



نام و نام خانوادگی	محمدتقی بطحائی
مرتبه علمی	استاد تمام
آدرس محل کار	دانشکده فنی مهندسی
تلفن	۸۹۱۷۰۰۰۰-۰۲۱
فکس	---
پست الکترونیک	---
آدرس وب سایت	---

مقاله‌های علمی پژوهشی

- ۱) Bathaee, Mohammad Taghi. "A novel combined battery model for state-of charge estimation in lead-acid batteries on extended Kalman filter for Hybrid electric." Journal of Power Sources (۲۰۰۷): .
- ۲) Bathaee, Mohammad Taghi. "Combined heat and power economic dispatch by harmony search algorithm." Elsevier International Journal of Electrical Power & Energy Systems (۲۰۰۷): .
- ۳) Bathaee, Mohammad Taghi. "Predicting state of charge of lead-acid batteries for hybrid electric vehicles by extended Kalman filter." Energy Conversion and Management (۲۰۰۸): .
- ۴) Bathaee, Mohammad Taghi. "Hierarchical control of combined hybrid electric vehicle." International Journal of Electric and Hybrid Vehicles (۲۰۰۸): .
- ۵) Bathaee, Mohammad Taghi. "Development of an empirical dynamic model for a Nexa PEM fuel cell power module." Energy Conversion and Management (۲۰۱۰): .
- ۶) Bathaee, Mohammad Taghi. "Small signal stability analysis of photovoltaic array based on averaged switch modeling technique." Journal of Renewable and Sustainable Energy (۲۰۱۲): .
- ۷) Bathaee, Mohammad Taghi. "Analysis of protection system's risk in distribution networks with DG." Elsevier International Journal of Electrical Power & Energy Systems (۲۰۱۳): .
- ۸) Bathaee, Mohammad Taghi. "Adaptive centralized protection scheme for distribution systems with DG using risk analysis for protective devices placement." Elsevier International Journal of Electrical Power & Energy Systems (۲۰۱۳): .
- ۹) Bathaee, Mohammad Taghi. "A novel approach for reduction of electric field stress in vacuum interrupter chamber using advanced soft computing algorithms." IEEE Transactions on Dielectrics and Electrical Insulation (۲۰۱۳): .

- ۱۰) Bathaee, Mohammad Taghi. "Full-state Variables Control of a Grid-connected Pumped Storage Power Plant Using Non-linear Controllers." *Electric Power Components and Systems* (۲۰۱۵): .
- ۱۱) Bathaee, Mohammad Taghi. "A novel static frequency converter for start-up and shutdown processes of gas turbine power plant units." *International Transactions on Electrical Energy Systems* (۲۰۱۵): .
- ۱۲) Bathaee, Mohammad Taghi. "Multi-objective genetic optimization of the fuel cell hybrid vehicle supervisory system: Fuzzy logic and operating mode control strategies." *International Journal of Hydrogen Energy* (۲۰۱۵): .
- ۱۳) Bathaee, Mohammad Taghi. "Dielectric recovery process in vacuum interrupters regarding to contact materials during post arc interval." *IEEE Transactions on Dielectrics and Electrical Insulation* (۲۰۱۵): .
- ۱۴) Bathaee, Mohammad Taghi. "Advanced Vector Control Design for DFIM-Based Hydropower Storage for Fault Ride-Through Enhancement." *IEEE Transactions on Energy Conversion* (۲۰۱۵): .
- ۱۵) Bathaee, Mohammad Taghi. "Dynamic modeling and nonlinear control of fuel cell vehicles with different hybrid power sources." *International Journal of Hydrogen Energy* (۲۰۱۶): .
- ۱۶) Bathaee, Mohammad Taghi. "Prediction of unplanned islanding using an energy based strategy." *IET, Generation Transmission Distribution* (۲۰۱۶): .
- ۱۷) Bathaee, Mohammad Taghi. "Investigating field emission current in vacuum interrupters to estimate vacuum pressure level using PIC simulation." *International Transactions on Electrical Energy Systems* (۲۰۱۶): .
- ۱۸) Bathaee, Mohammad Taghi. "Advanced DC-link voltage regulation of fuel-cell electric vehicle." *COMPEL-The international journal for computation and mathematics in electrical and electronic engineering* (۲۰۱۶): .
- ۱۹) Bathaee, Mohammad Taghi. "Optimal scheduling for distribution network with redox flow battery storage." *Energy Conversion and Management* (۲۰۱۶): .
- ۲۰) Bathaee, Mohammad Taghi. "Techno-economic optimization of hybrid photovoltaic/wind generation together with energy storage system in a stand-alone micro-grid subjected to demand response." *Applied Energy* (۲۰۱۷): .
- ۲۱) Bathaee, Mohammad Taghi. "Improving fuel economy and performance of a fuel-cell hybrid electric vehicle (fuel-cell, battery, and ultra-capacitor) using optimized energy management strategy." *Energy Conversion and Management* (۲۰۱۸): .

