

Mohammad Azadi, Ph.D.

Scientific and Business Curriculum Vitae (CV)

Ph.D. in Mechanical Engineering

(Graduated from Sharif University of Technology, Tehran, Iran, 2013)

CURRENT AFFILIATION

Assistant Professor, Faculty of Mechanical Engineering, Semnan University, Semnan, Iran

CONTACT INFORMATION

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Faculty of Mechanical Engineering, Semnan University, Semnan, Iran

Email Addresses:

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m_azadi@ip-co.com

Website Addresses:

<http://m-azadi.profile.semnan.ac.ir> (main page)

<http://mazadi1983.persinablog.ir>

PERSONAL INFORMATION

Date of Birth: July 4, 1983

Place of Birth: Shiraz, Iran

Citizenship: Iranian



Last update:
12/18/2019

EDUCATIONS

- 2015-Now** Assistant Professor, Faculty of Mechanical Engineering, Semnan University, Semnan, Iran
- 2008-2013** PhD., Mechanical Engineering (Engine, Solid Mechanics), Sharif University of Technology, Tehran, Iran
Thesis: Thermo-mechanical fatigue lifetime prediction model for Al-alloy (A356.0) with thermal barrier coating - *Grade: Very Good*
Supervisor: Prof. Gholam Hossein Farrahi
Averaged Grade: 17.34
- 2011** Visiting Researcher, Mechanical Engineering, University of Leoben (Montanuniversitaet), Leoben, Austria
Project: Thermo-mechanical fatigue and low cycle fatigue tests on aluminum and magnesium alloys
Supervisors: Dr. Gerhard Winter and Prof. Wilfried Eichlseder
- 2006-2008** MSc., Mechanical Engineering (Vehicle Structure and Body, Solid Mechanics), K.N. Toosi University of Technology, Tehran, Iran
Thesis: Analysis and improvement of NVH behavior of a passenger car by using the design of experiment method - *Grade: 20*
Supervisors: Dr. Shahram Azadi and Dr. Mohammad Shariyat
Averaged Grade: 19.16
- 2002-2006** BSc., Mechanical Engineering (Solid Mechanics), Shiraz University, Shiraz, Iran
Thesis: Optimization of structures using in warning and advertise alarms - *Grade: 20*
Supervisor: Dr. Farhang Daneshmand
Averaged Grade: 15.20
- 2000-2001** Pre-University Degree, Mathematics and Physics, Bagher-o-Olum School, Marvdasht, Iran
Averaged Grade: 18.54
- 1998-2001** Diploma, Mathematics and Physics, Nemoneh Mardomi School, Marvdasht, Iran
Averaged Grade: 18.79

HONORS

- 2002** 1115th placed in BSc. Entrance Exam Ranking, between about 1,000,000 Participants, Iran
- 2006** 541th placed in MSc. Mechanical Engineering Iterance Exam Ranking, between about 15,000 Participants, Iran
- 2008** First placed in MSc. Ranking with Averaged Grade of 19.16, between 5 Graduated Students, K.N. Toosi University of Technology, Iran
- 2009** Introduced as Scientific Elite, Iranian National Elite Institute, Iran
- 2014** Best MSc. Thesis (Student: Mr. M. Mokhtari Shirazabad, Supervisor: Dr. S.M.A. Boutorabi, Advisor: Dr. M. Azadi) in the Scientific and Technical Festival, 8th International Conference on Internal Combustion Engines and Oil (ICICE&O-8), Iran
- 2018** Introduced as one of 17 Selected Scientific Projects in the Iran-Austria Impulse Program (between 78 projects), Iran
- 2018** Best BSc. Thesis (Student: Mr. M. Jamalkhani Khameneh, Supervisor: Dr. M. Azadi) in the Scientific and Technical Festival, 10th International Conference on Internal Combustion Engines and Oil (ICICE&O-10), Iran
- 2018** Best MSc. Thesis (Student: Mr. H. Sayar, Supervisor: Dr. A. Ghasemi-Ghalehbahman and Dr. M. Azadi) in 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Iran
- 2019** Best BSc. Thesis (Student: Mr. H. Bahmanabadi, Supervisor: Dr. M. Azadi) in 2nd National Conference on Internal Combustion Engines, Iran Society of Engine and Babol Noshirvani University of Technology, Iran
- 2019** Best MSc. Thesis (Student: Mr. S. Rezaezhad, Supervisor: Dr. M. Azadi) in 2nd National Conference on Internal Combustion Engines, Iran Society of Engine and Babol Noshirvani University of Technology, Iran
- 2019** Best Researcher in Faculty of Mechanical Engineering, Semnan University, Iran

PROFESSIONAL QUALIFICATIONS

Computer Skills:

Coding and Analysis: Microsoft Office, HTML, ORIGIN, MATLAB, MINITAB

Finite Element Method: HYPERMESH, ABAQUS, FEMFAT

INTERESTS

Main Field: Fatigue

Automotive Engineering:

- 1) Engine Components
- 2) Vehicle Body and Structure

Mechanical Engineering (Solid Mechanics):

- 1) Composites
- 2) Nano-composites
- 3) Functionally Graded Materials (FGMs)
- 4) Elasticity, Plasticity, Visco-plasticity and Hyper-elasticity
- 5) Fatigue Testing and Modeling (HCF, LCF and TMF)
- 6) Fracture Mechanics, Creep and Reliability
- 7) Finite Element Methods (FEMs) and Structural Simulations
- 8) Noise, Vibration and Harshness (NVH)
- 9) Theories of Disks, Beams, Shells and Plates
- 10) Design of Experiment (DOE)

Biomechanics

Additive Manufacturing

Surface Engineering:

- 1) Thermal Barrier Coatings (TBCs)
- 2) Wear Resistant Coatings

Materials Engineering:

- 1) Failure Analysis and Materials Investigation
- 2) Modeling of Materials Behaviors
- 3) Analysis of Fractured Components
- 4) Material Characterizations
- 5) Mechanical Properties

Industrial Engineering:

- 1) Project Management
- 2) Systems and Procedures

TEACHING EXPERIENCES

BSc.:

Shiraz University (2006-2007): Teaching Assistant (TA) for Laboratory of Strength of Materials, Strength of Materials I, Mechanical Engineering Design II

K.N. Toosi University of Technology (2007-2008): Teaching Assistant (TA) for Vibration, Strength of Materials I, Mechanical Engineering Design II

Sharif University of Technology (2008-2009): Teaching Assistant (TA) for Laboratory of Strength of Materials, Strength of Materials I

Islamic Azad University, Gharb Branch (2008-2010): Industrial Drawing, Hydraulics and Pneumatics, Professional Foreign Language, Computer Basics and Programing

Semnan University (2014-Now): Composite Materials, Design of Engines, Engineering Mathematics, Fracture/Fatigue/Creep, Industrial Drawing, Laboratory of Strength of Materials, Strength of Materials I/II, Mechanical Engineering Design I/II

MSc.:

Semnan University (2015-Now): Advanced Finite Element Methods, Researching Methods, Theories of Shells and Plates

PhD.:

Semnan University (2017-Now): Vehicle Chassis and Structure, Advanced Finite Element Methods, Theories of Shells and Plates

ADVISOR**BSc. Thesis:**

- 1) **Amir Bagheri**, Investigating engine emission under real driving cycle using ADVISOR software, Semnan University, 2017 (Supervisor: Dr. M. Biglari)
- 2) **Mohammad Hassan Rizi**, Study of manufacturing method effect on creep behavior and lifetime in Inconel-713C nickel-based super-alloy, Semnan University, 2017 (Supervisor: Dr. A. Hajiali Mohammadi)
- 3) **Armin Marbout**, Study of heat treatment effect on creep behavior and lifetime in Inconel-713C nickel-based super-alloy, Semnan University, 2017 (Supervisor: Dr. A. Hajiali Mohammadi)
- 4) **Seyed Mehdi Hosseini**, Manufacturing of high-temperature pin-on-disk wear test with lubricant environment, Semnan University, 2018 (Supervisor: Dr. V. Abedini)
- 5) **Mehrdad Pourjam**, Manufacturing of high-temperature reciprocating wear test with lubricant environment, Semnan University, 2018 (Supervisor: Dr. V. Abedini)
- 6) **Sama Safarloo**, Study of microstructure and hardness of nickel-based superalloy 713C under age-hardening, Semnan University, 2018 (Supervisor: Dr. M. Azadi)
- 7) **Omid Nabiei**, Study of nano-particles effect on thermo-physical properties and rheological behavior of cooling fluid in combustion engines, Semnan University, 2018 (Supervisor: Dr. M. Biglari)

MSc. Thesis:

- 1) **Mehdi Mokhtari Shirazabad**, The effect of rare earth elements on high cycle fatigue behavior of magnesium alloy AZ91, Iran University of Science and Technology, 2013 (Supervisor: Dr. M.A. Boutorabi)
- 2) **Ebrahim Alvandi**, Multi-axial stress and fatigue analysis of aluminum cylinder heads, Shahid Rajaei Teacher Training University, 2013 (Supervisor: Dr. A. Pourkamali Anaraki)
- 3) **Mohammad Ghodrati**, Numerical simulation of Al-Si alloy fatigue behavior under thermo-mechanical and isothermal loadings, Sharif University of Technology, 2013 (Supervisor: Dr. G.H. Farrahi)
- 4) **Mehran Felfeli**, Modeling stress-strain behavior of aluminum alloy (A356.0) under thermo-mechanical loading, Sharif University of Technology, 2013 (Supervisor: Dr. G.H. Farrahi)
- 5) **Ali Shamloo**, Cyclic behavior modeling of magnesium alloy (AZ91) under thermo-mechanical and low cycle fatigue loadings, Sharif University of Technology, 2013 (Supervisor: Dr. G.H. Farrahi)
- 6) **Milad Rezvani Rad**, Simulation of thermal barrier coating under thermo-mechanical and low cycle fatigue loadings, Sharif University of Technology, 2014 (Supervisor: Dr. G.H. Farrahi)
- 7) **Tohid Jadidi**, Experimental investigation of ultrasonic assisted drilling for reinforced plastics, Semnan University, 2018 (Supervisor: Dr. A. Hajiali Mohammadi)
- 8) **Mohammad Zomorrodipour**, Study of loading rate effect on mechanical properties of piston aluminum alloy, with and without nano-particles, Semnan University, 2019 (Supervisor: Dr. A. Freidoon)
- 9) **Arash Naderi**, Study of nano-particles addition effect on high-temperature mechanical properties of piston aluminum alloy, Semnan University, 2019 (Supervisor: Dr. A. Freidoon)
- 10) **Seyed Mohammad Reza Hosseini Moghaddam**, Analytical and experimental study of heat resources to improve heat transfer of working gases in Gamma-type Stirling engine, Semnan University, 2019 (Supervisor: Dr. A.M. Jadidi)
- 11) **Mohsen Khorasani**, An Investigation of performance of a fuel cell hybrid vehicle in an urban driving, Semnan University, in progress (Supervisor: Dr. F. Talebi)
- 12) **Ferdos Hazbavi**, Conceptual design of a rehabilitation robot with aim of retraining knee and ankle movements with simultaneous diagnosis and treatment capability, Semnan University, in progress (Supervisor: Dr. M.R. Dostmohammadi)
- 13) **Taban Mehr Gharaati**, Investigating emission and fuel consumption of vehicle during a real driving cycle in Iran, comparing to standard cycles, Imam Khomeini International University, in progress (Supervisor: D. M. Momeni Movahed)
- 14) **Nima Sahragard**, Topology optimization of engine connecting rod with objective of weight reduction and high-cycle fatigue lifetime enhancement by method of solid isotropic material with penalization, Semnan University, in progress (Supervisor: D. A. Ghodasian)

PhD. Thesis:

- 1) **Hamed Jafari**, Experimental analysis of friction between piston ring and cylinder in internal combustion engine by changing oil conditions and cylinder coating, Semnan University, in progress (Supervisors: Dr. M. Biglari and S.M. Mirsalim)

- 2) **Mana Motamedi**, Fatigue analysis of bitumen, mastic and asphalt concrete mixtures using continuum damage mechanics, Semnan University, in progress (Supervisor: Dr. G.H. Shafabakhsh)

SUPERVISOR

BSc. Thesis:

- 1) **Amir Hossein Rasouli**, Fatigue damage calculation in A356.0 aluminum alloy during low-cycle fatigue loading by continuum damage mechanic method, Semnan University, 2016
- 2) **Hadi Abedi Koshki**, Fatigue damage calculation in AZ91 magnesium alloy during low-cycle fatigue loading by continuum damage mechanic method, Semnan University, 2016
- 3) **Saeid Rezanezhad**, Creep behavior prediction model of nickel-based Inconel 713C superalloy, Semnan University, 2016
- 4) **Mehdi Posht Mashhadi**, Reliability calculation for light alloys with application of engine components under fatigue loadings, Semnan University, 2016
- 5) **Mahshad Farzannasab**, Study of mechanical properties and fatigue behavior in bones, Semnan University, 2017
- 6) **Hamed Bahmanabadi**, Evaluation of continuum damage mechanic in Inconel 713C nickel-based super-alloy under force-controlled creep loading, Semnan University, 2017
- 7) **Ali Akbar Emadoddin**, Finite element simulation of turbine blades in turbo-charger component under creep loadings, Semnan University, 2017
- 8) **Mohammad Jamalkhani**, Investigation of high-cycle fatigue behavior for GJS700 cast iron with application of engine crank shaft, Semnan University, 2017
- 9) **Mohammad Hadi Mehdipanah**, Evaluation of stress-lifetime in GJS700 cast iron under high-cycle rotary bending fatigue loading, Semnan University, 2017
- 10) **Farzaneh Khezri**, Study of high-cycle fatigue behavior in AZ91 magnesium alloy using continuum damage mechanics method, Semnan University, 2018
- 11) **Keyvan Keypour**, Evaluation of continuum damage in composite under creep loading at different temperatures, Semnan University, 2018
- 12) **Adel Basiri**, Numerical simulation of low-cycle fatigue behavior in engine exhaust manifold under cyclic thermo-mechanical loadings, Semnan University, 2018
- 13) **Mehdi Samiei**, Estimation of fatigue properties in aluminum alloy during low-cycle fatigue loading based on striation Marks, Semnan University, 2018
- 14) **Hanieh Aroo**, Investigation of high-temperature creep behavior in piston aluminum alloy, with and without nano-particles, Semnan University, 2018
- 15) **Mohammad Sadegh Agharebparast**, Investigation of nitriding process on high-cycle fatigue behavior of GJS700 cast iron under rotary bending loading, Semnan University, 2018
- 16) **Mohammad Mahdi Aliakbari**, Experimental study on thermal expansion coefficient of aluminum and magnesium light alloys, Semnan University, 2019
- 17) **Ali Dadashi**, Isothermal and un-isothermal low-cycle fatigue lifetime prediction of aluminum-silicon alloy in engine piston based on modified plastic strain energy, Semnan University, 2019
- 18) **Ghazaleh Nosrat**, Isothermal and un-isothermal low-cycle fatigue lifetime prediction of aluminum-silicon alloy in engine piston based on continuum damage mechanics, Semnan University, 2019
- 19) **Amir Masoud Afsari Golshan**, Study of heat treatment effect on high-temperature creep behavior in aluminum-silicon alloy, Semnan University, 2019
- 20) **Mohammad Hossein Hajiesmaeili**, Experimental study on fretting fatigue behavior in aluminum-silicon alloy of engine piston, Semnan University, 2019
- 21) **Kianosh Rashno**, Investigation of nano-clay particles addition effect on mechanical properties of cylinder-head aluminum-silicon-copper alloy, under different loading rates, Semnan University, 2019
- 22) **Shokouh Dezhianian**, Study of fatigue behavior in materials made from additive manufacturing, Semnan University, in progress
- 23) **Ashkan Behmanesh**, Study of stress level effect on creep behavior of aluminum matrix composite, reinforced by SiO₂ nano-particles, Semnan University, in progress

MSc. Thesis:

- 1) **Mohsen Alizadeh**, Crack behavior prediction in composite under cyclic loadings using acoustic emission, Semnan University, 2017 (Second supervisor: Dr. A. Farakhbadi)
- 2) **Hasan Sayar**, Experimental investigation of ultrasonic assisted drilling for reinforced plastics, Semnan University, 2017 (First supervisor: Dr. A. Ghasemi Ghale-bahman)
- 3) **Amir Shirzadi**, Effects of parameters in plasma thermal spray process on fatigue lifetime of thermal barrier coating using design of experiments, Iran University of Industries and Mines, 2018 (Second supervisor: M. Ostad Shabani)
- 4) **Nezamodin Raeisi**, Crack detection in composites under tensile loading based on vibration analysis, Semnan University, 2018 (Second supervisor: Dr. M. Shakouri)
- 5) **Mohammad Dorfaki**, Investigation of loading rate effect on low-cycle fatigue behavior in composite, Semnan University, 2018
- 6) **Saeid Rezanezhad**, Investigation of heat treatment effect on bending high-cycle fatigue properties in aluminum-silicon alloy, with and without nano-particles, Semnan University, 2018

- 7) **Mehrdad Zolfaghari**, Investigation of nano-particles addition effect on bending high-cycle fatigue lifetime in engine piston aluminum alloy, Semnan University, 2018
- 8) **Mostafa Saeidi**, Investigation of loading frequency effect on crack growth behavior in polymer-based laminated composite by digital image correlation, Semnan University, 2018
- 9) **Fatemeh Farhadian Langroodi**, Study loading rate of adhesive bonding of composite and metal structures, Semnan University, 2019 (First supervisor: Dr. M. Shakouri)
- 10) **Fatemeh Ahadi**, Optimization of thermal barrier coating type and thickness in order to improve power and efficiency of Gamma Stirling Engine, Semnan University, 2019 (First supervisor: Dr. M. Biglari)
- 11) **Hamed Bahmanabadi**, Experimental and numerical study on low-cycle fatigue behavior of aluminum metal matrix nano-composite at different temperatures, Semnan University, in progress
- 12) **Mohammad Jafar Sharifi**, Study of high-cycle fatigue properties in cylinder head aluminum-silicon-copper alloy, reinforced by nano-clay particles, Semnan University, in progress
- 13) **Bahram Vaziri**, Optimization of working fluid type and combination percent in order to improve power and efficiency of Gamma Stirling Engine, Semnan University, in progress (First supervisor: Dr. M. Biglari)
- 14) **Hanieh Aroo**, Investigation of corrosion effect on high-cycle bending fatigue lifetime for heat treated aluminum-matrix nano-composite comparing to base-material aluminum-silicon alloy, Semnan University, in progress
- 15) **Mohammad Sadegh Aghareb Parast**, Study of strengthening effect of nano-particles and heat treatment on fatigue and fretting-fatigue properties in aluminum-silicon alloy, Semnan University, in progress
- 16) **Adel Basiri**, Numerical simulation of ratcheting behavior in aluminum and magnesium cast light alloys by multi-scale microstructure models, Semnan University, in progress (Second supervisor: Dr. A. Ghasemi Ghale-bahman)
- 17) **Ahmad Yousefi Parchin Oliya**, Investigation of heat treatment effect on high-cycle fatigue properties of AZ91 Magnesium-Aluminum-Zinc alloy under cyclic bending loading conditions, Semnan University, in progress
- 18) **Majid Salehi**, Numerical simulation of polymer-based composite behavior under monotonic and cyclic loading by finite element method, Semnan University, in progress

PhD. Thesis:

- 1) **Sajad Khisheh**, Effect of ageing heat treatment on high-cycle fatigue properties of A380 aluminum-silicon-copper alloy in engine cylinder head, University of Birjand, in progress (First supervisor: Dr. K. Khalili)
- 2) **Seyed Morteza Hosseini**, Analysis of vibration and acoustic emission data in GJS700 cast iron under cyclic bending loading to predict fatigue lifetime related to crack initiation and propagation, Semnan University, in progress (First supervisor: Dr. A. Ghasemi Ghale-bahman)
- 3) **Mohammad Javad Izadi**, Investigation of effects of thermal barrier coating parameters on heat transfer in aluminum piston by finite element method, Semnan University, in progress (First supervisor: Dr. F. Talebi)
- 4) **Jahangir Torkian**, Experimental study and simulation of thermo-mechanical fatigue lifetime and behavior of aluminum alloy, with and without nano-particles, Semnan University, in progress for proposal (First supervisor: Dr. A. Fereidoon)
- 5) **Ali Ashraf Talesh**, Evaluation of high-cycle fatigue and fretting fatigue properties in cold sprayed magnesium alloy, Semnan University, in progress for proposal
- 6) **Morteza Kianifar**, Fatigue properties of additive manufactured composites and nano-composites, Semnan University, in progress for proposal
- 7) **Saeid Rezanezhad**, Fatigue properties of magnesium alloys, with and without PACVD coating, Semnan University, in progress for proposal
- 8) **Fatemeh Ahadi**, Thermo-elasto-hydro-dynamics analysis of engine components in nano-lubricant environment, Semnan University, in progress for proposal (First supervisor: Dr. M. Biglari)

EMPLOYMENT HISTORY

Industrial Carriers:

- 2016-Now** Advisor of Vice President, Irankhodro Powetrain Company (IPCO), Tehran, Iran
- 2015** Head of Executers Board, Iran Mechanic and Powetrain Consortium, Tehran, Iran
- 2015** Executive Project Manager, Turbo-charged Engine Family Project (EF4-TC Engine), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2014-2015** Executive Project Manager, Turbo-charged Engine Family Project (EF7-TC Engine), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2014** President of Mechanics and Powertrains Association, Tehran, Iran
- 2014** Assistant Project Manager, EU4 Project (EF7 engine family with EURO-4 pollution level), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2014** Assistant Project Manager, PSC Project (EF7 engine family with partial stratified combustion), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2014** Assistant Project Manager, TC7 Project (EF7 engine family with turbo-charger), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2014-2015** Expert (Senior Engineer), Projects Management Organization (PMO), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2014-2015** Head, Publication Committee, Iranian Society of Engine (ISE), Tehran, Iran
- 2013-2015** Head, Fatigue and Wear in Materials (FWM) Workgroup, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2013-2016** Inspector, Iranian Society of Engine (ISE), Tehran, Iran (elected for the second time)
- 2013-2014** Dean, Education, Research and Technology (ERT) Department, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2013** Assistant Project Manager, Fatigue Lifetime of Vehicle Axle Research Project, Imam Hossein University, Tehran, Iran
- 2012-2013** Dean, Research and Technology Department, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2012-2013** Head, Fatigue and Wear Workgroup, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2011** Head, Validation Team of AZ91 Project (Using magnesium alloys in engine components), Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2010-2012** Head, Fatigue Workgroup, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2009-2012** Inspector, Iranian Society of Engine (ISE), Tehran, Iran
- 2008-2012** Expert (Senior Engineer), Engine/Vehicle Laboratory and Validation Department, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2008** Expert (Senior Engineer), CAE Department, Irankhodro Powertrain Company (IPCO), Tehran, Iran
- 2008** Assistant Executer, Fatigue and NVH Improvement of Vehicle Body and Structure Research Project, K.N. Toosi University of Technology, Tehran, Iran

Educational Carriers:

- 2016-2018** Head of Entrepreneurship and Relations with Industry Group, Semnan University, Semnan, Iran
- 2015-2018** Advisor, Society of Scientific Student Faculty of Mechanical Engineering, Semnan University, Semnan, Iran
- 2015-Now** Assistant Professor, Faculty of Mechanical Engineering, Semnan University, Semnan, Iran
- 2015** Vice-President, Pishro Powertrain Technology Institute, Tehran, Iran
- 2015** Member of Directors Board, Pishro Powertrain Technology Institute, Tehran, Iran
- 2015** Chairman of Executive Board of Faculty Recruitment, Pishgam Powertrain Research Institute, Tehran, Iran
- 2015** Member of Directors Board, Pishgam Powertrain Research Institute, Tehran, Iran
- 2014-2015** Lecturer (Powertrain Validation Tests), University of Applied Science and Technology, Irankhodro Branch, Tehran, Iran
- 2014-2015** Lecturer (Mechanical Engineering Design I, Composite Materials), Semnan University, Semnan, Iran
- 2012-2014** Advisor, MSc. Thesis (4 titles), Sharif University of Technology, Tehran, Iran
- 2012-2013** Advisor, MSc. Thesis (1 title), Iran University of Science and Technology, Tehran, Iran
- 2008-2010** Lecturer (Industrial Drawing, Hydraulics and Pneumatics, Computer Basics and Programing and Professional Foreign Language), Islamic Azad University, Tehran West Branch, Tehran, Iran
- 2008-2009** Teaching Assistant (Strength of Materials I), Sharif University of Technology, Tehran, Iran
- 2008-2009** Laboratory Assistant (Laboratory of Strength of Materials), Sharif University of Technology, Tehran, Iran
- 2008** Project Researcher, Improvement of Vehicle Body and Structure based on Fatigue and Vibration Behaviors, K.N. Toosi University of Technology, Tehran, Iran
- 2007-2008** Teaching Assistant (Mechanical Engineering Design II, Vibration and Strength of Materials I), K.N. Toosi University of Technology, Tehran, Iran

