

Journal Publication

- 1) Hassan Sayyaadi, Jamal Seddighi, “An Integrated, Limited-Active Suspension Control for Reduced Pitching Discomfort and Improved Yawrate-Tracking Performance Using Self-Powered, Rotary Actuators”, *Vehicle System Dynamics*, Published 2025 Online by Taylor and Francis, DOI - 10.1080/00423114.2025.2527273.
- 2) Hassan Sayyaadi, Amirabbas Turani, Reza Nasiri Zarandi, “A New 3D Flux Configuration Cost Effective Switched Reluctance Motor with Small Torque Ripple Content; Design and prototyping”, *IET Electric Power Applications*, Published 2024 Online by Taylor and Francis.
- 3) Hassan Sayyaadi, Mohammad Ali Mokhtari Amirmajdi, Amir Reza Askari” Non-Linear Assessment of Tunable Vibrating Ring Micro-Gyroscopes Design”, *Mechanics Based Design of Structures and Machines*, Published 2023 Online.
- 4) Hassan Sayyaadi, Mohammad Erfan Khodabakhshi, “Analysis of fatigue phenomena on Composite Core Sandwich Panels Life under Three-point Bending Loading”, *Advanced Structural Mechanics*, 1 (2022) 41-55.
- 5) Pegah Ziyaei, Mahdi Khorasanchi, Hassan Sayyaadi, Ali Sadollah, “Minimizing the levelized cost of energy in an offshore wind farm with non-homogeneous turbines through layout optimization”, *Ocean Engineering* 249 (2022) 110859.
- 6) Hassan Sayyaadi, Mohammad Saeed Seif and Ali Asghar Abniki, “Experimental investigation of comparison of optical fiber acoustic sensor with standard hydrophone in shallow water”, *International Journal of Maritime Technology*, 6 pages Available online at: www.ijmt.ir 2021.
- 7) Seiyed Hamid Mousavi, Hassan Sayyaadi and Navid Arjmand, “Prediction of the thorax/pelvis orientations and L₅-S₁ disc loads during various static activities using neuro-fuzzy”, *Journal of Mechanical Science and Technology*, <https://doi.org/10.1007/s12206-020-0740-0>, 5 pages Vol.34 No.8 2020.
- 8) Hassan Sayyaadi, Mohammadmahdi Mehrabi and Maryam Hoviattalab, “Analysis and Modification of a Common Energy Harvesting System using Magnetic Shape Memory Alloys (MSMAs)”, *Journal of Intelligent Material Systems and Structures*, <https://doi.org/10.1177/1045389X20963174>, 16 pages 2020.
- 9) Hassan Sayyaadi and Hossein Naderi, “Modelling of Magnetic Shape Memory Alloys plates for pressure sensor application”, *Journal of Intelligent Material Systems and Structures*, 2020, <https://doi.org/10.1177/1045389X20947170>.
- 10) Mohammadreza Tabeshpour, Mohammad Hadi Erfani, Hassan Sayyaadi, “Study on Ultimate Capacity of Offshore Jacket Platforms Considering the Effects of Global and Local Buckling of the Elements”,

Advances in Solid and Fluid Mechanics (ASFM) 1 (2019) 10-18, 2019.

