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Teaching Experiences

BSc: Statics, Strength of materials I & II & III, Machine design components I & II, Materials science, Dynamics, Dynamics of machinery, Mechanical vibrations, Automatic control, Introductory mechanics of composite materials, Introductory finite elements method, Manufacturing methods, Industrial drawing I, Computer programing, Numerical methods, Modern manufacturing methods, Turbomachinery, Strength of materials lab, Machine tool shop.

MSc: Advanced mechanics of materials, Finite elements, Impact mechanics, Theory of elasticity, Plasticity, Advanced power transmission systems.

Research Activities:

Journal Papers:

- 1- Sangsefidi M., Sabouri H., Mir M. and Hasanpour A., "High-velocity impact response of fiber metal laminates: Experimental investigation of projectile's deformability", *Thin-Walled Structures*, 2020, (Online Published)
- 2- Hassanpour Roudbenah F., Liaghat G.H., Sabouri H. and Hadavinia H., "High-Velocity Impact Loading in Honeycomb Sandwich Panels Reinforced with Polymer Foam: A Numerical Approach Study", *Iranian Polymer Journal*, Vol. 29, No. 8, pp. 707-721, 2020.
- 3- Izadshenas M., Khademi Hamidi J. and Sabouri H., "Modification of a Rock Cuttability Theoretical Model for V-Shape Disc Cutter Considering the Edge Radius", *Iranian Journal of Mining Engineering*, Vol. 15, No. 46, pp. 1-10, 2020. (in Persian)
- 4- Varmazyari S. and Sabouri H., "Investigation of Progressive Damage in Chopped Glass Fiber/Epoxy Composites under Simple Tensile Loading and Evaluation of Chow and Wang Model", *Journal of Mechanical Engineering- University of Tabriz*, Volume 50, No. 4 (winter), pp. 229-238, 2020. (in Persian)
- 5- Bayat A., Liaghat G.H., Sabouri H., Dehghani Ashkezari G., Pedram E., Taghizadeh S. A., Kashif Khan M. and Razmkhah O., "Experimental Investigation on Quasi Static Mechanical Behavior of Autoclaved Aerated Concrete Insulated Sandwich Panels", *Journal of Sandwich Structures and Materials*, 2019. (Online Published)

