



AFYON KOCATEPE ÜNİVERSİTESİ
ULUSLARARASI MÜHENDİSLİK TEKNOLOJİLERİ ve UYGULAMALI BİLİMLER DERGİSİ
Afyon Kocatepe University
International Journal of Engineering Technology and Applied Sciences

Afyon Kocatepe University International Journal of Engineering Technology and Applied Sciences

<http://dergipark.gov.tr/akuumubd>

e-ISSN:2667-4165

Afyon Kocatepe University
International Journal of Engineering Technology and
Applied Sciences (AKU-IJETAS)

Volume: IV / Number: 1 / June - 2021

Owner / Publisher: Rector Prof. Dr. Mehmet KARAKAŞ for Afyon Kocatepe University

Chief in Chief Prof. Dr. Ayhan EROL

Co- Editor in Chief Assoc. Prof. Dr. Ahmet YÖNETKEN

Published Afyon Kocatepe University, June 2021,

ijetas@aku.edu.tr

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned. Nothing from this publication may be translated, reproduced, stored in a computerized system or published in any form or in any manner, including, but not limited to electronic, mechanical, reprographic or photographic, without prior written permission from the Publisher Afyon Kocatepe University www.ijetas.aku.edu.tr ijetas@aku.edu.tr The individual contributions in this publication and any liabilities arising from them remain the responsibility of the authors. The publisher is not responsible for possible damages, which could be a result of content derived from this publication.

CONTACT INFORMATION

Afyon Kocatepe University International Journal of Engineering Technology and Applied Science Afyon Kocatepe University, Technology Faculty, 03200 Afyonkarahisar, TURKEY

Phone: +90-272-2281446 /ext.

Fax: +90-272 228 1449

e-mail : ijetas@aku.edu.tr, aerol@aku.edu.tr

Welcome to AKU-IJETAS

Dear Researchers;

International Journal of Engineering and Applied Sciences ler has been published in Turkish and English since 2018 with 2 issues. Our journal will accept Turkish and English articles as 2 issues a year and the articles will be evaluated by at least two referees with the same system. Our magazine from December 2018; it offers many advantages to readers due to the practical and practical access to the authors as well as the process of publishing and publishing quickly and easily; The electronic journal (e-ISSN:2667-4165) accepts 2 numbers per year (June and December) in Turkish and English. The names of the judges evaluating the articles are not notified to the authors. The referees cannot see the names of the authors. The studies are evaluated as at least two referees. Our authors, who want to send articles, can register their original scientific articles online and follow the process by registering on our magazine page. Our journal is accepted as original and previously published research articles.

We are waiting for your contributions as both referee and writer. I thank you in advance for your support and I wish you success in your work.

