



Ehsan Eftekhari

Assistant Professor

College: Mechanical and Materials Engineering

Department: Mechanical Engineering

Education

Degree	Graduated in	Major	University
BSc	2005	Mechanical Engineering, Manufacturing	Babol Noshirvani University of Technology
MSc	2008	Mechanical Engineering, Manufacturing	University of Birjand
Ph.D	2013	Mechanical Engineering, Manufacturing	University of Birjand

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
Department of Mechanical Engineering/ Faculty of Mechanical and Metallurgy Engineering	Faculty member/ Assistant Professor	Tenure Track	Full Time	

Work Experience

Head of International Office/ Bureau chief of the chancellor, Birjand University of Technology, Birjand, Iran (Sep 2015- March 2022).

Head of Mechanical Engineering Department, Birjand University of Technology, Birjand, Iran (June 2014- Sep 2015).

Subjects Taught

BSc: Strength of Material and laboratory, Material science, Production Methods, Forging Mold design, CAD/CAM laboratory, Finite element methods, Metrology and etc.

MSc: Metal Forming Analysis

Executions And Scientific Activities

Reviewer of scientific and research journals, including Modares Mechanical Engineering, Solid and Fluid Mechanics, Mechanical Engineering of Tabriz University, Amirkabir Journal of Mechanical Engineering and etc. (2014- Present).

Conferences

Member of the Organizing Committee of the 9th National Conference on Manufacturing Engineering- ICME2009, University of Birjand, March 2009.

Membership in Scientific Societies

Iranian Society of Mechanical Engineers (ISME)

Society of Manufacturing Engineering of Iran

Papers in Conferences

1. M. Naderi Samani, S. E. Eftekhari Shahri, A. Saghafi. Using X-ray diffraction to evaluate residual stress changes caused by direct and reverse rolling process to 1020 CGP aluminum sheet. 2nd National Conference and 9th International Conference of Manufacturing Engineering- ICME2024. University of Science and Culture, Tehran, Iran. 2024.
2. M. Naderi Samani, S. E. Eftekhari Shahri, A. Saghafi. Residual stress reduction in deformed sheets of pure aluminum and aluminum 6061 with rolling operation. 2nd National Conference and 9th International Conference of Manufacturing Engineering- ICME2024. University of Science and Culture, Tehran, Iran. 2024.
3. S. E. Fatemi, S. E. Eftekhari Shahri, A. Saghafi, Y. YagoubiNejad. Investigation of the mechanical properties of aluminum-graphene composite sheets produced by accumulative roll bonding method. 2nd National Conference and 9th International Conference of Manufacturing Engineering- ICME2024. University of Science and Culture, Tehran, Iran. 2024.
4. S.E. Eftekhari Shahri, M. Naderi Samani, and A. Saghafi, Finite element simulation to evaluate the effects of the secondary rolling process on the residual stress of aluminum sheet after the constrained

groove pressing process ,the 19th National Conference and the 8th International Conference on Manufacturing Engineering- ICME2023 ,Ferdowsi University of Mashhad, Iran ,2023 03 09.

