

# Prof. ZEKERİYA TÜFEKÇİ

## Personal Information

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: G-4701-2018

Yoksis Researcher ID: 132910

## Education Information

Doctorate, Clemson University, Yabancı Diller Yüksekokulu, Electrical Engineering, United States Of America 1996 - 2001

Postgraduate, Clemson University, Yabancı Diller Yüksekokulu, Electrical Engineering, United States Of America 1994 - 1996

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik, Turkey 1982 - 1987

## Foreign Languages

English, B2 Upper Intermediate

## Dissertations

Doctorate, Local Feature Extraction for Robust Speech Recognition in the presence of Noise, Clemson University, Faculty Of Engineering, Electrical Engineering, 2001

## Research Areas

Information Systems, Communication and Control Engineering, Signal Processing, Speech Analysis and Processing Techniques, Signal Processing Theory and Methods, Engineering and Technology

## Academic Titles / Tasks

Associate Professor, Cukurova University, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, 2011 - Continues

## Academic and Administrative Experience

Cukurova University, Mühendislik Mimarlık Fakültesi, Bilgisayar Mühendisliği, 2013 - Continues

## Advising Theses

TÜFEKÇİ Z., Noise Robust Speech Recognition Using Parallel Model Compensation and Voice Activity Detection Methods, Postgraduate, S.HIZLISOY(Student), 2015

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

- I. **Feature-based hybrid strategies for gradient descent optimization in end-to-end speech recognition**  
Dokuz Y., TÜFEKÇİ Z.  
MULTIMEDIA TOOLS AND APPLICATIONS, vol.81, no.7, pp.9969-9988, 2022 (SCI-Expanded)
- II. **Mini-batch sample selection strategies for deep learning based speech recognition**  
Dokuz Y., TÜFEKÇİ Z.  
APPLIED ACOUSTICS, vol.171, 2021 (SCI-Expanded)
- III. **Scale-invariant MFCCs for speech/speaker recognition**  
TÜFEKÇİ Z., Disken G.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, no.5, pp.3758-3762, 2019 (SCI-Expanded)
- IV. **A robust polynomial regression-based voice activity detector for speaker verification**  
DISKEN G., TÜFEKÇİ Z., ÇEVİK U.  
EURASIP JOURNAL ON AUDIO SPEECH AND MUSIC PROCESSING, 2017 (SCI-Expanded)
- V. **A Review on Feature Extraction for Speaker Recognition under Degraded Conditions**  
DISKEN G., TÜFEKÇİ Z., SARIBULUT L., ÇEVİK U.  
IETE TECHNICAL REVIEW, vol.34, no.3, pp.321-332, 2017 (SCI-Expanded)
- VI. **Speaker Model Clustering to Construct Background Models for Speaker Verification**  
DISKEN G., TÜFEKÇİ Z., ÇEVİK U.  
ARCHIVES OF ACOUSTICS, vol.42, no.1, pp.127-135, 2017 (SCI-Expanded)
- VII. **Convolutional bias removal based on normalizing the-filterbank spectral magnitude**  
Tufekci Z.  
IEEE SIGNAL PROCESSING LETTERS, vol.14, no.7, pp.485-488, 2007 (SCI-Expanded)
- VIII. **Applied mel-frequency discrete wavelet coefficients and parallel model compensation for noise-robust speech recognition**  
Tufekci Z., Gowdy J. N., Gurbuz S., Patterson E.  
SPEECH COMMUNICATION, vol.48, no.10, pp.1294-1307, 2006 (SCI-Expanded)
- IX. **Moving-talker, speaker-independent feature study, and baseline results using the WAVE Multimodal speech corpus**  
Patterson E., Gurbuz S., Tufekci Z., Gowdy J.  
EURASIP JOURNAL ON APPLIED SIGNAL PROCESSING, vol.2002, no.11, pp.1189-1201, 2002 (SCI-Expanded)
- X. **Affine-invariant visual features contain supplementary information to enhance speech recognition**  
Gurbuz S., Patterson E., Tufekci Z., Gowdy J.  
AUDIO- AND VIDEO-BASED BIOMETRIC PERSON AUTHENTICATION, PROCEEDINGS, vol.2091, pp.175-181, 2001 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Noise-Robust Spoofed Speech Detection Using Discriminative Autoencoder**  
Dişken G., TÜFEKÇİ Z.  
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.19, no.2, pp.167-174, 2023 (Peer-Reviewed Journal)
- II. **A Review on Deep Learning Architectures for Speech Recognition**  
DOKUZ Y., TÜFEKÇİ Z.  
European Journal of Science and Technology, vol.2020, pp.169-176, 2020 (Peer-Reviewed Journal)
- III. **LSTM Hiperparametrelerinin Ses Tanıma Performansına olan Etkilerinin Araştırılması**