<p>2006-2007</p> <p>2006-2007</p> <p>Researching Carriers:</p> <p>2019-Now</p> <p>2019-Now</p> <p>2019-Now</p> <p>2019-Now</p> <p>2019-Now</p> <p>2019-Now</p> <p>2019-Now</p> <p>2018-Now</p> <p>2018-Now</p> <p>2018-Now</p> <p>2018-Now</p> <p>2018-Now</p> <p>2018-Now</p> <p>2017-Now</p> <p>2016-Now</p> <p>2016-Now</p> <p>2015-Now</p> <p>2015-Now</p> <p>2015-Now</p> <p>2015-Now</p> <p>2015-Now</p> <p>2015-2016</p> <p>2016</p> <p>2015-2016</p> <p>2015-2016</p> <p>2015</p> <p>2015-Now</p> <p>2015-Now</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2015</p> <p>2014</p> <p>2014</p> <p>2014-Now</p> <p>2014-Now</p> <p>2014-Now</p> <p>2014</p>	<p>Teaching Assistant (Mechanical Engineering Design II and Strength of Materials I), Shiraz University, Shiraz, Iran</p> <p>Laboratory Assistant (Laboratory of Mechanics of Materials), Shiraz University, Shiraz, Iran</p> <p>Paper Reviewer, Fuel, Europe</p> <p>Paper Reviewer, Composite Structures, Europe</p> <p>Paper Reviewer, Archives of Civil and Mechanical Engineering, Poland</p> <p>Paper Reviewer, Advances in Manufacturing, China</p> <p>Paper Reviewer, Amirkabir Journal of Mechanical Engineering, Iran</p> <p>Paper Reviewer, International Journal of Ambient Energy, England</p> <p>Paper Reviewer, Journal of Stress Analysis, Iran</p> <p>Head, Research Laboratory of Advanced Materials Behavior, Semnan University, Iran</p> <p>Paper Reviewer, Journal of Aerospace Technology and Management, Brazil</p> <p>Paper Reviewer, Engineering Failure Analysis, Europe</p> <p>Paper Reviewer, Materials Chemistry and Physics, Europe</p> <p>Editorial Advisory Board Member, International Journal of Engineering, Iran</p> <p>Paper Reviewer, Materials and Design, Europe</p> <p>Paper Reviewer, Surface and Coatings Technology, Europe</p> <p>Paper Reviewer, Iranian Journal of Science and Technology, Iran</p> <p>Paper Reviewer, Modares Mechanical Engineering, Iran</p> <p>Paper Reviewer, Applied Surface Science, Europe</p> <p>Paper Reviewer, Mechanics of Advanced Composite Structures, Iran</p> <p>Executive Director, Mechanics of Advanced Composite Structures, Iran</p> <p>Associate Editor, Mechanics of Advanced Composite Structures, Iran</p> <p>Project Manager of Scientific Part, 9th International Conference on Internal Combustion Engines and Oil (ICICE&O-9), Iran</p> <p>Proceeding Editor, 9th International Conference on Internal Combustion Engines and Oil (ICICE&O-9), Iran</p> <p>Scientific Board Member, 9th International Conference on Internal Combustion Engines and Oil (ICICE&O-9), Iran</p> <p>Articles and Keynote Speakers Responsible, 9th International Conference on Internal Combustion Engines and Oil (ICICE&O-9), Iran</p> <p>Paper Reviewer, Steel and Composite Structures, Korea</p> <p>Paper Reviewer, Applied Mathematical Modeling, England</p> <p>Paper Reviewer, International Journal of Thermal Sciences, France</p> <p>Paper Reviewer, Advances in Powertrains and Automotives, USA</p> <p>Paper Reviewer, Nuclear Science and Techniques, China</p> <p>Member of Technical Program Committee, 4th International Conference on Materials Science and Engineering, China</p> <p>Paper Reviewer, Archives of Foundry Engineering, Poland</p> <p>Foreign Associate Editors Board Member, Archives of Foundry Engineering, Poland</p> <p>Paper Reviewer, Advanced Ceramics Progress, Iran</p> <p>Paper Reviewer, Journal of Solid Mechanics, Iran</p> <p>Paper Reviewer, Metallurgical and Materials Transactions A, USA</p> <p>Editorial Board Member, Advances in Powertrains and Automotives, USA</p> <p>Editorial Board Member, International Journal of Materials Lifetime, USA</p> <p>Editorial Board Member, American Journal of Materials Engineering and Technology, USA</p> <p>Paper Reviewer, International Journal of Materials Science and Applications, USA</p>
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- 2014 Paper Reviewer, Experimental Mechanics, USA
- 2014-2016 Editorial Board Member, International Journal of Materials Science and Applications, USA
- 2014-2016 Editorial Board Member, Advances in Materials, USA
- 2014-2016 Editorial Board Member, International Journal of Mechanical Engineering and Applications, USA
- 2014 Paper Reviewer, Journal of The Energy Institute, USA
- 2014 Paper Reviewer, International Journal of Mechanical Engineering and Applications, USA
- 2014 Paper Reviewer, Science Journal of Applied Mathematics and Statistics, USA
- 2014 Paper Reviewer, 3rd Global Conference on Materials Science and Engineering (CMSE2014), China
- 2014 Member of Technical Program Committee, 3rd Global Conference on Materials Science and Engineering (CMSE2014), China
- 2014 Paper Reviewer, Scientia Iranica, Iran
- 2014-2016 Editorial Board Member, American Journal of Science and Technology, USA
- 2014-2016 Editorial Board Member, American Journal of Materials Research, USA
- 2014-2016 Editorial Board Member, American Journal of Energy and Power Engineering, USA
- 2014 Paper Reviewer, American Journal of Materials Research, USA
- 2014 Proceeding Editor, 8th International Conference on Internal Combustion Engines and Oil (ICICE&O-8), Iran
- 2013-2014 Scientific Board Member, 8th International Conference on Internal Combustion Engines and Oil (ICICE&O-8), Iran
- 2013-2014 Website Responsible, 8th International Conference on Internal Combustion Engines and Oil (ICICE&O-8), Iran
- 2014 Paper Reviewer, International Conference on Internal Combustion Engines and Oil, Iran
- 2013 Paper Reviewer, 2nd Global Conference on Materials Science and Engineering (CMSE2013), China
- 2013 Paper Reviewer, Composite B: Engineering, Europe
- 2013 Paper Reviewer, Engineering Fracture Mechanics, Europe
- 2013-2015 Editorial Board Member, The Journal of Engine Research, Iran
- 2013-Now Paper Reviewer, International Journal of Fatigue, Europe
- 2013-Now Paper Reviewer, Materials Science and Engineering A, Europe
- 2013 Paper Reviewer, Global Conference on Materials Science and Engineering, China
- 2013 Paper Reviewer, Advancement in Scientific and Engineering Research, Turkey
- 2012-2015 Associate Editor, The Journal of Engine Research, Iran
- 2012-2015 Executive Director, The Journal of Engine Research, Iran
- 2012-2013 Paper Reviewer, Advances in Ceramic Science and Engineering, Hong Kong
- 2012 Paper Reviewer, Sky Journal of Mechanical and Electrical Electronics Engineering, African countries
- 2011-2016 Paper Reviewer, The Journal of Engine Research, Iran
- 2011-2013 Paper Reviewer, International Conference on Internal Combustion Engines, Iran
- 2011-Now Paper Reviewer, Meccanica, Italy
- 2010-Now Paper Reviewer, Journal of Mechanical Science and Technology, Korea
- 2009-2016 Paper Reviewer, International Journal of Engineering, Iran
- 2009 Paper Reviewer, International Mechanical Engineering Congress & Exposition (ASME), USA

REVIEWING & EDITORING

- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in Material Science and Engineering A, 2015
- *Introduced as Excellence in Reviewing (Top 10 Reviewers) in International Journal of Fatigue, 2016
- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in International Journal of Fatigue, 2016
- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in Surface and Coating Technology, 2016
- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in Materials Characterization, 2017
- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in Material Science and Engineering A, 2017
- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in Surface and Coating Technology, 2017
- *Introduced as Outstanding Contribution in Reviewing (Top 10 Reviewers) in Materials Characterization, 2018

Articles Editoring:

Scientific Board Member, 11 th International Conference on Internal Combustion Engines and Oil, Iran	2019-2020
Editorial Advisory Board Member, International Journal of Engineering, Iran	since 2018
Scientific Board Member, 2 nd National Conference on Internal Combustion Engines, Babol	2018
Scientific Board Member, 10 th International Conference on Internal Combustion Engines and Oil, Iran	2017-2018
Associate Editor, Mechanics of Advanced Composite Structures, Iran	2015-2016
Executive Director, Mechanics of Advanced Composite Structures, Iran	2015-2016
Project Manager of Scientific Part, 9 th International Conference on Internal Combustion Engines and Oil, Iran	2015-2016
Proceeding Editor, 9 th International Conference on Internal Combustion Engines and Oil, Iran	2016
Scientific Board Member, 9 th International Conference on Internal Combustion Engines and Oil, Iran	2015-2016
Articles and Keynote Speakers Responsible, 9 th International Conference on Internal Combustion Engines and Oil, Iran	2015-2016
Foreign Associate Editors Board Member, Archives of Foundry Engineering, Poland	2015
Editorial Board Member, Advances in Powertrains and Automotives, USA	since 2014
Editorial Board Member, International Journal of Materials Lifetime, USA	since 2014
Editorial Board Member, American Journal of Materials Engineering and Technology, USA	since 2014
Technical Program Committee Member, 4 th International Conference on Materials Science and Engineering, China	2015
Technical Program Committee Member, 3 rd Global Conference on Materials Science and Engineering, China	2014
Editorial Board Member, International Journal of Materials Science and Applications, USA	2014-2016
Editorial Board Member, Advances in Materials, USA	2014-2016
Editorial Board Member, International Journal of Mechanical Engineering and Applications, USA	2014-2016
Editorial Board Member, American Journal of Science and Technology, USA	2014-2016
Editorial Board Member, American Journal of Materials Research, USA	2014-2016
Editorial Board Member, American Journal of Energy and Power Engineering, USA	2014-2016
Proceeding Editor, 8 th International Conference on Internal Combustion Engines and Oil, Iran	2014
Website Responsible, 8 th International Conference on Internal Combustion Engines and Oil, Iran	2013-2014
Scientific Board Member, 8 th International Conference on Internal Combustion Engines and Oil, Iran	2013-2014
Editorial Board Member, The Journal of Engine Research, Iran	2013-2015
Associate Editor, The Journal of Engine Research, Iran	2012-2015
Executive Director, The Journal of Engine Research, Iran	2012-2015

Articles Reviewing:

Journals

Fuel	1 articles (since 2019)
Composite Structures	1 articles (since 2019)
Archives of Civil and Mechanical Engineering	1 articles (since 2019)
Advances in Manufacturing	1 articles (since 2019)
Amirkabir Journal of Mechanical Engineering	2 articles (since 2019)
International Journal of Ambient Energy	1 articles (since 2019)
Journal of Stress Analysis	1 articles (since 2019)
Journal of Aerospace Technology and Management	1 articles (since 2018)
Engineering Failure Analysis	1 articles (since 2018)
Materials Chemistry and Physics	1 articles (since 2018)
Materials and Design	2 articles (since 2017)
Surface Coatings and Technology	1 articles (since 2016)
Iranian Journal of Science and Technology	1 articles (since 2016)
Modares Mechanical Engineering	3 articles (since 2015)
Applied Surface Science	1 articles (since 2015)
Mechanics of Advanced Composite Structures	2 articles (since 2015)
Steel and Composite Structures	1 article (since 2015)
Applied Mathematical Modeling	1 article (since 2015)
International Journal of Thermal Sciences	1 article (since 2015)
Advances in Powetrains and Automotives	3 article (2015)
Nuclear Science and Techniques	1 article (2015)
Archives of Foundry Engineering	2 article (since 2015)
Advanced Ceramics Progress	1 article (2015)
Journal of Solid Mechanics	2 article (2015)
Metallurgical and Materials Transactions A	1 article (2014)
Experimental Mechanics	1 article (2014)
Journal of The Energy Institute	1 article (2014)
International Journal of Mechanical Engineering and Applications	1 article (2014)
International Journal of Materials Science and Applications	1 article (2014)
International Journal of Microstructure and Materials Properties	1 article (2014)
Science Journal of Applied Mathematics and Statistics	1 article (2014-2015)
Scientia Iranica	1 article (2014)
American Journal of Materials Research	1 article (2014)
Composite B: Engineering	1 article (2013)
Journal of Applied Mechanical Engineering	1 article (2013)
Engineering Fracture Mechanics	1 article (2013)
International Journal of Fatigue	21 articles (since 2013)
Materials Science and Engineering A	26 articles (since 2013)
Advancement in Scientific and Engineering Research	1 article (2013)
Advances in Ceramic Science and Engineering	3 articles (2012-2013)

Sky Journal of Mechanical and Electrical Electronics Engineering
 The Journal of Engine Research
 Meccanica
 Journal of Mechanical Science and Technology
 International Journal of Engineering

1 article (2012)
 about 125 articles (since 2011)
 3 articles (since 2011)
 21 articles (since 2010)
 about 120 articles (since 2009)

Conferences

Global Conference on Materials Science and Engineering (CMSE)
 International Conference on Internal Combustion Engines (ICICE)
 International Mechanical Engineering Congress & Exposition (ASME)

