# Hamed Kebriaei, Ph.D.

School of Electrical and Computer Engineering

University of Tehran

Tel (Direct): +98 (21)82084353

email: kebriaei@ut.ac.ir

Website:

**EDUCATION**

**Ph.D In Electrical Engineering-Control**University of Tehran 2007-2012
**M.Sc In Electrical Engineering-Control**Tarbiat Modares University 2005-2007
**B.Sc In Electrical Engineering-Control**University of Tehran 2001-2005

**PUBLICATIONS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **848** | **16** | **51** | **30** | **0** |
| Citations | h-Index | Article | Conference | Book |

***Articles***

**1.** Designing an incentive mechanism to reward users for advertising content usage considering network effects. [] [], Montazeri Mina, Kebriaei Hamed (2024)., Modeling in Engineering, 1(1).

**2.** A Tractable Truthful Profit Maximization Mechanism Design with Autonomous Agents. Montazeri Mina, Kebriaei Hamed, Nadjar Araabi Babak (2024)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, Early Access(Early Access).

**3.** Toward a Virtual Edge Service Provider: Actor-Critic Learning to Incentivize the Computation Nodes. Cheraghinia Mohammad, Rastegar Seyed Hamed, Shah-mansouri Vahid, Kebriaei Hamed, Zhu Kun, Niyato Dusit (2024)., IEEE Transactions on Network Science and Engineering, 11(1), 24-38.

**4.** Decentralized Pricing Mechanism for Traffic and Charging Station Management of EVs in Smart Cities. Ghavami Mahsa, Haeri Mohammad, Kebriaei Hamed (2023)., IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, Early Access(Early Access).

**5.** Guest Editorial: Introduction to IEEE Control Systems Letters Special Section on Multi-Agent Coordination for Energy Systems: From Model Based to Data-Driven Methods. Glielmo Luigi, Grammatico Sergio, Kebriaei Hamed, Smith Roy S. (2023)., IEEE Control Systems Letters, 7(1).

**6.** A Consensus-Based Generalized Multi-Population Aggregative Game With Application to Charging Coordination of Electric Vehicles. Ghavami Mahsa, Ghaffarzadeh bakhshayesh Babak, Haeri Mohammad, Como Giacomo, Kebriaei Hamed (2023)., IEEE Control Systems Letters, 7(1).

**7.** Generalized Stochastic Dynamic Aggregative Game for Demand-Side Management in Microgrids With Shared Battery. Yadollahi Seyed Shahram, Kebriaei Hamed, Soudjani Sadegh (2023)., IEEE Control Systems Letters, 7(0).

**8.** Distributed Mechanism Design in Continuous Space for Federated Learning over Vehicular Networks. Montazeri Mina, Kebriaei Hamed, Nadjar Araabi Babak, Kang Jiawen, Niyato Dusit (2023)., IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, 1(1).

**9.** Incentive Mechanism in the Sponsored Content Market With Network Effects. Montazeri Mina, Rokhforoz Pegah, Kebriaei Hamed, Fink Olga (2023)., IEEE Transactions on Computational Social Systems, 1(1), 1-7.

**10.** Generalized Wardrop Equilibrium for Charging Station Selection and Route Choice of Electric Vehicles in Joint Power Distribution and Transportation Networks. Ghaffarzadeh bakhshayesh Babak, Kebriaei Hamed (2023)., IEEE Transactions on Control of Network Systems, 1(1), 1-10.

**11.** Enhanced Modulation for Multiuser Molecular Communication in Internet of Nano Things. Aghababaiyan Keyvan, Kebriaei Hamed, Shah-mansouri Vahid, Maham Behrouz, Niyato Dusit (2022)., IEEE Internet of Things Journal, 9(20), 19787-19802.

**12.** Stochastic Demand Response Management Using Mixed-Strategy Stackelberg Game. Samadi Mikhak, Kebriaei Hamed, Schriemer Henry, Erol-Kantarci Melike (2022)., IEEE SYSTEMS JOURNAL, 16(3), 4708-4718.