## Refereed Congress / Symposium Publications in Proceedings

- I. **A Review on Deep Learning Architectures for Speech Recognition**  
DOKUZ Y., TÜFEKÇİ Z.  
International Conference On Access To Recent Advances In Engineering And Digitalization (ARACONF), Kayseri, Turkey, 5 - 07 March 2020, pp.68-69
- II. **Investigation of the Effect of LSTM Hyperparameters on Speech Recognition Performance**  
DOKUZ Y., TÜFEKÇİ Z.  
International Conference On Access To Recent Advances In Engineering And Digitalization (ARACONF), Kayseri, Turkey, 5 - 07 March 2020, pp.66-67
- III. **Real-Time Speaker Independent Isolated Word Recognition on Banana Pi**  
Disken G., Saribulut L., TÜFEKÇİ Z., ÇEVİK U.  
10th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Iasi, Romania, 28 - 30 June 2018
- IV. **NOISE ROBUST SPEECH RECOGNITION USING PARALLEL MODEL COMPENSATION AND VOICE ACTIVITY DETECTION METHODS**  
HIZLISOY S., TÜFEKÇİ Z.  
2016 5th International Conference on Electronic Devices, Systems and Applications (ICEDSA 2016), Râ`S Al-Khaymah, United Arab Emirates, 6 - 08 December 2016, pp.1-4
- V. **Noise Robust Speech Recognition Using Parallel Model Compensation and Voice Activity Detection Methods**  
HIZLISOY S., TÜFEKÇİ Z.  
5th International Conference on Electronic Devices, Systems and Applications (ICEDSA), Ras al-Khaimah, United Arab Emirates, 6 - 08 December 2016
- VI. **Subband feature extraction using lapped orthogonal transform for speech recognition**  
TÜFEKÇİ Z., Gowdy J.  
IEEE International Conference on Acoustics, Speech, and Signal Processing, Salt Lake City, United States Of America, 7 - 11 May 2011, vol.1, pp.149-152
- VII. **Application of affine-invariant Fourier descriptors to lipreading for audio-visual speech recognition**  
Gurbuz S., TÜFEKÇİ Z., Patterson E., Gowdy J.  
IEEE International Conference on Acoustics, Speech, and Signal Processing, Salt Lake City, United States Of America, 7 - 11 May 2011, vol.1, pp.177-180
- VIII. **Noise Robust Speaker Verification Using Mel Frequency Discrete Wavelet Coefficients and Parallel Model Compensation**  
TÜFEKÇİ Z., gurbuz s.  
ICASSP 2005, 19 - 23 March 2005
- IX. **İYTE de Sinyal İşleme Eğitimi**  
ALTINKAYA M. A., GÜMÜŞTEKİN Ş., TÜFEKÇİ Z., SAVACI F. A.  
SIU 2003, Turkey, 18 - 22 June 2003
- X. **Multi Stream Product Modal Audio Visual Integration Strategy for Robust Adaptive Speech Recognition**  
gurbuz s., patterson e., TÜFEKÇİ Z., gowdy j.  
ICASSP 2002, 13 May 2002 - 17 May 2001
- XI. **CUAVE A New Audio Visual Database for Multimodal Human Computer Interface Research**  
patterson e., gurbuz s., TÜFEKÇİ Z., gowdy j.  
ICASSP, 13 - 17 May 2002
- XII. **Noise Based Audio Visual Fusion for Robust Speech Recognition**

patterson e., gurbuz s., TÜFEKÇİ Z., gowdy j.

AVSP-2001, 7 - 09 September 2001

- XIII. **Lip-Reading from Parametric Lip Contours for Audio-Visual Speech Recognition**  
Gurbuz s., Patterson E., TÜFEKÇİ Z., Gowdy J.  
European Conference on Speech Communication and Technology, Aalborg, Denmark, 3 - 07 September 2001, vol.1, pp.140-143
- XIV. **Applying Parallel Model Compensation with Mel-Frequency Discrete Wavelet Coefficients for Noise-Robust Speech Recognition**  
TÜFEKÇİ Z., Gowdy J., Gurbuz S., Patterson E.  
European Conference on Speech Communication and Technology, Aalborg, Denmark, 3 - 07 September 2001, vol.1, pp.120-123
- XV. **Independent Information from Visual Features for Multimodal Speech Recognition**  
gurbuz s., TÜFEKÇİ Z., patterson e., gowdy j.  
IEEE Southeastcon, 31 March - 01 April 2001
- XVI. **Mel-scaled discrete wavelet coefficients for speech recognition**  
Gowdy J., TÜFEKÇİ Z.  
2000 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, İstanbul, Turkey, 5 - 09 June 2000, vol.5, pp.1351-1354
- XVII. **Feature extraction using discrete wavelet transform for speech recognition**  
TÜFEKÇİ Z., Gowdy J.  
Southeastcon 2000., Nashville, United States Of America, 7 - 09 April 2000, vol.1, pp.116-123
- XVIII. **Speech spectrogram based model adaptation for speaker identification**  
Gurbuz S., Gowdy J., TÜFEKÇİ Z.  
Southeastcon 2000, Nashville, United States Of America, 7 - 09 April 2000, vol.1, pp.110-115

## Metrics

Publication: 33

Citation (WoS): 91

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H-Index (WoS): 4

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