

Prof. Dr. Ali Rıza Yıldız

Dean, Faculty of Engineering

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217	17,200+	85	22
Publications	Citations (Google Scholar)	h-index	Theses supervised

Biography

Prof. Dr. Ali Rıza Yıldız received his B.Sc., M.Sc. and Ph.D. degrees with high honors from the Department of Mechanical Engineering at Bursa Uludağ University. His graduate research focused on the optimal design of lightweight and reliable automotive and machine components using artificial intelligence methods. He was awarded TÜBİTAK 2211, 2214-A and 2219 fellowships. Between 2006 and 2011 he worked as a postdoctoral researcher at the Discrete Optimization Laboratory, Department of Mechanical Engineering, University of Michigan, and at the Center for Advanced Vehicular Systems (CAVS), Department of Aerospace Engineering, Mississippi State University.

From 2020 to 2022 he served as Head of the R&D Center at Turkish Aerospace (TUSAŞ), contributing to indigenous aircraft programs including KAAN, HÜRKUŞ and HÜRJET and obtaining related patents. At Bursa Technical University he held several leadership roles, including advisor to the rector responsible for R&D and university–industry cooperation, Vice Dean of the Faculty of Engineering, head of the Mechanical, Mechatronics and Industrial Engineering departments, and member of the senate. He has served on YÖK–ÜAK (Council of Higher Education – Interuniversity Board) and TÜBİTAK TEYDEB committees. Since 2026 he has been Dean of the Faculty of Engineering at Bursa Uludağ University.

He has led or advised numerous TÜBİTAK-TEYDEB 1501 and 1505 industry projects with companies such as Oyak-Renault, Beyçelik, Coşkunöz and Valeo. He serves as associate editor, guest editor and editorial board member for SCI/SCI-Expanded journals. He has been listed among the world's most influential scientists in the Stanford-led rankings for 2019–2024, ranking 16th in Türkiye across all disciplines.

Research Interests

- Artificial intelligence and metaheuristic optimization algorithms
- Machine learning, pattern recognition and neural networks
- Structural, topology and shape optimization
- Lightweight design of automotive and aerospace components
- Lattice and auxetic structures, additive manufacturing
- CAD/CAM and finite element method
- Optimization of machining parameters
- Composites, mechanical properties, welding and forming

Education

2001 – 2006	**Ph.D., Mechanical Engineering** · Bursa Uludağ University
1999 – 2001	**M.Sc., Mechanical Engineering** · Bursa Uludağ University
1995 – 1999	**B.Sc., Mechanical Engineering** · Bursa Uludağ University
2006 – 2011	**Postdoc: University of Michigan · Mississippi State University**

Academic and Administrative Experience

Academic Positions

2016 –	**Professor** · Bursa Uludağ University, Mechanical Engineering
2011 – 2016	**Associate Professor** · Bursa Technical University, Mechanical Engineering
2009 – 2011	**Postdoctoral Researcher** · Mississippi State University, Aerospace Engineering, CAVS
2006 – 2008	**Postdoctoral Researcher** · University of Michigan, Mechanical Engineering, Discrete Optimization Laboratory
1999 – 2006	**Research Assistant** · Bursa Uludağ University, Mechanical Engineering

Leadership and Industry Roles

2026 –	**Dean, Faculty of Engineering** · Bursa Uludağ University
2023 – 2026	**Head of Department, Mechanical Engineering** · Bursa Uludağ University
2020 – 2022	**Head, R&D Center** · Turkish Aerospace (TUSAŞ)
2017 – 2023	**Director, Vocational School** · Bursa Uludağ University
2011 – 2017	**Head of Department (Mechanical, Mechatronics and Industrial Engineering)** · Bursa Technical University
2011 – 2016	**Advisor to the Rector (R&D and University–Industry Cooperation), Vice Dean of Engineering, Member of the Senate and University Executive Board** · Bursa Technical University

Also: member of YÖK–ÜAK (Council of Higher Education – Interuniversity Board), the TÜBİTAK TEYDEB MAKİTEG committee and the Bursa Uludağ University Senate; university–industry cooperation advisor.