5. M.K. Salari, A. Saghafi, S.E. Eftekhari Shahri and R. Khoshhal ,Investigating the mechanical properties and microstructure of magnesium alloy AZ31 reinforced with graphene nanoplates in the process of severe plastic deformation ,the 19th National Conference and the 8th International Conference on Manufacturing Engineering- ICME2023 ,Ferdowsi University of Mashhad ,2023 03 09.
6. M. Gholami, S.E. Eftekhari Shahri, and M. Rakhshkhorshid ,Experimental study on the effects of constrained groove pressing process on 6061 aluminum sheet ,the 19th National Conference and the 8th International Conference on Manufacturing Engineering- ICME2023 ,Ferdowsi University of Mashad, Iran ,2023 03 09.
7. A. Azhdari, A. Saghafi, S.E. Eftekhari Shahri ,Numerical study of constrained groove pressing process of steel sheet using polyurethane rubber pad ,30th Annual Conference on Mechanical Engineering- ISME2022 ,Islamic Azad University, Tehran, Iran ,2022 05 10.
8. A. Azhdari, S.E. Eftekhari Shahri, and A. Saghafi ,Modification of mechanical properties in the CGP process of 6061 aluminum sheet using polyurethane rubber pad ,the 7th International Conference and the 18th National Conference on Manufacturing Engineering- ICME2022 ,Technical and Vocational University, Tehran, Iran ,2022 03 02.
9. G.H. Bazi, A. Saghafi, R. khoshhal, and S.E. Eftekhari Shahri ,Investigating the effects of temperature and immersion time on the growth kinetics of the intermetallic layer in the aluminizing process of st37 ,the 7th International Conference and the 18th National Conference on Manufacturing Engineering- ICME2022 ,Technical and Vocational University, Tehran, Iran ,2022 03 02.
10. S.E. Eftekhari Shahri, S.M. Sedehi, H. Izadi ,Experimental and numerical investigation of the effect of preheat temperature on the behavior of the chip and the forces on the tool in the machining process of CK45 steel ,the 7th International Conference and the 18th National Conference on Manufacturing Engineering- ICME2022 ,Technical and Vocational University, Tehran, Iran ,2022 03 02.
11. A. Azhdari, G.H. Bazi, A. Saghafi and S.E. Eftekhari Shahri ,Investigation of the die corner radius effects on the constrained groove pressing (CGP) process ,the 6th International Conference and the 17th National Conference on Manufacturing Engineering- ICME2021 ,Iran University of Science and Technology, Tehran, Iran ,2021 03 02.
12. S.E. Fatemi, M. Barani, S.E. Eftekhari Shahri and A. Saghafi ,Experimental study of the effects of CGP process on the mechanical properties of aluminum and St37 sheets ,the 6th International Conference and the 17th National Conference on Manufacturing Engineering- ICME2021 ,Iran University of Science and Technology, Tehran, Iran ,2021 03 02.
13. M. Gholami, S.E. Eftekhari Shahri, M. Rakhsh khorshid, and F. Nazari ,Finite element simulation of a complete pass in aluminum sheet deformation process using constrained groove pressing (CGP) ,the 5th International Conference and the 16th National Conference on Manufacturing Engineering- ICME2019 ,Tarbiat Modarres University, Tehran, Iran ,2019 12 25.
14. S.E. Eftekhari Shahri, Y. Khoshnood, and H. Jamshidi ,Numerical study of mechanical and thermal behavior in electrical discharge machining process ,27th Annual (International) Conference on Mechanical Engineering-ISME2019 ,Tarbiat Modarres University, Tehran, Iran ,2019 04 30.
15. M. Gholami, S.E. Eftekhari Shahri, M. Lakhi, and M. Khosravi ,Numerical analysis of the Constrained Groove Pressing process and mold angle and sheet material evaluation ,27th Annual (International) Conference on Mechanical Engineering-ISME2019 ,Tarbiat Modarres University, Tehran, Iran ,2019 04 30.
16. Study of the effect of H nanocomposite patch on crack growth behavior in Al5251 ,K. Shiri, S.E. Eftekhari Shahri, H. Rastegari Kupaei, and F. Barati ,The Fourth International Conference and the 15th National Conference on Manufacturing Engineering- ICME2018 ,Tehran, Iran ,2018 10 24.
17. S. Guya, S.E. Eftekhari Shahri, M. Maraki, and A. Ranaii ,Effect of post-annealing on microstructure and mechanical properties of copper tube produced by severe plastic deformation ,26th Annual (International) Conference on Mechanical Engineering-ISME2018 ,Semnan University, Semnan, Iran

,2018 04 25.