۲۲) Bathaee, Mohammad Taghi. "A self-supporting approach to EV agent participation in smart grid." Elsevier International Journal of Electrical Power & Energy Systems (۲۰۱۸): .

۲۳) Bathaee, Mohammad Taghi. "Designing three indicators to detect false data injection attacks on smart grid by dynamic state estimation." Journal of Intelligent and Fuzzy Systems (۲۰۱۸): .

۲۴) Bathaee, Mohammad Taghi. "A Novel Accurate Power Sharing Method Versus Droop Control In Autonomous Microgrids With Critical Loads." IEEE Access (۲۰۱۹): .

۲۵) Bathaee, Mohammad Taghi. "A Sequential Generation Redispatch Algorithm to Ensure Power System Small Signal Stability under Low-Frequency Oscillations." International Transactions on Electrical Energy Systems (۲۰۲۳): .

۲۶) Bathaee, Mohammad Taghi. "A Novel Lyapunov-Based Nonlinear Controller Design for Model-Based MPPT of the Thermoelectric Generators." Scientia Iranica (۲۰۲۳): .

۲۷) Bathaee, Mohammad Taghi. "Elastic flexible unit commitment: A scenario-based power-electric fleet analysis." Elsevier International Journal of Electrical Power & Energy Systems (۲۰۲۳): .

۲۸) Bathaee, Mohammad Taghi. "An Adaptive Robust Optimization Model for Microgrids Operation Using Convexified AC Power Flow Equations." International Transactions on Electrical Energy Systems (۲۰۲۳): .

۲۹) Bathaee, Mohammad Taghi. "A survey on the most practical signal processing methods in conditional monitoring in wind turbines." Scientia Iranica (۲۰۲۳): .

۳۰) Bathaee, Mohammad Taghi. "Experimental evaluation of the backstepping-based input resistance controller in step-up DC-DC converter for maximum power point tracking of the thermoelectric generators." IET Power Electronics (۲۰۲۳): .

۳۱) Bathaee, Mohammad Taghi. "An Incentive Mechanism for Electric Vehicles Participation in Security Constrained Unit Commitment of Renewable-Integrated Smart Grids." IEEE Transactions on Industrial Informatics (۲۰۲۴): .

کتاب‌های تالیفی

۱) بطحائی، محمدتقی. دینامیک سیستم های قدرت (جلد اول).: قدیس، ۱۳۹۷.

۲) بطحائی، محمدتقی. مدل سازی، شبیه سازی و بهینه سازی خودروهای پیشرفته با ADVISOR.: قدیس، ۱۳۹۷.

۳) بطحائی، محمدتقی. دینامیک سیستم های قدرت (جلد دوم).: قدیس، ۱۳۹۷.

کتاب‌های ترجمه شده

۱) بطحائی، محمدتقی. کتاب کاربرد اینورترهای DC-AC پیشرفته در انرژی های تجدید پذیر.: قدیس، ۱۳۹۸.

۲) بطحائی، محمدتقی. کتاب داده کاوی و یادگیری ماشین (جلد اول).: قدیس، ۱۴۰۱.

۱) Bathaee Mohammad Taghi, Reliability Analysis of Auxiliary service System of steam Power Plant in IRAN, IEEE ۲۰۰۰, ۲۰۰۰-۰۱-۰۱, ۲۰۰۰-۰۱-۰۴, Anouncer

۲) Bathaee Mohammad Taghi, Effect of SVC and TCSC control Strategies on static voltage Collapse Phenomena, IEEE SoutheastCon, ۲۰۰۴. Proceedings., ۲۰۰۴-۰۳-۲۶, ۲۰۰۴-۰۳-۲۹, Anouncer