22 articles (2013-2014)
 72 articles (since 2011)
 2 articles (2009)

PUBLICATIONS

Score in ORCID:	-	*Author ID: 0000-0001-8686-8705
H-Index in Google Scholar:	15	*Citations NO: 655, <i>i</i> ₁₀ -index: 25
H-Index in SCOPUS:	13	*Author ID: 35077100300, Documents NO: 52, Citations NO: 453
H-Index in Publons:	12	*Citations NO: 384, Reviewing: 401
H-Index in Research Gate:	12	*RG Score: 27.54, Documents NO: 82, Citation No: 450
Highest Impact Factor:	6.864	*2 articles in Composites Part B

Articles/Books:

Conference Proceeding	2 proceedings
Chapter Books	2 chapters
Articles	165 articles
ISI/ISC Journal Articles	73 articles
Conference Articles	94 articles
English Articles	76 articles
Persian Articles	68 articles
Patents	8 patents
Research Projects	9 projects

Patents, Chapter Books, Proceedings and Special Issues:

- 2011**
- 1) Heat Transfer: Mathematical Modeling, Numerical Methods and Information Technology, Chapter 11, Thermo-elastic Stresses in FG-cylinders, **Mohammad Azadi** and Mahboobeh Azadi, Editor: Aziz Belmiloudi, ISBN: 978-953-307-550-1, InTech Publication, February 2011
- 2014**
- 2) Proceedings of 8th International Conference on Internal Combustion Engines and Oil (ICICE&O-8), Proceeding Editor: **Mohammad Azadi**, Dina Motors Publication, February 2014
 - 3) Acceptance of Suggesting a New Journal, Advances in Powertrains and Automotives, Science and Education Publishing, USA, 2014
 - 4) Acceptance of Suggesting a New Journal, International Journal of Materials Lifetime, Science and Education Publishing, USA, 2014
- 2016**
- 5) Handbook of Materials Failure Analysis: with Case Studies from The Aerospace, Chemical, and Oil and Gas Industries, Chapter 21, Failure Analysis and Prevention in Powertrain Systems, **Mohammad Azadi**, ISBN: 978-0-12-800950-5, Elsevier Publication, 2016
 - 6) Proceedings of 9th International Conference on Internal Combustion Engines and Oil (ICICE&O-9), Proceeding Editor: **Mohammad Azadi**, Dina Motors Publication, February 2016

- 2017**
- 7) High-temperature four-point rotary-bending high-cycle fatigue testing machine, Irankhodro Powertrain Company, **Mohammad Azadi**, Hojat Noori Benvarnazer, Mohammad Jamalkhani Khameneh, Mehdi Mokhtari Shirazabad and Peyman Taheri, Patent Number: 91821, International Category: G01N 32/3; G01M 00/5, 2017
 - 8) Etchant for metallography of Inconel-713C nickel-based superalloy, Semnan University Science and Technology Park, **Mohammad Azadi**, Mahboobeh Azadi and Sama Safarloo, Patent Number: 93819, International Category: G23F1/16, 2017
 - 9) Heat treatment procedure for Inconel 713C superalloy by hardness improvement target, Semnan University Science and Technology Park, **Mohammad Azadi**, Mahboobeh Azadi, Sama Safarloo, Fatemeh Loghman and Armin Marbout, Patent Number: 93435, International Category: G22F1/00, 2017
- 2019**
- 10) Scientific Confirmation on Patent, Etchant for metallography of Inconel-713C nickel-based superalloy, Semnan University Science and Technology Park, **Mohammad Azadi**, Mahboobeh Azadi and Sama Safarloo, Patent Number: 93819, Iranian Research Organization for Science and Technology (IROST), Score: 6 (out of 10), 2019
 - 11) Scientific Confirmation on Patent, Heat treatment procedure for Inconel 713C superalloy by hardness improvement target, Semnan University Science and Technology Park, **Mohammad Azadi**, Mahboobeh Azadi, Sama Safarloo, Fatemeh Loghman and Armin Marbout, Patent Number: 93435, Semnan University Science and Technology Park, Score: 2.2 (out of 10), 2019
 - 12) Production and improvement of wear properties in aluminum matrix nano-composite with silica reinforcement for applying in engine piston, Semnan University Science and Technology Park, **Mohammad Azadi**, Mahboobeh Azadi, Mehrdad Zolfaghari and Saeid Rezanezhad, Patent Number: 97932, International Category: C01B32/00, C01F7/00, 2019
 - 13) Fretting fatigue test machine with functionality in lubricant and high temperature, Semnan University, **Mohammad Azadi**, Mehrdad Zolfaghari, Mohammad Hossein Hajiesmaeili and Saeid Rezanezhad, Patent Number: 98399, International Category: G01N/34, 2019
 - 14) Improvement of high-cycle fatigue lifetime in aluminum alloy by nano SiO₂ reinforcement in order to use in engine piston, Semnan University, Motorsazi Pooya Neyestanak (MPN) Company, **Mohammad Azadi**, Mahboobeh Azadi, Mehrdad Zolfaghari and Saeid Rezanezhad, Patent Number: 98652, International Category: C01B21/072, F01C1/100, C01B32/97, 2019
 - 15) High-temperature (300°C) pin-on-disc wear test machine in lubricated environment, Semnan University, **Mohammad Azadi**, Vahid Abedini, Seyed Mehdi Hossieni and Mehrdad Pourjam, Patent Number: 98830, International Category: G01N3/00, 2019
 - 16) Increasing process of creep lifetime and properties in AlSiCuNiMg alloy by nano-SiO₂-particles and heat treatment (to complete Patent No. 98652), Semnan University, **Mohammad Azadi** and Hanieh Aroo, Patent Number: 99359, International Category: C30B29/26, C01B32/97, 2019
 - 17) Improvement of mechanical and bending fatigue properties in cylinder-head aluminum alloy by clay nano-particles and heat treatment, Semnan University, **Mohammad Azadi**, Mahboobeh Azadi, Kianoosh Rashnoo, Mohammad Jafar Sharifi, Patent Number: 99513, International Category: F01C1/00, C01B21/00, 2019
 - 18) Scientific Confirmation on Patent, Production and improvement of wear properties in aluminum matrix nano-composite with silica reinforcement for applying in engine piston, Semnan University Science and Technology Park, **Mohammad Azadi**, Mahboobeh Azadi, Mehrdad Zolfaghari and Saeid Rezanezhad, Patent Number: 97932, Iranian Research Organization for Science and Technology (IROST), Score: 4 (out of 10), 2019

Research Projects:

- 2008**
- 1) Shahram Azadi, **Mohammad Azadi** and Farshad Zahedi, Analysis and improvement of NVH and fatigue behavior of a body car, Research Project for K.N. Toosi University of Technology, Tehran, Iran, 2008
- 2016**
- 2) **Mohammad Azadi** and Mahboobeh Azadi, Study of high-temperature creep behavior of IN713C nickel-based super-alloy by presenting lifetime prediction model, Research Project for Semnan University, Semnan, Iran, 2016
- 2017**
- 3) Mahboobeh Azadi, **Mohammad Azadi** and Alireza Hajiali Mohammadi, Effect of manufacturing method and heat treatment on creep behavior of a nickel-based super-alloy, Research Project for Semnan University, Semnan, Iran, 2017

- 4) **Mohammad Azadi**, Market study for development of failure analysis business focused on materials behavior laboratory, Research Project for Irankhodro Powertrain Company (IPCo), Tehran, Iran, 2017

2018

- 5) **Mohammad Azadi**, Obtaining ability in designing vehicle engine piston, Research Project for Motorsazi Pooya Neyestanak (MPN) Company, Naein, Iran, 2018
 6) **Mohammad Azadi**, Simulation and numerical analysis of tire behavior, Research Project for Iran Tire Company, Tehran, Iran, 2018

2019

- 7) **Mohammad Azadi**, Improvement in mechanical and fatigue properties for pistons by nano-particles, A Research Project for Motorsazi Pooya Neyestanak (MPN) Company, Naein, Iran, 2019
 8) **Mohammad Azadi** and Florian Gruen, Evaluation of low-cycle fatigue properties in piston aluminum alloys, reinforced by nano-particles, A Research Project for the Iran-Austria Impulse Program (Semnan University and University of Leoben), Semnan and Leoben, Iran and Austria, in progress
 9) **Mohammad Azadi**, Design knowledge of vehicle engine components, Research Project for Motorsazi Pooya Neyestanak (MPN) Company, Naein, Iran, in progress

Journal Articles:

2008

- 1) Mehrnoosh Damircheli and **Mohammad Azadi**, Non-linear thermo-elastic stresses analysis of a rotating FG-disk by considering temperature dependency of material properties, Journal of Solid Mechanics in Engineering, Year 1, Number 2, pp. 53-61, Summer 2008 (in Persian)

2009

- 2) **Mohammad Azadi** and Mehrnoosh Damircheli, Solid-fluid interaction and its effects on piping systems, Journal of Sharif Mechanics, Tehran, Iran, Year 13, Number 36, pp. 60-63, Summer 2009 (in Persian)
 3) **Mohammad Azadi** and Mahboobeh Azadi, Nonlinear transient heat transfer and thermo-elastic analysis of thick-walled FGM cylinder with temperature-dependent material properties using Hermitian transfinite element, Journal of Mechanical Science and Technology, Volume 23, Number 10, pp. 2635-2644, 2009
 4) Shahram Azadi, **Mohammad Azadi** and Farshad Zahedi, NVH Analysis and Improvement of a Vehicle Body Structure Using DOE Method, Journal of Mechanical Science and Technology, Volume 23, Number 11, pp. 2980-2989, 2009
 5) **Mohammad Azadi**, Shahram Azadi, Mahmood Moradi and Farshad Zahedi, Multidisciplinary optimization of a car component under NVH and weight constraints using RSM, International Journal of Vehicle Noise and Vibration, Volume 5, Number 3, pp. 261-270, 2009

2010

- 6) Mohammad Shariyat, Davood Asgari and **Mohammad Azadi**, Analysis of transient thermo-elastic behavior of thick-walled FG-cylinder having temperature dependent material properties by using finite element method, Amirkabir Journal of Science and Technology, Mechanical and Aerospace Engineering Transaction, Year 42, Number 3, 2010 (in Persian)
 7) **Mohammad Azadi** and Mohammad Shariyat, Nonlinear transient transfinite element thermal analysis of thick-walled FGM cylinders with temperature-dependent material properties, Meccanica, Volume 45, Number 3, pp. 305-318, 2010

2011

- 8) **Mohammad Azadi**, Free and forced vibration analysis of FG-beam considering temperature dependency of material properties, Journal of Mechanical Science and Technology, Volume 25, Number 1, pp. 69-80, 2011
 9) Mehrnoosh Damircheli and **Mohammad Azadi**, Temperature and thickness effects on thermal and mechanical stresses of rotating FG disk, Journal of Mechanical Science and Technology, Volume 25, Number 3, pp. 827-836, 2011
 10) Atieh Moridi, **Mohammad Azadi** and Gholam Hossein Farrahi, Coating thickness and roughness effect on stress distribution of A356.0 under thermo-mechanical loadings, Procedia Engineering, Volume 10, pp.1373-1378, 2011
 11) Mehdi Mokhtari Shirazabad, Seyed Mohammad Ali Boutorabi, **Mohammad Azadi** and Mehdi Nikravan, An investigation of high cycle fatigue behavior of magnesium alloy for cylinder head application, The Journal of Engine Research, Volume 24, pp. 29-35, 2011 (in Persian)
 12) Atieh Moridi, **Mohammad Azadi** and Gholam Hossein Farrahi, Numerical simulation of thermal barrier coating system under thermo-mechanical loadings, Lecture Notes in Engineering and Computer Science, Volume 2192, Number 1, pp. 1959-1964, 2011

2012

- 13) Mahdi Maghsoudi Mehrabani, Ali Asghar Jafari and **Mohammad Azadi**, Multidisciplinary optimization of a stiffened shell by genetic algorithm, Journal of Mechanical Science and Technology, Volume 26, Number 2, pp. 517-530, 2012
- 14) **Mohammad Azadi**, Atieh Moridi and Gholam Hossein Farrahi, Optimal design experiment of plasma thermal spray parameters at bending loads, International Journal of Surface Science and Engineering, Volume 6, Number 1/2, pp. 3-14, 2012
- 15) **Mohammad Azadi**, Amir Mafi, Mehdi Roozban and Farshid Moghaddam, Failure analysis of a crack gasoline engine cylinder head, Journal of Failure Analysis and Prevention, Volume 12, Number 3, pp. 286-294, 2012
- 16) **Mohammad Azadi**, Mehdi Roozban and Amir Mafi, Failure analysis of an intake valve in a gasoline engine, The Journal of Engine Research, Volume 26, pp. 3-9, 2012
- 17) Gholam Hossein Farrahi, Milad Rezvani Rad and **Mohammad Azadi**, Coating thickness effect on stress distribution of coated cylinder head considering residual stress, The Journal of Engine Research, Volume 26, pp. 49-57, 2012
- 18) **Mohammad Azadi**, Gholam Hossein Farrahi and Farshad Zahedi, Low cycle fatigue analysis of magnesium alloy cylinder head based on plastic strain energy approach, The Journal of Engine Research, Volume 27, pp. 3-10, 2012 (in Persian)
- 19) Gholam Hossein Farrahi, Mohammad Ghodrati and **Mohammad Azadi**, Finite element analysis of thermal and mechanical stresses in diesel engine cylinder head using two-layer elastic-viscoplastic model, The Journal of Engine Research, Vol. 28, pp. 51-60, 2012 (in Persian)