18. S.E. Eftekhari Shahri, E. Rezaii, M. Maraki, and A. Ranaii ,Investigating the effect of severe plastic deformation with radial strain on the properties of copper wire in wire drawing ,26th Annual (International) Conference on Mechanical Engineering-ISME2018 ,Semnan University, Semnan, Iran ,2018 04 25.
19. M. lakhi and S.E. Eftekhari Shahri ,Screw analysis which is more resistant against bearing stress due to torque (Curved head screw) and its comparison with double screw ,13th Conference on Manufacturing Engineering (ICME2016) ,University of Hormozgan, Bandar abbas, Iran ,2016 11 18.
20. H. Yazdani, k. khalili, and S.E. Eftekhari Shahri ,Finite element analysis of T-Shaped forming process using ball forming method ,3rd National Conference and 1st International conference on applied researches in electrical- mechanical & Mechatronic Engineering ,Malek-Ashtar University of technology, Tehran, Iran ,2016 02 17.
21. S.E. Eftekhari Shahri, S.Y. Ahmadi Brooghani, and K. Khalili ,Design of hydroforming die using the advantages of vibrations ,23th Annual (International) Conference on Mechanical Engineering-ISME2015 ,Amirkabir University of Technology, Tehran, Iran ,2015 05 12.
22. S.E. Eftekhari Shahri, S. Pasdar, and Y. Rostamian ,Deformation of the tube section geometry using tube hydroforming process ,23th Annual (International) Conference on Mechanical Engineering-ISME2015 ,Amirkabir University of Technology, Tehran, Iran ,2015 05 12.
23. K. Khalilli, S.E. Eftekhari Shahri, and P. Kahhal ,Determination of Wrinkling in the T-shaped piece produced by hydroforming process ,19th Annual Conference on Mechanical Engineering-ISME2011 ,University of Birjand, Birjand, Iran ,2011 05 16.
24. K. Khalilli, S.E. Eftekhari Shahri, and P. Kahhal ,Determination of Wrinkling in the T-shaped piece produced by hydroforming process ,19th Annual Conference on Mechanical Engineering-ISME2011 ,University of BirjandBirjand, Iran ,2011 05 13.
25. K. Khalili, S.Y. Ahmadi-Brooghani, and S.E. Eftekhari Shahri ,Reversed Engineering for approximation of Pressure Displacement Curve in hydroforming of Tshape part ,17th Annual (International) Conference on Mechanical Engineering-ISME2008 ,University of Tehran, Tehran, Iran ,2009 05 19.
26. S.Y. Ahmadi-Brooghani, K. Khalili, and S.E. Eftekhari Shahri ,Multi-Level Optimization of Tube Hydroforming Process ,Iranian Conference on Manufacturing Engineering (ICME2009) ,University of Birjand, Birjand, Iran ,2009 03 20.
27. K. Khalili, S.Y. Ahmadi-Brooghani, and S.E. Eftekhari Shahri ,Simulation and Loading Path Optimization of a Hydroform Part Using Response Surface Method ,8th. World Congress on Computational Mechanics (WCCM8), 5th. European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008) ,Venice, Italy ,2008 06 15.
28. K. Khalili and S.E. Eftekhari Shahri ,Automation of the Local 2d Strain Computation Using Image Processing Techniques ,16th. Annual (International) Conference on Mechanical Engineering-ISME2008 ,Shahid Bahonar University of Kerman, Kerman, Iran ,2008 05 18.
29. K. Khalili, S.Y. Ahmadi-Brooghani, and S.E. Eftekhari Shahri ,Pressure Displacement Curve Optimization of a T Shape Part Using RSM Modeling ,16th. Annual (International) Conference on Mechanical Engineering-ISME2008 ,Shahid Bahonar University of Kerman, Kerman, Iran ,2008 05 18.
30. S.Y. Ahmadi-Brooghani and S.E. Eftekhari Shahri ,Hydroforming Technology and it's Recent Progression ,5th. Student Conference on Mechanical Engineering- STUDENT- ISME2008 ,University of Birjand- Birjand- Iran ,2008 02 01.
31. K. Khalili, S.Y. Ahmadi-Brooghani, and S.E. Eftekhari Shahri ,Numerical Analysis of Hydroforming Process and Evaluate Simulation Parameters Effects ,5th. Student Conference on Mechanical Engineering-STUDENT-ISME2008 ,University of Birjand- Birjnad- Iran ,2008 02 01.
32. S.Y. Ahmadi-Brooghani and S.E. Eftekhari Shahri ,Initial Blank Shape Optimization of the Deep Drawing Process Using Sensitivity Method ,15th Annual (International) Conference on Mechanical Engineering-ISME2007 ,Amirkabir University of technology, Tehran ,2007 05 11.