۳) Bathaee Mohammad Taghi, Dynamic modeling and Intelligent control of Hybrid Electric vehicles, ۶th Intelligent Systems Conference, ۲۰۰۴-۰۵-۰۵, ۲۰۰۴-۰۵-۰۵, Anouncer

۴) Bathaee Mohammad Taghi, Motion control for Hybrid Electric Vehicle, The ۴th International Power Electronics and Motion Control Conference, ۲۰۰۴. IPEMC ۲۰۰۴., ۲۰۰۴-۰۸-۱۴, ۲۰۰۴-۰۸-۱۶, Anouncer

۵) Bathaee Mohammad Taghi, Neuro-genetic energy management for hybrid fuel cell power train, IEEE Conference on Cybernetics and Intelligent Systems, ۲۰۰۴-۱۲-۰۱, ۲۰۰۴-۱۲-۰۳, Anouncer

۶) Bathaee Mohammad Taghi, Comparison of Voltage control current control methods in Grid Connected Inverters, ۱۳th Iranian Conference on Electric Engineering,, ۲۰۰۵-۰۵-۲۹, ۲۰۰۵-۰۵-۳۱, Anouncer

۷) Bathaee Mohammad Taghi, A Fuzzy Based Supervisory Robust control for Parallel Hybrid Electric Vehicles, ۲۰۰۵ IEEE Vehicle Power and Propulsion Conference, ۲۰۰۵-۰۹-۰۷, ۲۰۰۵-۰۹-۰۷, Anouncer

۸) Bathaee Mohammad Taghi, IDENTIFICATION OF ELECTRIC PARAMETERS OF SYNCHRONOUS GENERATOR USING INPUT_OUTPUT DATA SET, IFAC Proceedings Volumes, ۲۰۰۶-۰۳-۰۱, ۲۰۰۶-۰۳-۰۱, Anouncer

۹) Bathaee Mohammad Taghi, Application of Static Synchronous Series Compensator to Damp Sub-Synchronous Resonance, ۲۰۰۶ International Conference on Power Electronic, Drives and Energy Systems, ۲۰۰۶-۱۲-۱۲, ۲۰۰۶-۱۲-۱۵, Anouncer

۱۰) Bathaee Mohammad Taghi, Fuzzy-neural controller design for stability enhancement of microgrids, ۲۰۰۷ ۴۲nd International Universities Power Engineering Conference, ۲۰۰۷-۱۲-۰۴, ۲۰۰۷-۱۲-۰۷, Anouncer

۱۱) Bathaee Mohammad Taghi, Maintaining The Recloser-Fuse Coordination in Distribution Systems in Presence of DG by Determining DG's Size, ۲۰۰۸ IET ۹th International Conference on Developments in Power System Protection (DPSP ۲۰۰۸), ۲۰۰۸-۰۳-۱۷, ۲۰۰۸-۰۳-۲۰, Anouncer

۱۲) Bathaee Mohammad Taghi, A New Dynamic Model Considering Effects of Temperature, Pressure and Internal Resistance for PEM Fuel Cell Power Modules, International Conference on Electric Utility Deregulation and Restructuring and Power Technologies (DRPT), ۲۰۰۸-۰۴-۰۶, ۲۰۰۸-۰۴-۰۸, Anouncer

۱۳) Bathaee Mohammad Taghi, A novel hybrid islanding detection method for distributed generations, International Conference on Electric Utility Deregulation and Restructuring and Power Technologies (DRPT), ۲۰۰۸-۰۴-۰۶, ۲۰۰۸-۰۴-۰۹, Anouncer

۱۴) Bathaee Mohammad Taghi, Sliding mode controller for stability enhancement of MicroGrids, IEEE PES Transmission and Distribution Conference and Exposition, ۲۰۰۸-۰۴-۲۱, ۲۰۰۸-۰۴-۲۴, Anouncer

۱۵) Bathaee Mohammad Taghi, A multi objective fuzzy-based controller for front differential vehicles by electrical traction system on non-driven wheels, ۲۰۰۸ ۴th International Conference on Wireless Communications, Networking and Mobile Computing, ۲۰۰۸-۱۰-۱۲, ۲۰۰۸-۱۰-۱۴, Anouncer

۱۶) Bathaee Mohammad Taghi, Dynamic Modeling of a Hybrid Energy Source Combined of PEM Fuel Cell and Ultracapacitor, ۲۰۰۸ Joint International Conference on Power System Technology and IEEE Power India Conference, ۲۰۰۸-۱۰-۱۲, ۲۰۰۸-۱۰-۱۵, Anouncer