- 11) Mohammadreza Tabeshpour, Mohammad Hadi Erfani, Hassan Sayyaadi, "Challenges in calculation of critical buckling load of tubular members of jacket platforms in finite element modeling", JOURNAL OF MARINE SCIENCE AND TECHNOLOGY, Springer, 2019, <https://doi.org/10.1007/s00773-019-00686-5>.
- 12) Hassan Sayyaadi and Shahnaz Bahmanyar, "Hydrodynamics maneuver of a single helical flagellum swimming robot at low-Reynolds condition", Microfluidics and Nanofluidics, Vol. 23, No. 3, 12 pages, 2019.
- 13) Ali Sadollah, Hassan Sayyaadi, Anupam Yadav, "A dynamic metaheuristic optimization model inspired by biological nervous systems: Neural network algorithm", Journal of Applied Soft Computing, 71 (2018) pp. 747-782.
- 14) Hassan Sayyaadi, Ali Sadollah, Anupam Yadav, and Neha Yadav, "Stability and iterative convergence of water cycle algorithm for computationally expensive and combinatorial internet shopping optimization problems", Journal of Experimental & Theoretical Artificial Intelligence, Taylor and Francis, <https://doi.org/10.1080/0952813X.2018.1549109>, 2018.
- 15) Ali Sadollah, Hassan Sayyaadi, Do Guen Yoo, Ho Min Lee, Joong Hoon Kim, "Mine blast harmony search: a new hybrid optimization method for improving exploration and exploitation capabilities", Journal of Applied Soft Computing, 68 (2018) pp. 548-564.
- 16) Seyed Hamid Mousavi and Hassan Sayyaadi, "Optimization and Testing of a New Prototype Hybrid MR Brake with Arc Form Surface as a Prosthetic Knee", IEEE-ASME TRANSACTIONS ON MECHATRONICS, Vol. 23, No. 3, pp.1204-1215, 2018.
- 17) Hassan Sayyaadi and Abbas Ghasemzadeh, "Control of Multiple Underwater Vessels to Converge to a Desired Pattern", International Journal of Maritime Technology, Vol. 9, Winter, pp.49-55, 2018.
- 18) Hassan Sayyaadi and Shahnaz Bahmanyar, "Development of a new mechanism to change velocity in helical swimmer robot at low Reynolds Number", Scientia Iranica Journal, Accepted 2018.
- 19) Hassan Sayyaadi, Hosein Rostami Najafabadi, Mohammad Amin Askari Frasangi, "Modeling and Parametric Studies of Magnetic Shape Memory Alloy Based Energy Harvester", Journal of Intelligent Material Systems and Structures, Vol. 29, No. 4, pp. 563-573, 2018.
- 20) Mohammad Amin Askari Farsangi, Francesco Cottone, Hassan Sayyaadi, Mohammadreza Zakerzadeh, Francesco Orfei, and Luca Gammaitoni, "Energy Harvesting from Structural Vibrations of Magnetic Shape Memory Alloys", APPLIED PHYSICS LETTERS, Vol. 110, No. 103905, 5 pages, 2017.

- 21) Mohammad Amin Askari Farsangi, Hassan Sayyaadi, Mohammadreza Zakerzadeh, "A Novel Inertial Energy Harvester using Magnetic Shape Memory Alloy", SMART MATERIALS & STRUCTURES, Vol. 25, No. 10, 9 pages, 2016.
- 22) Hassan Sayyaadi and Frahad Rahnama, "On the energy harvesting via doubly curved piezoelectric panels", Journal of Intelligent Material Systems and Structures, Vol. 27, No. 19, pp. 2692-2706, 2016.
- 23) Hassan Sayyaadi, "Flexible Formation of Multiple Car-like Robots with respect to a Dynamic Environment", Scientia Iranica, Transactions in Mechanical Engineering, 21 pages, 2016.
- 24) Hassan Sayyaadi and Ali Soltani, "Robust Decentralized Control of Consensus-based Formations of Leader-Follower Networks with Uncertain Directed Topologies on Bounded Velocity Trajectories Undefined for Followers via Backstepping Method", Scientia Iranica, Transactions in Mechanical Engineering, 17 pages, 2016.
- 25) Hassan Sayyaadi and Hamid Zareh, "A new configuration in a prosthetic knee using of hybrid concept of an MR brake with a T-shaped drum incorporating an arc form surface", SMART STRUCTURES AND SYSTEMS, Vol. 17, No. 2, pp. 275-296, 2016.
- 26) Sayyaadi H. , Rahnama F. , and Askari Farsangi M.A. , "Frequency-dependent energy harvesting via magnetic shape memory alloys", Composite Structures, Vol.147, No.2016, pp 155-167, 2016.
- 27) Hassan Sayyaadi, Mohammad Amin Askari Farsangi, "Frequency-dependent energy harvesting via magnetic shape memory alloys", SMART MATERIALS & STRUCTURES, Vol.24, No.11, pp.1-12, 2015.
- 28) Sharifi M. Sayyaadi H., "Nonlinear Robust Adaptive Cartesian Impedance Control of UAVs Equipped with a Robot Manipulator", ADVANCED ROBOTICS, Vol.23, No.3, pp 171-186, 2015.
- 29) Zakerzadeh M.R. and Sayyaadi H., "Deflection Control of SMAactuated Beam-like Structures in Nonlinear Large Deformation Mode", JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, Vol.4, No.5, pp167-185, 2014.
- 30) Sayyaadi H. Babae M., "Control of Nonholonomic mobile Manipulators for Cooperative Object Transportation", Scientia Iranica Journal, Vol.21, No.2, pp 347-357, 2014.
- 31) Sayyaadi and Sabet M.T. "Nonlinear dynamics and control of a set of robots for hunting and coverage missions", International Journal of Dynamics and Control, 2014.
- 32) Sayyaadi H. and Askari Farsangi M.A., "An analytical solution for dynamic behavior of thick doubly curved functionally graded smart panels", Composite Structures, Vol.107, No.2014, pp 88-102, 2014.

