

CV and Publications

Name and surname: **Mohammad Azim EİRGASH**

Date of birth: 07/07/1992

Country: Citizenship (Afganistan-Türkiye)

Marital Status: Married with three children

ORCID: <https://orcid.org/0000-0001-5399-115X>

Academic position: **Ph.D.**, researcher at

Karadeniz Technical University

SCIENTIFIC INDICATORS

h-index (Google Scholar): 9

Citations: 302

➤ Web of Science = 97

➤ Scopus: 176



Software Skills: Modeling project management planning and optimization of construction trade-off problems using **Primavera P-7**, **MATLAB** and **Python** programming languages.

Degree	Major/Program	Unisversity	Years
Doctorate – Ph.D	Construction Management	Karadeniz Technical University (KTÜ), Türkiye	31/01/2019 18/04/2024
Master 's degree English	Construction Management	Karadeniz Technical University (KTÜ), Türkiye	29/09/2015 04/01/2018
Language of instruction: English	Civil Engineering	National Institute of Technology Warangal (NITW), India	17/09/2010 18/04/2014

Scholarships / awards	Degree	Year
Indian Council for Cultural Relations	Bachelor 's – B.Tech.	17/09/2010 18/04/2014
Turkish scholarship	Master's – MSc.	29/09/2015 04/01/2018
Young Scientist Awards	International young Scientist Awards	2022

*https://youngscientistawards.com/awards-winners/?gv_id=&gv_search=azim+eirgash&mode=any#gv-view-2969-1

Certificate : Successfully completed **TESOL** online course accredited by **HARVARD PUBLICATION** which is a reputed accreditation body.

Tesol Module Practice	A2 Excellent
Final Teaching Practice Grade	A2 Excellent

Language information

TOEFL (iBT) 27.09.2024	Score: 106.00
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Number of publications and criteria for the last three years (SCI, SCIE, TR extension, Q value)

Years	Q1	Q2	Q3	Q4	SCI/SCIE	TR extension	Total publications
2018 -2021	1		1	1	3	7	10
2022							
2023	2				2		2
2024		1	3		4		4
2025			2		2	1	3
Total	3	1	4	1	9	7	19

Professional Experiences

	Institutions	Staff	Date	Tasks
1	TEOREM T.E.O.L. TİC. LTD. ŞTİ ve MORFİYUS SİNERJİK GRUP DANIS. TİC. LTD. ŞTİ.	Dr. Mohammad Azim EİRGASH	21.03.2018 Continues	English language teacher, Site engineer
2	Karadeniz Technical University, Institute of Science - Quality Commission Unit	Dr. Mohammad Azim EİRGASH	07/10/2021 04/11/2024	Foreign students coordinator
3	VUSAF Germany - Andkhoy	Dr. Mohammad Azim EİRGASH	17/02/2009 17/03/2010	Proof reading of Andkhoy Zeeba Magazine.

RESEARCH STUDIES AND INTERESTS

Multiobjective Optimization Project Scheduling Construction Project Management
Artificial Intelligence in Project Scheduling Machine learning Opposition Based-Learning
Reinforcement Learning Optimization of Time-Cost-Quality-CO₂ emission Trade-off Problems
Meta-heuristic Algorithms Resource Allocation and Leveling Earned Value Analysis
Multi-criteria Decision Making (MCDM) AHP TOPSIS CRITIC

Duties in Scientific Journals (Refereeing/Editing)

- *Automation in Construction (Q1)*
- *Swarm and Evolutionary Computation (Q1)*
- *Engineering Computations(Q2)*
- *Heliyon (Q1)*
- *Scientific Reports (Q1)*
- *Journal of Supercomputing (Q2)*
- *Advances in Civil Engineering (Q2)*
- *Ain Shams Engineering Journal (Q1)*
- *Results in engineering (Q1)*
- *Construction innovation (Q1)*
- *Energy Informatics (Q1)*
- *Operations research perspectives (Q2)*
- *American journal of civil engineering (Open access)*
- *Journal of Construction Engineering, Management & Innovation (ESCI)*

Experiences Descriptions:

TEOREM T.E.O.L. TİC. LTD. ŞTİ ve MORFİYUS SİNERJİK GRUP DANIS. TİC. LTD. ŞTİ.,

- Teaching students using the Cambridge system, covering levels from pre-intermediate to advanced.
- Conducting speaking skills classes across various proficiency levels.
- Providing technical support as a construction engineer and is responsible for ensuring compliance, timely completion, and cost-effectiveness in construction works.
- Preparing monthly work schedules, monitoring project progress, and preparing and tracking payments.
- Contributed to international projects to handle contracts and specifications.

