

Farzad Moayyedian

Curriculum Vitae

Email address: farzad.moayyedian@eqbal.ac.ir

CURRENT POSITION

2014 - Present – Assistant Professor, Department of Mechanical Engineering, Eqbal Lahoori Institute of Higher Education, Mashhad, Iran

EDUCATION

2008-2014 – Ph.D., Department of Mechanical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran.

2006-2008 – M.A., Department of Mechanical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran.

2002-2006 – B.A., Department of Mechanical Engineering, Islamic Azad University, Mashhad, Iran.

RESEARCH INTRESTS

Theory of Elasticity,
Theory of Plasticity,
Theory of Plates and Shells,
Energy Principles in Solid Mechanics,
Metal Forming,
Anisotropic Sheet Metals,
Composite and FGM Materials,
Non-linear Finite Element and Mesh less Methods,
Biomechanics,
Theory of Vibration and Dynamics,
Computational Mechanics.

ACADEMIC EMPLOYMENT

2009 - 2014 – Instructor, Eqbal Lahoori Institute of Higher Education, Mashhad, Iran.

2017 - Present – Adjunct Professor, Khavaran Institute of Higher Education, Mashhad, Iran.

2014 - 2015 – Adjunct Professor, Tasmimiyar Toos, Mashhad, Iran.

2012 - 2014 – Adjunct Professor, Tasmimiyar Toos, Mashhad, Iran.

2012 - 2013 – Adjunct Professor, University of Torbat-e-Heydarieh, Torbat-e-Heydarieh, Iran.

2010 - 2011 – Adjunct Professor, Islamic Azad University, Mashhad, Iran.

PUBLICATIONS

Journal Articles

2021 – Farzad Moayyedian and Jakub Krzysztof Grabski, Application of method of fundamental solutions for elastic-plastic torsion of prismatic rods with non-linear hardenings, *Engineering Analysis with Boundary Elements*, Under Review.

2021 – Farzad Moayyedian and Mehran Kadkhodayan, Modified Burzynski criterion along with AFR and non-AFR for asymmetric anisotropic materials, *Archive of Civil and Mechanical Engineering*, 21:64, 1-18.

2018 – Farzad Moayyedian and Mehran Kadkhodayan, Non-linear influence of hydrostatic pressure on yielding of asymmetric anisotropic sheet metals, *Mathematics and Mechanics of Solids*, 23 (2), 159-180.

2018 – Farzad Moayyedian and Mehran Kadkhodayan, Two new non-AFR criteria for depicting strength differential effect (SDE) in anisotropic sheet metals, *Journal of Solid Mechanics*, 10(1), 67-85.

2017 – Farzad Moayyedian and Mehran Kadkhodayan, A modified burzynski criterion for anisotropic pressure dependent materials, *Sadhana-Academy Proceedings in Engineering Science*, 42 (1), 95-109.

2016 – Farzad Moayyedian and Mehran Kadkhodayan, An advanced criterion based on non-AFR for anisotropic sheet metals, *Structural Engineering and Mechanics*, 57 (6), 1015-1038.

2015 – Farzad Moayyedian and Mehran Kadkhodayan, Modified burzynski criterion with non-associated flow rule for anisotropic asymmetric metals in plane stress problems, *Applied Mathematics and Mechanics*, 36 (3), 303-318.

2015 – Farzad Moayyedian and Mehran Kadkhodayan, Combination of modified Yld2000-2d and Yld2000-2d in anisotropic pressure dependent sheet metals, *Latin American Journal of Solids and Structures*, 12 (1), 92-114.

2015 – Farzad Moayyedian and Mehran Kadkhodayan, A new implementation of a non-associated flow rule in rate-independent plasticity, *Journal of Computational and Applied Research in Mechanical Engineering*, 5 (1), 3749.

2014 – Farzad Moayyedian and Mehran Kadkhodayan, A study on combination of von Mises and Tresca yield loci in non-associated viscoplasticity, *International Journal of Engineering*, 27 (3), 441-448.

2014 – Farzad Moayyedian and Mehran Kadkhodayan, Implementing the new first and second differentiation of a general yield surface in explicit and implicit rate-independent plasticity, *Journal of Solid Mechanics*, 6 (3), 310-321.

2013 – Farzad Moayyedian and Mehran Kadkhodayan, A closed-form semi-analytical elastic-plastic solution for predicting the onset of flange wrinkling in deep- drawing of a two-Layered circular plate, *Iranian Journal of Mechanical Engineering Transaction of the ISME*, 14 (2), 5-36.