۱۷) Bathaee Mohammad Taghi, Driving regeneration and stability driver assist in FWD hybrid vehicles, ۲۰۰۸ Australasian Universities Power Engineering Conference, ۲۰۰۸-۱۲-۱۴, ۲۰۰۸-۱۲-۱۷, Anouncer

۱۸) Bathaee Mohammad Taghi, Fuzzy controller design for parallel hybrid vehicle analysis using forward simulation, ۲۰۰۹ IEEE Vehicle Power and Propulsion Conference, ۲۰۰۹-۰۹-۰۷, ۲۰۰۹-۰۹-۱۰, Anouncer

۱۹) Bathaee Mohammad Taghi, Optimal coordination of directional overcurrent relays using harmony search algorithm, ۲۰۱۰ ۹th International Conference on Environment and Electrical Engineering, ۲۰۱۰-۰۵-۱۶, ۲۰۱۰-۰۵-۱۹, Anouncer

۲۰) Bathaee Mohammad Taghi, Application of a new multivariable sliding mode controller for the single machine infinite bus systems, ۲۰۱۱ ۲nd Power Electronics, Drive Systems and Technologies Conference, ۲۰۱۱-۰۲-۱۶, ۲۰۱۱-۰۲-۱۷, Anouncer

۲۱) Bathaee Mohammad Taghi, Multi-criterion management of AMI residual subscribers in power shortages, ۲۰۱۱ ۱۰th International Conference on Environment and Electrical Engineering, ۲۰۱۱-۰۵-۰۸, ۲۰۱۱-۰۵-۱۱, Anouncer

۲۲) Bathaee Mohammad Taghi, An improved MPWM for current-fed Z-source inverter with high current gain and low current stress, ۲۰۱۲ ۳rd Power Electronics and Drive Systems Technology (PEDSTC), ۲۰۱۲-۰۲-۱۵, ۲۰۱۲-۰۲-۱۶, Anouncer

۲۳) Bathaee Mohammad Taghi, An SVM-T³SD policy driven method for IT infrastructure selection in Smart Grid, Iranian Conference on Smart Grids, ۲۰۱۲-۰۵-۲۴, ۲۰۱۲-۰۵-۲۵, Anouncer

۲۴) Bathaee Mohammad Taghi, Energy saving conception of smart grid focusing on air-conditioning energy management system, ۲۰۱۳ Smart Grid Conference (SGC), ۲۰۱۳-۱۲-۱۷, ۲۰۱۳-۱۲-۱۸, Anouncer

۲۵) Bathaee Mohammad Taghi, Half-bridge current-fed multi-resonant bidirectional three-port DCDC converter for flexible distributed generations, The ۵th Annual International Power Electronics, Drive Systems and Technologies Conference (PEDSTC ۲۰۱۴), ۲۰۱۴-۰۲-۰۵, ۲۰۱۴-۰۲-۰۶, Anouncer

۲۶) Bathaee Mohammad Taghi, Design a nonlinear auxiliary input for DFIG-based application using Lyapunov theory, The ۵th Annual International Power Electronics, Drive Systems and Technologies Conference (PEDSTC ۲۰۱۴), ۲۰۱۴-۰۲-۰۵, ۲۰۱۴-۰۲-۰۶, Anouncer

۲۷) Bathaee Mohammad Taghi, Policy-driven planning of distribution automation, using mixed integer non-linear programming, ۲۰۱۴ ۱۹th Conference on Electrical Power Distribution Networks (EPDC), ۲۰۱۴-۰۵-۰۶, ۲۰۱۴-۰۵-۰۷, Anouncer

۲۸) Bathaee Mohammad Taghi, Hybrid islanding detection method by virtual synchronous generator in micro-grids with flexible DG, ۲۰۱۴ ۲۲nd Iranian Conference on Electrical Engineering (ICEE), ۲۰۱۴-۰۵-۲۰, ۲۰۱۴-۰۵-۲۲, Anouncer

۲۹) Bathaee Mohammad Taghi, PDF estimation of gridable vehicles for self-healing purpose, ۲۰۱۴ Smart Grid Conference (SGC), ۲۰۱۴-۱۲-۰۹, ۲۰۱۴-۱۲-۱۰, Anouncer