Editorial Activities

Current	Associate Editor · *Systems and Soft Computing* (Elsevier)
Past	Associate Editor · *Information Sciences* (Elsevier)
Past	Associate Editor · *Expert Systems: The Journal of Knowledge Engineering* (Wiley)
Past	Editorial Board Member · *The International Journal of Advanced Manufacturing Technology* (Springer)

Honors and Awards

2023	Full Member, Turkish Academy of Sciences (TÜBA)
2019–2024	Stanford-led "World's Most Influential Scientists" list (16th in Türkiye across all disciplines)
2020	Associate Member, TÜBA
2017	TÜBİTAK Science Incentive Award
2015	TÜBA-GEBİP Outstanding Young Scientist Award
2015	METU Prof. Dr. Mustafa Parlar Research Incentive Award

Projects and Patents

Selected Projects

Year	Project	Funder	Role
2023–2025	Development and prototyping of auxetic energy absorbers using AI methods	TÜBİTAK 1505	PI
2023–2025	AI-based development and experimental validation of composite auxetic structures for the automotive sector	BAP	PI
2025	Hybrid starfish optimization algorithm for optimal product design	BAP	PI
2025–	Performance comparison of next-generation structures for the automotive industry	BAP	PI

Year	Project	Funder	Role
2017–2019	AI-based high-performance clutch diaphragm design under variable speed	TÜBİTAK 1501	Researcher
2015–2018	Redesign of the Fluence trunk mechanism arm from sheet metal to plastic	TÜBİTAK 1501	PI
2014–2018	Design and localization of a tubular diesel-engine camshaft produced by rolling	TÜBİTAK 1501	Researcher
2016–2017	Development of a dual-mass flywheel	TÜBİTAK 1501	Researcher
2005–2009	Structural optimization: design with AI and evolutionary algorithms	TÜBİTAK 1501	Researcher

Patents and Utility Models

2024 An optimization method — Patent (2022/008694, granted)

2024 A production system for size optimization of lattice structures — Utility model (2022/010853, granted)

2021 A lattice structure — Patent application (2021/021100)

2018 Four-bar hood hinge algorithm — Patent (2015/08800, granted)

Teaching

Code	Course	Level	ECTS
MAK2012	Numerical Analysis	Undergraduate	4
MAK3029	R&D and Innovation in Engineering	Undergraduate	4
MAK4441	Design and Analysis for Additive Manufacturing	Undergraduate	4
MAK4444	Electric and Hybrid Vehicle Technology	Undergraduate	4
MAK5265	Structural Design and Optimization	Master's	6
MAK5268	Artificial Intelligence Applications	Master's	6
MAK6234	Reliability-Based Design Optimization	Doctoral	6
MAK6235	Service Life Calculations in Machine Design	Doctoral	6
MAK6238	R&D Management in Engineering	Doctoral	6
MAK6241	Design Principles for Additive Manufacturing	Doctoral	6

Supervised Graduate Theses

1. **Design and optimization of passive safety elements using additive manufacturing method for electric vehicles** Thesis No 1012825
2. **Investigation of the mechanical and dynamic behavior of innovative structures in product design process** Thesis No 942448
3. **Development of high-performance automotive impact absorber components with composite materials and artificial intelligence optimization techniques** Thesis No 938730
4. **Structural optimization of front lower arm** Thesis No 739267
5. **Development of a system based on artificial intelligence algorithm for the optimization of vehicle clutch components** Thesis No 736321
6. **Vehicle roof rail design development** Thesis No 716548
7. **Reliability based design optimisation for automotive engineering** Thesis No 693624
8. **Optimum design of unmanned aerial vehicles using structural optimization techniques** Thesis No 693153
9. **Reducing mass of collision absorber construction using structural optimization methods** Thesis No 687372