Andkhai, Afghanistan VUSAF - Germany (Andkhai Zeeba Magazine)

- Typing, editing and proofreading the topics intended to be printed.
- Compiling and submitting the weekly financial progress report to the regional director.
- Conducting competitions among the students.
- Working with writers, photographers, and editors to maintain the magazine's quality and consistency.
- Ensuring all published content is accurate, well-structured, and free of errors.

Quality commission as a foreign students coordinator (Karadeniz Technical University):

- Establishing and implementing strategies to ensure the university's academic and administrative processes meet national and international quality standards.
- Regularly assessing the quality of educational programs, research activities, and administrative services to identify areas for improvement.
- Gathering data on performance indicators and preparing reports for internal review and external audits.
- Organizing workshops, training sessions, and seminars to raise awareness and foster a culture of quality among faculty, staff, and students.
- Collecting and analyzing feedback from students, faculty, and stakeholders to improve academic and administrative processes.

PUBLICATIONS

International Peer Reviewed Articles

1. Eirgash, M.A, and Togan, V. (2024). A Dual Opposition Learning Based Aquila Optimizer for Trading off Time-Cost-Quality- Environmental impact of Generalized Construction Projects. **Engineering Computations**.,729648. **Q2**.
2. Eirgash, M.A and Togan, V. (2023) A Novel Oppositional Teaching Learning Strategy Based on the Golden Ratio to Solve the Time- Cost-Environmental Impact Trade-Off Optimization Problems, **Expert systems with applications**., 119995. **Q1**
3. Eirgash, M.A., Toğan, V., Dede, T., Başağa, H.B. (2023). Modified Dynamic Opposite Learning assisted TLBO for solving Time- Cost optimization in Generalized Construction Projects, **Structures**,53(1), 608-621. **Q1**
4. Eirgash, M. A., Toğan, V., and Dede, T. (2019). “A multi-objective decision-making model based on TLBO for the time–cost trade- off problems.” **Structural Engineering and Mechanics**, 71(2), 139-151 **Q1**
5. Toğan., V, Eirgash, M. A, (2019). Time-cost trade-off optimization of construction projects using teaching learning-based optimization. **KSCE Journal of Civil Engineering**, 23(1), 10–20. **Q3**
6. Toğan, V., Eirgash, M.A, (2018). Time-Cost Trade-Off Optimization with a New Initial Population Approach. **Teknik Dergi**, 30(6), 9561-9580. **Q4**
7. Sulub.,A.S, Eirgash, M.A., Toğan, V. (2024). An Arithmetic Optimization Algorithm Based on Opposition Jumping Rate for Time Cost Trade-Off Optimization Problems, **Asian Journal of Civil Engineering**., **Q3**
8. Eirgash, M.A. (2024). Optimizing time–cost in construction projects using modified quasi-opposition learning-based multi-objective Jaya optimizer and multi-criteria decision-making methods, **Asian Journal of Civil Engineering**., **Q3**
9. Kumar, K.M., Agrawal, D., Vishwakarma, V.K. Eirgash, M.A. (2024). Development of time-cost trade-off optimization model for Indian highway construction projects using non-dominated sorting genetic algorithm-II methodology. **Asian Journal of Civil Engineering**. **Q3**.
10. Eirgash., M.A. (2025). Optimization of time-cost-quality-CO2 emission trade-off problems via super oppositional TLBO algorithm, accepted. **Asian Journal of Civil Engineering**. **Q3**.
11. Sulub.,A.S, Eirgash, M.A., Mostofi., F., Toğan, V. (2024). A Repulsion-Based Arithmetic Optimization Algorithm for Discrete Time Cost Trade-Off Problems, Submitted to Journal of **Engineering, Construction and Architectural Management**. **Q1**
12. Sulub., A.S, Eirgash, M.A., Omar., S.Y., Sharma.,A. (2025). Development of FDB-based Multi-objective Oppositional Slime Mould Algorithm for Time Cost Trade-off Optimization Problems, Submitted to Journal of **Swarm and Evolutionary Computations**. **Q1**
13. Baltaci., Y, Dede, T, Eirgash, M. A., Temel., B.A. (2025). Water Demand Forecasting with Machine Learning for Resource and Cost Management in Infrastructure Planning, Under review, **Journal of Neural Computing and Applications**, **Q2**.
14. Baltaci., Y, Dede, T, Temel., B.A., Eirgash, M. A. (2025). Investigation of The Impact of Climate Change and Socio-Economic Parameters on Infrastructure Projects Using Artificial Intelligence, Submitted to Journal of **Automation in Construction**, **Q1**.
15. Dede, T, Eirgash, M. A., Tugba., S., Uçan., H.A. (2025). Application of Rao Optimization Algorithms and Archive Control Mechanism for Resource Leveling Problems in Construction Projects, Submitted to Journal of **Construction Engineering and Management**. **Q1**