2013

- 20) **Mohammad Azadi** and Mehdi Mokhtari Shirazabad, Heat treatment effect on thermo-mechanical fatigue and low cycle fatigue behaviors of A356.0 aluminum alloy, Materials and Design, Volume 45, pp. 279-285, 2013
- 21) **Mohammad Azadi**, Effects of strain rate and mean strain on cyclic behavior of aluminum alloys under isothermal and thermo-mechanical fatigue loadings, International Journal of Fatigue, Volume 47, pp. 148-153, 2013
- 22) **Mohammad Azadi**, Mahdi Baloo, Gholam Hossein Farrahi and Seyed Mostafa Mirsalim, A review of thermal barrier coating effects on diesel engine performance and components lifetime, International Journal of Automotive Engineering, Volume 3, Number 1, pp. 305-317, 2013
- 23) **Mohammad Azadi**, Gholam Hossein Farrahi, Gerhard Winter and Wilfred Eichlseder, The effect of various parameters on out-of-phase thermo-mechanical fatigue lifetime of A356.0 cast aluminum alloy, International Journal of Engineering Transactions C: Aspects, Volume 26, Number 12, pp. 1459-1468, 2013
- 24) **Mohammad Azadi**, Gholam Hossein Farrahi, Gerhard Winter and Wilfred Eichlseder, Experimental Fatigue lifetime of un-coated and coated aluminum alloy under isothermal and thermo-mechanical loadings, Ceramics International, Volume 39, pp. 9099-9107, 2013
- 25) Mehdi Mokhtari Shirazabad, Seyed Mohammad Ali Boutorabi, **Mohammad Azadi** and Mehdi Nikravan, Effect of rare earth elements on high cycle fatigue behavior of AZ91 alloy, Materials Science and Engineering A, Volume 587, pp. 179-184, 2013
- 26) Mehdi Mokhtari Shirazabad, **Mohammad Azadi**, Gholam Hossein Farrahi, Gerhard Winter and Wilfred Eichlseder, Improvement of high temperature fatigue lifetime in AZ91 magnesium alloy by heat treatment, Materials Science and Engineering A, Volume 588, pp. 357-365, 2013
- 27) **Mohammad Azadi**, Gholam Hossein Farrahi and Atieh Moridi, Optimization of air plasma sprayed thermal barrier coating parameters in diesel engine applications, Journal of Materials Engineering and Performance, Volume 22, Number 11, pp. 3530-3538, 2013
- 28) Gholam Hossein Farrahi, **Mohammad Azadi**, Gerhard Winter and Wilfred Eichlseder, A new energy-based isothermal and thermo-mechanical fatigue lifetime prediction model for aluminum-silicon-magnesium alloy, Fatigue and Fracture of Engineering Materials and Structures, Volume 36, Number 12, pp. 1323-1335, 2013
- 29) **Mohammad Azadi**, Rezvan Roohani, Mehdi Roozban and Amir Mafi, Failure analysis of a dynamometer drive shaft coupled to an engine, The Journal of Engine Research, Volume 30, pp. 37-46, 2013

2014

- 30) **Mohammad Azadi**, Gholam Hossein Farrahi, Gerhard Winter and Wilfred Eichlseder, Fatigue lifetime of AZ91 magnesium alloy subjected to cyclic thermal and mechanical loadings, Materials and Design, Volume 53, pp. 639-644, 2014
- 31) Gholam Hossein Farrahi, Ali Shamloo, Mehran Felfeli and **Mohammad Azadi**, Numerical simulations of cyclic behaviors in light alloys under isothermal and thermo-mechanical fatigue loadings, Materials and Design, Volume 56, pp. 245-253, 2014
- 32) **Mohammad Azadi**, Gholam Hossein Farrahi, Gerhard Winter and Wilfred Eichlseder, Thermo-mechanical behaviors of light alloys in comparison to high temperature isothermal behaviors, Materials at High Temperatures, Volume 31, Number 1, pp. 12-17, 2014

- 33) Atieh Moridi, **Mohammad Azadi** and Gholam Hossein Farrahi, Thermo-mechanical stress analysis of thermal barrier coating system considering thickness and roughness effects, *Surface and Coatings Technology*, Volume 243, pp. 91-99, 2014
- 34) **Mohammad Azadi**, Mohammad Ghodrati and Gholam Hossein Farrahi, Experimental and numerical evaluations of stress relaxation in A356 aluminum alloy subjected to out-of-phase thermo-mechanical cyclic loadings, *Materials at High Temperatures*, Volume 31, Number 3, pp. 204-210, 2014
- 35) **Mohammad Azadi**, Akbar Naderpour, Mehdi Roozban, Amir Mafi, Farshid Moghaddam, Hamed Navabi, Mohammad Kazemi and Mehdi Rezaei, Complete analysis for material, mechanism, vibration, stress and fatigue in valve spring, *The Journal of Engine Research*, Volume 33, pp. 3-12, 2014
- 36) Gholam Hossein Farrahi, Mohammad Ghodrati, **Mohammad Azadi** and Milad Rezvani Rad, Stress-strain time-dependent behavior of A356.0 aluminum alloy subjected to cyclic thermal and mechanical loadings, *Mechanics of Time-Dependent Materials*, Volume 18, Number 3, pp. 475-491, 2014
- 37) Milad Rezvani Rad, Gholam Hossein Farrahi, **Mohammad Azadi** and Mohammad Ghodrati, Effects of preheating temperature and cooling rate on two-step residual stress in thermal barrier coatings considering real roughness and porosity effect, *Ceramics International*, Volume 40, Number 10, Part A, pp. 15925-15940, 2014
- 38) **Mohammad Azadi** and Gholam Hossein Farrahi, A new low cycle fatigue lifetime prediction model for magnesium alloy based on modified plastic strain energy approach, *Journal of Solid Mechanics in Engineering*, Year 6, Number 1, pp. 63-75, Summer 2014 (in Persian)

2015

- 39) **Mohammad Azadi**, Gholam Hossein Farrahi, Gerhard Winter, Patrik Huter and Wilfred Eichlseder, Damage prediction for uncoated and coated aluminum alloy under thermal and mechanical fatigue loadings based on a modified plastic strain energy approach, *Materials and Design*, Volume 66, Part B, pp. 587-595, 2015
- 40) Milad Rezvani Rad, Gholam Hossein Farrahi, **Mohammad Azadi** and Mohammad Ghodrati, Stress analysis of thermal barrier coating system subjected to out-of-phase thermo-mechanical loadings considering roughness and porosity effect, *Surface and Coating Technology*, Volume 262, pp. 77-86, 2015
- 41) Mehran Felfeli, **Mohammad Azadi** and Gholam Hossein Farrahi, Constitutive modeling of elastic-viscoplastic behaviors in aluminum alloys subjected to cyclic loadings at various strain rates, *The Journal of Strain Analysis in Engineering Design*, Volume 50, Number 2, pp. 103-124, 2015
- 42) Rohollah Hossieni, **Mohammad Azadi**, Mehdi Sadeghi Hegar, Yaser Pournaghi, Mohammad Shariyat, Free and forced vibration analysis on finite element model of an off-road vehicle, *International Journal of Automotive Engineering*, Volume 5, Number 4, pp. 2028-2033
- 43) **Mohammad Azadi**, Gerhard Winter, Gholam Hossein Farrahi and Wilfred Eichlseder, Comparison between isothermal and non-isothermal fatigue behaviors in cast aluminum-silicon-magnesium alloy, *Strength of Materials*, Volume 47, Number 6, pp. 840-848, 2015

2016

- 44) Mahboobeh Azadi and **Mohammad Azadi**, Corrosion failure study in an oil cooler heat exchanger in marine diesel engine, *International Journal of Engineering, Transaction B: Applications*, Volume 29, Number 11, pp. 1531-1538, 2016
- 45) **Mohammad Azadi**, Mostafa Iziy, Armin Marbout, Mahboobeh Azadi, Alireza Hajiali Mohammadi, Optimization of solution temperature and time in nickel-based super-alloy of engine turbo-charger based on hardness by design of experiments, *The Journal of Engine Research*, Volume 43, pp. 63-70, 2016 (in Persian)
- 46) **Mohammad Azadi** and Gholam Hossein Farrahi, Failure mechanisms investigation in thermal barrier coatings under isothermal and non-isothermal fatigue loadings using design of experiments, *Journal of Solid Mechanics in Engineering*, Volume 9, Number 3, pp. 517-530, 2016 (in Persian)
- 47) Mostafa Iziy, Mahboobeh Azadi, Armin Marbout, Mohammad Hassan Rizi and **Mohammad Azadi**, Macrostructures, microstructures and the phase evaluation of Inconel 713C super-alloy under using different etchants and the heat treatment, *Metallurgical Engineering*, Volume 19, Number 2, pp. 124-134, 2016 (in Persian)

2017

- 48) **Mohammad Azadi** and Mahboobeh Azadi, Evaluation of high-temperature creep behavior in Inconel-713C nickel-based superalloy considering effects of stress levels, *Materials Science and Engineering A*, Volume 689, pp. 298-305, 2017
- 49) **Mohammad Azadi**, Cyclic thermo-mechanical stress, strain and continuum damage behaviors in light alloys during fatigue lifetime considering heat treatment effect, *International Journal of Fatigue*, Volume 99, Part 2, pp. 303-314, 2017
- 50) **Mohammad Azadi** and Gholam Hossein Farrahi, Evaluation of fatigue, oxidation and creep damages in A356.0 aluminum alloy under cyclic isothermal and un-isothermal loadings, *Journal of Mechanical Engineering of Tabriz University*, Volume 47, Number 1, pp. 1-7, 2017 (in Persian)
- 51) Mahboobeh Azadi, Mostafa Iziy, Armin Marbout, **Mohammad Azadi** and Mohammad Hasan Rizi, Investigation of the heat treatment effect on microstructures and phases of Inconel 713C super-alloy, *International Journal of Engineering, A: Basics*, Volume 30, Number 10, pp. 1538-1544, 2017

