

## Asst. Prof. Hatice Vildan DÜDÜKÇÜ

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: ABA-3253-2020

ScopusID: 57221835731

Yoksis Researcher ID: 250105

### Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Elektronik ve Haberleşme Mühendisliği, Turkey 2018 - 2024

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Elektronik Programı, Turkey 2015 - 2018

Undergraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Elektronik Ve Haberleşme Mühendisliği Bölümü, Turkey 2012 - 2015

### Foreign Languages

English, C2 Mastery

### Dissertations

Postgraduate, Automated insulin pump design based on probabilistic prediction algorithm, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Elektronik Programı, 2017

### Research Areas

Biomedical Engineering, Electrical and Electronics Engineering, Electronic, Electronic Circuits, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2024 - Continues

Research Assistant PhD, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2024 - 2024

Research Assistant, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2016 - 2024

## Research Infrastructure Information

Kahraman N., Taşkıran M., Dūdükçü H. V., Saltürk S., Saltürk T., Machine Learning and Biometric System Design Working Group, September 2020

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Synchronized diabetes monitoring system: Development of smart mobile apparatus for diabetes using insulin**  
Kahraman M., Dūdükçü H. V., Kurt S., Yıldız H., Aydın N., Mutlu Ü., Çakmak R., Boz E. B., Özbek H. E., Ertürk M. A., et al.  
IRBM, vol.45, no.5, pp.100852, 2024 (SCI-Expanded)
- II. **UAV instantaneous power consumption prediction using LR-TCN with simple moving average**  
Dudukcu H. V., Taskiran M., Kahraman N.  
Concurrency and Computation: Practice and Experience, vol.36, no.3, 2024 (SCI-Expanded)
- III. **UAV sensor data applications with deep neural networks: A comprehensive survey**  
Dūdükçü H. V., Taşkıran M., Kahraman N.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.123, no.Part C, pp.1-17, 2023 (SCI-Expanded)
- IV. **Temporal Convolutional Networks with RNN approach for chaotic time series prediction**  
Dudukcu H. V., Taskiran M., Taskiran Z. G. C., Yildirim T.  
Applied Soft Computing, vol.133, 2023 (SCI-Expanded)
- V. **Blood glucose prediction with deep neural networks using weighted decision level fusion**  
DÜDÜKÇÜ H. V., TAŞKIRAN M., YILDIRIM T.  
BIOCYBERNETICS AND BIOMEDICAL ENGINEERING, vol.41, no.3, pp.1208-1223, 2021 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Noninvasive Glucose Measurement for Diabetes Mellitus Patients**  
Dūdükçü H. V., Yildirim T.  
Current Trends in Biomedical Engineering Biosciences, vol.2, pp.1-3, 2017 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Time Series Prediction From Commercial Aircraft Acceleration Sensor Data with Deep Neural Networks: A Benchmark Study**  
Dūdükçü H. V., Taşkıran M.  
in: Academic Studies in Engineering, Prof. Dr. Çoşkun Özalp;,Doç. Dr. Savaş Bayram;,Doç. Dr. Mahmut Kayar, Editor, Gece Kitaplığı, Ankara, pp.33-46, 2023
- II. **ECG DATA ANOMALIES DETECTION WITH STACKED AUTOENCODER ON LOW-POWER AND LOW-MEMORY MICROCONTROLLERS**  
Dūdükçü H. V., Taşkıran M.  
in: Current Research in Engineering, Assoc. Prof. Dr. Selahattin Bardak,Assoc. Prof. Dr. Ümit Ayata, Editor, Gece Kitaplığı, Ankara, pp.275-289, 2023

