder metallurgy of iron, technology transfer in auto industry, powder metallurgy in auto industry

X. RESEARCH INTEREST

Powder metallurgy, Mechanical metallurgy, Technology transfer, Engineering economy

XI. PUBLICATIONS

A. Journal Papers

1. Haerian, A., Mechanical Properties of WC-Co Alloys Produced from Sub-micron Powder; **Iranian Journal of Science & Technology**, Vol. 8, No. 4 (1980)
2. Haerian, A. and Shima, Susumu, Fracture Toughness of WC-Co Alloys Pre-cracked by Spark Erosion Technique; **Journal of Japan Society of Powder & Powder Metallurgy**, Vol. 33, No.4 (July 1984), pp. 204-209
3. Haerian, A., Variation of Mechanical Properties of WC-Co Alloys with Microstructure; **Engineering Fracture Mechanics**, Vol. 24, No. 1 (1986), pp. 97-102
4. Miura, S., Haerian, A., Hashimoto, S., On the Serrated Yielding in Cu-14.1 at.% Al Polycrystals; **Journal of Materials Science**. Vol. 22, (1987), pp. 3446-3452
5. Haerian, A., Effect of EDM Variables on K_{IC} of Spark-Machined WC-Co Fracture Toughness Specimens; **Iranian Journal of Science & Technology**, Vol. 13, No.1, (1989) pp. 59-66
6. Haerian, A., and Oraee, K. Engineering Economy, an Important Tool in Evaluating Projects, **Journal of the Faculty of Engineering, Ferdowsi University of Mashhad**, Vol. 1. No. 2, (autumn 1989), pp. 87-100
7. Haerian, A., Non-Destructive Evaluation of Mechanical Properties of WC-Co Alloys, **Refractory Metals and Hard Materials**, (June 1989), pp. 121-124
8. Haerian, A., Sharifi, E. and Gharachahi, J., Evaluation of Some Physical and Mechanical Properties of Tissue Conditioning Materials; **The Journal of the Dental College, Shahid Beheshti Medical Science University**, No. 12, (July 1991), pp. 15-23
9. Oraee, H. and Haerian, A., Manpower Constraints in the Industrial Recovery of Post-War Iran; **Journal of the 3rd World Science, Technology and Development Forum**, Vol. 9 Nos. 1&2, (April/ August 1991), pp. 151-160
10. Haerian, A., Sharifi, E. and Jahanian, R., Variation of Physical and 10. Mechanical Properties of Acrylic Materials Used for Base of Dentures; **The Journal of the Dental College, Shahid Beheshti Medical Science University**, No. 15, (June 1992), pp. 11-16
(August 1991), pp. 151-160
11. Haerian, A., Malekzadeh, G. and Haj-Hosseini, H., Setting Strategy for Scientific and Technological Research; **Rahyaft** No. 22 (August 2000), pp. 38-47
12. Haerian, A., Vahdati Khaki, J., and Amini Mashhadi, H., Effect of Copper and MnS on microstructure and Mechanical Properties of Powder Forged Copper Steels; **Journal of Engineering, Islamic Republic of Iran**, Vol. 17, No. 1, Transaction B (April 2004)
13. Babakhani, A., Haerian, A., Ghambari, M, Effect of heat treatment, lubricant and sintering temperature on dry sliding wear behavior of medium alloyed chromium PM steels, **Journal of Materials Processing Technology** 204 (2008)
14. Babakhani, A., Haerian, A., Ghambari, M, On the combined effect of lubrication and compaction temperature on properties of iron-based P/M parts; **Materials Science and Engineering: A**, Volume 437, Issue 2, 15 November 2006, Pages 360-365
15. Amel-Farzad, H., Haerian, A., Vahdati Khaki, j., "Combustion wave stability in diluted TiO₂/Al/C system in atmospheric air" accepted for publication in **Solid State Sciences**. (2008)

16. Avazkonanndeh., Haerian, A., Haddad Sabzevar, M., Effect of Chromium Content on the Microstructure and Mechanical Properties of Multipass MMA, Low Alloy Steel Weld Metal. **Material Science** (2008)
17. Avazkonanndeh., Haerian, A., Haddad Sabzevar, M., Effect of Copper Content on the Microstructure and Mechanical Properties of Multipass MMA, Low Alloy Steel Weld Metal Deposits; **Journal of Materials and Design** (2008)
18. Haddad Sabzevar, M., Haerian, A., Seied-Hossein-Zadeh, A stochastic model for austenite phase formation during arc welding of a low alloy steel, **Journal of Materials Processing Technology** (2008)
19. Dehnavi, V., Haerian, A., Janghorban, K, Effect of warm compaction on mechanical properties of P/M parts, **Journal of School of Engineering, Ferdowsi University of Mashhad**, vol. 20, No. 1, (2008), pp. 23.
20. Babakhani, A., Haerian, A., Ghambari, M, Effect of lubricant and pressing temperature on mechanical properties of warm compacted P/M parts, **Journal of School of Engineering, Ferdowsi University of Mashhad**, vol. 20, No. 1, (2008), pp. 59.
21. Haerian, A., Haddad Sabzevar, M., Hosseinzadeh, H, A Stochastic Model for Austenite Phase Formation During Arc Welding of a Low Alloy Steel, **Journal of Materials Processing Technology** (2008)
22. Soltan Ali Nezhad, M., Haerian, A.; Study of joint quality of aluminium and low carbon steel straps by warm rolling, A. **Materials and Design**, 16 June 2008 (accepted for publication)