۳۰) Bathaee Mohammad Taghi, Extended Space Vector Control method for seven level inverter driving a winding excited synchronous machine, The ۶th Power Electronics, Drive Systems & Technologies Conference (PEDSTC ۲۰۱۵), ۲۰۱۵-۰۲-۰۳, ۲۰۱۵-۰۲-۰۴, Anouncer

۳۱) Bathaee Mohammad Taghi, Optimizing microgrid using demand response and electric vehicles connection to microgrid, ۲۰۱۷ Smart Grid Conference (SGC), ۲۰۱۷-۱۲-۲۰, ۲۰۱۷-۱۲-۲۱, Anouncer

۳۲) Bathaee Mohammad Taghi, Virtual Synchronous Generator for Frequency Response Improving and Power Damping in Microgrids using Adaptive Sliding Mode Control, ۲۰۱۸ International Conference and Exposition on Electrical And Power Engineering (EPE), ۲۰۱۸-۱۰-۱۸, ۲۰۱۸-۱۰-۱۹, Anouncer

۳۳) Bathaee Mohammad Taghi, Sliding Mode Control of Grid-connected Inverters Using Inverter Output Current, ۲۰۱۹ IEEE International Conference on Environment and Electrical Engineering and ۲۰۱۹ IEEE Industrial and Commercial Power Systems & CPS; Europe), ۲۰۱۹-۰۶-۱۱, ۲۰۱۹-۰۶-۱۴, AnouncerEurope (IEEEIC I

۳۴) Bathaee Mohammad Taghi, A Linear Adaptive Robust Optimization Model for Day-Ahead Scheduling of Microgrid, IECON ۲۰۲۰ The ۴۶th Annual Conference of the IEEE Industrial Electronics Society, ۲۰۲۰-۱۰-۱۸, ۲۰۲۰-۱۰-۲۱, Anouncer

۳۵) Bathaee Mohammad Taghi, Generation expansion planning considering country-level social cost of carbon: Case study of kish island, ۲۰۲۰ ۱۰th Smart Grid Conference (SGC), ۲۰۲۰-۱۲-۱۶, ۲۰۲۰-۱۲-۱۷, Anouncer

۳۶) Bathaee Mohammad Taghi, Frequency control of low inertia microgrids in presence of wind and solar units using fuzzy-neural controllers, ۲۰۲۲ ۲۶th International Electrical Power Distribution Conference (EPDC), ۲۰۲۲-۰۵-۱۱, ۲۰۲۲-۰۵-۱۲, Anouncer

۳۷) Bathaee Mohammad Taghi, Modelling and simulation of a fuel cell unit connected via power electronic interface, ۲۰۲۲ ۲۶th International Electrical Power Distribution Conference (EPDC), ۲۰۲۲-۰۵-۱۱, ۲۰۲۲-۰۵-۱۲, Anouncer

۳۸) Bathaee Mohammad Taghi, Fault Diagnosis Modeling of Permanent Magnet Motors: Inter-Turn Short Circuit (ITSC) Faults, ۲۰۲۳ ۳rd International Conference on Electrical Machines and Drives (ICEMD), ۲۰۲۳-۱۲-۲۰, ۲۰۲۳-۱۲-۲۱, Anouncer

۳۹) Mollayousefizadeh Mohammad, Shamisa Abdolah, Heybati Reza, Bathaee Mohammad Taghi, The Solution of Digital Transformation Challenges with The Future of Operations in The field of IoT & AI for Smart Grids, ۲۰۲۴ ۱۴th Smart Grid Conference, ۲۰۲۴-۱۲-۳۱, ۲۰۲۵-۰۱-۰۱, Anouncer

۴۰) Bathaee Mohammad Taghi, Enhancing Cybersecurity and Frequency Control in Smart Grids Through AI-Driven Short-Term Load Forecasting, ۲۰۲۴ ۱۴th Smart Grid Conference (SGC), ۲۰۲۴-۱۲-۳۱, ۲۰۲۵-۰۱-۰۱, Anouncer

۴۱) Mollayousefi Zadeh Mahmoud, Shamisa Abdolah, Heibati Reza, Bathaee Mohammad Taghi, The Solution of Digital Transformation Challenges with The Future of Operations in The field of IoT & AI for Smart Grids, ۲۰۲۴ ۱۴th Smart Grid Conference (SGC), ۲۰۲۴-۱۲-۳۱, ۲۰۲۵-۰۱-۰۱, Anouncer