Prof. Dr Ayhan EROL

Chief Editor

Danışma Kurulu / Editörler/ Editorial Board

Adem KURT	Gazi University	TURKEY
Ahmet AKSOY	Akdeniz University	TURKEY
Ahmet YILDIZ	Afyon Kocatepe University	TURKEY
Alexander ONUFRAK	Pavol Jozef Safarik University	SLOVAKIA
Anas Sarwar QURESHI	Agriculture University	PAKISTAN
Artay YAGCI	Afyon Kocatepe University	TURKEY
Asım Gokhan YETGIN	Dumlupinar University	TURKEY
Behçet GULENC	Gazi University	TURKEY
Bojan ZLENDER	Maribor University	SLOVENIA
Cahit GURER	Afyon Kocatepe University,	TURKEY
David NOZADZE	Georgian Technical University	GEORGIA
Diñçer BURAN	Süleyman Demirel University	TURKEY
Dunja PERIC	Kansas State University, Manhattan	ABD
Dusan ORAC	Kosice Technical University	SLOVAKIA
Elena Cristina RADA	Trento University	ITALY
Gabor PAY	University College of Nyiregyhaza	HUNGARY
Gratiela BOCA DANA	Technical University Cluj Napoca	ROMANIA
Hazizan Md AKİL	Sains Malaysia University	MALAYSIA
Huseyin Ali YALIM	Afyon Kocatepe University	TURKEY
Huseyin AKBULUT	Afyon Kocatepe University	TURKEY
Huseyin BAYRAKCEKEN	Afyon Kocatepe University	TURKEY
Ilhan KOŞALAY	Ankara University	TURKEY
Ioan ABRUDAN	Technical University Cluj Napoca	ROMANIA
Ivan KURIK,	Technical University Zilina	SLOVAKIA
Iveta VASKOVA	Kosice Technical University	SLOVAKIA
João Pedro SILVA	Leiria Polytechnic Institute	PORTUGAL
Lucian Ionel CIOCA	Lucian Blaga University of Sibiu	ROMANIA
Marco RAGAZZI	Trento University	ITALY
Martina HRUBOVCAKOVA	Kosice Technical University	SLOVAKIA
Matjaž ŠRAML	Maribor University	SLOVENIA
Merlinda EBIBI	Mother Teresa University	MACEDONIA
Mihai BANICA	Technical University Cluj Napoca	ROMANIA
Mircea HORGOS	Technical University Cluj Napoca	ROMANIA
Monica Lopez ALONSO	University of GRANADA	SPAIN
Muhammed YURUSOY	Afyon Kocatepe University	TURKEY
Mustafa ERSOZ	University of Selcuk	TURKEY
Mustaque HOSSAIN	Kansas State University, Manhattan	ABD
Nadras OTHMAN	Sains University	MALAYSIA
Nicolae UNGUREANU	Technical University Cluj Napoca	ROMANIA
Neritan TURKESHI	Mother Teresa University	MACEDONIA
Olivera PETKOVSKA	Mother Teresa University	MACEDONIA

Olga OROSOVA	Pavol Jozef Safarik University	SLOVAKIA
Otar ZUMBURIDZE	Georgia Technical University	GEORGIA
P. Trinatha RAO	Gitam University	INDIA
Peter MONKA	Technical University Kosice	SLOVAKIA
Prasanna RAMAKRISNAN	Neo Education Institu	MALAYSIA
Ramazan KAÇAR	Karabük University	TURKEY
Radu COTETIU	Technical University Cluj Napoca	ROMANIA
Regita BENDIKIENĖ	Kaunas Technology University	LITVANIA
Renata PANOCOVA	Pavol Jozef Safarik University	SLOVAKIA
Rıdvan UNAL	Usak University	TURKEY
Robert CEP	Technical University Ostrava	CZECH
Selçuk AKTURK	Mugla University	TURKEY
Serdar SALMAN	Marmara University	TURKEY
Serhat BASPINAR	Afyon Kocatepe University	TURKEY
Sermin OZAN	Firat University	TURKEY
Sezai TAŞKIN	Celal Bayar University	TURKEY
Snezhina ANDONOVA	Sauth-West University	BULGARIA
Suleyman GUNDUZ	Karabük University	TURKEY
Stanislaw LEGUTKO	Poznan University of Technology	POLAND
Tomasz NIZNIKOWSKI	Lomza State University Applied Science	POLAND
Tomaz TOLLAZZI	Maribor University	SLOVENIA
Ugur CALIGULU	Firat University	TURKEY
Yılmaz YALCIN	Afyon Kocatepe University	TURKEY
Yuksel OĞUZ	Afyon Kocatepe University	TURKEY
Zoran TRIFUNOV	Mother Teresa University	MACEDONIA

CONTENTS

Page

Güneş Işınım Tahmininde NARX Modelinin Uygulanması

Ali Sarı, Muzaffer Aktaş, Ahmet Yönetken, Rasim Doğan..... 1-6

Design and Simulation of Grid – Photovoltaic Hybrid System for an Office complex

Ameze Big-Alabo, Duruji Tomenna, Uhunmwhangho Roland 7-17

Güçlendirilen Mevcut Bir Yapının TDY 2007 ile 2018 Yeni Türkiye Bina Deprem Yönetmeliğine Göre Performansının Tekrar İncelenmesi

Nilay Küçükaslan, Mehmet Fatih Altan 18-36

Blokzincir Tabanlı Donanımsal Cüzdan ve Akıllı Kartlar

Adil Tanrıku, Hüseyin Yüce, Ercan Ölçer 37-48