2013 – Farzad Moayyedian and Mehran Kadkhodayan, A general solution for implicit time stepping scheme in rate-dependant plasticity, *International Journal of Engineering*, 26 (2), 641-652.

2011 – Mehran Kadkhodayan and Farzad Moayyedian, Analytical elastic–plastic study on flange wrinkling in deep drawing process, *Scientia Iranica*, 18 (2), 250–260.

2011 – Farzad Moayyedian and Mehran Kadkhodayan, Elastic-plastic flange wrinkling of circular plates in deep drawing process, *Key Engineering Materials*, 462-463, 200-206.

2010 – Farzad Moayyedian and Mehran Kadkhodayan, An analytical study on elastic flange wrinkling of circular plates in deep drawing process, *International Journal of Advanced Design and Manufacturing Technology*, 3 (2), 17-23.

2010 – Mohaamad Rezaiee Pajand and Farzad Moayyedian, A Closed-form non- linear solution for plastic flange wrinkling of circular plates in deep drawing process, *International Journal of Engineering*, 23 (3, 4), 203-214.

Conference Papers

2020 - Morteza Zareie and Farzad Moayyedian, Analytical and numerical investigation into vibrational behavior of FGM cylindrical shell under mechanical and thermal loading, *3th International Congress on Science & Engineering*, Hamburg, Germany, March 14-15.

2020 - Morteza Zareie and Farzad Moayyedian, Introduction of functionally graded materials, applications and mathematical governing equations of them, *5th International Conference Electrical, Computer and Mechanical Engineering*, Mehr Arvand Institute of Higher Education, Tehran, Iran, July 4.

2019 - Seyyed Sajjad Hassan Al Hosseyni and Farzad Moayyedian, Investigation of functionally graded materials, manufacturing methods and applications, *International Congress on Engineering, Technology & Innovation*, Darmstadt University, Darmstadt, Germany, August 1-2.

2019 - Mohammad Bagher Emamai Kashani, Farzad Moayyedian and Vahid Soltani, Numerical comparison of the effect of shear stresses on accelerated functional graded disks with fixed velocity functional graded disks, *4th International Conference on Researches in Science & Engineering & International Congress on Civil, Architecture and Urbanism in Asia*, Kasem Bundit University, Bangkok, Thailand, July 18.

2019 - Hossein Fazeli Nezhad and Farzad Moayyedian, Modelling and finite element analysis of crack propagation in laminated composite sheets, *5th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, December 21.

2019 - Hossein Fazeli Nezhad and Farzad Moayyedian, Investigation into damage and fracture in laminated composite materials, *1th International Conference on New Researches in Electrical, Mechanical and Computer Engineering*, Shiraz, Iran, September 21.

2019 - Ali Kolah Dooz and Farzad Moayyedian, Numerical study of direct extrusion in equal channel forward extrusion (ECFE), *1th International Conference on New Researches in Electrical, Mechanical and Computer Engineering*, Shiraz, Iran, September 21.

2019 - Hani Nasrollah Zadeh and Farzad Moayyedian, Study on effects of temperature, friction coefficient and velocity of punch in Titanium and Aluminium blanks in warm forging process with finite element method, *5th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, December 21.

2019 - Hani Nasrollah Zadeh and Farzad Moayyedian, Study of forming of steels with forging process, *1th International Conference on New Researches in Electrical, Mechanical and Computer Engineering*, Shiraz, Iran, September 21.

2019 - Navid Younesi and Farzad Moayyedian, Numerical Modelling and analysis of impact of expulsion wave on sandwich sheets with different loading and boundary conditions, *5th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, December 21.

2019 - Mahdi Mohebbi and Farzad Moayyedian, Simulation and analysis of forming parameters in hydroforming of sheets, *4th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, March 4.

2019 - Alireza Abbasi and Farzad Moayyedian, Simulation and investigation into geometrical parameters, velocity of roller and friction in rolling of aluminum and magnesium sheets, *4th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, March 4.

2019 - Nahid Sedarati and Farzad Moayyedian, Simulation and study of temperature and punch velocity parameters in direct and indirect extrusion, *4th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, March 4.

2019 - Mohsen Dastoori Kakhki and Farzad Moayyedian, Study of impact of tool speed and geometrical parameters in strength of butt connection of aluminum alloys in friction stir welding process, *4th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, March 4.

2019 - Vahid Soltani, Farzad Moayyedian, Mohammad Bagher Emami and Farhad Mir, Analysis of Timoshenko beam with FGM properties under uniform loading with finite element method, *4th International Conference on Science and Technology of Mechanical and Electrical Engineering*, Tehran, Iran, March 4.

