DR. HOSSEIN ASHRAFI

Bibliography

Position: Assistant Professor

Institution: University of Kashan

Faculty: Mechanical Engineering

Department: Applied Design and Solid Mechanics

Date of Birth: January 1983

Telephone: (+98) 31 5591 3439

Fax: (+98) 31 5591 3400

Cellphone: (+98) 920 8051694

URLs: https://faculty.kashanu.ac.ir/hashrafi

https://orcid.org/0000-0003-0640-8958

https://www.mendeley.com/profiles/hossein-ashrafi3l

E–mails: hashrafi@kashanu.ac.ir or hhashrafi@gmail.com

Address: No. 316, 3rd Floor, Faculty of Mech. Eng., University of Kashan, P.O. Box 8731751167, Ghotbravandi Blvd., Kashan, Iran

Education

Sep. 2010 – August 2014	Ph.D. of Mechanical Engineering: K.N. Toosi University of Technology, Tehran, Iran; Graduated with First Class Honors and a GPA of 19.43/20.
Sep. 2005 – August 2008	M.Sc. of Mechanical Engineering: Shiraz University, Iran; Graduated with First Class Honors and a GPA of 17.67/20.
Sep. 2001 – August 2005	Bachelor of Engineering: Chamran University of Ahvaz (Jondi Shapour), Iran; Graduated with First Class Honors and a GPA of 17.2/20.
Sep. 1997 – June 2001	Diploma of Mathematics & Physics: SAMPAD High School of Sanyei–Far, Tehran, Iran; Graduated with First Class Honors.

Employment

Sep. 2012 – Sep. 2014	Instructor (as University Scholarship): Department of Applied Design, Faculty of Mechanical Engineering, University of Kashan, Iran;
Sep. 2014 – Present	Assistant Professor: Faculty of Mechanical Engineering, University of Kashan, Iran;

Skills & Abilities

- Computational and Solid Mechanics;
- Biomechanical Design and Tissue Engineering;
- Nonsmooth Contact and Impact Mechanics;
- Elasticity, Hyperelasticity, Viscoelasticity and Plasticity;
- Multi–Scale Modeling of Polymers and Smart Nanostructured Materials;

Patents

- An Instrument for Measurement of Creep Compliance in Biological Viscoelastic Solids, Iranian Patent Office, Patent No. 58038.

- An Instrument for Measurement of Relaxation Modulus in Biological Viscoelastic Solids, Iranian Patent Office, Patent No. 58039.

- A Measurement System for Identification of Time–Dependent Poisson's Ratios in Biological Viscoelastic Solids, Iranian Patent Office, Patent No. 58536.

- A Combined Hardware/Software System for Identification of Interfacial Contact Pressure between Biological Viscoelastic Solids, Iranian Patent Office, Patent No. 58534.

Selected Academic Experiences

- **2016-Present:** Invited Referee for Iranian Research Organization for Science and Technology, Ministry of Science, Research & Technology, Tehran.
- **2016-Present:** Invited Referee for Iran National Science Foundation, Tehran.
- **2012 – 2016:** Professor of Engineering College, University of Applied Science and Technology, Ministry of Science, Research & Technology, Tehran.
- **2008 – Present:** Invited Reviewer for International Journals likes "International Journal of Mechanical Sciences", "Medical & Biological Engineering & Computing", "Journal of Biomedical Physics and Engineering", "Journal of the Mechanical Behavior of Biomedical Materials", "Journal of Computational and Applied Research in Mechanical Engineering"', "Bioinspired, Biomimetic and Nanobiomaterials", "Thin-Walled Structures", and "Journal of Mechanics in Medicine and Biology".
- **2011 – 2014:** Senior Researcher, Centre of Excellence for Research in Advanced Materials and Structures, School of Mechanical Engineering, K.N. Toosi University, Science and Research Branch of Tehran.
- **2008 – 2015:** Senior Instructor and Designer, Department of Applied Design, Science and Research Centers of SANNAT, BFDK and JAS, MOD, Tehran.
- **2006 – 2010:** Senior Researcher, Center of Excellent in Computational Mechanics, Department of Mechanical Engineering, Shiraz University, Science and Research Branch of Shiraz.

