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Research Areas

Computer Sciences, Information Security and Reliability, Information System Reliability, Engineering and Technology

Academic Titles / Tasks

Lecturer PhD, Karadeniz Technical University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2019 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Golden ratio based deep fake video detection system with fusion of capsule networks**
Dinçer S., Ulutaş G., Ustubioglu B., Tahaoglu G., Sklavos N.
COMPUTERS & ELECTRICAL ENGINEERING, vol.117, 2024 (SCI-Expanded)
- II. **Low Dimensional Secure Federated Learning Framework Against Poisoning Attacks**
Üstübioğlu B., Erdöl H., Ulutaş G.
FUTURE GENERATION COMPUTER SYSTEMS, vol.1, no.1, pp.1, 2024 (SCI-Expanded)
- III. **An Attack-Independent Audio Forgery Detection Technique Based On Cochleagram Images Of Segments with Dynamic Threshold**
ÜSTÜBİOĞLU B.
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- IV. **Audio forgery detection and localization with super-resolution spectrogram and keypoint-based clustering approach**
ÜSTÜBİOĞLU B., TAHAOĞLU G., ULUTAŞ G., Ustubioglu A., KILIÇ M.
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- V. **Multi pattern features based spoofing detection mechanism using one class learning**
Üstübioğlu B., Tahaoglu G., Üstübioğlu A., Ulutaş G., Amerini İ., Kılıç M.
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- VI. **Robust Copy-Move Forgery Detection Technique Against Image Degradation and Geometric Distortion Attacks**
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- VII. **Mel spectrogram-based audio forgery detection using CNN**
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- VIII. **Color Image Splicing Localization Based on Block Classification Using Transition Probability Matrix**
ODABAŞ YILDIRIM E., TAHAOĞLU G., ULUTAŞ G., ÜSTÜBİOĞLU B., NABIYEV V.
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- IX. **Detection of audio copy-move-forgery with novel feature matching on Mel spectrogram**
ÜSTÜBİOĞLU B., TAHAOĞLU G., ULUTAŞ G.
EXPERT SYSTEMS WITH APPLICATIONS, vol.213, 2023 (SCI-Expanded)
- X. **Robust copy-move detection in digital audio forensics based on pitch and modified discrete cosine transform**
ÜSTÜBİOĞLU B., Kucukugurlu B., ULUTAŞ G.
MULTIMEDIA TOOLS AND APPLICATIONS, vol.81, no.19, pp.27149-27185, 2022 (SCI-Expanded)
- XI. **Ciratefi based copy move forgery detection on digital images**
TAHAOĞLU G., ULUTAŞ G., ÜSTÜBİOĞLU B., ULUTAŞ M., NABIYEV V.
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- XII. **Improved copy move forgery detection method via $L^*a^*b^*$ color space and enhanced localization technique**
TAHAOĞLU G., ULUTAŞ G., ÜSTÜBİOĞLU B., NABIYEV V.
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- XIII. **Underwater image enhancement using contrast limited adaptive histogram equalization and layered difference representation**
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MULTIMEDIA TOOLS AND APPLICATIONS, vol.80, no.10, pp.15067-15091, 2021 (SCI-Expanded)
- XIV. **IWT-MDE based reversible thermal image watermarking enhanced with secret sharing mechanism**
ÜSTÜBİOĞLU A., ULUTAŞ G., ÜSTÜBİOĞLU B.
MULTIMEDIA TOOLS AND APPLICATIONS, vol.78, no.16, pp.22269-22299, 2019 (SCI-Expanded)
- XV. **Frame duplication detection based on BoW model**
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MULTIMEDIA SYSTEMS, vol.24, no.5, pp.549-567, 2018 (SCI-Expanded)
- XVI. **Medical Image Tamper Detection Based on Passive Image Authentication**
ULUTAŞ G., ÜSTÜBİOĞLU A., ÜSTÜBİOĞLU B., NABIYEV V., ULUTAŞ M.
JOURNAL OF DIGITAL IMAGING, vol.30, no.6, pp.695-709, 2017 (SCI-Expanded)
- XVII. **Frame duplication/mirroring detection method with binary features**
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- XVIII. **Improved copy-move forgery detection based on the CLDs and colour moments**
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- XIX. **A new copy move forgery detection technique with automatic threshold determination**
ÜSTÜBİOĞLU B., ULUTAŞ G., ULUTAŞ M., NABIYEV V.
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Articles Published in Other Journals

- I. **Görsel kelime tabanlı ses sahteciliği tespit yöntemi**
Üstübioğlu B., Üstübioğlu A.
Niğde Ömer HalisDemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.13, no.1, pp.350-358, 2024 (Peer-Reviewed Journal)
- II. **Su Altı Görüntülerinin CVC Yöntemi Kullanılarak İyileştirilmesi**
Üstübioğlu A., Üstübioğlu B.
Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.28, no.3, pp.962-972, 2023 (Peer-Reviewed Journal)

