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## Education

Bachelor's, Karadeniz Technical University, Civil Engineering

Master's, Karadeniz Technical University, Civil Engineering-structures

Doctorate, Karadeniz Technical University, Civil Engineering-structures

Visiting Scholar, Czestochowa University of Technology, Faculty of Civil Engineering

## Publications (INTERNATIONAL)

### Journal Papers

1. Optimum design of reinforced concrete counterfort retaining walls using TLBO, Jaya algorithm. Ozturk, Hasan Tahsin ; **Dede, Tayfun** ; Turker, Emel. STRUCTURES, Volume 25 Page 285-296 Published 2020.
2. Optimization of cables size and prestressing force for a single pylon cable-stayed bridge with Jaya algorithm. Atmaca, Barbaros ; **Dede, Tayfun** ; Grzywinski, Maksym, STEEL AND COMPOSITE STRUCTURES, Volume 34 Issue 6 Page 853-862 Published 2020.
3. Continuous size optimization of large-scale dome structures with dynamic constraints. **Dede, Tayfun** ; Grzywinski, Maksym ; Selejdak, Jacek. STRUCTURAL ENGINEERING AND MECHANICS, Volume 73 Issue 4 Page 397-405 Published 2020

4. Design of reinforced concrete cantilever retaining wall using Grey wolf optimization algorithm. Kalemci, Elif Nur ; Ikizler, Sabriye Banu ; **Dede, Tayfun** ...More, STRUCTURES, Volume 23 Page 245-253 Published 2020.
5. Shape and size optimization of trusses with dynamic constraints using a metaheuristic algorithm. Grzywinski, Maksym ; Selejdak, Jacek ; **Dede, Tayfun**, STEEL AND COMPOSITE STRUCTURES, Volume 33 Issue 5 Page 747-753 Published 2019.
6. A multi-objective decision making model based on TLBO for the time - cost trade-off problems. Eirgash, Mohammad A. ; Togan, Vedat ; **Dede, Tayfun**, STRUCTURAL ENGINEERING AND MECHANICS, Volume 71 Issue 2 Page 139-151 Published 2019.
7. Optimization of the braced dome structures by using Jaya algorithm with frequency constraints, Grzywinski, Maksym ; **Dede, Tayfun** ; Ozdemir, Yaprak Itir, STEEL AND COMPOSITE STRUCTURES, Volume 30 Issue 1 Page 47-55 Published 2019.
8. Artificial Intelligence Applications in Civil Engineering, **Dede, Tayfun** ; Kankal, Murat ; Vosoughi, Ali Reza ...More, ADVANCES IN CIVIL ENGINEERING, Volume 2019 Published 2019.
9. Prediction and analysis of optimal frequency of layered composite structure using higher-order FEM and soft computing techniques, Das, Arijit ; Hirwani, Chetan K. ; Panda, Subrata K. , **Dede, Tayfun** ; STEEL AND COMPOSITE STRUCTURES, Volume 29 Issue 6 Page 749-+ Published 2018.
10. Buckling load optimization of laminated plates resting on Pasternak foundation using TLBO, Topal, Umut ; Trung Vo-Duy ; **Dede, Tayfun** ...More, STRUCTURAL ENGINEERING AND MECHANICS, Volume 67 Issue 6 Page 617-628 Published 2018.
11. A hybrid DQ-TLBO technique for maximizing first frequency of laminated composite skew plates, Vosoughi, Ali R. ; Malekzadeh, Parviz ; Topal, Umut, **Dede, Tayfun** ...More, STEEL AND COMPOSITE STRUCTURES, Volume 28 Issue 4 Page 509-516 Published 2018.
12. Jaya algorithm to solve single objective size optimization problem for steel grillage structures, **Dede, Tayfun**, STEEL AND COMPOSITE STRUCTURES, Volume 26 Issue 2 Page 163-170 Published 2018.
13. Advanced Optimization Techniques and Their Applications in Civil Engineering, **Dede, Tayfun** ; Kripka, Moacir ; Togan, Vedat ...More, ADVANCES IN CIVIL ENGINEERING, Volume 2018 Published 2018.
14. Stacking Sequence Optimization for Maximum Fundamental Frequency of Simply Supported Antisymmetric Laminated Composite Plates using Teaching-Learning-Based Optimization, Topal, Umut ; **Dede, Tayfun** ; Ozturk, Hasan Tahsin, KSCE JOURNAL OF CIVIL ENGINEERING, Volume 21 Issue 6 Page 2281-2288 Published 2017.
15. Modeling stream dissolved oxygen concentration using teaching-learning based optimization algorithm, Bayram, Adem ; Uzlu, Ergun ; Kankal, Murat, **Dede, Tayfun** ...More, ENVIRONMENTAL EARTH SCIENCES, Volume 73 Issue 10 Page 6565-6576 Published 2015.