B. Major Conferences

1. Haerian, A., Use of Fracture Mechanics in Evaluating Toughness of Hard Metals; **First Engineering Gathering, Pahlavi University, (21-24 January 1978)**; Shiraz, Iran
2. Haerian, A., Feasibility Study of First Powder Metallurgy Plant in Iran, **Metallurgy Seminar**; Jihad Daneshgahi (19-22 February, 1980), Tehran, Iran
3. Haerian, A., New Phases in W-Co-C Systems; **2nd Iranian Congress in Chemistry and Chemical Engineering**; Ferdowsi University of Mashhad (15-18 September 1987), Mashhad, Iran
4. Haerian, A., Development of Powder Metallurgy Technique in Parts Production; **First Powder Metallurgy Seminar**; Imam Hossein University (9-10 March 1989), Tehran, Iran
5. Haerian, A., Non-Destructive Evaluation of Mechanical Properties of WC-Co Alloys, **1988 International Conference & Exhibition**; (5-10 June 1988), Orlando, USA
6. Haerian, A., Carbon Deficient Phases in W-Co-C Systems; **International Conference on Materials by Powder Technology/ PTM 93**; (23-26 March, 1993), Dresden, Germany
7. Haerian, A., and Arvand, Comparison of Production and Energy Cost of Different Forming Methods with PM; **Production and Manufacturing Engineering Conference**; Amir Kabir University of Technology, (13-14 October 1993) Tehran, Iran
8. Arvand, A. and Haerian, A., Sintered Valve Spring Collar Made of Fe-Ni-Mo-Cu Alloy, **1994 Powder Metallurgy World Congress & Exhibition**; (6-9 June, 1994), Paris, France
9. Arvand, A. and Haerian, A., P/M Bucket Tappet Made of Two Different Steel Powders; **19th World Congress on Powder Metallurgy and Particulate Materials**; (16-21 June, 1996), Washington, DC, USA

10. Haerian, A., Doulaee, A., Mosleh, N. & Fotohiapour, P., Shape Optimization of Connecting Rod Using Finite Element Analysis; **19th World Congress on Powder Metallurgy and Particulate Materials**; (16-21 June, 1996), Washington, DC, USA
11. Two Piece P/M rocker Arm Substituted for the Cast Type; **19th World Congress on Powder Metallurgy and Particulate Materials**; (16-21 June, 1996), Washington, DC, USA
12. Haerian, A., Mazinani, M., Arvand, A., and Ghambary, M., Use of Liquid Phase Sintering in Production of a New High-Alloy Steel with Good Wear Properties; **5th International Symposium on Advanced Materials**; (21-25 October 1997), Islamabad, Pakistan
13. Haerian, A., Mazinani, Use of Liquid Phase Sintering in Production of a New High-Alloy Steel with Good Wear Properties; **5th International Symposium on Advanced Materials**; (21-25 October 1997), Islamabad, Pakistan
14. Haerian, A., Vahdati, J. Amini Mashhadi, H. and Arvand, A., Effect of MnS on Mechanical Properties of PM Copper Steels; **2nd International Congress on Powder Metallurgy for Automobile**; (22-24 February 2002) New Delhi, India
15. Haerian, A., and Arvand, A. Hot Compaction of Clutch Bearing Made of Steel Powder; **2nd International Congress on Powder Metallurgy for Automobile**; (22-24 February 2002) New Delhi, India
16. Haerian, A., Amini Mashhadi, H., and Vahdati, J. **Effect of Composition on Mechanical Properties of Copper Steel Parts Made by Powder Forging**, 2002 World Congress on Powder Metallurgy and Particulate Materials (June 16-21, Orlando, USA)

C. Books translated into Farsi

- 1-5 Haerian, A.; **Materials and Processes in Manufacturing** by E., Paul DeGarmo, 4th Edition, Addison Wesley (1978), [translation in 5 volumes]
- 6-7 Haerian, A.; **Engineering Mechanics** by R.D. Snyder and E. F. Byars (1973) McGraw Hill, Inc. [translation in 2 volumes]
8. Haerian, A., Farshchi, F.; **Manufacturing Technology** by J. R. Lindbeck, Williams, M. W. and Wygant R.M., Prentice Hall, (1990)
9. Haerian, A.; **Introduction to Mechanical Properties of Materials** by Melvin M. Eisenstadt, Macmillan (1971)
10. Haerian, A.; **Powder Metallurgy, Advantages and Limitations** by Erhard Klar, MPIF Publications (1984)
11. Haerian, A.; **Testing of Materials** by Vernon John, 1985
12. Haerian, A.; **Elements of Mechanical Metallurgy** by W. J. McGregor Tegart (1981)
- 13-17. Haerian, A.; Farshchi, F., and Khajehpour, A. **Materials and Processes in Manufacturing** by E., Paul DeGarmo, Kohser, R. and Temple, B.J., 7th Edition, Darvic Associates (1988) [translation in 5 volumes]
18. Haerian, A.; and Mazinani, M. **Controlled Atmospheres for Heat Treatment** by R. Nemenyi (1994)
19. Haerian, A. and Fazeli, F. **Thermodynamics of Materials** by D.V. Ragone; Cambridge University Press 1995
- 20-24. Haerian, A. et al., **Materials and Processes in Manufacturing** by E. Paul DeGarmo, Kohser, R. and Temple, B.J., 8th Edition, Prentice Hall (1997) [translation in 5 volumes]
25. Haerian, A., Haddad, M. and Fazeli, F. **Selection of Materials for Engineering Design** by Farag, M. M., Prentice Hall (1997)

