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CURRICULUM VITAE

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About Me

As an appointed/adjunct professor or (senior) researcher after obtaining his Ph.D. in Engineering and Computer Science, Dr. Siamak TalatAhari worked at various universities (in Iran, Cyprus, Canada and Australia) as an invited/senior researcher. As well as presenting novel efficient Artificial Intelligence, Machine Learning, and Data Science methods, he has studied how to adapt and improve these techniques for solving different types of problems. He published over 200 peer-reviewed top journal papers and chapters in international books. In addition, he has contributed to various scientific books published by Elsevier. More than 25 Ph.D. students and 100 M.Sc students have been (co)supervised by him. His work has been cited over 13K times. His work has been recognized by numerous academic/industrial awards. Several times, he has been recognized as one of the "Top One Percent Scientists of the World" in the fields of computer science and engineering, as well as among the "Top Scientists" according to citations and other composite indicators. He has also been recognized as "Distinguished Mentor", "Most Prominent Engineer", "Distinguished Researcher" and "Most Acclaimed Professor" by various universities and organizations. Additionally, he has received the "TWAS Young Affiliate-ship" and the "Elite Awards" from Elite Organizations. Several journals have appointed Dr. TalatAhari as an editor or guest editor.

1. Education

Ph.D.	Artifactual Intelligence, Faculty of Engineering and IT, University of Technology Sydney, Australia.
Ph.D.	Structural Engineering, Faculty of Engineering, University of Tabriz.
M.Sc.	Structural Engineering, Faculty of Engineering, University of Tabriz.
B.Sc.	Civil-Hydraulics Engineering, Faculty of Engineering, University of Tabriz.

2. Research Metrics

3.1. According to Google Scholar

https://scholar.google.com/citations?user=mgdQHO8AAAAJ&hl=en

- **Citation:** All (13000+); Since 2019 (7000+)
- **H-Index:** All (52); Since 2019 (41)
- **I10-Index:** All (135); Since 2019 (120)

3.2. According to Scopus

https://www.scopus.com/authid/detail.uri?authorId=25634538800

- **Citation:** 9000+
- **H-Index:** 46

3. Research Interests

- Artificial Intelligence and the Application of AI to Multidisciplinary Sciences
- Innovation, Improvement, and Hybridization of Optimization Techniques
- Data mining, Data Science, and Related Applications in A Variety of Disciplines
- Modeling, Designing, and Analyzing Large-Scale Complex Real-World Problems
- Real-world optimization of complex problems

4. Honors and Awards

- ***More than 50 awards:***

1. 2016-now (7 times): Continuously **"Top One Percent Scientist of the World"** in the field of "Engineering" and "Computer Sciences", Thomson Rutters, ISI-ESI.
2. 2016-now (7 times): Award for **"Top Scientist"**, University of Tabriz.
3. 2020-now (4 times): Continuously **"Top Scientist of the World"**, Based on citations, h-index, co-authorship adjusted hm-index, citations to papers in different authorship positions, and a composite indicator, Elsevier.
4. 2014-2019 (6 times): **"Grants for Incentive Activities"**, University of Tabriz.
5. 2018: "**Most Influential Professor in The History of the University of Tabriz**" University of Tabriz.
6. 2016: Award for **"Prominent Scientist in Civil Engineering"**, Civil Engineers Association – Technical Facilities of Engineering, University of Tabriz.
7. 2015: "**Most Prominent Young Engineering Scientist**", The Iranian Academy of Sciences, Ministry of Science and Technology.
8. 2013: **"Most Acclaimed Professor"**, Faculty of Technology and Engineering, University of Tabriz.
9. 2012: **"Young Distinguished Researcher of All Engineering Schools at the University"**, University of Tabriz.
10. 2012-2017: **"TWAS Young Affiliate"**, The World Academy of Sciences (TWAS).

5. Academic Experience

5.1. Professional Services

Position

Honorary Professor	Macquarie University, Feb 2024-Present.
Adjunct Professor	Sherbrooke University, December 2021-Present.
Professor	University of Tabriz, Tabriz, April 2016 – Present.
Adjunct Professor	Near East University, Cyprus, January 2017- January 2020.
A/Professor	University of Tabriz, Tabriz, June 2011 - April 2016.

Adjunct Lecturer	International University of Kish, Kish, February 2016-January 2018.
Adjunct Lecturer	University of Ahar, Ahar, September 2011 - February 2013.
Adjunct Lecturer	International University of Jolfa, Jolfa, September 2010 - February 2015.
Adjunct Lecturer	University of Seraj, Tabriz, September 2009 - February 2012.
Visiting Scholar	Iran University of Science and Technology, Iran, Autumn-Winter 2009.