**13.** Local Stackelberg Equilibrium Seeking in Generalized Aggregative Games. Fabiani Flippo, Tajeddini sarvestani Mohammadamin, Kebriaei Hamed, Grammatico Sergio (2022)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 67(2), 965-970.

**14.** Deep Reinforcement Learning-Aided Bidding Strategies for Transactive Energy Market. Taghizadeh Kejani Amirheckmat, Montazeri Mina, Kebriaei Hamed (2022)., IEEE SYSTEMS JOURNAL, 1(1), 1-9.

**15.** Incentive Mechanism Design for Unicast Service Provisioning with Network Aggregative Game. Eslami Ehsan, Kebriaei Hamed, Atrianfar hajar, Farhadi Farzanehj (2022)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 1(1), 1-1.

**16.** Decentralized Equilibrium Seeking of Joint Routing and Destination Planning of Electric Vehicles: A Constrained Aggregative Game Approach. Ghaffarzadeh bakhshayesh Babak, Kebriaei Hamed (2021)., IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, 1(1), 1-10.

**17.** Optimal Mechanism Design in the Sponsored Content Service Market. Montazeri Mina, Kebriaei Hamed, Nadjar Araabi Babak, Niyato Dusit (2021)., IEEE COMMUNICATIONS LETTERS, 25(9), 3051-3054.

**18.** Network Aggregative Game in Unknown Dynamic Environment with Myopic Agents and Delay. Shokri Mohammad, Kebriaei Hamed (2021)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 1(1), 1-1.

**19.** A fair task and time allocation of multiple human operators using decentralized Nash bargaining solution. Rokhforoz Pegah, Kebriaei Hamed, Nili Ahmad Abadi Majid (2021)., COMPUTERS & INDUSTRIAL ENGINEERING, 153(2021), 107027.

**20.** Large-scale dynamic system optimization using dual decomposition method with approximate dynamic programming. Rokhforoz Pegah, Kebriaei Hamed, Nili Ahmad Abadi Majid (2021)., SYSTEMS & CONTROL LETTERS, 150(104894).

**21.** Multi-Population Aggregative Games: Equilibrium Seeking via Mean-Field Control and Consensus. Kebriaei Hamed, Sadati savadkoohi Seyyed jafar, Shokri Mohammad, Grammatico Sergio (2021)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 1(10), 1-1.

**22.** Decentralized Hierarchical Planning of PEVs Based on Mean-Field Reverse Stackelberg Game. Tajeddini sarvestani Mohammadamin, Kebriaei Hamed, Glielmo Luigi (2020)., IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING, 17(4), 2014-2024.

**23.** Learning pareto optimal solution of a multi-attribute bilateral negotiation using deep reinforcement. Montazeri Mina, Kebriaei Hamed, Nadjar Araabi Babak (2020)., ELECTRONIC COMMERCE RESEARCH AND APPLICATIONS, 43(---), 100987.

**24.** Mean Field Game for Equilibrium Analysis of Mining Computational Power in Blockchains. Taghizadeh Kejani Amirheckmat, Kebriaei Hamed, Niyato Dusit (2020)., IEEE Internet of Things Journal, 7(8), 7625-7635.

**25.** Design and stability analysis of optimal controller and observer for an Itô stochastic model of active vehicle suspension system. Ramezani moghadam Alireza, Kebriaei Hamed (2020)., Journal of Control, 13(3).

**26.** Leader-Follower Network Aggregative Game with Stochastic Agents' Communication and Activeness. Shokri Mohammad, Kebriaei Hamed (2020)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 1(1), 1-1.

**27.** Robust Energy Management of Residential Nanogrids via Decentralized Mean Field Control. Farzane Hesam, Shokri Mohammad, Kebriaei Hamed, Aminifar Farokh (2019)., IEEE Transactions on Sustainable Energy, 1(1), 1-1.