- 2018**
- 52) Mahboobeh Azadi, Armin Marbout, Sama Safarloo, **Mohammad Azadi**, Mehdi Shariat and Mohammad Hassan Rizi, Effects of solutioning and ageing treatments on properties of Inconel-713C nickel-based superalloy under creep loading, *Materials Science and Engineering A*, Volume 711, pp. 195-204, 2018
 - 53) Mohsen Alizadeh, **Mohammad Azadi**, Amin Farrokhbabadi and Seyed Mohammad Jafari, Investigation of displacement amplitude effect on failure mechanisms in open-hole laminated composites under low-cycle fatigue loading using acoustic emission, *Modares Mechanical Engineering*, Volume 17, Number 12, pp. 435-445, 2018 (in Persian)
 - 54) Mohammad Jamalkhani Khameneh and **Mohammad Azadi**, Evaluation of high-cycle bending fatigue and fracture behaviors in EN-GJS700-2 ductile cast iron of crankshafts, *Engineering Failure Analysis*, Volume 85, pp. 189-200, 2018
 - 55) Hamed Bahmanabadi, Saied Rezanezhad, **Mohammad Azadi** and Mahboobeh Azadi, Characterization of creep damage and lifetime in Inconel-713C nickel-based superalloy by stress-based, strain/strain rate-based and continuum damage mechanics models, *Materials Research Express*, Volume 5, Number 2, pp. 026509, 2018
 - 56) Ahmad Ghasemi-Ghalebahman, Hassan Sayyar, **Mohammad Azadi** and Seyed Mohammad Jafari, Failure mechanisms in open-hole laminated composites under tensile loading using acoustic emission, *Journal of Science and Technology of Composites*, Volume 5, Number 1, pp. 143-152, 2018 (in Persian)
 - 57) Sama Safarloo, Fatemeh Loghman, Mahboobeh Azadi and **Mohammad Azadi**, Optimal design experiment of ageing time and temperature in Inconel-713C superalloy based on hardness objective, *Transactions of the Indian Institute of Metals*, Volume 71, Issue 7, pp. 1563-1572, 2018
 - 58) Hassan Sayar, Mohsen Alizadeh, **Mohammad Azadi**, Ahmad Ghasemi-Ghalebahman, Seyed Mohammad Jafari and Amir Mafi, Investigation of crack growth behavior in aluminum alloy used in engine components, by acoustic emission method, *The Journal of Engine Research*, Volume 48, pp. 3-12, 2018 (in Persian)
 - 59) Mahboobeh Azadi, Mehrdad Zolfaghari, Saeid Rezanezhad and **Mohammad Azadi**, Effects of SiO₂ nano-particles on tribological and mechanical properties of aluminum matrix composites by different dispersion methods, *Applied Physics A*, Volume 124, Number 5, Article 377, 2018
 - 60) Hassan Sayar, **Mohammad Azadi**, Ahmad Ghasemi-Ghalebahman and Seyed Mohammad Jafari, Clustering effect on damage mechanisms in open-hole laminated carbon/epoxy composite under constant tensile loading rate, using acoustic emission, *Composite Structures*, Volume 204, pp. 1-11, 2018
 - 61) **Mohammad Azadi** and Mahshad Farzannasab, Evaluation of high-cycle fatigue behavior in compact bones at different loading frequencies, *Meccanica*, Volume 53, Issue 14, pp. 3517-3526, 2018
 - 62) Sajjad Khisheh, Khalil Khalili, **Mohammad Azadi** and Vahid Zaker Hendoabadi, Heat treatment effect on microstructure, mechanical properties and fracture behavior of cylinder head aluminum-silicon-copper alloy, *The Journal of Engine Research*, Volume 50, pp. 55-65, 2018 (in Persian)
 - 63) Mana Motamedi, Gholamali Shafabakhsh and **Mohammad Azadi**, Evaluation of chemical, physical and fatigue properties of modified asphalt binder with nano silica and synthesized polyurethane, *Journal of Transportation Infrastructure Engineering*, Volume 4, Number 3, pp. 33-44, 2018 (in Persian)
 - 64) Adel Basiri, **Mohammad Azadi** and Farshid Moghaddam, Finite element analysis of fatigue damage in passenger-car diesel engine cylinder head under cyclic thermo-mechanical loadings, *The Journal of Engine Research*, Volume 51, pp. 3-19, 2018 (in Persian)
 - 65) Ghazaleh Nosrat and **Mohammad Azadi**, Evaluation of continuum damage at different temperatures for aluminum-silicon alloy of engine piston within low-cycle fatigue regime, *The Journal of Engine Research*, Volume 52, pp. 43-53, 2018 (in Persian)
- 2019**
- 66) Mohsen Alizadeh, Hassan Sayar, **Mohammad Azadi** and Seyed Mohammad Jafari, Health monitoring for composite under low-cycle cyclic loading, considering effects of acoustic emission sensor type, *Mechanics of Advanced Composite Structures*, Volume 6, Issue 1, pp. 19-26, 2019
 - 67) **Mohammad Azadi**, Hassan Sayar, Ahmad Ghasemi-Ghalebahman and Seyed Mohammad Jafari, Tensile loading rate effect on mechanical properties and failure mechanisms in open-hole carbon fiber reinforced polymer composites by acoustic emission approach, *Composites Part B*, Volume 158, pp. 448-458, 2019
 - 68) Mahboobeh Azadi, Saeid Rezanezhad, Mehrdad Zolfaghari and **Mohammad Azadi**, Effects of various ageing heat treatments on microstructural features and hardness of piston aluminum alloy, *International Journal of Engineering, Transactions A: Basics*, Volume 32, Number 1, pp. 92-98, 2019
 - 69) **Mohammad Azadi**, Mostafa Saeedi, Mehdi Mokhtarishirazabad and Pablo Lopez-Crespo, Effects of loading rate on crack growth behavior in carbon fiber reinforced polymer composites using digital image correlation technique, *Composites Part B*, Volume 175, Article 107161, 2019
 - 70) **Mohammad Azadi**, Nezamoddin Raeisi, Seyed Ashkan Moosavian and Meysam Shakouri, Detection of different defects in carbon fiber reinforced polymer matrix laminated composite under tension by vibration analysis, accepted in *Journal of Science and Technology of Composites*, 2019 (in Persian)
 - 71) Hanieh Aroo and **Mohammad Azadi**, Modeling of creep behavior in AlSiCuNiMg alloy at different temperatures and stress levels, *Journal of Solid and Fluid Mechanics*, Volume 9, Issue 2, pp. 61-76, 2019 (in Persian)

- 72) **Mohammad Azadi** and Hanieh Aroo, Creep properties and failure mechanisms of aluminum alloy and aluminum matrix silicon oxide nano-composite under working conditions in engine pistons, *Materials Research Express*, Volume 6, Number 11, Article 115020, 2019
- 73) Hassan Sayar, **Mohammad Azadi** and Mohsen Alizadeh, Detection of crack initiation and propagation in aluminum alloy under tensile loading, comparing signals acquired by acoustic emission and vibration sensors, *Journal of Nondestructive Evaluation*, Volume 38, Issue 4, Article 100, 2019
- 74) Saeid Rezanezhad, **Mohammad Azadi** and Mahboobeh Azadi, Influence of heat treatment on high-cycle fatigue and fracture behaviors of piston aluminum alloy under fully-reversed cyclic bending, accepted in *Metals and Materials International*, 2019
- 75) Mahboobeh Azadi, Saeid Rezanezhad, Mehrdad Zolfaghari and **Mohammad Azadi**, Investigation of tribological and compressive behaviors of Al/SiO₂ nanocomposites after T6 heat treatment, accepted in *Sadhana*, 2019
- 76) **Mohammad Azadi**, Saeid Rezanezhad, Mehrdad Zolfaghari and Mahboobeh Azadi, Study of effect of simultaneous use from Silica nano-particles and heat treatment on high-cycle bending fatigue lifetime in piston aluminum alloy, accepted in *Modares Mechanical Engineering*, 2019 (in Persian)

Conference Articles:

- 2008**
- 1) Mohammad Shariyat, **Mohammad Azadi** and Davood Asgari, Finite element analysis of non-linear transient thermo-elastic stresses of hollow FG-cylinder for different heat transfer states by considering temperature dependency of material properties, 16th Annual (International) Conference on Mechanical Engineering, Volume 2, page 1401-1402, Shahid Bahonar University of Kerman, Kerman, Iran, May 2008 (in Persian)
 - 2) **Mohammad Azadi**, Dynamic response of FGM beam using modal analysis and FEM considering temperature dependency of properties, 2nd International Joint Conference on Composite Engineering & Design, the Acknowledge Management for Composite Materials, Vancouver BC, Canada, July 2008
 - 3) Shahram Azadi, Mohammad Shariyat, **Mohammad Azadi** and Farshad Zahedi, Making of frequency map of a vehicle in order to vibrational optimization, National Conference of Mechanical Engineering, page 41, Islamic Azad University of Khomeinishahr Branch, Khomeinishahr, Iran, November 2008 (in Persian)
 - 4) Mehrnoosh Damircheli and **Mohammad Azadi**, Non-linear stresses analysis of a rotating disk made of FG-material by using finite element method, National Conference of Mechanical Engineering, page 3, Islamic Azad University of Khomeinishahr Branch, Khomeinishahr, Iran, November 2008 (in Persian)
 - 5) Mohammad Shariyat, Ali Asghar Jafari, Yaser Pornaghi and **Mohammad Azadi**, Free and forced vibration analysis of a complete finite element model of a heavy vehicle and optimization of vibrational behavior, National Conference of Mechanical Engineering, page 43, Islamic Azad University of Khomeinishahr Branch, Khomeinishahr, Iran, November 2008 (in Persian)
 - 6) Mohammad Shariyat, Shahram Azadi, Farshad Zahedi and **Mohammad Azadi**, Damage analysis of antiroll bar comparing experimental and theoretical results, National Conference of Mechanical Engineering, page 168, Islamic Azad University of Khomeinishahr Branch, Khomeinishahr, Iran, November 2008
- 2009**
- 7) **Mohammad Azadi** and Mehrnoosh Damircheli, Dynamic response of FGM Beam using modal analysis and FEM considering temperature dependency of properties, 7th International Conference on Composite Science and Technology, American University of Sharjah, Sharjah, UAE, January 2009
 - 8) **Mohammad Azadi** and Mehrnoosh Damircheli, Nonlinear transient heat transfer and thermoelastic analysis of thick-walled FGM cylinder with temperature-dependent material properties using Hermitian transfinite element, 7th International Conference on Composite Science and Technology, American University of Sharjah, Sharjah, UAE, January 2009
 - 9) **Mohammad Azadi**, Shahram Azadi, Farshad Zahedi and Mahmood Moradi, Multidisciplinary optimization of a back-bonnet of a vehicle under noise, vibration, harshness and weight by using response surface method, 6th Annual Student Conference on Mechanical Engineering, page 173, Amirkabir University of Technology, Tehran, Iran, March 2009 (in Persian)
 - 10) Mehrnoosh Damircheli and **Mohammad Azadi**, Stresses analysis of a rotating FG-disk by using finite element method and considering temperature dependency of material properties, 6th Annual Student Conference on Mechanical Engineering, page 80, Amirkabir University of Technology, Tehran, Iran, March 2009 (in Persian)
 - 11) **Mohammad Azadi**, Farshad Zahedi and Mehrnoosh Damircheli, Free vibration analysis of FG-beam by using finite element and considering temperature dependency of material properties, 6th Annual Student Conference on Mechanical Engineering, page 79, Amirkabir University of Technology, Tehran, Iran, March 2009 (in Persian)
 - 12) **Mohammad Azadi**, Shahram Azadi and Farshad Zahedi, Structural optimization of an off-road vehicle based on NVH analysis using DOE method, 17th Annual (International) Conference on Mechanical Engineering, Volume 3, page 207-208, Tehran University, Tehran, Iran, May 2009
 - 13) Gholam Hossein Farrahi, Jalal Fathi Sola and **Mohammad Azadi**, Fatigue life analysis of finite element model of national engine piston pin and comparing different theories, 6th International Conference on Internal Combustion Engines, page 121-122, Irankhodro Powertrain Company (IPCO), Tehran, Iran, November 2009 (in Persian)

- 14) Farshad Zahedi, **Mohammad Azadi** and Jalal Fathi Sola, Thermo-mechanical stresses analysis of the exhaust manifold to evaluate the fatigue life for different used materials, 6th international conference on internal combustion engines, page 251-252, Irankhodro Powertrain Company (IPCO), Olympic Hotel, Tehran, Iran, November 2009
- 15) **Mohammad Azadi** and Mehrnoosh Damircheli, Nonlinear thermoelastic stress analysis of the rotating FGM disk with variable thickness and temperature-dependent material properties using finite element method, International Mechanical Engineering Congress & Exposition (ASME), Lake Buena Vista, Florida, USA, November 2009
- 16) **Mohammad Azadi** and Farshad Zahedi, Fatigue analysis of antiroll bar for periodic and random inputs using various theories and introducing a new method, International Mechanical Engineering Congress & Exposition (ASME), Lake Buena Vista, Florida, USA, November 2009
- 17) **Mohammad Azadi**, Shahram Azadi, Farshad Zahedi and Mahmood Moradi, Multidisciplinary optimization of a car component under NVH and weight constraints using RSM, International Mechanical Engineering Congress & Exposition (ASME), Lake Buena Vista, Florida, USA, November 2009

2010

No Paper

2011

- 18) Atieh Moridi, **Mohammad Azadi** and Gholam Hossein Farrahi, Optimizing constitutive cyclic plasticity model by genetic algorithm, 19th Annual Conference on Mechanical Engineering, Birjand University, Birjand, Iran, May 2011
- 19) Atieh Moridi, **Mohammad Azadi** and Gholam Hossein Farrahi, Coating thickness and roughness effect on stress distribution of A356.0 under thermo-mechanical loadings, 11th International Conference on the Mechanical Behavior of Materials, Lake Como, Italy, June 2011
- 20) Atieh Moridi, **Mohammad Azadi** and Gholam Hossein Farrahi, Numerical simulation of thermal barrier coating system under thermo-mechanical loadings, World Congress on Engineering, The International Conference of Mechanical Engineering, London, U.K., July 2011
- 21) **Mohammad Azadi**, Atieh Moridi and Gholam Hossein Farrahi, Optimization of plasma thermal spray parameters under bending loads by using design of experiment method, 14th International Conference on Advances in Materials and Processing Technologies, Istanbul, Turkey, July 2011
- 22) Amir Mafi and **Mohammad Azadi**, Failure analysis of an oil cooler in marine diesel engine, 7th international conference on internal combustion engines, page 108, Irankhodro Powertrain Company (IPCO), Tehran, Iran, November 2011 (in Persian)
- 23) **Mohammad Azadi**, Atieh Moridi and Gholam Hossein Farrahi, Optimization of thermal barrier coating parameters under fatigue and bending loadings in diesel engine application, 7th international conference on internal combustion engines, page 100, Irankhodro Powertrain Company (IPCO), Tehran, Iran, November 2011, (in Persian)
- 24) **Mohammad Azadi**, Amir Mafi, Seyed Vahid Hosseini and Peyman Sharghi, Dimensional contrary and material investigation in a cracked cylinder head, 7th international conference on internal combustion engines, page 106, Irankhodro Powertrain Company (IPCO), Tehran, Iran, November 2011 (in Persian)
- 25) **Mohammad Azadi**, Amir Mafi, Yaghoob Abbadzadeh and Farshid Moghaddam Jahangiri, Investigation of damage causes in a cracked cylinder head and finite element simulation, 7th international conference on internal combustion engines, page 57, Irankhodro Powertrain Company (IPCO), Tehran, Iran, November 2011 (in Persian)