10. **Optimum design for crash behavior of bumper in air spring** Thesis No 667436
11. **Reducing weight of steering knuckle with structural optimization methods** Thesis No 667424
12. **Development of vehicle suspension components with structural optimization techniques** Thesis No 591311
13. **Optimum product development for additive manufacturing using innovative design methods** Thesis No 564286
14. **Development of high performance passenger seat components using new generation structural optimization techniques** Thesis No 528774
15. **Development of novel approaches to design of vehicle components with reliability-based optimization techniques** Thesis No 521890
16. **Weight reduction on the commercial vehicle driver seat with structural optimization** Thesis No 486672
17. **Optimum design of vehicle clutch diaphragm springs with heuristic methods under stress constraints and load characteristic** Thesis No 473014
18. **Improving high performance passive vehicle safety systems taking into account the sheet forming effect** Thesis No 456991
19. **Development of high performance vehicle safety systems** Thesis No 442382
20. **Analyses and optimization of connecting rod and investigation of fatigue behavior** Thesis No 442378
21. **Development of next generation guardrail systems using crash analysis and heuristic optimization methods** Thesis No 427719
22. **Optimum design of the energy absorbers affecting the performance of vehicle frontal impact** Thesis No 365514

Journal Articles (179)

Most Cited Works

1. **Yildiz A. R. Cuckoo search algorithm for the selection of optimal machining parameters in milling operations.** The International Journal of Advanced Manufacturing Technology, 64(1), 55–61, 2013. 522 citations
2. Zhong C., Li G., Meng Z., Li H., **Yildiz A. R.**, Mirjalili S. **Starfish optimization algorithm (SFOA): a bio-inspired metaheuristic algorithm for global optimization compared with 100 optimizers.** Neural Computing and Applications, 37(5), 3641–3683, 2025. 492 citations
3. **Yildiz A. R. Comparison of evolutionary-based optimization algorithms for structural design optimization.** Engineering Applications of Artificial Intelligence, 26(1), 327–333, 2013. 371 citations
4. **Yildiz A. R.**, Solanki K. N. **Multi-objective optimization of vehicle crashworthiness using a new particle swarm based approach.** The International Journal of Advanced Manufacturing Technology, 59(1), 367–376, 2012. 346 citations
5. Yildiz B. S., Pholdee N., Bureerat S., **Yildiz A. R.**, Sait S. M. **Enhanced grasshopper optimization algorithm using elite opposition-based learning for solving real-world engineering problems.** Engineering with Computers, 38(5), 4207–4219, 2022. 309 citations
6. Meng Z., Qian Q., Xu M., Yu B., **Yildiz A. R.**, Mirjalili S. **PINN-FORM: A new physics-informed neural network for reliability analysis with partial differential equation.** Computer Methods in Applied Mechanics and Engineering, 414, 116172, 2023. 304 citations

All articles

1. Mehta P., Sait S. M., YILDIZ B. S., **Yıldız A. R. Enhanced stellar oscillation algorithm for optimal design of industrial components.** *Materialpruefung/Materials Testing, vol. 68, no. 10, pp. 1884-1894, 2026 (SCI-Expanded, Scopus)*
2. Sait S. M., Mehta P., YILDIZ B. S., **Yıldız A. R. Dynamic random walk-based glider snake algorithm for optimization of vehicle suspension components.** *Materialpruefung/Materials Testing, vol. 68, no. 9, pp. 1611-1619, 2026 (SCI-Expanded, Scopus)*