**28.** Stochastic sliding mode control of active vehicle suspension with mismatched uncertainty and multiplicative perturbations. Ramezani moghadam Alireza, Kebriaei Hamed (2019)., ASIAN JOURNAL OF CONTROL, 1(1).

**29.** Short term load forecast by using Locally Linear Embedding manifold learning and a hybrid RBF-Fuzzy network. Kebriaei Hamed, کمالی نژاد حورا, Nadjar Araabi Babak (2019)., Processing of signs and data, 1(1), 1-16.

**30.** Stable multi-player evolutionary game for two-choice resource allocation problems. Naghavi Parnia, Kebriaei Hamed, Shah-mansouri Vahid (2019)., IET Control Theory and Applications, 13(8), 1211-1218.

**31.** Decentralized Robust T-S Fuzzy Controller for a Parallel Islanded AC Microgrid. Hosseinalizadeh Teimour, Kebriaei Hamed, Rajaei Salmasi Farzad (2019)., IET Generation Transmission & Distribution, 1(1), 1-9.

**32.** Mean Field Optimal Energy Management of Plug-in Hybrid Electric Vehicles. Shokri Mohammad, Kebriaei Hamed (2018)., IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, 68(1), 1-1.

**33.** Analytical Optimal Solution of Perimeter Traffic Flow Control Based on MFD Dynamics: A Pontryagin's Maximum Principle Approach. Aalipour Ali, Kebriaei Hamed, Ramezani Mohsen (2018)., IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, 20(9), 1-11.

**34.** An interval-based stochastic dominance approach for decision making in forward contracts of electricity market. Jamshidi Movahed, Kebriaei Hamed, Sheik El-eslami Mohammad Kazem (2018)., ENERGY, 158(1), 383-395.

**35.** Energy-efficient self-backhauling in heterogeneous wireless networks: A game-theoretic approach. Lashgari Maryam, Maham Behrouz, Kebriaei Hamed (2018)., Physical Communication, 29(-), 296-306.

**36.** A Mean-Field Game Method for Decentralized Charging Coordination of a Large Population of Plug-in Electric Vehicles. Tajeddini sarvestani Mohammadamin, Kebriaei Hamed (2018)., IEEE SYSTEMS JOURNAL, 1(1), 1-10.

**37.** Constrained coverage path planning: evolutionary and classical approaches. Ahmadi Seyyed mahmood, Kebriaei Hamed, Moradisabzevar Manouchehr (2018)., ROBOTICA, 1(1), 1-21.

**38.** Pricing and Rate Optimization of Cloud Radio Access Network Using Robust Hierarchical Dynamic Game. Saffar Mohsen, Kebriaei Hamed, Niyato Dusit (2017)., IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, 16(11), 7404-7418.

**39.** Robust Decentralized Mean Field Control in Leader Following Multi Agent Systems. Tajeddini Sarvestani Mohammadamin, Kebriaei Hamed, Glielmo Luigi (2017)., IET Control Theory and Applications, 11(1), 1-9.

**40.** Discrete-time Robust Hierarchical Linear-Quadratic Dynamic Games. Kebriaei Hamed, Iannelli Luigi (2017)., IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 1(1), 1-1.

**41.** Inactivation of Tumor Suppressor Genes and Cancer Therapy: An Evolutionary Game Theory Approach. Khadem Heydar, Kebriaei Hamed, Veisi Zahra (2017)., MATHEMATICAL BIOSCIENCES, 1(1), 1-30.

**42.** EFFECTS OF SELECTION AND MUTATION ON EPIDEMIOLOGY OF X-LINKED GENETIC DISEASES. Verrilli Francesca, Kebriaei Hamed, Glielmo Luigi, Corless Martin, Del Vecchio Carmen (2016)., Mathematical Biosciences and Engineering, 14(3), 1-21.

**43.** Markov game approach for multi-agent competitive bidding strategies in electricity market. Rashedi Navid, Tajeddini Sarvestani Mohammadamin, Kebriaei Hamed (2016)., IET Generation Transmission & Distribution, 10(15), 3756-3763.