16. Combined size and shape optimization of structures with a new meta-heuristic algorithm, **Dede, Tayfun** ; Ayvaz, Yusuf, APPLIED SOFT COMPUTING, Volume 28 Page 250-258 Published 2015.
17. A teaching learning based optimization for truss structures with frequency constraints, **Dede, Tayfun** ; Togan, Vedat, STRUCTURAL ENGINEERING AND MECHANICS, Volume 53 Issue 4 Page 833-845 Published 2015.
18. Estimates of energy consumption in Turkey using neural networks with the teaching-learning-based optimization algorithm, Uzlu, Ergun ; Kankal, Murat ; Akpınar, Adem, **Dede, Tayfun** ...More, ENERGY, Volume 75 Page 295-303 Published 2014.
19. Prediction of berm geometry using a set of laboratory tests combined with teaching-learning-based optimization and artificial bee colony algorithms, Uzlu, Ergun ; Komurcu, Murat Ihsan ; Kankal, Murat, **Dede, Tayfun** ,...More, APPLIED OCEAN RESEARCH, Volume 48 Page 103-113 Published 2014.
20. Application of Teaching-Learning-Based-Optimization algorithm for the discrete optimization of truss structures, **Dede, Tayfun**, KSCE JOURNAL OF CIVIL ENGINEERING, Volume 18 Issue 6 Page 1759-1767 Published 2014.
21. Optimum design of grillage structures to LRFD-AISC with teaching-learning based optimization, **Dede, Tayfun**, STRUCTURAL AND MULTIDISCIPLINARY OPTIMIZATION, Volume 48 Issue 5 Page 955-964 Published 2013.
22. Composed material models for nonlinear behavior of reinforced concrete, **Dede, Tayfun** ; Ayvaz, Yusuf
23. COMPUTERS AND CONCRETE, Volume 12 Issue 3 Page 303-318 Published 2013,.
24. Structural optimization with teaching-learning-based optimization algorithm, **Dede, Tayfun** ; Ayvaz, Yusuf, STRUCTURAL ENGINEERING AND MECHANICS, Volume 47 Issue 4 Page 495-511 Published 2013.
25. Materially nonlinear free vibration analysis of reinforced concrete beam, Dede, **Tayfun** ; **Ayvaz**, Yusuf ; Ozdemir, Yaprak I., JOURNAL OF VIBRATION AND CONTROL, Volume 17 Issue 7 Page 1090-1098 Published 2011.
26. Weight minimization of trusses with genetic algorithm, **Dede, Tayfun** ; Bekiroglu, Serkan ; Ayvaz, Yusuf, APPLIED SOFT COMPUTING, Volume 11 Issue 2 Page 2565-2575 Published 2011.
27. Comparative study of plasticity models for concrete material by using different criteria including Hsieh-Ting-Chen criterion, **Dede, Tayfun** ; Ayvaz, Yusuf, MATERIALS & DESIGN, Volume 31 Issue 3 Page 1482-1489 Published 2010.
28. Plasticity models for concrete material based on different criteria including Bresler-Pister, **Dede, Tayfun** ; Ayvaz, Yusuf. MATERIALS & DESIGN, Volume 31 Issue 1 Page 278-286 Published 2010.
29. Nonlinear analysis of reinforced concrete beam with/without tension stiffening effect, Dede, T. ; Ayvaz, Y. MATERIALS & DESIGN, Volume 30 Issue 9 Page 3846-3851 Published 2009.

30. Implementation of different encoding types on structural optimization based on adaptive genetic algorithm, Bekiroglu, Serkan ; **Dede, Tayfun** ; Ayvaz, Yusuf, FINITE ELEMENTS IN ANALYSIS AND DESIGN, Volume 45 Issue 11 Page 826-835 Published 2009

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Dede T., Ayvaz Y., Bekiroglu S., Çelik H., "Nonlinear Modeling Of Reinforced Concrete Beam", 8th International Congress on Advances in Civil Engineering, Eastern Mediterranean University, Famagusta, KUZZEY KIBRIS TÜRK CUM., 15-17 September 2008, pp.135-142.

Dede T., Bekiroglu S., Ayvaz Y., "Effects Of Some Parameters In A Genetic Algorithm For Large Truss Structures", Proceedings Of The Ninth International Conference On The Application Of Artificial Intelligence To Civil, Structural And Environmental Engineering , St. Julians, MALTA, 18-21 September 2007, pp.1-11.

Dede T., Ayvaz Y., "Two-Dimensional Finite Element Model For Materially Nonlinear Analysis Of Reinforced Concrete Beams", Proceedings Of The Eleventh International Conference On Civil, Structural And Environmental Engineering Computing, St. Julians, MALTA, 18-21 September 2007, pp.1-12.

Dede T., Ayvaz Y., "Constitutive Modeling Of Concrete By Using Saenz Nonlinear Stress-Strain Equation And Von Mises Criterion", International Symposium on Advances in Earthquake & Structural Engineering, ANTALYA, TÜRKIYE, 24-26 October 2007, pp.134-141.

Dede T., Ayvaz Y., "A Comparison Study For Materially Nonlinear Analysis Of Reinforced Concrete Structures", International Symposium on Advances in Earthquake & Structural Engineering, ANTALYA, TÜRKIYE, 24-26 October 2007, pp.153-162.

Dede T., Ayvaz Y., Bekiroglu S., "Effect of Some Parameters in Genetic Algorithm", Proceeding of ACE 2006 Advances in Civil Engineering 7th International Conference, İSTANBUL, TÜRKIYE, 11-13 October 2006, pp.1-10.

Bekiroglu S., Ayvaz Y., Dede T., "Optimization Of Steel Frame With Genetic Algorithm Using Different Encoding Types", Proceeding of ACE 2004 Advances in Civil Engineering 6th International Conference, İSTANBUL, TÜRKIYE, 6-6 October 2004, pp.241-250.

Dede T., Ayvaz Y., Bekiroglu S., "Optimization Of Truss Structures Using Value Encoding In A Genetic Algorithm.", Proceeding of the Seventh International Conference on the Application of Artificial Intelligence to Civil and Structural Engineering, Egmond aan Zee, HOLLANDA, 2-4 September 2003, pp.1-38.