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Education

Doctorate, Manisa Celal Bayar University, Mühendislik Ve Doğa Bilimleri Fakültesi, İnşaat Mühendisliği, Turkey 2020 - 2024
Postgraduate, Manisa Celal Bayar University, Turkey 2018 - 2020
Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, Turkey 2012 - 2017

Foreign Languages

English

Dissertations

Doctorate, Dış destek sistemli rijit ve yarı rijit yüksek katlı düzensiz çelik yapıların zemin yapı etkileşimi de dikkate alınarak optimum tasarımı, Manisa Celal Bayar University, Fen Bilimleri Enstitüsü, 2024
Postgraduate, Dönen kirişlerin dinamik analizi, Manisa Celal Bayar University, 2020

Research Areas

Avesis Research Areas: Mechanical
WoS Research Areas: Mechanics, Engineering Civil
Scopus Research Areas: Civil and Structural Engineering

Academic Positions

Research Assistant, Manisa Celal Bayar University, Mühendislik Ve Doğa Bilimleri Fakültesi, İnşaat Mühendisliği, 2018 - Present

Articles

I. **Metaheuristic-Driven Machine Learning for Best-Observed Feasible Weight Estimation of Braced Steel High-Rise Frames**
Üstüner B., Özyüksel Çiftçioğlu A., Doğan E., Mardani A.
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II. **Investigating the effect of outriggers on the minimum weight design of real-scale high-rise buildings with semi-rigid connections**
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III. **Weight optimization of outrigger-braced high-rise steel frames considering soil-structure interaction via metaheuristic algorithms**
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IV. **A comparative analysis of metaheuristic algorithms for optimizing curved roof structures**
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V. **Enhancing Structural Evaluation: Machine Learning Approaches for Inadequate Reinforced Concrete Frames**
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VI. **Investigation of the seismic response of irrigation channel using Coupled Eularian-Lagrangian approach**
YİĞİT M. E., ÜSTÜNER B.
Challenge Journal of Concrete Research Letters, vol.15, no.3, pp.90-100, 2024 (Scopus, TRDizin)

VII. **Taguchi-enhanced Grey Wolf Optimizer for robust design of cellular beams**
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VIII. **Structure Optimization with Metaheuristic Algorithms and Analysis by Finite Element Method**
ÜSTÜNER B., DOĞAN E.
KSCE Journal of Civil Engineering, vol.28, no.1, pp.328-341, 2024 (SCI-Expanded, Scopus)

IX. **Finite element-based analysis of optimally designed steel plane frames**
ÜSTÜNER B., DOĞAN E.
Asian Journal of Civil Engineering, vol.24, no.6, pp.1441-1457, 2023 (Scopus)

X. **DAİRESEL BOŞLUKLU ÇELİK ÇERÇEVELERİN OPTİMUM TASARIMI ÜZERİNE KARŞILAŞTIRMALI BİR ÇALIŞMA**
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XI. **Solution of design optimization problems via metaheuristic search methods**
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Journal of Structural Engineering & Applied Mechanics (Online), vol.5, 2022 (TRDizin)

Books

I. **OPTIMUM DESIGN OF CELLULAR BEAMS UNDER DIFFERENT LOADS**
Üstüner B., Doğan E.
in: International Research in the Field of Civil Engineering -I, KAMANLI AHMET, Editor, EĞİTİM YAYINEVİ, Ankara, pp.125-142, 2024

II. **APPLICATION OF NEW SWARM BASED METAHEURISTIC ALGORITHMS TO REAL WOLRD PROBLEMS**
ÜSTÜNER B., DOĞAN E.
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Papers Presented at Peer-Reviewed Scientific Conferences

I. **Minimum Weight Optimization Of 3-D Steel Frame System**
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BURSA 3rd INTERNATIONAL CONFERENCE ON MATHEMATICS AND ENGINEERING, Bursa, Turkey, 20 - 22 September 2024, pp.33-43, (Full Text)

II. **Beam Design Via New Metaheuristics Algorithms**
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III. **Investigation of Fluid Sloshing in Prefabricated Irrigation Canals under Seismic Effects through Linear Dynamic Analysis**
YİĞİT M. E., ÜSTÜNER B.
5th International Engineering Research Symposium (INERS'24), Düzce, Turkey, 7 - 09 March 2024, vol.1, pp.38, (Summary Text)