3. Sait S. M., Mehta P., **Yıldız A. R. Structural optimization of aircraft nose landing gear using modified Tianji's horse racing optimizer.** *Materialpruefung/Materials Testing, vol. 68, no. 7, pp. 1249-1256, 2026 (SCI-Expanded, Scopus)*
4. Mehta P., Sait S. M., GÜRSES D., **Yıldız A. R. Chaotic status-based algorithm for optimization of industrial components.** *MATERIALS TESTING, vol. 68, no. 6, pp. 1116-1124, 2026 (SCI-Expanded, Scopus)*
5. Sait S. M., Mehta P., YILDIZ B. S., **Yıldız A. R. Structural optimization of aircraft components using chaotic pangolin optimizer.** *Materialpruefung/Materials Testing, vol. 68, no. 6, pp. 963-969, 2026 (SCI-Expanded, Scopus)*
6. Suwunnasopha P., Pholdee N., Panagant N., Bureerat S., Suriyawanakul J., **Yıldız A. R. Aircraft Trim Condition Optimization Problems: A Comparative Study of Different Optimization Techniques.** *Archives of Computational Methods in Engineering, vol. 33, no. 5, pp. 7615-7635, 2026 (SCI-Expanded, Scopus)*
7. Zhong C., Chen H., Xin D., Xu T., Meng Z., Wang X., **Yıldız A. R.**, Mirjalili S. **Opposition and reinforcement learning growth-starfish optimization algorithm for engineering design and feature selection.** *Knowledge-Based Systems, vol. 338, 2026 (SCI-Expanded, Scopus)*
8. Özcan A. R., Demirci E., Mehta P., Yıldız A. R. **Optimal design of a robot gripper arm using the chaotic animated oat optimizer.** *MATERIALS TESTING, vol. 68, no. 1, pp. 112-120, 2026 (SCI-Expanded, Scopus)*
9. Kurt E., **Yıldız A. R. Machine learning–driven multilattice optimization of an electric vehicle battery box side profile.** *Materialpruefung/Materials Testing, 2026 (SCI-Expanded, Scopus)*
10. Kurt E., **Yıldız A. R.**, İnkaya T., Özcan A. R., Gökdaäÿ İ. **Lightweight design of lattice-embedded brake pedals using artificial intelligence -based optimization.** *MATERIALS TESTING, vol. 68, no. 1, pp. 83-95, 2026 (SCI-Expanded, Scopus)*
11. İzci D., Ekinci S., Jabari M., Bajaj M., Blazek V., Prokop L., **Yıldız A. R.**, Mirjalili S. **A new intelligent control strategy for CSTH temperature regulation based on the starfish optimization algorithm.** *Scientific Reports, vol. 15, no. 1, 2025 (SCI-Expanded, Scopus)*
12. YILDIZ B. S., Mehta P., **Yıldız A. R. Optimal structural design of helicopter components using tornado optimizer with Coriolis forces.** *Materialpruefung/Materials Testing, vol. 67, no. 12, pp. 1915-1923, 2025 (SCI-Expanded, Scopus)*
13. Sait S. M., Mehta P., GÜRSES D., **Yıldız A. R. Dynamic random walk-based sled dog optimization algorithm and artificial neural network for optimizing design engineering problems.** *Materialpruefung/Materials Testing, vol. 67, no. 11, pp. 1803-1810, 2025 (SCI-Expanded, Scopus)*
14. **Yıldız A. R.**, Sait S. M., Mehta P., GÜRSES D. **Optimal design of automobile seat components using chaotic enzyme action optimization algorithm.** *Materialpruefung/Materials Testing, vol. 67, no. 10, pp. 1725-1733, 2025 (SCI-Expanded, Scopus)*
15. GÜRSES D., Mehta P., Sait S. M., **Yıldız A. R. Battery box design of electric vehicles using artificial neural network-assisted catch fish optimization algorithm.** *MATERIALS TESTING, vol. 67, no. 9, pp. 1463-1475, 2025 (SCI-Expanded, Scopus)*
16. Mehta P., Sait S. M., GÜRSES D., **Yıldız A. R. Aircraft wing rib component optimization using artificial neural network-assisted superb fairy-wren algorithm.** *Materialpruefung/Materials Testing, vol. 67, no. 9, pp. 1520-1527, 2025 (SCI-Expanded, Scopus)*
17. Sait S. M., Mehta P., GÜRSES D., **Yıldız A. R. Artificial neural network-assisted supercell thunderstorm algorithm for optimization of real-world engineering problems.** *Materialpruefung/Materials Testing, vol. 67, no. 9, pp. 1528-1536, 2025 (SCI-Expanded, Scopus)*
18. Sait S. M., Mehta P., YILDIZ B. S., **Yıldız A. R. Artificial neural network-infused polar fox algorithm for optimal design of vehicle suspension components.** *Materialpruefung/Materials Testing, vol. 67, no. 8, pp. 1400-1408, 2025 (SCI-Expanded, Scopus)*
19. Zhao Y., Chu S., **Yıldız A. R.**, Pan J. **Optimized Multiple Regression Prediction Strategies with Applications.** *Symmetry, vol. 17, no. 7, 2025 (SCI-Expanded, Scopus)*
20. Özcan A. R., Mehta P., Sait S. M., GÜRSES D., **Yıldız A. R. A new neural network-assisted hybrid chaotic hiking optimization algorithm for optimal design of engineering components.** *Materialpruefung/Materials Testing, vol. 67, no. 6, pp. 1069-1078, 2025 (SCI-Expanded, Scopus)*