26. Haerian, A. and Haddad, M. **Composite Materials: Engineering and Science** by F. L. Mathews and Rawlings R.D., Wood Head Publishing Ltd. (1999)
27. Haerian, A. and Khoddam, S. **ISO 9000 and Beyond**
28. Haerian, A., Shokoohfar, A. and Haddad, M. **Composite Materials: Engineering and Design**, Mathews, F. L., and Rawlings R.D., CRC Press (1998)
29. Haerian, A. and Hemmati, H. **Intermetallics** by Sauthoff
30. Haerian, A. Haeri, E. and Hemmati, H. **Ternary Phase Diagrams**, West (2002)
31. Haerian, A. Hemmati, H., and Dehnavi, V. **Metallurgy of Welding**, Lancaster (1998)
- 32-35. Haerian, A., **Materials and Processes in Manufacturing** by E. Paul DeGarmo et al, B.J., 9th Edition, Prentice Hall (2003) [translation in 4 volumes]
36. Haerian, A.; **Ternary Phase Diagrams** (2005)
37. Haerian, A.; **Powder Metallurgy**, Randall German (1994)
38. Haerian, A.; **Engineering Materials for High Temperature Applications**,
39. Haerian, A., **Powder Metallurgy and Particulate Materials** by E. Paul DeGarmo et al, Temple, B.J., 10th Edition, Prentice Hall (2008) [translation in 4 volumes]
- 40-43. Haerian, A., Haerian, L. and Hemmati, H.; **Materials and Processes in Manufacturing** by E. Paul DeGarmo et al., 9th Edition, Prentice Hall (2003) [translation in 4 volumes]
44. Haerian, A., Sajjadi, A; **Mechanical Engineering Design for Environment (2010)**
45. Haerian, A., Mojtahedi, Milad, Jayhooni, Azar; **Nanotechnology for Dummies** by Richard Booker and Earl Boysen (2009)
46. Haerian, A., Haddad, M, and Mazinani, M; **Materials Selection in Mechanical Engineering** by Michal F. Ashby, (2012)
- 47-50. Haerian, A., Honarvar, E. and Haerian. L., **Materials and Processes in Manufacturing** by E. Paul DeGarmo et al., 11th Edition, Prentice Hall (2013) [translation in 4 volumes]; **(Under Press)**

D. Books written in Farsi

- 1- Nasserian, M. and Haerian, A.,; **Surface Engineering**, **Sadjad Institute Press, (Under Press)**
- 2- Haerian, A. Hemmati, H.; **Production Techniques and Materials**, **Sadjad Institute Press, (Under Press)**

XII. MAJOR RESEARCH PROJECTS

- 1- **Evaluation of Amalgam Powder Produced by Sinalloy** Research carried out for Mashhad School of Dentistry and Sinalloy Co. (1992-93)
- 2- **Development of Powder Forging Technique for Production of Differential Idler Wheels**; Research carried out for Iranian Development and Renovation Organization (Ministry of Mines and Industry) and Mashhad Powder Metallurgy Co. (1998-2000)
- 3- **Development of Warm Compaction Technique for Parts Production**; Research carried out for National Research Council (1999-2001)
- 4- **Development of Sintering Technique for Production of Composite Cam Shafts**; Research carried out for Iranian Development and Renovation Organization (Ministry of Mines and Industry) and Mashhad Powder Metallurgy Co. (1999-2002)

XIII. OTHER ACTIVITIES

- 1-3. Member**, Technical committee PM Auto 1996, PM Auto 1999, PM Auto 2002, PM Auto 2005; International conferences on powder metallurgy of automotive parts, organized and sponsored by Mashhad Powder Metallurgy Co. held in Isfahan, IRAN; March 1996, April 1999, March 2002, and April 2005
- 4. Member**, Technical committee PM2004; International Powder Metallurgy Conference organized by European Powder Metallurgy Association (EPMA) held in Vienna; October 2004
- 5. Chairman**, 10th Congress of Iranian Association of Metallurgical Engineers, Mashhad, IRAN; October 2006
- 6. Head**, Technical committee PM Auto 2008; International conference on powder metallurgy of automotive parts, organized and sponsored by Mashhad Powder Metallurgy Co. held in Isfahan, IRAN; March 2008

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