## Refereed Congress / Symposium Publications in Proceedings

- I. **Human Activity Recognition with Ensemble Learning**  
Düdükçü H. V., Taşkıran M., Çam Taşkıran Z. G., Kahraman N.  
2024 26th International Conference on Digital Signal Processing and its Applications (DSPA), Moscow, Russia, 27 - 29 March 2024, pp.1-6
- II. **A Fusion-Based Deep Neural Networks Approach for Face Liveness Detection**  
Aydin M., Taskiran M., Kahraman N., Dudukcu H. V.  
2023 International Conference on Innovations in Intelligent Systems and Applications (INISTA), Nabeul, Tunisia, 20 - 23 September 2023, pp.1-6
- III. **Senkronize Diyabet Takibi Sistemi**  
Kahraman M., Mutlu Ü., Ertürk M. A., Yıldız H., Düdükçü H. V., Kurt S., Aydın M. A., Aydın N., Karan M. A., Karşıdağ K., et al.  
58. Ulusal Diyabet Kongresi, Antalya, Turkey, 11 - 14 May 2022, pp.294-297
- IV. **Physiotherapy Activities Classification with Deep Neural Networks**  
Düdükçü H. V., Taşkıran M., Dudukcu M. Z.  
2022 Innovations in Intelligent Systems and Applications Conference, ASYU 2022, Antalya, Turkey, 7 - 09 September 2022
- V. **Unmanned Aerial Vehicles (UAVs) Battery Power Anomaly Detection Using Temporal Convolutional Network with Simple Moving Average Algorithm**  
DÜDÜKÇÜ H. V., TAŞKIRAN M., KAHRAMAN N.  
16th International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2022, Biarritz, France, 8 - 12 August 2022
- VI. **Instantaneous Power Consumption Prediction with Modified Temporal Convolutional Network for UAVs**  
DÜDÜKÇÜ H. V., TAŞKIRAN M., KAHRAMAN N.  
45th International Conference on Telecommunications and Signal Processing, TSP 2022, Virtual, Online, Czech Republic, 13 - 15 July 2022, pp.106-109
- VII. **Consolidated or individual training: Which one is better for blood glucose prediction?**  
DÜDÜKÇÜ H. V., TAŞKIRAN M., YILDIRIM T.  
2021 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), 25 August 2021
- VIII. **Comprehensive comparison of LSTM variations for the prediction of chaotic time series**  
DÜDÜKÇÜ H. V., TAŞKIRAN M., ÇAM TAŞKIRAN Z. G.  
2021 International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2021, Kocaeli, Turkey, 25 - 27 August 2021
- IX. **LSTM and WaveNet Implementation for PredictiveMaintenance of Turbofan Engines**  
Düdükçü H. V., Taşkıran M., Kahraman N.  
2020 IEEE 20th International Symposium on Computational Intelligence and Informatics (CINTI), 5 - 07 November 2020, pp.151-156

## Supported Projects

İŞILDAK B., AMASYALI M. F., USLU E., KAHRAMAN N., TAŞKIRAN M., DÜDÜKÇÜ H. V., ÇAM TAŞKIRAN Z. G., BOLAT B., YAVUZ S., ÇAKMAK F., Project Supported by Higher Education Institutions, Derin Pekıştirmeli Öğrenme Tabanlı Hibrit Füze Güdüm Sistemlerinin Geliştirilmesi, 2024 - Continues

Kahraman N., Çam Taşkıran Z. G., Taşkıran M., Düdükçü H. V., Horizon Europe Project, Smart Building Sensitive to Daily Sentiment (SUSTAIN), 2022 - 2026

Çam Taşkıran Z. G., Düdükçü H. V., Taşkıran M., Kahraman N., Project Supported by Higher Education Institutions, Sensör Ağları için Uç Birimlerde Sensör Füzyonu ve Derin Öğrenme Yöntemleri ile Veri Analizi, 2023 - 2025

Düdükçü H. V., Taşkıran M., Kahraman N., A.Ş. M. T., TUBITAK Project, Cloud-Based Smart Mobile Test Automation Assistant Development, 2022 - 2024

Düdükçü H. V., Taşkıran M., Kahraman N., Project Supported by Higher Education Institutions, Flight Anomaly Detection

in Unmanned Aerial Vehicles with Hybrid Deep Learning Method, 2021 - 2023

Çam Taşkıran Z. G., Taşkıran M., D d k  H. V., Project Supported by Higher Education Institutions, Decision-Level Fusion of Deep Learning Networks for Prediction of Chaotic Time Series, 2021 - 2022

Kahraman N., Taşkıran M., D d k  H. V., Technopark, SECURITY EVENT LOGS ANOMALY ANALYSIS MODULE, 2021 - 2021

Karan M. A., TUBITAK Project, Senkronize Diyabet Takibi Sistemi, 2018 - 2021

## **Metrics**

Publication: 17

Citation (WoS): 7

Citation (Scopus): 56

H-Index (WoS): 2

H-Index (Scopus): 3