**44.** A multi-state Q-learning based CSMA MAC protocol for wireless networks. Bayat Yeganeh Hosein, Shah-mansouri Vahid, Kebriaei Hamed (2016)., WIRELESS NETWORKS, 23(9), 1-14.

**45.** Estimation, Learning, and Stability Analysis of Supply Function Equilibrium Game for Generation Companies. Kebriaei Hamed, Glielmo Luigi (2016)., IEEE SYSTEMS JOURNAL, PP(99), 1-12.

**46.** Learning RAT Selection Game in 5G Heterogeneous Networks. Naghavi Parnia, Rastegar Hamed, Shah-mansouri Vahid, Kebriaei Hamed (2015)., IEEE WIRELESS COMMUNICATIONS, PP(99), 1-1.

**47.** Double Sided Bandwidth-Auction Game for Cognitive Device-to-Device Communication in Cellular Networks. Kebriaei Hamed, Maham Behrouz (2015)., IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, PP(99), 1-12.

**48.** Model-Based and Learning-Based Decision Making in Incomplete Information Cournot Games: A State Estimation Approach. Kebriaei Hamed, Rahimi-Kian Ashkan, Nili Ahmad Abadi Majid (2014)., IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART A-SYSTEMS AND HUMANS, 45(1), 22-27.

**49.** Cooperative and non-cooperative Nash solution for linear supply function equilibrium game. Rashedi Navid, Kebriaei Hamed (2014)., APPLIED MATHEMATICS AND COMPUTATION, 244(1), 794-808.

**50.** SIMULTANEOUS STATE ESTIMATION AND LEARNING IN REPEATED COURNOT GAMES. Kebriaei Hamed, Nili Ahmad Abadi Majid, Rahimi-Kian Ashkan (2013)., APPLIED ARTIFICIAL INTELLIGENCE, 27(10), 1-12.

**51.** On the stability of quadratic dynamics in discrete time -player Cournot games. Kebriaei Hamed, Rahimi-Kian Ashkan (2012)., Automatica, 48(6), 1182-1189.

***Books***

***Conferences***

**1.** Distributed robust predictive control for multi-agent linear systems. Salmanpour Ali, Kebriaei Hamed (2023)., 31st International Conference on Electrical Engineering, 9-11 May, Tehran, Iran.

**2.** Decentralized Control of Residential Energy Storage System for Community Peak Shaving: A Constrained Aggregative Game. Joshi Amit, Kebriaei Hamed, Martini Valerio, Glielmo Luigi (2021)., 2021 IEEE Madrid PowerTech, 28 June-2 July, Madrid, Spain.

**3.** Game-theoretic demand side management of a neighbourhood of smart homes with real and virtual energy storage. Joshi Amit, Martini Valerio, Kebriaei Hamed, Glielmo Luigi (2021)., 2021 29th Mediterranean Conference on Control and Automation (MED), 22-25 June, , Italy.

**4.** Aggregative Game for Charging Coordination of PEVs in a Network of Parking Lots. Sadati savadkoohi Seyyed jafar, Kebriaei Hamed, Aminifar Farokh (2020)., 2019 Smart Grid Conference (SGC), 19-21 December, Tehran, Iran.

**5.** Deep Reinforcement Learning for Dynamic Reliability Aware NFV-Based Service Provisioning. Rahmani Khezri Seyed Hamed, Azadi Moghadam Puria, Karimzadeh Farshbafan Mohammad, Shah-mansouri Vahid, Kebriaei Hamed, Niyato Dusit (2019)., GLOBECOM 2019 - 2019 IEEE Global Communications Conference, 9-13 December, Honolulu, United States Of America.

**6.** Decentralized Charging Coordination of Plug-in Electric Vehicles Based on Reverse Stackelberg Game. Tajeddini sarvestani Mohammadamin, Kebriaei Hamed, Glielmo Luigi (2019)., 2019 18th European Control Conference (ECC), 25-28 June, Naples, Italy.