2019 - Farzad Moayyedian, Farshad Pourtaghi and Samira Moghaddam Kafi, A numerical investigation into effect of diameter and distances of rollers in final production of aluminum billet in rolling process, *5th International Conference on Applied Research in Electrical, Mechanical & Mechatronics Engineering*, Khajeh Nasir Toosi University of Technology, Tehran, Iran, January 24-25.

2018 - Farzad Moayyedian, Farshad Pourtaghi and Abbas Abbasi Barkhordar, An investigation into effective parameters in hydroforming process of circular and square sheets with finite element method, *9th International Conference on Electrical, Computer, Mechanical and Mechatronics Engineering (ICE-2018)*, Istanbul, Turkey, September 6-7.

2018 - Farzad Moayyedian and Farshad Pourtaghi, Comprehensive review on bilayer and composite helical structures by using finite element method and their applications, *3th International Conference on Mechanical & Aerospace Engineering*, Khajeh Nasir Toosi University of Technology, Tehran, Iran, May 11.

2018 - Farzad Moayyedian, The second differentiation of three well known anisotropic yield functions with respect to stress components, *26th Annual International Conference of Iranian Society of Mechanical Engineers (ISME2018)*, Semnan University, Semnan, Iran, April 24-26.

2017 - Farzad Moayyedian and Saeed Esmaili, Experimental and numerical study on warm deep drawing of CK45 and DX53D alloy sheets, *1th National Conference on Applied Researches in Sciences and Engineering*, Eqbal Lahoori Institute of Higher Education, Mashhad, Iran, July 27-28.

2010 - Farzad Moayyedian and Mehran Kadkhodayan, Elastic-plastic flange wrinkling of circular plates in deep drawing process, *8th International Conference on Fracture and Strength of Solids (FEFOS)*, Kuala Lumpur, Malaysia, June 7-9.

2010 - Farzad Moayyedian and Mehran Kadkhodayan, An analytical investigation on plastic flange wrinkling of laminated circular plates in deep drawing process, *18th Annual International Conference on Mechanical Engineering (ISME2010)*, Sharif University of Technology, Tehran, Iran, May 11-13.

2010 - Farzad Moayyedian and Mehran Kadkhodayan, The effect of blankholder on flange wrinkling of laminated circular plates in deep drawing process, *10th Manufacturing Engineering Iranian Conference (ICME2010)*, Babol Noshiravani University of Technology, Babol, Iran, March 1-3.

2010 - Farzad Moayyedian and Mehran Kadkhodayan, Obtaining an explicit solution for flange wrinkling of annular sheets with blankholder and with small deformation theory in deep drawing process, *10th Manufacturing Engineering Iranian Conference (ICME 2010)*, Babol Noshiravani University of Technology, Babol, Iran, March 1-3.

2010 - Farzad Moayyedian and Mehran Kadkhodayan, An analytical study on plastic flange wrinkling of circular plates with *blankholder* with using of large deformation theory in deep drawing process, *8th Annual (International) Conference of Iranian Aerospace Society*, Malek-Ashtar University of Technology, Isfahan, Iran, February 17-19.

2009 - Farzad Moayyedian and Mehran Kakkhodayan, An analytical study on elastic flange wrinkling of laminated circular plates in deep drawing process, *17th Annual International Conference on Mechanical Engineering (ISME2009)*, University of Tehran, Tehran, Iran, May 19-21.

2009 - Farzad Moayyedian and Mehran Kadkhodayan, An analytical study on plastic flange wrinkling of circular plates with using of large deformation theory, *4th Conference of Metal Forming and Materials of Iran (MATFORM'87)*, Sharif University of Technology, Tehran, Iran, December 3-5.

2009 - Farzad Moayyedian and Mehran Kadkhodayan, An analytical study on plastic flange wrinkling of circular plates with using of small deformation theory, *4th Conference of Metal Forming and Materials of Iran (MATFORM'87)*, Sharif University of Technology, Tehran, Iran, December 3-6.

2009 - Farzad Moayyedian and Mehran Kadkhodayan, An analytical study on plastic flange wrinkling of circular plates with using of large deformation theory in deep drawing process, *9th Iranian Conference on Manufacturing Engineering (ICME 2009)*, University of Birjand, Birjand, Birjand, Iran, March 3-5.

2009 - Farzad Moayyedian and Mehran Kadkhodayan, An analytical study on plastic flange wrinkling of circular plates with using of small deformation theory in deep drawing process, *9th Iranian Conference on Manufacturing Engineering (ICME 2009)*, University of Birjand, Birjand, Birjand, Iran. March 3-5.