Selected Research Projects

- Applied Project: "Simulation and Analysis of class V Preparation Restored with Microfilled Composite Containing Zinc Oxide Nanoparticles"; University of Kashan in Partnership with Kashan University of Medical Sciences, 2020.
- Research Project No. xx, "Time-Dependent Creep and Relaxation Behavior Modeling of Polymers by Nanoindentation"; Faculty of Mechanical Engineering, University of Kashan, 2020.
- Research Project No. 842339, "Stress Relaxation Analysis of Sandwich Structures with Functionally Graded Viscoelastic Cores"; Faculty of Mechanical Engineering, University of Kashan, 2019.
- Research Project No. 723408, "Finite Element Analysis on Effects of Bar Framework Material Misfit on the Stress Distribution of an Overdenture-Retaining Bar System"; Faculty of Mechanical Engineering, University of Kashan, 2018.
- Applied Project: "Design and Setting up of Impact Dynamics and Trauma Research Laboratory"; Faculty of Mechanical Engineering, University of Kashan, 2018.
- Research Project No. 615100, "Modeling of Contact Problems in Functionally Graded Viscoelastic Structures"; Faculty of Mechanical Engineering, University of Kashan, 2016.
- Research Project No. 527600, "Introducing Graded Elements for Dynamic Analysis of Advanced Smart Structures"; Faculty of Mechanical Engineering, University of Kashan, December 2015.
- Applied Project: "Dynamic Characterization and Modeling of Human Postural Steadiness"; University of Kashan in Partnership with Tehran University of Medical Sciences, 2013.
- Applied Project: "Postural Steadiness Analysis Software", University of Kashan in Partnership with University of Social Welfare and Rehabilitation Sciences, Tehran, 2013.
- PhD Dissertation: "Finite Element Analysis of Contact – Impact Problems for Nonhomogeneous Viscoelastic Media made of Functionally Graded Materials"; under Supervision of Prof. Shariyat, K.N. Toosi University of Technology, September 2014;
- MSc Thesis: "Numerical Analysis of Contact – Impact Problems for Viscoelastic Solids Using A Finite Element Formulation"; under Supervision of Prof. Mahzoon and Prof. Farid, Shiraz University, September 2008;
- Research Project: "Impact and Perforation Analysis of Protective Sandwich Panels with Visco-Hyperelastic Cores"; K.N. Toosi University of Technology, Tehran, 2011-2012.
- Research Project: "Biomedical Modeling of a Human Head – Neck System for the Vibration and Impact Damage Analysis"; K.N. Toosi University of Technology, Tehran, 2011–2013.

- Applied Project: "Analysis of Penetration and Perforation of Projectiles into Different Types of Targets"; SANAT and JAS Research Centers, Tehran, 2009–2015.
- Applied Project: "Laboratory Design of Impact Dynamics"; BFDK, 2012-2013.

Membership of Scientific Societies

- Member of Iranian Research Organization for Science and Technology
- Member of Iranian Society of Mechanical Engineering
- Member of Iranian Society of Biomedical Engineering
- Member of Iranian Society of Polymer Science and Technology
- Member of Iranian Society of Surface Science and Engineering
- Member of Iranian Society of Nano Science and Technology

Teaching Experiences

- Finite Element Methods
- Viscoelasticity
- Solid Mechanics
- Boundary Element Methods
- Statics and Dynamics
- Biomechanics
- Impact and Contact Mechanics
- Mechanics of Solid Polymers
- Computer-Aided Design
- Advanced Engineering Mathematics
- Mechanical Engineering Design
- Mechanical Vibrations

Workshop and Professional Courses

- Finite Element Methods for Engineering Applications
- Impact and Damage Mechanics
- Modal Testing and Analysis
- Contact and Friction Mechanics
- Engineering Analyzes with ANSYS & Ls-Dyna
- Biomechanics and Tissues Engineering
- Computer-Aided Design with MATLAB
- How to Prepare and Publish a Research Paper?