- 33) Zakerzadeh M.R. and Sayyaadi H. , “Precise Position Control of Shape Memory Alloy Actuator Using Inverse Hysteresis Model and Model Reference Adaptive Control System”, *Mechatronics*, Vol.23, No.8, pp1150-1162, 2013.
- 34) Sayyaadi H. and Nematollahi M., “Determination of optimum injection flow rate to achieve maximum micro bubble drag reduction in ships, an experimental approach”, *Scientia Iranica Journal*, Vol.20, No.3, pp 535-541, 2013.
- 35) Sayyaadi H. and Zakerzadeh M.R., “Position control of shape memory alloy actuator based on the generalized Prandtl–Ishlinskii inverse model”, *Mechatronics*, Vol.22, No.7, pp 945-957, 2012.
- 36) Zakerzadeh M.R. and Sayyaadi H., “Experimental Comparison of Some Phenomenological Hysteresis Models in Characterizing Hysteresis Behavior of Shape Memory Alloy Actuators”, *Journal of Intelligent Material Systems and Structures*, Vol.23, No.12, pp 1287-1309, 2012.
- 37) Sayyaadi H., Zakerzadeh M.R., and Salehi H. “A comparative analysis of some one-dimensional shape memory alloy constitutive models based on experimental tests”, *Scientia Iranica Journal*. Vol.19, No.2, pp 249-257, 2012.
- 38) Zakerzadeh M.R., Sayyaadi H., and Vaziri Zanjani M.A., “Characterizing Hysteresis Nonlinearity Behavior of SMA Actuators by Krasnosel’skii-Pokrovskii Model”, *Applied Mathematics*, Vol.1, No.1, pp 28-38, 2011.
- 39) Sayyaadi H., Zakerzadeh M.R., and Vaziri Zanjani M.A., “Accuracy Evaluation of Generalized Prandtl-Ishlinskii Model in Characterizing Asymmetric Saturated Hysteresis Nonlinearity Behavior of Shape Memory Alloy Actuators”, *International Journal of Research and Reviews in Mechatronic Design and Simulation – IJRRMDS*, Vol.1, No.3, pp 59-68, 2011.
- 40) Zakerzadeh M.R., Salehi H., and Sayyaadi H., “Modeling of a Nonlinear Euler-Bernoulli Flexible Beam Actuated by Two Active Shape Memory Alloy Actuators”, *Journal of Intelligent Material Systems and Structures*, Vol.22, No.11, pp 1249-1268, 2011.
- 41) Sayyaadi H., Kouhi H., and Salarieh H. “Control of car-like (wheeled) multi robots for following and hunting a moving target”, *Scientia Iranica Journal*, Vol.18, No.4, pp 950-965, 2011. 15) Sayyaadi H. and Doostmohammadian M.R., “Finite-Time Consensus in Directed Switching Network Topologies and Time_Delayed Communications”, *Scientia Iranica Journal*, Vol. 18, No. 1, pp 21-34, 2011.
- 42) Sayyaadi H. and Moarref M., “A Distributed Algorithm for Proportional Task Allocation in Network of Mobile Agents”, *IEEE Transactions on Automatic Control*, Vol.56, No.2, pp 405-409, Feb. 2011.