21. **Yıldız A. R. Comparison of crash performance of auxetic structures for CF15, PA6/GF30, and GF30PP materials.** *Materialpruefung/Materials Testing, vol. 67, no. 6, pp. 953-963, 2025 (SCI-Expanded, Scopus)*
22. GÜRSES D., Mehta P., Sait S. M., **Yıldız A. R. Enhanced Greylag Goose optimizer for solving constrained engineering design problems.** *Materialpruefung/Materials Testing, vol. 67, no. 5, pp. 900-909, 2025 (SCI-Expanded, Scopus)*
23. Mehta P., Kumar S., Sait S. M., Yildiz B. S., **Yıldız A. R. Improved material generation algorithm by opposition-based learning and laplacian crossover for global optimization and advances in real-world engineering problems.** *MATERIALS TESTING, vol. 67, no. 4, pp. 737-746, 2025 (SCI-Expanded, Scopus)*
24. Mehta P., Sait S. M., YILDIZ B. S., **Yıldız A. R. Enhanced hippopotamus optimization algorithm and artificial neural network for mechanical component design.** *MATERIALS TESTING, vol. 67, no. 4, pp. 655-662, 2025 (SCI-Expanded, Scopus)*
25. Mehta P., Abderazek H., Kumar S., Sait S. M., YILDIZ B. S., **Yıldız A. R. Comparative study of state-of-the-art metaheuristics for solving constrained mechanical design optimization problems: experimental analyses and performance evaluations.** *MATERIALS TESTING, vol. 67, no. 2, pp. 249-281, 2025 (SCI-Expanded, Scopus)*
26. YILDIZ B. S., **Yıldız A. R.**, Yakupoglu C. **Enhanced crashworthiness performance of auxetic structures using artificial neural network and geyser inspired algorithm.** *MATERIALS TESTING, vol. 67, no. 2, pp. 353-360, 2025 (SCI-Expanded, Scopus)*
27. Zhong C., Li G., Meng Z., Li H., **Yıldız A. R.**, Mirjalili S. **Starfish optimization algorithm (SFOA): a bio-inspired metaheuristic algorithm for global optimization compared with 100 optimizers.** *Neural Computing and Applications, vol. 37, no. 5, pp. 3641-3683, 2025 (SCI-Expanded, Scopus)*
28. Panagant N., Mahajan S., Sait S. M., YILDIZ B. S., **Yıldız A. R.**, Khodadadi N., Mehta P. **Multi-objective optimization of trus sstructures using the enhanced Lichtenberg algorithm.** *MATERIALS TESTING, vol. 67, no. 2, pp. 297-312, 2025 (SCI-Expanded, Scopus)*
29. Kumar S., Tejani G. G., Mehta P., Sait S. M., **Yıldız A. R.**, Mirjalili S. **Optimization of trus sstructures using multi-objective cheetah optimizer.** *Mechanics Based Design of Structures and Machines, vol. 53, no. 2, pp. 1494-1515, 2025 (SCI-Expanded, Scopus)*
30. **Yıldız A. R.**, YILDIZ B. S. **Advanced structural design of engineering components utilizing an artificial neural network and GNDO algorithm.** *MATERIALS TESTING, vol. 67, no. 1, pp. 183-188, 2025 (SCI-Expanded, Scopus)*
31. Debnath S., Debbarma S., Nama S., Saha A. K., Dhar R., **Yıldız A. R.**, Gandomi A. H. **Centroid opposition-based backtracking search algorithm for global optimization and engineering problems.** *Advances in Engineering Software, vol. 198, 2024 (SCI-Expanded, Scopus)*
32. Mehta P., Panagant N., Wansasueb K., Sait S. M., **Yıldız A. R.**, Kumar S., YILDIZ B. S., Hussien A. G. **Optimization of vehicle conceptual design problems using an enhanced hunger games search algorithm.** *MATERIALS TESTING, vol. 66, no. 11, pp. 1864-1889, 2024 (SCI-Expanded, Scopus)*
33. Sait S. M., Mehta P., Pholdee N., YILDIZ B. S., **Yıldız A. R. Artificial neural network infused quasi oppositional learning partial reinforcement algorithm for structural design optimization of vehicle suspension components.** *MATERIALS TESTING, vol. 66, no. 11, pp. 1855-1863, 2024 (SCI-Expanded, Scopus)*
34. Kumar S., YILDIZ B. S., Mehta P., Sait S. M., Hussien A. G., **Yıldız A. R. Optimization of vehicle crashworthiness problems using recent twelve metaheuristic algorithms.** *MATERIALS TESTING, vol. 66, no. 11, pp. 1890-1901, 2024 (SCI-Expanded, Scopus)*
35. Gunaydin A. C., **Yıldız A. R. A comparison of recent optimization algorithms for build orientation problems in additive manufacturing.** *MATERIALS TESTING, vol. 66, no. 10, pp. 1539-1556, 2024 (SCI-Expanded, Scopus)*
36. Duzgun E., ACAR E., **Yıldız A. R. A novel chaotic artificial rabbits algorithm for optimization of constrained engineering problems.** *MATERIALS TESTING, vol. 66, no. 9, pp. 1449-1462, 2024 (SCI-Expanded, Scopus)*