1. Eftekhari Shahri SE, Sedehi SM, Izadi H. Studying the effects of preheat temperature on the turning process of CK45 steel. Iranian Journal of Manufacturing Engineering. Iranian Journal of Manufacturing Engineering, ۳۲, ۲۰۲۳-۲۲, شماره صفحات ۱۰, شماره ۲, مجلد ۱۰, ISC.
2. A. Afsari, S. E. Eftekhari Shahri, H. Bohluli, M. A. Ranaei. Studying the effect of forming at the dynamic recrystallization activation threshold temperature on mechanical properties of copper produced by tube cyclic extrusion– compression. Journal of mechanical engineering of Tabriz University, ۱۸۹, ۲۰۲۳-۱۸۵, شماره صفحات ۱۰۳, شماره ۱, مجلد ۱۰, ISC.
3. S.E. Eftekhari Shahri , M. Lakhi , and I. Taheridoustabad, Numerical and experimental investigation of the ultrasonic vibration effects on the tube hydroforming process in a die with a square cross-section, International journal of advanced manufacturing technology, Vol. 126, pp. 197-207, 2023.
4. Amin Saghafi, Seyed Ehsan Eftekhari Shahri, Hossein Jamshidi, Mohammad Kazem Salari, Razieh Khoshhal, The effect of sintering and compaction conditions on the microstructure and properties of AZ31 magnesium alloy, Advanced Design and Manufacturing Technology (ADMT), Vol. 16, pp. 65-74, 2023.
5. S.E. Eftekhari Shahri , & M. Gholami and M. Rakhshkhorshid, Numerical-experimental study of die geometry in the constrained groove pressing of 6061 aluminum sheets, Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, Vol. 12, No. 237, pp. 1836-1846, 2023.
6. K. Shiri, S.E. Eftekhari Shahri, and H. Rastegari Koupaii, Experimental Study of the Effects of Rectangular and H-Shaped Woven Nanocomposites Patch on tensile properties of Repaired AL5۲۵۱ Sheets. Modares Mechanical Engineering, ۲۱۱, ۲۰۲۲-۲۰۱, شماره صفحات ۲۲, مجلد ۲۲.
7. S.E. Eftekhari Shahri, M.A. Ranaei, H. Jamshidi, and E. Rezaei. Experimental study of the simultaneous effects of severe plastic deformation and secondary radial strain on copper, Journal of Process Mechanical Engineering. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, ۱۹۲۹, ۲۰۲۱-۱۹۲۱, شماره صفحات ۲۳۵, مجلد ۲۳۵.
8. S.E. Eftekhari Shahri, M. Lakhi, and S. Ranjbar, Measurement of local strain: machine vision and finite element method, Journal of Mechanical Science and Technology, Journal of Mechanical Science and Technology, Vol. 35, pp. 979–985, 2021.
9. M. Rakhshkhorshid, S. Ranjbar, and S.E. Eftekhari Shahri. Determination of Johnson-Cook Damage Model Constants for commercial Pure Copper Sheet by Tensile Testing on Notched Specimens. Journal of Solid and Fluid Mechanics, ۱۱۰, ۲۰۲۱-۹۷, شماره صفحات ۱۱, مجلد ۱۱.
10. S.E. Eftekhari Shahri, S.Y. Ahmadi Brooghani, and K. Khalili. Design of tube Hydroforming system with the Die Ultrasonic Vibration. https://jsfm.shahroodut.ac.ir/article_۴۱۲.html, ۱۳۵, شماره صفحات ۱۴۸, ۲۰۱۵, مجلد ۵.
11. S.E. Eftekhari Shahri, S.Y. Ahmadi Boroughani, and K. Khalili, B.S. Kang, Ultrasonic tube hydroforming, a new method to improve formability, Procedia Technology, Vol. 19, pp. 90-97, 2015.
12. S.E. Eftekhari Shahri, S.Y. Ahmadi Brooghani, K. Khalili, and A. Mohammadi. Improve the formability in tube Hydroforming process using ultrasonic vibrations. Modares Mechanical Engineering, ۷۲, ۲۰۱۴-۶۳, شماره صفحات ۱۴, مجلد ۷۲.
13. S.E. Eftekhari Shahri, K. Khalili, and S.Y. Ahmadi Brooghani. Optimization of loading curve in tube hydroforming process using multilevel response surface. Modares Mechanical Engineering, ۱۸۷, ۲۰۱۴-۱۷۶, شماره صفحات ۱۳, مجلد ۱۸۷.
14. S.Y. Ahmadi Brooghani, K. Khalili, S.E. Eftekhari Shahri, and B.S. Kang, Loading path optimization of a hydroformed part using multilevel response surface method, The International Journal of Advanced Manufacturing Technology, Vol. 70, pp. 1523-1531, 2013.
15. S.E. Eftekhari Shahri, S.Y. Ahmadi Brooghani, K. Khalili, and B.S. Kang. Ultrasonic tube hydroforming, a numerical and analytical study. Modares Mechanical Engineering, ۵۹, ۲۰۱۳-۴۶, شماره صفحات ۱۳, مجلد ۵۹.
16. K. Khalili, P. Kahhal, S.E. Eftekhari Shari, and M.S. Khalili, Blank Optimization in Elliptical-Shape