**7.** Deterministic Mean Field Game for Energy Management in a Utility with Many Users. Farzane Hesam, Kebriaei Hamed, Aminifar Farokh (2018)., 2018 Smart Grid Conference (SGC), 28-29 November, Shahrekord, Iran.

**8.** Modeling Activation of Oncogenes in the Cell Population of a Tissue Using Evolutionary Game Theory. Khadem Heydar, Veisi Zahra, Kebriaei Hamed (2018)., 24th National and 2nd International Iranian Conference on Biomedical Engineering (ICBME), 7-9 August.

**9.** Dynamic Learning for Distributed Power Control in Underlaid Cognitive Radio Networks. Taleb Zadeh Kasgari Ali, Maham Behrouz, Kebriaei Hamed, Walid Saad (2018)., 14th International Wireless Communications & Mobile Computing Conference (IWCMC), 25-29 June, Cyprus.

**10.** Energy Efficient Price Based Power Allocation in a Small Cell Network by Using a Stackelberg Game. Lashgari Maryam, Maham Behrouz, Kebriaei Hamed (2018)., IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), 4-7 June, Georgia.

**11.** Multi-Path TCP Incomplete Information Repeated Bayesian Game. Mohammad Shamanian, Rezaei Saeid, Seneviratne Aruna, Kebriaei Hamed (2018)., IEEE 86th Vehicular Technology Conference (VTC-Fall), 12-14 April, Toronto, Canada.

**12.** A New Watermarking Approach for Replay Attack Detection in LQG Systems. Khazraei Amir, Kebriaei Hamed, Rajaei Salmasi Farzad (2017)., 56th IEEE Conference on Decision and Control (CDC), 12-15 December, Melbourne, Australia.

**13.** Nonlinear Robust Traffic Flow Control in Urban Networks. Aalipour Ali, Kebriaei Hamed, Ramezani Mohsen (2017)., The 20th World Congress of IFAC, 9-14 July, Toulouse, France.

**14.** Replay attack detection in a multi agent system using stability analysis and loss effective watermarking. Khazraei Amir, Kebriaei Hamed, Rajaei Salmasi Farzad (2017)., American Control Conference (ACC), 2017, 24 May-26 August, Seattle, United States.

**15.** Development of stochastic optimal controller for Itô uncertain model of active suspension system. Ramezani Moghadam Alireza, Kebriaei Hamed (2017)., Iranian Conference on Electrical Engineering (ICEE), 2017, 2-4 May.

**16.** Demand Side management of industrial customers of Tehran Regional company using incentive based cooperative Nash Bargaining Solution. کمالی نژاد حورا, Kebriaei Hamed (2016)., 31th International Power System Conference, 24-26 October, Tehran, Iran.

**17.** Energy efficient proice based powe allocation in a femtocell network by using a Stackelberg game. Lashgari Maryam, Maham Behrouz, Kebriaei Hamed (2016)., 1th International Conference on Applied researches in Electrical, Mechanical and Mechatronics Engineering, 11-15 March, Tehran, Iran.

**18.** Selection and Mutation Effects on Equilibrium and Stability of X-Linked Recessive Diseases. Verrilli Francesca, Kebriaei Hamed, Glielmo Luigi, Corless Martin, Del Vecchio Carmen (2015)., 54th IEEE Conference on Decision and Control (CDC), 15-18 December, Osaka, Japan.

**19.** On Robust One-Leader Multi-Followers Linear Quadratic Dynamic Games. Saffar Mohsen, Kebriaei Hamed, Ianneli Luigi (2015)., 54th IEEE Conference on Decision and Control (CDC), 15-18 December, Osaka, Japan.

**20.** A Study of Inactivation of TSG and Cancer Therapy: An Evolutionary Game Theory Approach. Khadem Heydar, Kebriaei Hamed (2015)., 22nd Iranian Conference on Biomedical Engineering, 25-27 November, Tehran, Iran.