2012

- 26) Gholam Hossein Farrahi, **Mohammad Azadi**, Gerhard Winter and Wilfried Eichlseder, Thermo-mechanical and low cycle fatigue behavior of aluminum alloy cylinder head, The International Conference on Experimental Solid Mechanics and Dynamics, page 1, Iran University of Science and Technology, Tehran, Iran, March 2012
- 27) **Mohammad Azadi**, Gerhard Winter, Gholam Hossein Farrahi and Wilfried Eichlseder, Cyclic behavior of a cast magnesium alloy under low cycle and thermo-mechanical fatigue, 3rd Fatigue Symposium Leoben, Lightweight Design, page 248-254, University of Leoben, Leoben, Austria, April 2012
- 28) Atieh Moridi, **Mohammad Azadi**, Gerhard Winter, Gholam Hossein Farrahi and Wilfried Eichlseder, Modeling of high temperature cyclic behavior in aluminum alloy under thermo-mechanical and isothermal fatigue conditions, 3rd Fatigue Symposium Leoben, Lightweight Design, page 227-235, University of Leoben, Leoben, Austria, April 2012
- 29) Farshad Zahedi and **Mohammad Azadi**, Low cycle fatigue life analysis of magnesium alloy diesel engine cylinder head, 20th Annual International Iranian Mechanical Engineering Conference, page 11, Shiraz University, Shiraz, Iran, May 2012
- 30) **Mohammad Azadi**, Gholam Hossein Farrahi, Partik Huter and Gerhard Winter, Thermo-mechanical and high temperature low cycle fatigue analysis of aluminum alloy based on Sehitoglu's model, 20th Annual International Iranian Mechanical Engineering Conference, page 79, Shiraz University, Shiraz, Iran, May 2012 (in Persian)
- 31) Mehdi Mokhtari Shirazabad, Seyed Mohammad Ali Boutorabi, **Mohammad Azadi**, Mehdi Roozban, Amir Mafi, Mehdi Nikravan, Effect of rare earth elements on microstructure and high temperature mechanical properties of magnesium alloy with engine components application, 1st National Conference on Internal , Combustion Engine, page 70, Semnan University, Semnan, Iran, November 2012 (in Persian)

- 2013**
- 32) Mehdi Mokhtari Shirazabad, Seyed Mohammad Ali Boutorabi, **Mohammad Azadi** and Mehdi Nikravan, Effect of casting parameters on microstructure and mechanical properties of AZ91 magnesium alloy, 7th Student Conference on Mechanical Engineering, page 185, Tehran University, Tehran, Iran, February 2013 (in Persian)
 - 33) **Mohammad Azadi** and Gholam Hossein Farrahi, Sensitivity analysis of various parameters on lifetime of aluminum alloy with and without thermal barrier coating under isothermal and thermo-mechanical fatigue loadings, 7th Student Conference on Mechanical Engineering, Page 261, Tehran University, Tehran, Iran, February 2013 (in Persian)
 - 34) Ali Shamloo, **Mohammad Azadi**, Gholam Hossein Farrahi and Mehran Felfeli, Parameters calibration of nonlinear isotropic/kinematic hardening model for magnesium alloy under cyclic loadings, 7th Student Conference on Mechanical Engineering, Page 286, Tehran University, Tehran, Iran, February 2013
 - 35) Mehran Felfeli, **Mohammad Azadi**, Gholam Hossein Farrahi and Ali Shamloo, Application of nonlinear hardening model for aluminum alloy under low cycle and thermo-mechanical fatigue loadings, 7th Student Conference on Mechanical Engineering, Page 287, Tehran University, Tehran, Iran, February 2013 (in Persian)
 - 36) Milad Rezvani Rad, **Mohammad Azadi** and Gholam Hossein Farrahi, Thermal barrier coating effect on stress distribution of a diesel engine cylinder head, 7th Student Conference on Mechanical Engineering, Page 260, Tehran University, Tehran, Iran, February 2013
 - 37) **Mohammad Azadi** and Gholam Hossein Farrahi, Study of failure mechanism in coated aluminum alloy under isothermal and thermo-mechanical fatigue loadings, 21th Annual International Conference on Mechanical Engineering, Page 26, K.N. Toosi University of Technology, Tehran, Iran, May 2013
- 2014**
- 38) **Mohammad Azadi**, Mojtaba Mehrabi and Peyman Sharghi, Determination of engine fast running-in procedure based on wear and using oil analysis results, 8th Conference on Internal Combustion Engines and Oil, Page 1, Research Institute of Petroleum Industry, Tehran, Iran, February 2014 (in Persian)
 - 39) Mehdi Mokhtari Shirazabad, **Mohammad Azadi**, Seyed Mohammad Ali Boutorabi and Mehdi Nikravan, Effect of pouring system on casting defects and tensile properties of AZ91+1%RE magnesium alloy, 8th Conference on Internal Combustion Engines and Oil, Page 2, Research Institute of Petroleum Industry, Tehran, Iran, February 2014 (in Persian)
 - 40) **Mohammad Azadi**, Akbar Naderpour, Mehdi Roozban, Amir Mafi, Farshid Moghaddam, Hamed Navabi, Mohammad Kazemi and Mehdi Rezaei, Presenting a completed analysis for material, mechanism, vibration, stress and fatigue in valve spring, 8th Conference on Internal Combustion Engines and Oil, Page 3, Research Institute of Petroleum Industry, Tehran, Iran, February 2014 (in Persian)
 - 41) **Mohammad Azadi**, Farshid Moghaddam, Pedram Abedini and Reza Soltani, Investigation of effects of material and geometry changes on stress and fatigue in main bearing cap of engine, 8th Conference on Internal Combustion Engines and Oil, Page 36, Research Institute of Petroleum Industry, Tehran, Iran, February 2014 (in Persian)
 - 42) **Mohammad Azadi**, Gerhard Winter, Gholam Hossein Farrahi and Wilfried Eichlseder, Design of cylinder head and block in internal combustion engines based on fatigue strength of materials, 8th Conference on Internal Combustion Engines and Oil, Page 37, Research Institute of Petroleum Industry, Tehran, Iran, February 2014 (in Persian)
 - 43) **Mohammad Azadi** and Mehrnoosh Damircheli, Improvement of stress behavior in flywheel by using functionally graded materials based on finite element method, 8th Conference on Internal Combustion Engines and Oil, Page 64, Research Institute of Petroleum Industry, Tehran, Iran, February 2014 (in Persian)
- 2015**
- No Paper*
- 2016**
- 44) **Mohammad Azadi** and Mahboobeh Azadi, Coatings applications in engine components: study of thermal barrier coatings, 9th Conference on Internal Combustion Engines and Oil, Page 41, Research Institute of Petroleum Industry, Tehran, Iran, February 2016 (in Persian)
 - 45) Mahboobeh Azadi and **Mohammad Azadi**, Coatings applications in engine components: study of wear resistant coatings, 9th Conference on Internal Combustion Engines and Oil, Page 42, Research Institute of Petroleum Industry, Tehran, Iran, February 2016 (in Persian)
 - 46) **Mohammad Azadi** and Saeid Rezanezhad, Presenting of creep lifetime prediction model for super-alloy used in turbine blade of turbo-charger, Page 20, 9th Conference on Internal Combustion Engines and Oil, Page 20, Research Institute of Petroleum Industry, Tehran, Iran, February 2016 (in Persian)
 - 47) Farhad Talebi, Javad Zarei Nezhad and **Mohammad Azadi**, Fuel effect on performance parameters of single-cylinder spark ignition engine, Page 88, 9th Conference on Internal Combustion Engines and Oil, Page 88, Research Institute of Petroleum Industry, Tehran, Iran, February 2016 (in Persian)
 - 48) **Mohammad Azadi** and Mahboobeh Azadi, Study of thermo-mechanical fatigue behaviors in light alloys with and without heat treatments, 3rd International Workshop on Thermo-mechanical Fatigue, Page 12, Federal Institute for Materials Research and Testing, Berlin, Germany, April 2016
 - 49) **Mohammad Azadi** and Mahdi Posht Mashhadi, Computing reliability for light aluminum and magnesium alloys under low-cycle fatigue loading, 2nd Conference on Modern Achievements on Aerospace, Mechanic and Related Sciences, Page 90, University of Tehran, Tehran, Iran, September 2016 (in Persian)

- 50) Majid Nikmehr and **Mohammad Azadi**, Estimation of fatigue crack growth rate by Striation spacing in 2024 aluminum alloy fracture surface, 2nd Conference on Modern Achievements on Aerospace, Mechanic and Related Sciences, Page 91, University of Tehran, Tehran, Iran, September 2016 (in Persian)
- 51) Hamed Bahmanabadi and **Mohammad Azadi**, Optimization of materials creep properties by using Levenberg-Marquardt method based on continuum damage mechanics, 2nd Conference on Modern Achievements on Aerospace, Mechanic and Related Sciences, Page 101, University of Tehran, Tehran, Iran, September 2016 (in Persian)
- 52) **Mohammad Azadi**, Hadi Abedi Koshki and Amir Hossein Rasouli, Calculation of fatigue damage in light alloys under low-cycle cyclic loading, 2nd Conference on New Research Achievement in Mechanics, Industrial and Aerospace, Amirkabir University of Technology, Tehran, Iran, September 2016 (in Persian)
- 53) Hamed Bahmanabadi and **Mohammad Azadi**, Optimization of materials creep properties in minimum strain rate power relation, 2nd Conference on New Research Achievement in Mechanics, Industrial and Aerospace, Amirkabir University of Technology, Tehran, Iran, September 2016 (in Persian)
- 54) **Mohammad Azadi** and Mahdi Roshani, Investigation of emission share from production of greenhouse gases in transportation part for each country province, The 8th National Conference and Exhibition on Environmental Engineering, Iran Society of Environmental Engineering, Tehran University, Tehran, Iran, 2016 (in Persian)
- 55) Mostafa Iziy, Mahboobeh Azadi, **Mohammad Azadi**, Armin Marbout, Mohammad Hasan Rizi, Study of the effect of heat treatment temperature and time on superalloy Inconel 713 microstructure, phase and hardness, 5th International Conference on Materials Engineering and Metallurgy, Shiraz University, Shiraz, Iran, November 2016 (in Persian)

2017

- 56) Hamed Bahmanabadi, **Mohammad Azadi** and Mohammad Jamalkhani, Scatter-band analysis for high-cycle and low-cycle fatigue tests on materials, 25th International Annual Conference of Mechanical Engineering, Page 397, Tarbiat Modares University, Tehran, Iran, May 2017 (in Persian)
- 57) **Mohammad Azadi**, Mahshad Farzannasab and Hamed Bahmanabadi, Comparison of stress-controlled fatigue lifetime of femur and tibia bone under low loading frequency, 25th International Annual Conference of Mechanical Engineering, Page 545, Tarbiat Modares University, Tehran, Iran, May 2017 (in Persian)
- 58) Alireza Hajiali Mohammadi, Mohammad Hassan Rizi, Armin Marboot, **Mohammad Azadi** and Mahboobeh Azadi, Experimental method development of simulation results in hot forging process in a closed die of Inconel-713 superalloy, 4th National Conference on Application of Novel Technologies in Engineering Science, University of Torbat Heydariyeh, Torbat Heydariyeh, Iran, March 2017 (in Persian)
- 59) **Mohammad Azadi**, Sama Safarloo, Fatemeh Loghman and Roham Rasouli, Microstructural and thermal properties of piston aluminum alloy reinforced by nano-particles, 6th International Biennial Conference on Ultrafine Grained and Nano-structured Materials, Kish International Convention Center, Kish, Iran, November 2017 (AIP Conference Proceedings, Volume 1920, Article Number 020027, 2018)
- 60) Vahid Abedini, Seyed Mehdi Hossieni, Mehrdad Pourjam, **Mohammad Azadi**, Vibration and stress analysis in order to design of pin-on-disk wear machine with capability of working at high temperature and fluid environment, 14th Iranian Conference on the Manufacturing Engineering, Arak University of Technology, Arak, Iran, October 2017 (in Persian)