- 6- Aligholizadeh E., Yazdani M. and Sabouri H., "Modeling Hyperviscoelastic Behavior of Elastomeric Materials (HDPE/POE blend) at Different Dynamic Biaxial and Uniaxial Tensile Strain Rates by a New Dynamic Tensile-Loading Mechanism", *Journal of Elastomers & Plastics*, Vol. 52, No. 4, pp. 285-303, 2020.
- 7- Bayat A., Liaghat G.H., Ghalami-Choobar M., Dehghani Ashkezari G. and Sabouri H., "Analytical Modeling of the High-Velocity Impact of Autoclaved Aerated Concrete (AAC) Blocks and Some Experimental Results", *International Journal of Mechanical Sciences*, Vol. 159, No. 8, pp. 315-324, 2019.
- 8- Hassanpour Roudbeneh F., Liaghat G.H., Sabouri H. and Hadavinia H., "Experimental Investigation of Quasistatic Penetration Tests on Honeycomb Sandwich Panels Filled with Polymer Foam", *Mechanics of Advanced Materials and Structures*, Vol. 27, No. 21, pp. 1803-1815, 2018.
- 9- Ahmadi H., Ekrami M. Sabouri H. and Bayat M., "Experimental and Numerical Investigation on the Effect of Projectile Nose Shape in Low-Velocity Impact Loading on Fiber Metal Laminate Panels", *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Vol. 233, No. 10, pp. 3665-3679, 2018.
- 10- Hassanpour Roudbeneh F., Liaghat G.H., Sabouri H. and Hadavinia H., "Experimental Investigation of Impact Loading on Honeycomb Sandwich Panels Filled with Foam", *International Journal of Crashworthiness*, Vol. 24, No. 2, pp. 199-210, 2018.
- 11- Aligholizadeh E., Yazdani M. and Sabouri H., "Experimental Investigation of Strain Rate Effect on Reinforced Elastomeric Material Behavior (HDPE/POE) under Quasi-Static and Dynamic Loading", *Modares Mechanical Engineering*, Vol. 18, No. 6, pp. 97-104, 2018. (in Persian)
- 12- Mir M. and Sabouri H., "Numerical Modeling of High Velocity Penetration in Woven Laminates Considering Strain Rate Effects in Progressive Damage", *Journal of Energetic Materials*, Volume 12, No.4 (winter), pp. 241-253, 2017. (in Persian)
- 13- Mir M. and Sabouri H., "Failure Mode Characterization and Dominant Mode Determination in Progressive Damage Due to High Velocity Impact on Woven Composite Laminates", *Modares Mechanical Engineering*, Vol. 17, No. 8, pp. 313-322, 2017. (in Persian)
- 14- Ekrami M., Ahmadi H., Bayat M. and Sabouri H., "Experimental Study of Projectiles with Flat, Conical and Hemispherical Nose Shapes on Low-Velocity Impact on GLARE 3", *Modares Mechanical Engineering*, Vol. 17, No. 7, pp. 109-118, 2017. (in Persian)
- 15- Bayat A., Liaghat G.H., Sabouri H., Pedram E. and Farsavani Mohamadi S.A., "Experimental Analysis of Ballistic Limit Velocity of Autoclaved Aerated Concrete Targets under Rigid Projectile Penetration", *Journal of Energetic Materials*, Volume 11, No.4 (winter), pp. 3-11, 2017. (in Persian)
- 16- Hassanpour Roudbeneh F., Lighat G.H. and Sabouri H., "Experimental Investigation of Foam- Filled Sandwich Panels in Concentrated and Distributed Compressive Loading", *Modares Mechanical Engineering*, Vol. 16, No. 12, pp. 648-656, 2017. (in Persian)
- 17- Hassanpour Roudbeneh F., Liaghat G.H. ,Sabouri H. and Hadavinia H., "Investigation of Interaction between Aluminum Facing and Honeycomb Structure in Quasi-static and Impact Loading", *Modares Mechanical Engineering*, Vol. 16, No. 7, pp. 23-31, 2016. (in Persian)
- 18- Pirmohammadi N., Liaghat G.H., Pol M.H. and Sabouri H., "Analytical, Experimental and Numerical Investigation of Sandwich Panels Made of Honeycomb Core Subjected to Projectile Impact", *Modares Mechanical Engineering*, Vol. 14, No. 5, pp. 153-164, 2014. (In Persian)
- 19- Sabouri H., Liaghat G.H., Ahmadi H., and Sadighi M., "Experimental Investigation on the Ballistic Impact of 2/1 GLARE Panels", *Scientific Journal of Energetic Materials*, Vol. 8, No. 4 (winter), pp. 47-53, 2014. (in Persian)