Supervised Theses

- Mohsen Kholdi: Elasto-plastic and residual stress analysis of thick-walled cylinder subjected to external pressure (2016)
- Soheil Saeedi: Thermo-elastoplastic analysis of FGM cylinder under thermomechanical loading by method of successive approximation (2016)
- Omid Bashari: Finite element analysis of stress relaxation in sandwich structures with functionally graded viscoelastic core (2017)
- Asad Shaker: Non-Destructive identification of thermal properties of a 2D FGM with Detection of an internal cavity or inclusion using the BEM (2018)
- Farshid Najafi: Low-velocity impact analysis of sandwich beams with polymeric viscoelastic cores and functionally graded carbon nanotube-reinforced composite face sheets (2019)
- Maziar Zahed: Modeling and analysis of creep and relaxation time-dependent behavior of polymeric materials by the use of fractional derivative three-parameter viscoelastic standard models and nanoindentation experimental data (2019)
- Sadegh Madadi: Kinematic analysis of human arm swing on shoulder joint, lumbar spine and hip joint by the use of gait parameters (2019)
- Sajjad Soltanipour: Low-Velocity impact response analysis of a sandwich plate with functionally graded carbon nanotube-reinforced composite face sheets and polymeric cores resting on elastic foundation by a modified Hertz-contact law (2020)
- Amin Haghshenas: Finite element analysis of polymer microplates based on strain-gradient elasticity (2020)
- OmidReza Masodiyan: Free vibration and bending analysis of a sandwich microplate with a functionally graded porous core and piezoelectric–piezomagnetic layers integrated with viscoelastic three-phase composite face sheets reinforced by carbon nanotubes (2020)
- N. Yazdani: 3D Finite element simulation and analysis of class V preparation restored with microfilled composite containing zinc oxide nanoparticles (2020)

Publications - Books

- H. Ashrafi, & M. Kholdi, *Computer-aided Mechanical Engineering and Design with ANSYS WORKBENCH*, 2018.
- H. Ashrafi, & S. Madadi, *Computational Galerkin Methods*, 2019.
- H. Ashrafi, & S. Madadi, *Applied Biomechanics*, 2020.