37. Kopar M., **Yıldız A. R. Experimental and numerical investigation of crash performances of additively manufactured novel multi-cell crash box made with CF15PET, PLA, and ABS.** *MATERIALS TESTING, vol. 66, no. 9, pp. 1510-1518, 2024 (SCI-Expanded, Scopus)*
38. Sait S. M., Mehta P., **Yıldız A. R.**, YILDIZ B. S. **Optimal design of structural engineering components using artificial neural network-assisted crayfish algorithm.** *MATERIALS TESTING, vol. 66, no. 9, pp. 1439-1448, 2024 (SCI-Expanded, Scopus)*
39. Kanokmedhakul Y., Bureerat S., Panagant N., Radpukdee T., Pholdee N., **Yıldız A. R. Metaheuristic-assisted complex H-infinity flight control tuning for the Hawkeye unmanned aerial vehicle: A comparative study.** *Expert Systems with Applications, vol. 248, 2024 (SCI-Expanded, Scopus)*
40. Mehta P., YILDIZ B. S., Sait S. M., **Yıldız A. R. Optimization of electric vehicle design problems using improved electric eel foraging optimization algorithm.** *MATERIALS TESTING, vol. 66, no. 8, pp. 1230-1240, 2024 (SCI-Expanded, Scopus)*
41. Mehta P., **Yıldız A. R.**, Sait S. M., YILDIZ B. S. **Enhancing the structural performance of engineering components using the geometric mean optimizer.** *Materialpruefung/Materials Testing, vol. 66, no. 7, pp. 1063-1073, 2024 (SCI-Expanded, Scopus)*
42. Taşçl M., Erdaş M. U., GÖKTUĞ M. R., Yıldız B. S., Yıldız A. R. **Optimum design of additively manufactured aerospace components with different lattice structures.** *MATERIALS TESTING, vol. 66, no. 6, pp. 876-882, 2024 (SCI-Expanded, Scopus)*
43. Jia H., Zhou X., Zhang J., Abualigah L., **Yıldız A. R.**, Hussien A. G. **Modified crayfish optimization algorithm for solving multiple engineering application problems.** *Artificial Intelligence Review, vol. 57, no. 5, 2024 (SCI-Expanded, Scopus)*
44. Erdaş M. U., YILDIZ B. S., **Yıldız A. R. Crash performance of a novel bio-inspired energy absorber produced by additive manufacturing using PLA and ABS materials.** *MATERIALS TESTING, vol. 66, no. 5, pp. 696-704, 2024 (SCI-Expanded, Scopus)*
45. Mehta P., Sait S. M., YILDIZ B. S., Erdas M. U., Kopar M., **Yıldız A. R. A new enhanced mountain gazelle optimizer and artificial neural network for global optimization of mechanical design problems.** *MATERIALS TESTING, vol. 66, pp. 544-552, 2024 (SCI-Expanded, Scopus)*
46. Erdas M. U., YILDIZ B. S., **Yıldız A. R. Experimental analysis of the effects of different production directions on the mechanical characteristics of ABS, PLA, and PETG materials produced by FDM.** *MATERIALS TESTING, vol. 66, no. 2, pp. 198-206, 2024 (SCI-Expanded, Scopus)*
47. Dou Z., Chu S., Zhuang Z., **Yıldız A. R.**, Pan J. **GBRUN: A Gradient Search-based Binary Runge Kutta Optimizer for Feature Selection.** *JOURNAL OF INTERNET TECHNOLOGY, vol. 25, no. 3, pp. 341-353, 2024 (SCI-Expanded, Scopus)*
48. Chu S., Wang T. -., **Yıldız A. R.**, Pan J. **Ship Rescue Optimization: A New Metaheuristic Algorithm for Solving Engineering Problems.** *JOURNAL OF INTERNET TECHNOLOGY, vol. 25, no. 1, pp. 61-78, 2024 (SCI-Expanded, Scopus)*
49. Kopar M., Erdas M. U., **Yıldız A. R. Experimental Investigation on Mechanical properties of CF15PET and GF30PP materials produced with different raster angles.** *MATERIALS TESTING, vol. 66, no. 6, pp. 847-855, 2024 (SCI-Expanded, Scopus)*
50. Kopar M., **Yıldız A. R. Experimental investigation of mechanical properties of PLA, ABS, and PETG 3-d printing materials using fused deposition modeling technique.** *Materialpruefung/Materials Testing, vol. 65, no. 12, pp. 1795-1804, 2023 (SCI-Expanded, Scopus)*
51. Mehta P., YILDIZ B. S., Sait S. M., **Yıldız A. R. A novel hybrid Fick's law algorithm-quasi oppositional-based learning algorithm for solving constrained mechanical design problems.** *Materialpruefung/Materials Testing, vol. 65, no. 12, pp. 1817-1825, 2023 (SCI-Expanded, Scopus)*
52. Erdaş M. U., Kopar M., YILDIZ B. S., **Yıldız A. R. Optimum design of a seat bracket using artificial neural networks and dandelion optimization algorithm.** *Materialpruefung/Materials Testing, vol. 65, no. 12, pp. 1767-1775, 2023 (SCI-Expanded, Scopus)*
53. Kopar M., Yıldız A. R., Yıldız B. S. **Optimum design of a composite drone component using slime mold algorithm.** *MATERIALS TESTING, vol. 65, no. 12, pp. 1857-1864, 2023 (SCI-Expanded, Scopus)*