- 20- Ahmadi H., Liaghat G.H., Sabouri H. and Bidkhouri E., "Investigation on the High Velocity Impact Properties of Glass-Reinforced Fiber Metal Laminates", *Journal of Composite Materials*, Vol. 47, No. 13, pp 1605-1615, 2012.
- 21- Ghannad M., Zamani Nejad M., Rahimi G.H. and Sabouri H., "Elastic Analysis of Pressurized Thick Truncated Conical Shells Made of Functionally Graded Materials", *Structural Engineering and Mechanics*, Vol. 43, No. 1, pp. 105-126, 2012.
- 22- Abedi M., Zamani Nejad M., Lotfian M.H. and Sabouri H., "Effects of Exponential Varying Moduli on Stress Distribution of Solid Shafts", *American Journal of Scientific Research*, Vol. 37, pp. 68-74, 2011.
- 23- Sabouri H., Ahmadi H., and Liaghat G.H., "Ballistic Impact Perforation into GLARE Targets: Experiment, Numerical Modelling and Investigation of Aluminium Stacking Sequence", *International Journal of Vehicle Structures & Systems*, Vol. 3, No. 3, pp. 178-183, 2011.
- 24- Sabouri H. & Liaghat G.H., "Comments on the article: "Ballistic impact of GLARE™ fiber-metal laminates", by Michelle S. Hoo Fatt, Chunfu Lin, Duane M. Revilock Jr. and Dale A. Hopkins, [Composite Structures, 61 (2003) 73–88]", *Composite Structures*, Vol. 92, pp. 600-601, 2010.
- 25- Rezaee Pazhand J. & Sabouri H., "Effect of Partial Debonding on Response of Perforated Plates Repaired with Square Composite Patches", *Key Engineering Materials*, Vols. 417-418, pp. 701-704, 2010.
- 26- Rezaee Pazhand J. & Sabouri H., "Shear Buckling of Perforated Metallic Plates Reinforced with Square Composite Patches", *Journal of Reinforced Plastics and Composites*, Vol. 29, No. 7, pp. 1020-1027, 2010.
- 27- Rezaee Pazhand J. & Sabouri H., "Buckling of Perforated Plates Repaired with Composite Patches", *Key Engineering Materials*, Vols. 385-387, pp. 377-380, 2008.
- 28- Rezaee Pazhand J. & Sabouri H., "Repair and Strengthening of Square Metallic Plates with Composite Patches", *Modares Technical and Engineering- Special Issue on Mechanical Engineering*, Vol. 17, No. 3 (Fall), pp. 65-74 2004. (in Persian)

Conference Papers:

- 1- Izadshenas M., Khademi Hamidi J. and Sabouri H., "Investigating the Relationship Between Gypsum Cutting Forces by V-Shaped and CCS Mini Disc Cutters in Linear Rock Cutting Test", *Proceedings of 8th Iranian Mining Engineering*, Birjand University, Birjand, Iran, February 2020. (in Persian)
- 2- Izadshenas M., Khademi Hamidi J. and Sabouri H., "Extending the Application Range of Small-Scale Linear Rock Cutting Machine (SSLCM) in Mechanized Excavation Industry by Design and Fabrication of Disc Cutter", *Proceedings of 13th Iranian Tunneling Conference*, Tehran, Iran, November 2019. (in Persian)
- 3- Alaei R., Khademi Hamidi J. and Sabouri H., "A Numerical Study of the Effect of Disc Cutter Geometry on Rock Cutting Efficiency in Small Scale Test", *Proceedings of 13th Iranian Tunneling Conference*, Tehran, Iran, November 2019. (in Persian)
- 4- Izadshenas M., Khademi Hamidi J. and Sabouri H., "The Effect of Edge Radius of V-Shape Disc Cutters on Rock Cutting Forces Estimation", *Proceedings of 7th Iranian Mining Engineering Conference and 5th International Mine and Mining Industries Congress*, Tehran, Iran, November 2018. (in Persian)
- 5- Hassanpour Roudbeneh F., Liaghat G. H., Sabouri H., Hadavinia H. and Liaghat A., "Interaction Mechanism of Honeycomb Sandwich Panels under Impact Loading", *Proceedings of 12th International Conference on Sandwich Structures (ICSS-12)*, Lausanne, Switzerland, August 2018.
- 6- Mir M. and Sabouri H., "Effect of Strain Rate and Simultaneous Progressive Damage Modes on Mechanical Properties of Composites", *Proceedings of 25th Annual International Conference of Mechanical Engineering*, Tarbiat Modares University, Tehran, Iran, May 2017. (in Persian)