Publications - Selected Journal Papers

1. Kholdi, M. Loghman, A. Ashrafi, H. Arefi, M. "Analysis of thick-walled spherical shells subjected to external pressure: Elastoplastic and residual stress analysis", P I MECH ENG L-J MAT, Vol. 234, pp. 186-197, 2020.
2. Teimouri, R. Amini, S. Ashrafi, H. "An analytical model of burnishing forces using the slab method", Proc IMechE Part E: J Process Mechanical Engineering, Vol. 233, pp. 630-642, 2019.
3. Shaker, S. Khodadad, M. Ashrafi, H. "Analysis of heat conduction in a quadratic functionally graded plane by boundary element method based on the variable transmission approach", Aerospace Mechanics Journal, Vol. 15, pp. 77-89, 2019.
4. Ghorbanpour Arani, A. Emdadi, M. Ashrafi, H. Mohammadimehr, M. "Analysis of viscoelastic functionally graded sandwich plates with CNT reinforced composite facesheets on viscoelastic foundation", Journal of Solid Mechanics, Vol. 11, pp. 690-706, 2019.
5. Lotfi, M. Amini, S. Ashrafi, H. "Theoretical and numerical modeling of tool–chip friction in ultrasonic-assisted turning", Proc IMechE Part E: J Process Mechanical Engineering, Vol. 233, pp. 824-838, 2019.
6. Roshdi, S. Mostafavi, A. Razaghi, M. Ashrafi, H. " Aerodynamic and noise simulation of compressible supersonic gas flow exiting from tube", Aerospace Knowledge and Technology Journal, Vol. 0, pp. 1-38, 2018.
7. Ashrafi, H. Shariyat, M. "A visco-hyperelastic model for brain tissue response analysis under traumatic brain injuries", Archives of Trauma Research, Vol. 3, pp. 20-27, 2017.
8. Shaker, S. Khodadad, M. Ashrafi, H. "Identification of the heat conduction coefficients of a functionally graded material with inverse application of the boundary elements method and using imperialist competitive algorithm", Modares Mechanical Engineering, Vol. 17, pp. 119-130, 2017.
9. Ashrafi, H. Shariyat, M. "A three - dimensional comparative study of isoparametric graded boundary and finite element methods for nonhomogeneous FGM plates with eccentric cutouts", International Journal of Computational Methods, Vol. 14, pp. 1-28, 2017.
10. Keshavarz, R. Bashardoust Tajali, S. Mir, S.M. Ashrafi, H. "Investigation of scapular assistant test results in patients with shoulder impingement syndrome and rotator cuff tear: A clinical pilot study", Journal of Paramedical Science and Rehabilitation, Vol. 6, pp. 26-38, 2017.
11. Teimouri, R. Ashrafi, H. "Optimization of hydroforming process for deep drawing of AA7075 using finite element simulation and response surface methodology", T Indian I Metals, Vol. 70, pp. 2265–2275, 2017.
12. Keshavarz, R. Bashardoust Tajali, S. Mir, S.M. Ashrafi, H. "The Role of scapular kinematics in patients with different shoulder musculoskeletal disorders: A systematic review approach", Journal of Bodywork and Movement Therapies, Vol. 21, No. 2, pp. 386-400, 2017.
13. Lotfi, M. Ashrafi, H. Amini, S. Akhavan Farid, A. Jahanbakhsh M. "Characterization of various coatings on wear suppression in turning of Inconel 625: A three-dimensional numerical simulation", Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, Vol. 231, pp. 734-744, 2017.
14. Shariyat, M. Ashrafi H. Bandband, H. "Brain tissue response analysis based on several hyperelastic models, for traumatic brain injury assessment", Universal Journal of Biomedical Engineering Vol. 4(2), pp. 11 – 26, 2016.
15. Ashrafi, H. Shariyat, M. "A nano-indentation identification technique for viscoelastic constitutive characteristics of periodontal ligaments", Journal of Biomedical Physics and Engineering, Vol. 6, No. 2, pp. 109-118, 2016.
16. Asemi, K. Ashrafi, H. Shariyat, M. "Three-dimensional stress and free vibration analyses of functionally graded plates with circular holes by the use of the graded finite element method", Journal of Applied Mechanics and Technical Physics, Vol. 57, pp. 690-700, 2016.
17. Ashrafi, H. Shariyat, M. "A mathematical boundary integral equation for analysis of the heterogeneous media, using the functionally graded elements", International Journal of Computational Materials Science and Engineering, Vol. 04, pp. 1-27, 2015.
18. Roshdi, S. Mahdiani, R. Razaghi, M. Seifollahi, A. Ashrafi, H. "Numerical analysis of supersonic flow over an APDS projectile", Fluid Mechanics and Aerodynamics Journal, Vol. 3, pp. 45-56, 2015.
19. Ashrafi, H. Shariyat, M. "A numerical boundary integral equation analysis for standard linear viscoelastic media made of functionally graded materials", International Journal of Mechanical and Materials Engineering, Vol. 1, No. 9, pp. 1-7, 2014.