- 43) Zakerzadeh M.R., Firouzi M., Sayyaadi H. and Bagheri S.S. "Hysteresis Nonlinearity Identification Using New Preisach Model-Based Artificial Neural Network Approach", Journal of Applied Mathematics, Vol.2011, Article ID 458768, 22 pages, doi:10.1155/2011/458768.
- 44) Sayyaadi H. and Shokouhi N. "Effects of Air Reservoir Volume and Connecting Pipes' Length and Diameter on the Air Spring Behavior in Rail-Vehicles", Iranian Journal of Science and Technology, Transaction B: Engineering, Vol.34, No. B5, pp 499508, 2010.
- 45) Sayyaadi H. and Shokouhi N., " New Dynamics Model for Rail Vehicles and Optimizing Air Suspension Parameters Using GA", Scientia Iranica Journal, Transaction B, Vol. 16, pp 496-512, 2009.
- 46) Sayyaadi H. and Shokouhi N., " A New Model in Railvehicles Dynamics Considering Nonlinear Suspension Components Behavior ", International Journal of Mechanical Sciences, Vol. 51, No. 3, pp 222-232, 2009.
- 47) Sayyaadi H., Tadayon M. A., and Eftekharian A., " Micro Resonators Nonlinear Dynamics Considering Intrinsic Properties " Scientia Iranica Journal, Vol. 16, No. 2, pp 121-129, 2009.
- 48) Sayyaadi H. and Eftekharian A., " Modeling and Intelligent Control of Robotic Gas Metal Arc Welding System ", Scientia Iranica Journal, Vol. 15, No. 1, pp 75-93, 2008.
- 49) Javanmardi M., Jahanbakhsh E., Seif M. S. , and Sayyaadi H. " Hydrodynamic Analysis of Trimaran Vessels ", Polish Maritime Research Journal, Vol. 15, No. 1, pp 11-18, 2008.
- 50) Tadayon M. A., Sayyaadi H., and Nakhaei J. G. " Nonlinear Modeling and Simulation of Thermal Effects in Microcantilever Resonator Dynamic ", Journal of Physics: Conference Series, Vol. 34, pp 89-94, 2006.
- 51) Tadayon M. A., Rajaei M., Sayyaadi H., Nakhaei J. G., and Alasti A. " Nonlinear Dynamics of MicroResonators ", Journal of Physics: Conference Series, Vol. 34, pp 961-966, 2006.
- 52) Yaghtin A. and Sayyaadi H., " Fatigue Analysis of Jack Up Tubular Joints Affected by Wave and Sea Current Loads ", OFFSHORE (Iranian Offshore Engineering and Construction Company , vol.2, No. 5 pp 60-65 , 2006

53) صیادی ح.، رحیمیان م. و سیف م.س. بررسی تجربی و تئوری رفتار دینامیکی زیرسطحی ها ، نشریه علمی و پژوهشی مهندسی دریا ، سال ششم ، شماره دوازدهم ، 12 صفحه ، 1389 .

54) صیادی ح. و آقابابایی بنی م.، طراحی یک دست چند انگشتی برای گرفتن و غلت دادن استوانه ، مجله علمی و پژوهشی شریف ویژه مهندسی مکانیک ، سال 25 ، شماره 51/2 ، ص 69-76 ، 1388 .

55) صیادی ح. و باباخانی ع.، طراحی و تعقیب مسیر ربات های زیرسطحی در محیط های دینامیک با استفاده از روش های حل تبدیل هوشمند و کلاسیک ، نشریه علمی و پژوهشی مهندسی دریا ، سال پنجم ، شماره

نهم، ص 19-34، 1388.

(56) صیادی ح. و یزدان شناس شاد ب.، شناسایی و طراحی یک ربات شش پای شش درجه آزادی، مجله علمی و پژوهشی شریف ویژه مهندسی مکانیک، سال 25، شماره 48/2، ص 93-106، 1388.

(57) صیادی ح. و یقطين ع.، " بررسی اثرات ناشی از خستگی در اتصالات سکوی جک آپ در دریای خزر "، نشریه علمی و پژوهشی مهندسی دریا، سال چهارم، شماره هفتم ص 15-26، ف، 1387.