54. Champasak P., Panagant N., Pholdee N., Bureerat S., Rajendran P., **Yıldız A. R. Grid-based many-objective optimiser for aircraft conceptual design with multiple aircraft configurations.** *ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol. 126, 2023 (SCI-Expanded, Scopus)*
55. equationMeng Z., Qian Q., Xu M., Yu B., **Yıldız A. R.**, Mirjalili S. **PINN-FORM: A new physics-informed neural network for reliability analysis with partial differential.** *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, vol. 414, 2023 (SCI-Expanded, Scopus)*
56. GÜRSES D., Mehta P., Sait S. M., Kumar S., **Yıldız A. R. A multi-strategy boosted prairie dog optimization algorithm for global optimization of heat exchangers.** *MATERIALS TESTING, vol. 65, no. 9, pp. 1396-1404, 2023 (SCI-Expanded, Scopus)*
57. Kopar M., **Yıldız A. R. Composite disc optimization using hunger games search optimization algorithm.** *MATERIALS TESTING, vol. 65, no. 8, pp. 1222-1229, 2023 (SCI-Expanded, Scopus)*
58. Meng Z., YILDIZ B. S., Li G., Zhong C., Mirjalili S., **Yıldız A. R. Application of state-of-the-art multiobjective metaheuristic algorithms in reliability-based design optimization: a comparative study.** *Structural and Multidisciplinary Optimization, vol. 66, no. 8, 2023 (SCI-Expanded, Scopus)*
59. Sait S. M., Mehta P., GÜRSES D., **Yıldız A. R. Cheetah optimization algorithm for optimum design of heat exchangers.** *MATERIALS TESTING, vol. 65, no. 8, pp. 1230-1236, 2023 (SCI-Expanded, Scopus)*
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Last updated: October 2026