20. Keshavarz, R. Shakeri, H. Arab, A.M. Ashrafi, H. "Scapular position and orientation during abduction, flexion and scapular plane elevation phase", Iranian Rehabilitation Journal, Vol. 12, pp. 22-30, 2014.
21. Ashrafi, H. Shariyat, M. "A numerical Lagrangian approach for analysis of contact viscoelastic problems", Computational Mathematics and Modeling, Vol. 25, pp. 416-422, 2014.
22. Ashrafi, H. Asemi, K. Shariyat, M. "A three-dimensional boundary element stress and bending analysis of transversely/longitudinally graded plates with circular cutouts under biaxial loading", European Journal of Mechanics – A/Solids, Vol. 42, pp. 344-357, 2013.
23. Ashrafi, H. Keshmiri, H. Bahadori, M.R. Shariyat, M. "An FEM approach for three – dimensional thermoviscoelastic stress analysis of orthotropic cylinders made of polymers", Advanced Materials Research, Vol. 685, pp. 295-299, 2013.
24. Ashrafi, H. Bahadori, M.R. Keshmiri, H. Shariyat, M. "Boundary Integral equation analysis of an inhomogeneous medium made of functionally graded materials", Advanced Materials Research, Vol. 685, pp. 285-289, 2013.
25. Asemi, K. Shariyat, M. Salehi, M. Ashrafi, H. "A full compatible three-dimensional elasticity element for buckling analysis of FGM rectangular plates subjected to various combinations of biaxial normal and shear loads", Finite Elements in Analysis and Design, Vol. 74, pp. 9-21, 2013.
26. Asemi, K., Ashrafi, H., Salehi, M. Shariyat, M. "Three–dimensional static and dynamic analysis of functionally graded elliptical plates, employing graded finite elements", Acta Mechanica, Vol. 224, pp. 1849–1864, 2013.
27. Ashrafi, H. Shariyat, M. "A time-domain boundary element method for quasistatic thermoviscoelastic behavior modeling of the functionally graded materials", International Journal of Mechanics and Materials in Design, Vol. 9, pp. 295-307, 2013.
28. Ashrafi, H. Shariyat, M. Khalili, S.M.R. "A boundary element formulation for the heterogeneous functionally graded viscoelastic structures", Applied Mathematics and Computation, Vol. 225, pp. 246-262, 2013.
29. Ashrafi, H., Asemi, K., Shariyat, M. Saleh, M. "Two–dimensional modeling of heterogeneous structures using graded finite element and boundary element methods", Meccanica, Vol. 48, pp. 663–680, 2013.
30. Ashrafi, H., Bahadori, M.R. Shariyat, M. "Modeling of viscoelastic solid polymers using a boundary element formulation with considering a body load", Advanced Materials Research, Vol. 463, pp. 499-504, 2012.
31. Ashrafi, H. Shariyat, M. "Modeling of Viscoelastic Properties for Polymeric Thin Solid Layers Using a Contact Nanoindentation Approach", Iranian Journal of Surface Science and Engineering, Vol. 14, pp. 17-26, 2012.
32. Ashrafi, H. Shariyat, M. "Numerical analysis of contact problems with friction on nano-indentation by a modified augmented Lagrangian optimization approach", Aerospace Mechanics Journal, Vol. 8, pp. 1-12, 2012.
33. Ashrafi, H., Bahadori, M.R. Shariyat, M. "Two–dimensional modeling of functionally graded viscoelastic materials using a boundary element approach", Advanced Materials Research, Vol. 464, pp. 570-574, 2012.
34. Ashrafi, H., Mahzoon, M. Shariyat, M. "A New Mathematical Modeling of Contact Treatment between an Orthotropic Material and a Rigid Indenter", Iranian Journal of Materials Science and Engineering, Vol. 9, pp. 29-41, 2012.
35. Ashrafi, H. Shariyat, M. "A mathematical approach for describing time–dependent Poisson's ratios of periodontal ligaments", Journal of Biomedical Physics and Engineering, Vol. 2, No. 3, pp. 108-115, 2012.
36. Ashrafi, H. Farid, M. "A new numerical approach for the contact analysis between a spherical nanoindenter on the surface of viscoelastic half-space", Iranian Journal of Surface Science and Engineering, Vol. 10, pp. 1-10, 2011.
37. Ashrafi, H. Farid, M. "A general boundary element formulation for the analysis of viscoelastic problems", IJE Transactions A: Basics, Vol. 23, No. 2, pp. 153-168, 2010.
38. Ashrafi, H. Farid, M. "A Computational matrix inversion approach for analysis of contact problems between any rigid nano-indenter and viscoelastic bodies", Aerospace Mechanics Journal, Vol. 5, pp. 33-42, 2010.
39. Ashrafi, H. Farid, M. "An augmented Lagrangian finite element approach for the tribological analysis of frictional contact problems in viscoelastic systems", Iranian Journal of Surface Science and Engineering, Vol. 9, pp. 97-108, 2010.
40. Ashrafi, H. Farid, M. "A finite element formulation of contact problems for viscoelastic structures based on the generalized Maxwell relaxation model", Aerospace Mechanics Journal, Vol. 5, pp. 11-21, 2009.
41. Ashrafi, H. Farid, M. "A mathematical boundary integral equation analysis of standard viscoelastic solid polymers", Computational Mathematics and Modeling, Vol. 20, pp. 397-415, 2009.