- 7- Mir M. and Sabouri H., "Investigation of the Effect of Damage Parameter and Its Growth for Determination the Ballistic Limit Velocity of Composite Laminates", *Proceedings of 25th Annual International Conference of Mechanical Engineering*, Tarbiat Modares University, Tehran, Iran, May 2017. (in Persian)
- 8- Emdadi M. and Sabouri H., "Review of Effective Mechanisms on Compressive Properties of Nanoresin Composites under Different Strain Rates", *Proceedings of 6th International Congress on Nanoscience Nanotechnology*, Kharazmi University, Tehran, Iran, December, 2016.
- 9- Emdadi M. and Sabouri H., "Review of Effective Mechanisms on Tensile Properties of Nanoresin Composites under Different Strain Rates", *Proceedings of 6th International Congress on Nanoscience Nanotechnology*, Kharazmi University, Tehran, Iran, December, 2016.
- 10- Hassanpour Roudbeneh F., Liaghat G. H., Sabouri H. and Hadavinia H., "Interaction between Polyurethane Foam and Aluminum Honeycomb in Quasi-static Penetration", *Presented at the 4th International Conference and Exhibition on Mechanical & Aerospace Engineering*, Orlando, USA, October 2016.
- 11- Hassanpour Roudbeneh F., Liaghat G. H., Sabouri H. and Hadavinia H., "Study of Interaction between Aluminum Facing and Honeycomb Structure in Quasi-static and Impact Loading", *Presented at the 4th International Conference and Exhibition on Mechanical & Aerospace Engineering*, Orlando, USA, October 2016.
- 12- Hassanpour Roudbeneh F., Liaghat G. H. and Sabouri H., "Experimental Investigation of Impact Loading on Honeycomb Sandwich Panels Filled with Foam", *Presented at the 19th International Conference on Composite Structures*, Porto, Portugal, September 2016.
- 13- Hassanpour Roudbeneh F., Liaghat G. H. and Sabouri H., "Experimental Investigation of Quasi-static Penetration on Honeycomb Sandwich Panels Filled with Foam", *Proceedings of the Biennial International Conference on Experimental Solid Mechanics (X-Mech 2016)*, Tehran, Iran, February 2016.
- 14- Hassanpour Roudbeneh F., Liaghat G.H. and Sabouri H., "Investigation of Interaction Effects between Aluminum Facing Plates and Honeycomb Core in Sandwich Panel Structures", *Proceedings of 24th Annual International Conference of Mechanical Engineering*, Yazd University, Yazd, Iran, April 2016. (in Persian)
- 15- Sabouri H. and Hosseini Lavassani S.S., "Effect of Explosion on Degradation the Load Carrying Capacity and Collapse of Concrete Beams Based on Progressive Damage Model", *Proceedings of 4th National Conference on New Material and Structures in Civil Engineering*, Yasouj University, Yasouj, Iran, November 2015. (in Persian)
- 16- Ahmadi, H. Sabouri, H. Liaghat, G.H., Hadavinia, H. and Abotorabi, A., "Quasi-Static Perforation of GLARE Fiber Metal Laminates", *Proceedings of ICMIE 2013*, Penang, Malaysia, 2013.
- 17- Khoshgoftar, M.J., Mirzaali, M.J., Liaghat, G.H., Sabouri, H. and Najafee, M., "Delamination Studying in Polymer Composites Reinforced by Glass Fiber in Ballistic Impact", *Proceedings of ASME ESDA 2012*, Nantes, France, July 2012.
- 18- Sabouri H., Liaghat G.H. and Ahmadi H., "Experimental Investigation on the High Velocity Impact of 2/1 GLARE Panels", *Proceedings of the Biennial International Conference on Experimental Solid Mechanics (XMECH 2011)*, Tehran, Iran, March 2012.
- 19- Rahimi G.H., Khoshgoftar M.J. and Sabouri H., "Mechanical Behavior of Non- Homogenous Cylindrical Foam under Internal and External Pressure", *Proceedings of PPS 2011, Kish Island*, Iran, November 2011.
- 20- Akbari M.A., Liaghat G.H. and Sabouri, "A Simple Analytical Model to Simulate Oblique Ballistic Impact onto Fabric", *Proceedings of the 2nd International Conference on Mechanical and Aerospace*

Engineering (ICMAE 2011), Bangkok, Thailand, July 2011. (Published in Applied Mechanics and Materials, Vols. 110-116, pp. 3453-3458).