Sheet Metal Forming Using Response Surface Model Coupled with Reduced Basis Technique and Finite Element Analysis, Key Engineering Materials, Vol. 473, pp. 683-690, 2011.

17. K. Khalili, S.E. Eftekhari Shari, P. Kahhal, and M.S. Khalili, Wrinkling study in tube hydroforming process, Key Engineering Materials, Vol. 473, pp. 151-158, 2011.

Thesis

1. Manufacturing of Aluminum Composite Sheets Reinforced with Graphene Nanosheets via Accumulative Roll Bonding (ARB) and Characterization of Improved Mechanical Properties
2. Investigation of the effects of secondary rolling process and heat treatment on mechanical behavior and microstructure of pure aluminum and aluminum alloy sheets, after severe plastic deformation caused by constrained groove pressing
3. Investigation of Mechanical Properties and Microstructure Evolution of Aluminized Low-Carbon Steel During Constrained Groove Pressing (CGP)
4. Effect of Reinforcing Additive Nanoparticles on the Mechanical Properties and Microstructures of AZ31 Composites Processed by Severe Plastic Deformation
5. Investigation of mechanical properties, microstructure and corrosion AZ31 alloy in cyclic closed-die forging (CCDF)
6. Experimental and numerical investigation of constrained grooved pressing of aluminum sheet using rubber pad plate
7. Theoretical and experimental study on severe plastic deformation of Aluminum sheet
8. Determination of Johnson-Cook damage model constants for commercial pure copper sheet
9. Experimental study of the effect of woven composites patch on crack propagation of AA5252 aluminum alloy sheets
10. Numerical and experimental study on the effects of anisotropy in the tube hydroforming process
11. Effect of post-annealing on microstructure and mechanical properties of copper tube produced by severe plastic deformation
12. Numerical simulation of EDM machining process and optimization for reduction of residual stresses
13. Improve forming properties by nanofabrication of tube microstructure using SPD technics
14. Experimental Study and Finite Element Analysis of Tube Semi Hydroforming