**21.** Adaptive Operator Selection for Path Planning in Static Environments. Ahmadi S M, Kebriaei Hamed, Moradisabzevar Manouchehr (2015)., SAI Intelligent Systems Conference 2015, 10-11 November, London, England .

**22.** Adaptive Operator Selection for Path Planning in Static Environments.. Ahmadi Mohsen, Kebriaei Hamed, Moradisabzevar Manouchehr (2015)., IEEE SAI Intelligent Systems Conference , 2015, London, UK, 10-11 November, London, United Kingdom.

**23.** Selection and mutation in X-linked recessive diseases epidemiological model. کوین کورلی, Kebriaei Hamed, Nodeh Hossain, Cortes Yolanda, Khoshroo Kamran (2015)., 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), 25-29 August, Milan, Italy.

**24.** Distributed Power Allocation and Interference Mitigation in Two-Tier Femtocell Networks: A Game-Theoretic Approach. [] [], Rostami Mahan, Kebriaei Hamed, Saedi Nasab Walid (2015)., IEEE International Wireless Communications and Mobile Computing Conference (IWCMC), 2015, 24-28 August, Zagreb, Croatia.

**25.** Supply Function Equilibrium Game with Myopic Adjustment and Adaptive Expectation. Kebriaei Hamed, Rashedi Navid, اسنودان راد (2015)., 2015 European Control Conference (ECC), 15-17 July, Linz, Austria.

**26.** A study on pricing strategies for residential load management using fuzzy reinforcement learning. Sharifi Saeid, Kebriaei Hamed (2015)., Cognitive Computing and Information Processing (CCIP), 2015 International Conference on, 3-4 March, granada, India.

**27.** Sliding mode Control of bettry converter in a hybride system. Mansouri Daryoosh, Kebriaei Hamed, Rahimi-Kian Ashkan (2014)., International Power System Conference, 2014, Tehran, Iran, 27-29 October, Tehran, Iran.

**28.** Bidding strategy in repeated auctions based on evolutionary game theory. Khadem Heydar, Kebriaei Hamed (2014)., International Power System Conference, 2014, Tehran, Iran, 27-29 October, Tehran, Iran.

**29.** Bidding Strategy in pay as bid markets by Multi- Agent Reinforcement Learning. Tajeddini Mohammad Amin, Imani Mahdi, Kebriaei Hamed (2013)., 28th International Power System Conference - 2013 Tehran, Iran, 4-6 November, Tehran, Iran.

**30.** Demand Side Management byLeader-follower cooperative and non-cooperative games for residential loads. Hajjar Barghi Mohammad Reza, Kebriaei Hamed (2013)., 28th International Power System Conference - 2013 Tehran, Iran, 2-4 November, Tehran, Iran.

**HONORS and AWARDS**

**Distinguished Young Researcher Award** 2023, Tehran, Iran

**Outstanding Reviewer Award (IEEE Transactions on Cybernetics)** 2022, Tehran, Iran

**ACADEMIC POSITIONS**

**Technical Committee Member of IEEE Control Systems Society**
 2021-Present

**COURSES OFFERED**

**Game Theory

Modern Control Fundamentals

Modern Control Systems

Special Topics in Control Engineering 3

Game Theory

Modern Control Fundamentals

Modern Control Systems

Special Topics in Control Engineering 3

Game Theory

Modern Control Fundamentals

Modern Control Systems

Special Topics in Control Eng

Modern Control Fundamentals

Modern Control Systems

Optimal Control

Game Theory

Modern Control Fundamentals

Modern Control Systems

Special Topics in Control Engineering 1

Industrial Training

Game Theory

Special Topics in Control Engineering 1

Modern Control Systems

Special Topics in Control Eng

Game Theory

Optimal Control

Stochastic Systems Control

Game Theory

Modern Control Fundamentals

Modern Control Systems

Modern Control Fundamentals

Modern Control Systems

Stochastic Systems Control**

**LABORATORIES**