Publications - Selected Conference Papers

1. Ashrafi, H. Madadi, S. "Viscoelastic contact analysis of nanoindentation modeling on polymeric solid films using augmented Lagrangian finite element formulation", In Proceedings of the 1st International Conference on Rheology (ICOR), Amirkabir University of Technology, 2019.
2. Madadi, S. Ashrafi, H. Tabatabaei, F. "تحلیل دینامیکی نوسانات اندام فوقانی در حین راه رفتن بر سینتیک و سینماتیک ستون فقرات کمری", In Proceedings of the 20th National Seminar on Specialized Physical Therapy of the Spine, University of Social Welfare and Rehabilitation Sciences, 2019.

3. Shaker, S. Khodadad, M. Ashrafi, H. "Combination of the simple BEM and ICA to detect a cavity inside a FG domain", 26th Annual International Conference of Iranian Society of Mechanical Engineers, 2018.
4. Ashrafi, H. Madadi, S. "ارائه یک مدل تماسی جدید برای فروروی در لایه های ویسکوالاستیک ماکسولی", In Proceedings of the 3rd National Conference on Rheology, Amirkabir University of Technology, 2018.
5. Ashrafi, H. Madadi, S. "وابستگی ضریب پواسون فوم الاستومر ویسکوالاستیک به فرکانس", In Proceedings of the 3rd National Conference on Rheology, Amirkabir University of Technology, 2018.
6. Shaker, S. Khodadad, M. Ashrafi, H. "حل معکوس المان مرزی مسئله انتقال حرارت جهت تعیین ضرایب هدایت حرارتی یک صفحه مدرج تابعی", 26th Annual International Conference of Iranian Society of Mechanical Engineers, 2018.
7. Loghman, A Ashrafi, H Saeedi, S Kholdi, M "تحلیل ترموالاستیک استوانه جدارضخیم با دوانتهای بسته ساخته شده از مواد مدرج تابعی با روش مربع سازی دیفرانسیلی", 25th Annual International Conference of Iranian Society of Mechanical Engineers, 2017.
8. Shaker, S. Khodadad, M. Ashrafi, H. "استفاده از روش المان مرزی در تحلیل انتقال حرارت در صفحات مدرج تابعی در حالتهای خاص", 3rd Iranian Conference on Heat and Mass Transfer, 2017.
9. Ashrafi, H. Bashari, O. "A Finite Element Approach for Modeling of Nano-Beams Incorporated with Nonlocal Elasticity", In Proceedings of the 5th International Congress on Nanoscience and Nanotechnology, Kharazmi University, 2016.
10. Ashrafi, H. Keshavarz, R. "A 3-D Finite Element Biodynamic Analysis of the Human Lumbar Spine," 1st National Congress on Clinical Movement, Ahvaz Jondishapur University of Medical Sciences, 2016.
11. Ashrafi, H. Kholdi, M. "بررسی رفتار ترمومکانیکی رویه‌های پلیمری حافظه‌دار", 16th National Seminar on Surface Engineering, 2016.
12. Ashrafi, H. Bashari, O. "A nanoindentation identification of time-dependent relaxation and creep moduli for periodontal ligaments", In Proceedings of the 5th International Congress on Nanoscience and Nanotechnology, Kharazmi University, 2016.
13. Ashrafi, H. Seifallahi, A. Mahdiani, R. "مدل‌سازی ساختاری و تحلیل رفتار دینامیکی ماده یک ژلاتین بالستیک", In Proceedings of the 4th International Conference on Iranian Society of Material Engineering & Metallurgy, 2015.
14. Ashrafi, H. "Viscoelastic creep analysis of functionally graded aerospace structures by means of boundary element method", In Proceedings of the 14th International Conference of Iranian Aerospace Society, 2015.
15. Ashrafi, H. Bahadori, M.R. Keshmiri, H. Shariyat, M. "Boundary Integral Equation Analysis of an Inhomogeneous Medium Made of Functionally Graded Materials", In Proceedings of the 3rd International Conference on Advanced Materials Research (ICAMR), China, January 7–9, www.scientific.net, 2013.