2008 - Hossein Behrouz and Farzad Moayyedian, Providing a new approach for using piezoelectric as a sensor and comparing its behavior with other existing sensors, *16th Annual International Conference on Mechanical Engineering (ISME2008)*, Shahid Bahonar University of Kerman, Kerman, Iran, May 13-15.

TEACHING EXPERIENCE

University

Undergraduate courses

Engineering Mathematics,
Strength of Materials,
Composite Materials,
Dynamics,
Kinematics and Dynamics of Machines,
Theory of Vibrations,
Material Science,
Automatic Control.

Graduate courses

Advanced Mathematics,
Advanced Numerical Methods,
Finite Element Method,
Advanced Finite Element Method,
Continuum Mechanics,
Theory of Plates and Shells,
Selective Topics in Applied Mechanics,
Creep, Fatigue and Fracture,
Vibration of Continuous Systems.

MASTER ALUMINI

2020 - Mohadeseh Bahaori, Analytical modelling and numerical simulation of strength against impact with high velocity in composite plates.

2019 - Vahid Ghamari, omitting of non-linear hydrostatic pressure in modified burzynski yield criterion for anisotropic materials with AFR and non-AFR.

2019 - Ali Kolah Dooz, Numerical study of direct extrusion in equal channel forward extrusion (ECFE).

2019 - Mahdi Easi Zadeh, Numerical analysis of punch velocity, geometrical parameters and tearing in deep drawing process.

2019 - Saeed Blouki, Modelling and analysis of effective parameters in creep of viscoelastic materials.

2019 - Majid Ghorbani, Study of roller speed, diameter and contact angle in flow forming with finite element method.

2019 - Morteza Zareie, Analytical and numerical study of vibrational cylindrical shell with FGM material under mechanical and thermal loading.

2019 - Hossein Fazeli Nezhad, Modelling and finite element analysis of crack propagation and delamination in laminated composite plates.

2019 - Seyyed Sajjad Hassan Al Hosseyni, Modelling and analysis of dynamic behavior of rotating disk with FGM material with FEM.

2019 - Rooh Allah Kooch Peyma, Using non-AFR in modified burzynski criterion with anisotropic materials.

2019 - Majid Ghaffari, Investigation into different parameters in explosive forming of pressurized cylinders.

2019 - Danial Khsravai (with Dr. Mehrdad Jabbar Zadeh), Bending analysis of nano circular plates with NHSDT and SAPM.

2018 - Mahdi Ghassaban, Finite element simulation of autofrettage process of high pressurized vessels with elastic-plastic behavior.

2018 - Nahid Sedarat, Simulation and study of temperature, punch speed and punch force parameters in direct and indirect extrusion.

2018 - Alireza Abbasi, Simulation and study of geometric, roller speed and friction parameters in rolling of aluminum and magnesium plates.

2018 - Reza Borna, Numerical finite element study of forming of thick steel plates with multi stage warm deep drawing process.

2018 - Ali Moradi, Investigation into forming of plate under tension with MFS.

2018 - Azra Fakhrian, Study of effective parameters in low pressure tube hydroforming.

2018 - Asal Sattari, Modified burzynski criterion for anisotropic materials with AFR.

2018 - Meysam Ebrahimi, Numerical study of torsion problem with MFS and comparing the results with FEM.

2018 - Mostafa Hemmati Topkanlou, Numerical study of pressurized cylindrical composite vessels with FEM.

2018 - Vahid Soltani, Analysis of Timoshenko beam with FGM properties under uniform loading with finite element method.

2018 - Samira Mghaddam Kafi, Numerical investigation into effect of diameter and distances of rollers in final production of aluminum billet in rolling process.

2018 - Mohammad Bagher Emami, Numerical comparison of the effect of shear stresses on accelerated functional graded disks with fixed velocity functional graded disks.

2018 - Mehdi Jelveh, Simulation and experimental analysis of cylindrical St 12, Al 1050 and DC 03 cups in deep drawing process.

2018 - Ali Golestani, An investigation into oxygen injection in die cast.

2018 - Abolfazl Golkar (with Dr. Ekhteraie Toussi), Effect of crack parameters in natural frequency of rectangular plates.

2017- Seyyed Mohammad Jafari, Study of buckling behavior of curved sandwich plates with having MR with IHSAPT.

2017 - Dariush Basiri, Application of MFS in elastic-plastic torsion problem of anisotropic materials.

2017 - Ali Memariani, Study of vibration behavior of curved sandwich plates with having MR with IHSAPT.

2017 - Abbas Abbasi Barkhordar, Study of flange wrinkling in hydroforming process.

2016 - Saeed Esmaili, Comparison of numerical and experimental impacts of heat transfer in CK 45 and DX53D alloys in deep drawing process.