

Pedram Yousefian

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Research Interests

- Electronic & Magnetic Materials
- Solidification and Crystal Growth
- Materials Processing & Additive Manufacturing

Education

M.Sc. in Mechanical Engineering

University of North Florida (UNF), FL, USA

Spring 2016 -Present

Thesis: Pore Formation in Aluminum Castings: Theoretical Calculations and the Extrinsic Effect of Entrained Surface Oxide Films

Supervisor: Prof. M. Tiryakioglu

Current GPA: 4.0/4.0

B.Sc. in Materials Engineering

Isfahan University of Technology (IUT), Isfahan, Iran

2009-2014

Final Project: Production of Rheo Centrifuged Cast Iron in Sand Mold.

Supervisor: Prof. B. Niroumand

GPA: 15.71 / 20

Last 2 years' GPA: 17.09 / 20

Diploma in Mathematics and Physics Discipline

Shahid Ejei High school (NODET)*, Isfahan, Iran

2006-2009

Honors and Awards

- **Awarded graduate scholarship** by University of North Florida (UNF) 2015-Present
- **7th Place** in the 10th National Heat Treatment Competitions 2013
- **2nd Place** in "Topical" section in the 1st International Metallography Competition 2012
- **2nd Place** in "Software" section in the 1st International Metallography Competition 2012
- **Ranked 1st in Department** in the National University Entrance Exam 2009
- **Awarded scholarship** by NIOC (National Iranian Oil Company),
Offered to top students in order of cumulative GPA 2009-2013
- **Ranked in the top 0.5%** of participants in Iranian University Entrance Exam,
Among 500,000 participants in mathematics-physics branch 2009
- Selected and honored in the first round of National Chemistry Olympiad 2006

Publications & Patents:

* Exceptional Talents Schools are special centers of education, directed by NODET (National Organization for Development of Exceptional Talents), an organization to choose the most talented students by taking exams all over the country and each year only 100 students in each province get qualified to study at these schools.

- P. Yousefian, M. Tiryakioglu. "Pore Formation During Solidification of Aluminum: Reconciliation of Experimental Observations, Modeling Assumptions, and Classical Nucleation Theory." Metallurgical and Materials Transactions A 49.2 (2018): 563-575
- P. Yousefian, M. Tiryakioglu, "Theoretical Calculations for Pore Formation in Aluminum During Solidification", presentation at Defects and Properties of Cast Metals, TMS 2017.
- A. Timpanaro, P. Yousefian, O. P. Keifer, P. D. Eason, "Analysis of Polypropylene Refrigerator Filter Failure", under publication.
- **Patent:** A single stage semi-solid centrifuged method for casting of high melting point alloys in sand mold
- **Co-operation** in Manufacturing "High Temperature Pin on Disk Wear Testing Machine" (**Patent**)

Certificates & Membership

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| • Member of The American Society of Mechanical Engineers | 2016-Present |
| • Member of The Minerals, Metals and Materials Society | 2016-Present |
| • Certificate of participation in training workshop on "key to steel"
Presented by Prof. Ahmad Saatchi | 2012 |
| • Certificate of participation in training workshop on "TEM"
Presented by Prof. Pirooz Marashi | 2012 |
| • Certificate of participation in training workshop on "X'pert" | 2012 |
| • Certificate of "Visual Testing Level II"
Authorized by A. Tabrizian sponsored by Germanischer Lloyd (GL Noble Denton) | 2012 |
| • Certificate of qualification in the 9 th National Heat Treatment Competitions | 2012 |
| • Certificate of qualification in the 1 st National Student Foundry Competitions | 2012 |
| • Certificate of participation in training workshop on Defects in Castings
Presented by Prof. Jalal Hejazi | 2011 |

Teaching & Internship Experience:

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| • Teaching Assistant for "Integrated Design & Manufacturing Lab"
➤ Teach students how to operate manual and CNC Lathe and Milling Machines
➤ Reviewed CAM files generated by students and run them on CNC HAAS mill | 2016-Present |
| • Teaching Assistant for "Materials Science" | Fall 2016 |
| • Teaching Assistant for "Introduction to Engineering I" | Summer 2016 |
| • Teaching Assistant for "Solidification of Metals" | 2012-2014 |
| • Engineer in Gostaresh Tejarat Farasoo Co.
Assistant Manager of R&D and Manufacturing group, focusing on diecast and plastic injection mold design. | 2014 |
| • Summer Internship Godaz Sanat Co., 320 hours.
Assistant Factory Manager in "GZ Co.", Alloy Steel Casting Foundry. | 2013 |
| • Internship Daghigh Rizan Paya Hadid Co., 200 hours.
Assistant production manager, Investment Casting Manufacturing Company. | 2012 |
| • Part-Time Intern in Irmantech Sepahan Co.
R&D group, job consisted of research on "IR Window" and "Design and construction of composite container". | 2011- 2012 |
| • Internship in Mana Ghete Sepahan Co.
R&D group to Reverse Engineering from "Inconel Turbocharger" for manufacturing. | 2011- 2012 |
| • Member of executive council in Shahid Ejei Cultural Convention
(The NGO that does cultural activity, combination of citizenship learning, debate club, sport club, and scouting.) | 2007- 2015 |

- **Executive member of** in Cultural Convention of Materials Eng. department at IUT 2010-2014
Director of monthly scientific and cultural seminars in Materials Eng. department.

Skills

- Skillful in technical software related to materials and mechanical engineering such as **Catia, SolidWork, Autodesk Fusion 360, NX (FEA), ProCast, X'pert, PowerMill and Image J**
- Skilled in operating **Manual and CNC Lathe and Milling Machines, Materials Testing Machines**
- Skilled in **Casting, Heat Treatment, and Welding**
- Familiar with **PLC** systems

References:

- **Prof. Murat Tiryakioglu**
Professor, Director of School of Engineering, Program of Mechanical Engineering, University of North Florida
Email: m.tiryakioglu@unf.edu
Phone: (904) 620-1393
- **Prof. Stephen Stagon**
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- **Prof. Alexandra Schönning**
Professor, Program of Mechanical Engineering, University of North Florida
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- **Prof. Mahmood Meratian**
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