5.2. Teaching

- Numerical Computations
- Data Science
- Soft Computing
- Optimization Methods and Their Application on Engineering
- Computer Programming
- Engineering Software course
- Engineering Mechanics
- Finite Element Methods

5.3. Member of Scientific Committee/Workshops or Journal Editorial Board / Guest Editor / Reviewer

- ***Member of more than 30 Scientific Committee/Workshops such as:***
  - Member of TWAS Subject Review Committee (SRC), Engineering Sciences, The World Academy of Sciences, 2022.
  - ICESGE 2021, The First International Conference on Earthquake and Geotechnical Engineering, Shahid Madani University, 2021.
  - CEC-RIAEC 2021 IEEE CEC-SS Real-World and Industry Applications of Evolutionary Computation, (Program Committee), 2021.
  - Symposium of professors and elites of Tabriz University, 2020.
  - Workshop on "Optimum Design of Structures", University of Roshdieh, 2019.
- ***Member of more than 50 Journal Editorial Board / Guest Editor / Reviewer, such as:***
  - *Nature*: Scientific Reports (Nature)
  - *IEEE*: IEEE Transactions on Industrial Informatics, IEEE Access
  - *Elsevier*: Engineering Applications of Artificial Intelligence, Swarm and Evolutionary Computation
  - *Springer*: Artificial Intelligence Review, International Journal of Computational Intelligence Systems
  - *SAGE*: Journal of Vibration and Control
  - *Taylor & Francis*: Engineering Optimization
  - *Wiley*: The Structural Design of Tall and Special Buildings, Optimal Control, Applications and Method

6. Research Activities

❖ ***More than 30 projects:***

- Optimum Design of Aluminum Tower, Sherbrooke University, Canada (In Progress).
- Developing New Optimization Methods, University of Tabriz, Iran.
- Optimum Layout Design of Brace Locations for Steel Structures, YUCELEN UGUR Company, Turkey.
- Development of Metaheuristic Algorithms for Performance Optimization of Fuzzy Control Systems Utilized in Building Structures, Iran National Science Foundation.
- Optimal Cost Design of Water Distribution Network (Case Study), ISNAK LOJISTIK, Turkey.
- Dam Break Analysis, Floodplain Mapping and Flood Wave Propagation Warning Using Mathematical Models and Geographic Information System (GIS): A Case Study: Alavian Dam, Water, and Sewerage Organization,

7. Publications

7.1. Books:

1. M. Toloo, S. Talatahari, I. Rahimi (Editors), Multi-Objective Combinatorial Optimization Problems and Solution Methods. Elsevier, 2022.

2. A.H. Gandomi, X-S. Yang, S. Talatahari, A.H. Alavi (Editors) Metaheuristic Applications in Structures and Infrastructures, Elsevier, 2013, ISBN: 9780123983640.

3. X-S. Yang, A.H. Gandomi, S. Talatahari, A.H. Alavi (Editors) Metaheuristics in Water, Geotechnical and Transport Engineering, Elsevier, 2012, ISBN: 9780123982964.

7.2. Book Chapters:

❖ ***More than 20 book chapters:***

- B. Nouhi, F. Rezazadeh, M. Saraee, S. Talatahari, Novel Technique of Performance-Based Optimum Deign of Buckling Restrained Braced Frames: Colliding Bodies Optimization Algorithms, Seismic Evaluation, Damage, and Mitigation in Structures, 2022, Elsevier.
- M. Azizi, S. Talatahari, Enhanced Stochastic Paint Optimizer for Optimal Design of Fuzzy Logic Controllers in Steel Building Structures with Nonlinear Behavior in Dealing with the Near-Fault Earthquakes, 2023, IGI Press.
- S. Talatahari, H. Bayzidi, Chaos Game Optimization Algorithm with Crossover Operator for Solving Constraint **Engineering** Optimization Problems, Handbook of Nature-Inspired Optimization Algorithms: The State of the Art – Volume II: Solving Constrained Single Objective Real-Parameter Optimization Problems, 2023, Springer,2023.

7.3. Refereed Journal Papers:

❖ *More than 200 Journal Papers:*

2023:

1. V. Goodarzimehr, S. Talatahari, S. Shojaee, S. Hamzehei-Javaran, Special Relativity Search for Applied Mechanics and Engineering, Computer Methods in Applied Mechanics and Engineering, 403, 115734.