2018

- 61) **Mohammad Azadi**, Hamed Bahmanabadi, Saeid Rezanezhad and Mahboobeh Azadi, Determination of creep lifetime in nickel-based superalloy by continuum damage mechanics and Larson-Miller model, 6th National Conference on Gas Turbine, Iran University of Science and Technology, Tehran, Iran, February 2018 (in Persian)
- 62) Mahboobeh Azadi, Sama Safarloo, **Mohammad Azadi**, Mostafa Iziy and Mehdi Shariat, Study of creep mechanism of 713C nickel-based superalloy and presenting size-change model for Gama-prime precipitates, 6th National Conference on Gas Turbine, Iran University of Science and Technology, Tehran, Iran, February 2018 (in Persian)
- 63) Saeid Rezanezhad, Mahboobeh Azadi, Armin Marbout, **Mohammad Azadi** and Alireza Hajiali Mohammadi, Investigation of manufacturing method and heat treatment type on creep behavior and micro-structural changes in 713 Inconel superalloy, 6th National Conference on Gas Turbine, Iran University of Science and Technology, Tehran, Iran, February 2018 (in Persian)
- 64) **Mohammad Azadi** and Sama Safarloo, Failure analysis caused by cyclic thermo-mechanical loading for an exhaust valve in high-duty diesel engine, 10th International Conference on Internal Combustion Engines and Oil, Research Institute of Petroleum Industry, Tehran, Iran, February 2018 (in Persian)
- 65) Mojtaba Biglari, Bahram Vaziri and **Mohammad Azadi**, Physical properties comparison between hybrid-nano-oil and vehicle engine base-oil, 10th International Conference on Internal Combustion Engines and Oil, Research Institute of Petroleum Industry, Tehran, Iran, February 2018 (in Persian)
- 66) Farzaneh Khezri, **Mohammad Azadi** and Hamed Bahmanabadi, Continuum damage prediction during high-cycle fatigue loading on magnesium alloy with application of engine components manufacturing, 10th International Conference on Internal Combustion Engines and Oil, Research Institute of Petroleum Industry, Tehran, Iran, February 2018 (in Persian)

- 67) Azad Akbarian, Arash Mohammadi, **Mohammad Azadi**, Mostafa Varmazyar, Investigation of cylinder head material on boiling flow heat transfer coefficient, 10th International Conference on Internal Combustion Engines and Oil, Research Institute of Petroleum Industry, Tehran, Iran, February 2018 (in Persian)
- 68) **Mohammad Azadi**, Mahshad Farzannasab and Hamed Bahmanabadi, Scatter-band and reliability analysis on high-cycle fatigue behavior of bovine compact bones, The Biennial International Conference on Experimental Solid Mechanics, Iran University of Science and Technology, Tehran, Iran, February 2018
- 69) Adel Basiri, **Mohammad Azadi** and Hamed Bahmanabadi, Energy-based low-cycle fatigue lifetime prediction models of gray and nodular cast irons for engine exhaust manifold applications, The Biennial International Conference on Experimental Solid Mechanics, Iran University of Science and Technology, Tehran, Iran, February 2018
- 70) **Mohammad Azadi**, Hassan Sayar, Mohsen Alizadeh, Nezamodin Raeisi, Ashkan Moosavian, Ahmad Ghasemi-Ghalebahman, Seyed Mohammad Jafari and Meysam Shakouri, A comparison between acoustic emission approach and vibration analysis in detection of failure mechanisms in carbon/epoxy composites, The Biennial International Conference on Experimental Solid Mechanics, Iran University of Science and Technology, Tehran, Iran, February 2018
- 71) Mahboobeh Azadi, Mehrdad Zolfaghari, Saeid Rezanezhad and **Mohammad Azadi**, Preparation of various aluminium matrix composites reinforcing by nano-particles with different dispersion methods, Iran International Aluminium Conference, Tehran, Iran, April 2018
- 72) Mohsen Alizadeh, Hassan Sayar, **Mohammad Azadi** and Seyed Mohammad Jafari, Investigation on effect of acoustic emission sensor type on condition monitoring of polymer matrix laminated composite under low-cycle fatigue loading, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 73) Hassan Sayar, Mohsen Alizadeh, **Mohammad Azadi**, Ahmad Ghasemi-Ghalebahman and Seyed Mohammad Jafari, Analysis of acoustic emission data to study crack propagation behavior in aluminum alloy under low-cycle fatigue loading, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 74) Mahdi Samiei and **Mohammad Azadi**, Low-cycle fatigue lifetime prediction for aluminum-silicon-magnesium alloy of engine cylinder head based on striations in fracture surface and Paris crack propagation relation, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 75) Seyed Mehdi Hosseini, **Mohammad Azadi**, Zinat Pourbaferani, Roham Rasouli, Mohsen Alizadeh, Zeynab Naji and Seyed Behzad Mousavi, Vibration and stress analysis on structure of engine piston scuff test-rig device at high temperature and fluid environment, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 76) Mohammad Amir Shirzadi, **Mohammad Azadi**, Mohsen Ostad Shabani and Fatemeh Heydari, Sensitivity analysis on parameters of plasma spray method on thermal shock fatigue lifetime of aluminum alloy with thermal barrier coating, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 77) Mostafa Saeidi, **Mohammad Azadi**, Mehdi Mokhtari Shirazabad and Pablo Lopez-Crespo, Determination of mode-I stress intensity factor in aluminum alloy by finite element method and digital image correlation, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 78) Mehrdad Pourjam, Seyed Mehdi Hosseini, Vahid Abedini and **Mohammad Azadi**, Vibration and stress analysis for design of reciprocating wear device at high temperature and fluid environment, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 79) Tohid Jadidi, Alireza Hajiali Mohammadi, Amir Abdollah, **Mohammad Azadi** and Mousa Nikmanesh, Experimental study on drilling of carbon fiber reinforced polymer matrix composites using ultrasonic vibration, 26th International Annual Conference of the Iranian Society of Mechanical Engineers, Semnan University, Semnan, Iran, April 2018 (in Persian)
- 80) Ali Dadashi, **Mohammad Azadi** and Hamed Bahmanabadi, Low-cycle fatigue lifetime prediction of aluminum-silicon alloy in engine piston at different temperatures using modified plastic strain energy, 3rd International Conference on Mechanical and Aerospace Engineering, K.N. Toosi University of Technology, Tehran, Iran, May 2018 (in Persian)
- 81) **Mohammad Azadi**, Mohsen Alizadeh and Hassan Sayar, Sensitivity analysis for effects of displacement amplitude and loading frequency on low-cycle fatigue lifetime in carbon/epoxy laminated composites, 12th International Fatigue Congress, Poitiers, France, May 2018 (MATEC Web of Conferences, Volume 165, Article Number 22021, 2018)
- 82) Mohammad Jamalkhani Khameneh and **Mohammad Azadi**, Reliability prediction, scatter-band analysis and fatigue limit assessment of high-cycle fatigue properties in EN-GJS700-2 ductile cast iron, 12th International Fatigue Congress, Poitiers, France, May 2018 (MATEC Web of Conferences, Volume 165, Article Number 10012, 2018)
- 83) Tohid Jadidi, Alireza Hajiali Mohammadi, Amir Abdollah and **Mohammad Azadi**, Experimental study on effect of using ultrasonic waves on the surface roughness and defects during drilling of carbon fiber reinforced polymer matrix composite components, 15th annual and 4th International Conference on Manufacturing Engineering, Tarbiyat Modares University, Tehran, Iran, October 2018 (in Persian)

2019

- 84) Ali Dadashi and **Mohammad Azadi**, Presenting fatigue lifetime prediction model based on modified plastic strain energy in piston aluminum alloy under cyclic in-phase thermo-mechanical loadings, 2nd National Conference on Internal Combustion Engines, Iran Society of Engine, Babol Noshirvani University of Technology, Babol, Iran, February 2019 (in Persian)
- 85) Sajad Khisheh, Khalil Khalili, **Mohammad Azadi** and Vahid Zaker Hendoabadi, Hardness estimation in different processes of heat treatment for aluminum alloy using artificial neural network and regression analysis, 2nd National Conference on Internal Combustion Engines, Iran Society of Engine, Babol Noshirvani University of Technology, Babol, Iran, February 2019 (in Persian)
- 86) Ghazaleh Nosrat and **Mohammad Azadi**, Continuum damage prediction in aluminum-silicon alloy of engine piston under isothermal low-cycle fatigue loading, 2nd National Conference on Internal Combustion Engines, Iran Society of Engine, Babol Noshirvani University of Technology, Babol, Iran, February 2019 (in Persian)
- 87) Fatemeh Ahadi, Mojtaba Biglari and **Mohammad Azadi**, A literature review on Stirling engines: New achievements in order to improve power and efficiency, 2nd National Conference on Internal Combustion Engines, Iran Society of Engine, Babol Noshirvani University of Technology, Babol, Iran, February 2019 (in Persian)
- 88) Seyed Mohammad Reza Hosseini Moghadam, Amir Mohammad Jadidi, **Mohammad Azadi** and Siamak Alizadeh Nia, The effect of regenerator material and working temperature on brake power of Gamma-type Stirling engine, 2nd National Conference on Internal Combustion Engines, Iran Society of Engine, Babol Noshirvani University of Technology, Babol, Iran, February 2019 (in Persian)
- 89) Zeinab Naji, **Mohammad Azadi** and Zinat Poorbafrani, Creating the ability of stress/fatigue finite element simulations through the piston development process for improving a combustion engine, 2nd National Conference on Internal Combustion Engines, Iran Society of Engine, Babol Noshirvani University of Technology, Babol, Iran, February 2019 (in Persian)
- 90) Mojtaba Biglari, Bahram Vaziri and **Mohammad Azadi**, Investigation of effect of combination percent air/helium working fluid on performance of beta-type Stirling engine by finite speed thermo-dynamics model, 5th International Conference on Applied Research in Electrical, Mechanical and Mechatronics Engineering, K.N. Toosi University of Technology, Tehran, Iran, January 2019 (in Persian)
- 91) **Mohammad Azadi**, Hamed Bahmanabadi, Jahangir Torkian and Roham Rasouli, Investigation of nano-clay addition effect on microstructure, hardness and machining process in vehicle engine piston aluminum-silicon alloy, 4th National Congress on Mechanical Engineering and Chemical Engineering, Kharazmi University, Karaj, Iran, February 2019 (in Persian)
- 92) Hassan Sayar, **Mohammad Azadi** and Mohsen Alizadeh, Sensitivity analysis for effects of tensile loading rate on mechanical properties in carbon fibers, epoxy resin and laminated composites, 27th Annual International Conference of Iranian Society of Mechanical Engineering and 7th Conference on Thermal Power Plants, Tarbiat Modares University and University of Tehran, Tehran, Iran, April-May, Page 81, 2019
- 93) Hanieh Aroo and **Mohammad Azadi**, Sensitivity analysis of creep properties to temperature and reinforcement parameters in aluminum alloy and aluminum matrix nano-composite, 27th Annual International Conference of Iranian Society of Mechanical Engineering and 7th Conference on Thermal Power Plants, Tarbiat Modares University and University of Tehran, Tehran, Iran, April-May, Page 145, 2019 (in Persian)
- 94) Ali Dadashi, Ghazaleh Nosrat and **Mohammad Azadi**, Lifetime calculation by plastic strain energy and continuum damage mechanics in low-cycle fatigue of aluminum alloy, 27th Annual International Conference of Iranian Society of Mechanical Engineering and 7th Conference on Thermal Power Plants, Tarbiat Modares University and University of Tehran, Tehran, Iran, April-May, Page 151, 2019 (in Persian)
- 95) Shokouh Dezianian and **Mohammad Azadi**, Investigation of build orientation effect on bending fatigue lifetime and fracture surfaces in Poly(lactic acid) (PLA) made from additive manufacturing by 3D printing device, 4th National Conference on Mechanical and Aerospace Engineering, K.N. Toosi University of Technology, Tehran, Iran, May 2019 (in Persian)
- 96) Kianoosh Rashnoo, Mohammad Jafar Sharifi, **Mohammad Azadi** and Mahboobeh Azadi, Sensitivity analysis of displacement rate and strengthening process on tensile mechanical properties in aluminum alloy of engine cylinder-head, 4th National Conference on Mechanical and Aerospace Engineering, K.N. Toosi University of Technology, Tehran, Iran, May 2019 (in Persian)
- 97) Sahar Safarloo, Sama Safarloo and **Mohammad Azadi**, Effect of SiO₂ nano-particles reinforcement on reciprocating wear properties of piston aluminumsilicon alloys, 7th International Biennial Conference on Ultrafine Grained and Nanostructured Materials, University of Trento and University of Tehran, Trento, Italy, September, 2019
- 98) **Mohammad Azadi** and Hanieh Aroo, Effect of adding 2 wt.% SiO₂ nano-particles on creep behavior at 250°C and 100 MPa in AlSi12CuNiMg piston aluminum alloy, 7th International Biennial Conference on Ultrafine Grained and Nanostructured Materials, University of Trento and University of Tehran, Trento, Italy, September, 2019