IV. **Use of some recent optimization methods in the solution of engineering design problems**
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4TH INTERNATIONAL EURASIAN CONFERENCE ON SCIENCE, ENGINEERING AND TECHNOLOGY (EURASIANSCIENTECH 2022), Ankara, Turkey, 14 - 16 December 2022, pp.1501-1508, (Full Text)

V. **Comparison Of Refinement Firefly Algorithm with Two Current Algorithms**
ÜSTÜNER B., DOĞAN E.
4TH INTERNATIONAL EURASIAN CONFERENCE ON SCIENCE, ENGINEERING AND TECHNOLOGY (EURASIANSCIENTECH 2022), Ankara, Turkey, 14 - 16 December 2022, vol.1, pp.1491-1500, (Full Text)

VI. **A Performance Investıgatıon Of Three Metaheurıstıc Algorıthms In The Solutıon Of Optımızatıon Problems**
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VII. **A PERFORMANCE INVESTIGATION OF THREE METAHEURISTIC ALGORITHMS IN THE SOLUTION OF OPTIMIZATION PROBLEMS**
ÜSTÜNER B., DOĞAN E.
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VIII. **FINITE ELEMENT ANALYSIS OF OPTIMALLY DESIGNED STEEL PLANE FRAMES**
ÜSTÜNER B., DOĞAN E.
International Conference on Science, Engineering Management and Information Technology, Ankara, Turkey, 2 - 03 February 2022, pp.53-54, (Full Text)

IX. **EĞRİSEL FORMDAKİ ÇATILARIN KURT KOLONİ ALGORİTMASI KULLANILARAK OPTİMUM TASARIMI**
DOĞAN E., ÇELİK B.
22. ULUSAL MEKANİK KONGRESİ, Adana, Turkey, 06 September 2021, pp.485-494, (Full Text)

X. **Derivation of Equation of Motion of Rotating Beams Using Biot Stress**
ÇELİK B., SINIR B. G.
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XI. **Parametrical Resonance Analysis of a Rotating Beam**
ÇELİK B., SINIR B. G.
4 th International Students Science Congress, İzmir, Turkey, 18 September 2020, (Full Text)

XII. **Derivation of Equation of Motions of Rotating Beams Using Biot Stress**
ÇELİK B., SINIR B. G.
4 th International Students Science Congress, İzmir, Turkey, 18 September 2020, (Full Text)

XIII. **YÜKSEK MERTEBE KİRİŞ TEORİLERİNİN KARŞILAŞTIRILMASI**
SINIR B. G., ÇELİK B.
21. ULUSAL MEKANİK KONGRESİ, Niğde, Turkey, 02 September 2019, pp.660-668, (Full Text)

XIV. **DÖNEN KİRİŞLERİN PARAMETRİK REZONANS ANALİZİ**
SINIR B. G., ÇELİK B.
21. ULUSAL MEKANİK KONGRESİ, Niğde, Turkey, 02 September 2019, pp.799-807, (Full Text)

XV. **STRUCTURAL HEALTH MONITORING IN AQUAPARK**
ÇELİK B., SINIR B. G.
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XVI. **DYNAMIC LOAD EFFECT ON CRANE**
ÇELİK B., SINIR B. G.
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XVII. **Parametrical Resonance Case Of A Rotating Beam**
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INTERNATIONAL EURASIAN CONFERENCE ONSCIENCE, ENGINEERING AND TECHNOLOGY(EURASIANSCIENTECH 2018), Ankara, Turkey, 22 - 23 November 2018, pp.2609-2615, (Full Text)

XVIII. **Dynamic Behavior of Viscoelastic Euler Bernoulli Beam**
ÇELİK B., SINIR B. G.
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XIX. **Paremetrical Resonance Case of a Rotating Beam**
ÇELİK B., SINIR B. G.
International Eurasian Conference on Science, Engineering and Technology (EurasianSCiEnTech), 22 - 23 November 2018, (Full Text)

Funded Projects

Üstüner B., Özyüksel Çiftçioğlu A., Doğan E., TUBITAK Project, 1002 - Quick Support Program, Yüksek Katlı Çelik Yapıların Akıllı Tasarımı: Makine Öğrenimi ile Dış Destek Sistem Entegrasyonu, 2024 - 2025

CANBULA B., ÇETİN T., TÜRK A., TAŞKIN S., ÜSTÜNER M. A., TURAN M. E., ÜSTÜNER B., Project Supported by Higher Education Institutions, BAP Infrastructure, Mühendislik Fakültesi Öğrencilerinin Uzaktan Eğitimde Programlama Dersleri İçin Başarı Düzeylerinin Araştırılması, 2020 - 2022

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