2022:

2. B. Nouhi, N. Darabi, P. Sareh, H Bayazidi, F. Darabi, S. Talatahari, The fusion-fission optimization (FuFiO) algorithm, Scientific Reports 12 (1), 15002.

2021:

3. S. Talatahari, M. Azizi, Chaos Game Optimization: A Novel Metaheuristic Algorithm, Artificial Intelligence Review, Volume 54, Issue 2, Pages 917-1004.

2020:

4. M. Azizi, S.A. Mousavi Ghasemi, R.G. Ejlali, S. Talatahari, Optimum Design of Fuzzy Controller Using Hybrid Ant Lion Optimizer and Jaya Algorithm, Artificial Intelligence Review, Volume 53, Issue 3, Pages 1553-1584.

2019:

5. M. Azizi, RG. Ejlali, SAM. Ghasemi, S. Talatahari, Upgraded Whale Optimization Algorithm for Fuzzy Logic Based Vibration Control of Nonlinear Steel Structure, Engineering Structures Volume 192, Pages 53-70, 2019.

2018:

6. EM. Golafshani, S. Talatahari, Predicting the Climbing Rate of Slip Formwork Systems Using Linear Biogeography-based Programming, Applied Soft Computing Volume 70, Pages 263-278, 2018.

2017:

7. A. Abdi, Y. Hassanzadeh, S. Talatahari, A. Fakheri-Fard, R. Mirabbasi, T. Ouarda, Multivariate regional frequency analysis: Two new methods to increase the accuracy of measures, Advances in Water Resources, Volume 107, Pages 290-300.

2016:

8. R. Sheikholeslami, A.C. Zecchin, F. Zheng, S. Talatahari, A Hybrid Cuckoo-Harmony Search Algorithm for Optimal Design of Water Distribution Systems, Journal of Hydroinformatics, Volume 18, Issue 3, Pages 544-563, 2015.

2015:

9. S. Talatahari, N. Mohajer Rahbari, Enriched Imperialist Competitive Algorithm for System Identification of Magneto-Rheological Dampers, Mechanical Systems and Signal Processing, Volume 62, Pages 506-516, 2015.

2014:

10. A. Kaveh, R. Sheikholeslami, S. Talatahari, M. Keshvari, Chaotic Swarming of Particles: A New Method for Size Optimization of Truss Structures, Advances in Engineering Software, Volume 67, Pages 136–147, January 2014.

2013:

11. N. Mohajer Rahbari, B. Farhmand Azar, S. Talatahari, H. Safari, Semi-Active Direct Control Method for Seismic Alleviation of Structures Using MR Dampers, Structural Control and Health Monitoring, Volume 20, Issue 6, pages 1021–1042, June 2013.

2012:

12. S. Talatahari, A. Kaveh, R. Sheikholeslami, Engineering Design Optimization Using Chaotic Enhanced Charged System Search Algorithms, Acta Mechanica, Volume 223, Issue 10, Pages 2269- 2285, October 2012.

2011:

13. Y. Hassanzadeh, A. Abdi, S. Talatahari, V.P. Singh, Meta-heuristic Algorithms for Hydrologic Frequency Analysis, Water Resources Management, Volume 25, Issue 7, Pages 1855–1879, April 2011.

2010:

14. A. Kaveh, S. Talatahari, Optimum Design of Skeletal Structures Using Imperialist Competitive Algorithm, Computers and Structures, Volume 88, Issues 21-22, Pages 1220-1229, November 2010.

2009:

15. A. Kaveh, S. Talatahari, A Particle Swarm Ant Colony Optimization Algorithm for Truss Structures With Discrete Variables, Journal of Constructional Steel Research, Volume 65, Issues 8-9, Pages 1558-1568, August-September 2009.

8. Students and Researchers

8.1. Postdoc Researchers:

1. Gazaleh PourMousavi, Numerical and Theorical Investigation on The Vibroacoustic of Smart Double Walled Sandwich Panels, 2020-2021.

2. Mehdi Azizi, Investigate and Improve the Performance of the Metaheuristic Algorithms in Structural Design Optimization, 2020-2021.

3. Mehdi Azizi, Development of Optimization Algorithms for Structural Applications, 2019-2020.

8.2. (Co-) Supervisor (Ph.D.): (more than 25)
8.3. (Co-) Supervisor (M.SC): (more than 100)