Other Indexed Articles

1. Eirgash, M.A., Baltaci Y., (2021). Project Monitoring and Early Warning of Time-Cost Overruns in Earned Value Management, **Current Trends in Civil & Structural Engineering** 7 (5), 1-7.
2. Eirgash, M.A. (2021). An Integrated Multi-Criterion Decision-Making Analysis to Rank the Pareto-Front Solutions of Time- Cost Trade-Off Problems. **International Journal of Management & Fuzzy Systems**, 7(2), 28-40.
3. Eirgash, M.A (2020). Resource Allocation and Leveling in Construction Management Projects with Resource Histogram, **American Journal of Engineering and Technology Management**, 5 (6), 91-95.
4. Eirgash, M.A (2019). Earned value analysis for construction projects using project management scheduling engine, **American Journal of Civil Engineering** 7 (5), 121-125
5. Eirgash, M.A (2019). A Comparative Study of Seismic Performance of the Building Designed using Four Major Codes, **International Journal of Engineering Research & Technology**, 8 (8), 414-420.

✚ National Articles (in journals indexed by ULAKBIM)

1. Eirgash M. A., Toğan V., Kazaz. A. (2017). Application Earned ValueBased Metrics to Enhance the Performance Measurement ofEngineering Project Management, Nevsehir Journal of Science and Technology.431-439,
2. Eirgash., M.A, Dede., T. (2018). A multi-objective improved teaching learning-based optimization algorithm for time-cost trade-off problems, Journal of Construction Engineering and Management Innovation 1(3):118-128.
3. Eirgash., M.A. (2025). Influence of jumping rate on opposition-based jaya algorithm for discrete time cost trade-off optimization problems, Uludağ University Journal of The Faculty of Engineering, 30(1), 35-50.

✚ International Book Chapters

1. Eirgash, M. A., Toğan, V, Dede. T. (2022). Time cost trade-off problems with multi objective quasi oppositional teaching learning-based Optimization, In: Venkata Rao, R., Taler, J. (eds) Adv Eng Optim Through Intel Tech. Lecture Notes in Mechanical Engineering, Springer, Singapore.

✚ International Conference Proceedings

1. Eirgash, M. A., Toğan, V (2023). Utilizing the Golden region sampling to the oppositional Aquila optimizer in multiple objective trade-off optimization problems, Proceedings of 3rd International Civil Engineering and Architecture Congress (ICEARC'23)
2. Eirgash, M. A., Toğan, V, Dede. T, (2022). Time cost trade-off problems with multi objective quasi oppositional teaching learning-based Optimization, international conference on Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT) conducted during 28th - 30th January, India.
3. Eirgash, M. A., Toğan, V., Trivedi, MK.; Sharma, K., (2022). Modified Oppositional Teaching-Learning-Based Optimization Model for Solving Construction Time-Cost-Quality Trade-Off Problems, 7th International Project and Construction Management Conference, 100-112, Yildiz Technical University, Istanbul.
4. Eirgash, M. A., Toğan, V, Dede. T., and Başağa, H.B. (2017). Time-Cost Trade off Optimization for Construction Projects Using an Optimization Engine, 2nd International Conference on Civil and Environmental Engineering. 8-10 May, Cappadocia, pp 1-10.
5. Eirgash M. A., Toğan V., Kazaz. A, (2017). “Application of Earned Value Based Metrics to Enhance the Performance Measurement of Engineering Project Management”, 2nd International Conference on Civil and Environmental Engineering. 8-10 May, Cappadocia, pp 453-461.

LANGUAGES

- **Uzbek** Mother Tongue
- **English** Fluent (C1-proficiency)
- **Turkish** Fluent (C1)
- **Persian** Native Language
- **Indian** Working Knowledge

PROFESSIONAL REFERENCES

Prof. Dr. Vedat TOĞAN
Karadeniz Technical University
Email: togan@ktu.edu.tr
Mobil: +90 533 430 98 35

Prof. Dr., Umamahesh V Nanduri, Lecturer
National Institute of Technology, Warangal.
Email: mahesh@nitw.ac.in
Mobil: + 91 98497 30834

Mr. Bünyamin Dülger
General Manager, TEOL

TEOL DİL OKULLARI &YURT DIŐI EĐİTİM
Email: bunyamin@teol.com.tr
Mobil: +90 5375774218