- 21- Ahmadi H., Liaghat G.H., Sabouri H. and Bidkhori, E., "Experimental and Numerical Investigation on the High Velocity Impact Response of GLARE with Different Thickness Ratio", *Proceedings of 11th International Conference on the Mechanical Behavior of Materials (ICM11)*, Villa Erba, Como, Italy, January 2011. (Published in Procedia Engineering, Vol. 10, pp. 869-874, Elsevier).
- 22- Sabouri H., Liaghat G.H. and Ahmadi H., "Ballistic Impact Perforation into GLARE Targets, Part I: Numerical Modeling and Experiments", *Proceedings of the 2nd International Conference on Composites: Characterization, Fabrication & Application (CCFA-2)*, Kish Island, Iran, December 2010.
- 23- Ahmadi H., Liaghat G.H. and Sabouri H., "Ballistic Impact Perforation into GLARE Targets, Part II: Target Optimization", *Proceedings of the 2nd International Conference on Composites: Characterization, Fabrication & Application (CCFA-2)*, Kish Island, Iran, December 2010.
- 24- Rezaee Pazhand J. & Sabouri H., "Repair and Strengthening of Aluminum Plates with Circular Composite Patches", *Proceeding of ECCM 12 (12th European Conference on Composite Materials)*, Biarritz, France, August 2006.
- 25- Rezaee Pazhand J. & Sabouri H., "Shear Buckling of Perforated Aluminum Plates Reinforced with Composite Patches", *Proceeding of First International Conference on Modeling, Simulation and Applied Optimization*, Sharjah, U.A.E. February 2005.
- 26- Sabouri H. and Pourkhadem Namin H., "Genetic Algorithm and Optimum Design of Retrofitting Patch for Strengthening the Plate Containing Cutout", *Proceedings of 2nd Iranian thin-Walled Structures*, Shahid Bahonar University, Kerman, Iran, November 2005. (in Persian)
- 27- Rezaee Pazhand J., Sabouri H. and Kafshdar Goharian S.M., "Vibration Analysis of the Live Steam Transmitter Line of Toos Thermal Power Plant", *Proceedings of 19th International Power System Conference (PSG 2004)*, Tehran, Iran, November 2004. (in Persian).
- 28- Rezaee Pazhand J. and Sabouri H., "Free Vibration of Perforated Aluminum Plates Reinforced with Bonded Composite Patches", *Proceedings of the Fourth Asian-Australasian Conference on Composite Materials (ACCM 4)*, University of Sydney, Sydney, Australia, July 2004.
- 29- Sabouri H., Rezaee Pazhand J., Keyvani A. and Dehestani A.R., "Feasibility Study of Replacement the Smaller Yoke by the Larger Yoke in Paykan Cardan Shaft", *Proceedings of 11th Annual International Conference of Mechanical Engineering*, Mashhad, Iran, April 2003. (in Persian)
- 30- Rezaee Pazhand J. and Sabouri H., "Vibration Response of Repaired and Strengthen Plates Using Composite Laminates", *Proceedings of 1st Iranian Thin-Walled Structures*, Urmia University, Urmia, Iran, March 2003. (in Persian)
- 31- Rezaee Pazhand J., Moeindarbari A. and Sabouri H., "Investigation of Type and Quality of Repair on Buckling response of Plate Including Cutout", *Proceedings of 1st Conference on Conference on Strengthening and Retrofitting of Structures*, Amirkabir University, Tehran, Iran, May 2002. (in Persian)
- 32- Rezaee Pazhand J. and Sabouri H., "Investigation of Effective Parameters on Free Vibration of Metallic Plate Containing Cutout Reinforced by Composite Patch", *Proceedings of 1st Conference on Conference on Strengthening and Retrofitting of Structures*, Amirkabir University, Tehran, Iran, May 2002. (in Persian)

Book:

Liaghat G.H., Seyfoori S. and Sabouri H., "Introduction to Modeling and Simulation of Classical Impact Problems Using LS-DYNA Software", *Tarbiat Modares University Press*, 2014. (in Persian)

Research Interests:

Impact mechanics
Composite materials and structures
Continuum damage mechanics in composites
Static and dynamic stress analysis
Machine design