16. Ashrafi, H. Bahadori, M.R. Keshmiri, H. Shariyat, M. "An FEM Approach for Three – Dimensional Thermoviscoelastic Stress Analysis of Orthotropic Cylinders Made of Polymers", In Proceedings of the 3rd International Conference on Advanced Materials Research, China, January 7–9, www.scientific.net, 2013.
17. Ashrafi, H. Shariyat, M. "Thermoviscoelastic Analysis of Three–Dimensional Orthotropic Solid Polymers Using a General Finite Element Formulation", In Proceedings of the 21th Annual International Conference on Mechanical Engineering – ISME, K.N. Toosi University of Technology, Tehran, May 7–9, 2013.
18. Ashrafi, H. Shariyat, M. "A Boundary Element Formulation for Standard Linear Viscoelastic Structures Made of Functionally Graded Materials", In Proceedings of the 21th Annual International Conference on Mechanical Engineering – ISME, K.N. Toosi University of Technology, Tehran, May 7–9, 2013.
19. Shariyat, M. Ashrafi, H. Bandband, H. "Modelling Of Energy Absorber on Helmet by Using Polymeric Foams", In Proceedings of the 10th International Seminar on Polymer Science and Technology, Iran Polymer and Petrochemical Institute, 2012.
20. Ashrafi, H. Shariyat, M. "Material Nonhomogeneity Modeling of Functionally Graded Viscoelastic Materials Using Boundary and Finite Element Techniques", In Proceedings of the 3rd International Conference on Composites: Characterization, Fabrication & Application, Iran Composite Institute, December 15–18, 2012.
21. Ashrafi, H. Bahadori, M.R. Keshmiri, H. "Numerical Analysis of Thermoviscoelastic behavior of Post-Restored Teeth Using a Generalized Approach", In Proceedings of the IEEE 19th Iranian Conference on Biomedical Engineering, Tehran, December 20–21, www.ieeexplore.ieee.org, 2012.
22. Ashrafi, H. Bahadori, M.R. Keshmiri, H. "Numerical Contact Analysis of Periodontal Ligament under Tooth Mobility by Considering Its Viscoelastic Constitutive Behavior", In Proceedings of the IEEE 19th Iranian Conference on Biomedical Engineering, Tehran, December 20–21, www.ieeexplore.ieee.org, 2012.
23. Bandband, H. Shariyat, M. Ashrafi, H. "Reduction of Human Head Injury By Designing an Energy Absorption On Helmet from the Use of Aluminum Honeycomb Panels", In Proceedings of the IEEE 19th Iranian Conference on Biomedical Engineering, Tehran, December 20–21, www.ieeexplore.ieee.org, 2012.
24. Ashrafi, H., Bahadori, M.R. Shariyat, M. "Two–Dimensional Modeling of Functionally Graded Viscoelastic Materials Using a Boundary Element Approach", In Proceedings of the 2nd International Conference on Advanced Materials Research (ICAMR), China, January 7–9, www.scientific.net, 2012.
25. Ashrafi, H., Bahadori, M.R. Shariyat, M. "Modeling of Viscoelastic Solid Polymers Using a Boundary Element Formulation with Considering a Body Load", In Proceedings of the 2nd International Conference on Advanced Materials Research (ICAMR), China, January 7–9, www.scientific.net, 2012.
26. Ashrafi, H. Shariyat, M. "Effects of Viscoelasticity and Time–Dependent Poisson's Ratio on Nanoindentation Measurements of Solid Polymers", In Proceedings of the 10th International Seminar on Polymer Science and Technology – ISPST, Amirkabir University of Technology, Tehran, October 21–25, 2012.

27. Bandband, H. Ashrafi, H. Shariyat, M. "Modeling and Analysis of Vibration Response in Human Skull System with Time–Dependent Viscoelastic Nature", In Proceedings of the IEEE 18th Iranian Conference on Biomedical Engineering, Tarbiat Modares University, Tehran, December 14–16, 2011.
28. Mofidian, SMM. Atefi, GA. Ashrafi, H. "Application of Lattice BOLTZMANN Method to Simulate Blood Flow in Carotid Artery", In Proceedings of the 1st MEFOMP International Conference of Medical Physics, Shiraz University of Medical Sciences, October 26–28, 2011.
29. Ashrafi, H. Shariyat, M. "Thermoelastic Analysis of Post–Restored Teeth Using a Generalized Mathematical Approach", In Proceedings of the 1st MEFOMP International Conference of Medical Physics, Shiraz University of Medical Sciences, October 26–28, 2011.
30. Ashrafi, H. Khalili, SMR. Shariyat, M. "Biomedical Applications of Smart Materials in Dentistry", In Proceedings of the 1st MEFOMP International Conference of Medical Physics, Shiraz University of Medical Sciences, October 26–28, 2011.
31. Ashrafi, H. Shariyat, M. "A Nanoindentation Modeling of Viscoelastic Creep and Relaxation Behaviors of Ligaments", In Proceedings of the 17th IEEE Iranian Conference on Biomedical Engineering, Medical University of Esfahan, November 3–4, 2010.
32. Ashrafi, H. Shariyat, M. "A Mathematical Approach for Describing the Time–Dependent Poisson's Ratio of Viscoelastic Ligaments", In Proceedings of the 17th IEEE Iranian Conference on Biomedical Engineering, Medical University of Esfahan, November 3–4, 2010.
33. Ashrafi, H. Shariyat, M. "A Viscoelastic Nanoindentation Modeling On Polymeric Solid Films by an Augmented Lagrangian Contact Analysis", In Proceedings of the 3rd International Congress on Nanoscience and Nanotechnology – ICNN, Shiraz University, November 9–11, 2010.
34. Ashrafi, H. Farid, M. "A Meshless Local Boundary Integral Equation Approach Applied to Functionally Graded Viscoelastic Solid Polymers", In Proceedings of the 18th Annual International Conference on Mechanical Engineering – ISME, Sharif University of Technology, Tehran, May 11–13, 2010.
35. Ashrafi, H. "An Augmented Lagrangian Treatment for Viscoelastic Contact Formulation", In Proceedings of the 2009 Joint ASCE – ASME – SES Conference on Mechanics and Materials, Blacksburg, VA, USA, June 24–27, pp. 122–123, 2009.
36. Ashrafi, H. Farid, M. "Measurement of Mechanical Properties of Bones and Teeth Using Nanoindentation", In Proceedings of the IEEE 16th Iranian Conference on Biomedical Engineering, Tehran University of Medical Sciences, December 30–31, 2009.
37. Ashrafi, H. Farid, M. "An Analytical Modeling for Linearly Viscoelastic Functionally Graded Solids by Considering Separable Relaxation Functions in Space and Time", In Proceedings of the 17th Annual International Conference on Mechanical Engineering – ISME, University of Tehran, May 19–21, 2009.
38. Ashrafi, H. Farid, M. "An Incremental Relaxation Finite Element Approach Adaptive in Space and Time for Generalized Viscoelastic Maxwell Model", In Proceedings of the 18th Biennial International Conference on Computer Methods in Mechanics, University of Ziolona Gora, Poland, May 18–21, 2009.
39. Ashrafi, H. Farid, M. "The Viscoelastic Boundary Integral Equation Analysis of Infinite Polymeric Plates Using an Alternative Time Marching Treatment", In Proceedings of the 18th Biennial International Conference on Computer Methods in Mechanics, University of Ziolona Gora, Poland, May 18–21, 2009.
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