- III. **YÜKSEK ÇÖZÜNÜRLÜKLÜ SPEKTROGRAM GÖRÜNTÜLERİNDEN AKAZE YÖNTEMİ İLE SES SAHTECİLİĞİ TESPİTİ**
Üstübioğlu B., Tahaoğlu G.
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- IV. **Video forgery detection method based on local difference binary(Accepted/Kabul Tarihi: 23.01.2020)**
ULUTAŞ G., ÜSTÜBİOĞLU B., ULUTAŞ M., NABIYEV V.
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- V. **Blur Invariant Image Forgery Detection Method Using Local Phase Quantization**
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Refereed Congress / Symposium Publications in Proceedings

- I. **KTUCengAudioForgerySet: A new Audio Copy-Move Forgery Dataset**
Üstübioğlu B., Tahaoğlu G., Ayaz G. Ö., Üstübioğlu A., Ulutaş G., Coşar A. M., Kılıç E., Kılıç M.
2024 47th International Conference on Telecommunications and Signal Processing (TSP), Praha, Czech Republic, 10 - 12 July 2024, pp.1-7
- II. **ArCapsNet for Audio Splicing Forgery Detection**
Üstübioğlu B., Dincer S., Ustubioglu A., Ulutaş G.
2024 47th International Conference on Telecommunications and Signal Processing (TSP), 10 July 2024, pp.298-301
- III. **Copy-Move Audio Forgery Detection with Instantaneous Frequency**
Kılıç M., Tahaoğlu G., Üstübioğlu B., Üstübioğlu A., Ulutaş G.
2024 32nd Signal Processing and Communications Applications Conference (SIU), Mersin, Turkey, 15 - 18 May 2024, pp.1-4
- IV. **Federated Learning Resistant to Byzantine Attacks with Quantil-Based Statistical Propagation**
Yüzdelik Dilimler Etrafındaki İstatiksel Yayılım ile Bizans Saldırılarına Dayanıklı Federe Öğrenme
Solak F. Z., ÜSTÜBİOĞLU B., Erdöl E. S., ULUTAŞ G., Mühendisliği Y., Mühendisliği B.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- V. **Impactful Neuron-based Secure Federated Learning Etkili Nöron Tabanlı Güvenli Federe Öğrenme**
Erdöl E. S., Erdöl H., ÜSTÜBİOĞLU B., Solak F. Z., ULUTAŞ G.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- VI. **Detecting Audio Forgery with Rasta -PLP Rasta-PLP ile Ses Sahteciliği Tespiti**
Hatipoğlu A., ÜSTÜBİOĞLU B., Üstübioğlu A., ULUTAŞ G.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- VII. **Audio Forgery Detection Method with Mel Spectrogram**
Üstübioğlu B., Üstübioğlu A., Ulutaş G.
16. Uluslararası Bilgi Güvenliği ve Kriptoloji Konferansı-ISC Türkiye 2023., Ankara, Turkey, 18 October 2023 - 19 January 2024, pp.10-15
- VIII. **Deepfake audio detection with vision transformer based method**
Ulutaş G., Tahaoğlu G., Üstübioğlu B.
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- IX. **Robust Audio Forgery Detection Method Based on Capsule Network**
DİNÇER S., ÜSTÜBİOĞLU B., ULUTAŞ G., TAHAOĞLU G., Ustubioglu A.

2023 International Conference on Electrical and Information Technology, IEIT 2023, Malang, Indonesia, 14 - 15 September 2023, pp.243-247

- X. **Deep Fake Video Detection Based on Enhanced Capsule Network with Golden Ratio**
DİNÇER S., ÜSTÜBİOĞLU B., TAHAOĞLU G., ULUTAŞ G.
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- XI. **Forge Audio Detection Using Keypoint Features on Mel Spectrograms**
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- XII. **Localization of Forgery on Audio Clips Using GLCM Features and Mel Spectrograms**
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- XIII. **Block-Based Forgery Detection with Binary Gradient Model İkili Gradyan Modeli ile Blok Tabanlı Ses Sahteciliği Tespiti**
Yazici S., ÜSTÜBİOĞLU B., Kiliç M., ULUTAŞ G.
15th International Conference on Information Security and Cryptography, ISCTURKEY 2022, Ankara, Turkey, 19 - 20 October 2022, pp.38-43
- XIV. **A new approach for localization of copy-move forgery in digital images**
Tahaoğlu G., Ulutaş G., Üstübioğlu B.
44th Telecommunication and Signal Processing, Brno, Czech Republic, 26 - 28 July 2021, pp.183-186
- XV. **Ataklara Karşı Dayanıklı Yeni Bir Kopyala Yapıştır Sahteciliği Tespiti Yöntemi**
Tahaoğlu G., Ulutaş G., Üstübioğlu B.
Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SIU2020), Gaziantep, Turkey, 5 - 07 October 2020, pp.1-3
- XVI. **Duplicated Audio Segment Detection with Local Binary Pattern**
KÜÇÜKUĞURLU B., ÜSTÜBİOĞLU B., ULUTAŞ G.
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- XVII. **Copy Move Forgery Detection with Quadtree Decomposition Segmentation**
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43rd International Conference on Telecommunications and Signal Processing (TSP –2020), Milan, Italy, 7 - 09 July 2020, pp.1-5
- XVIII. **Performance Analysis in Common Color Spaces of 2D Gaussian Color Model for Skin Segmentation**
KETENCİ S., ÜSTÜBİOĞLU B.
IEEE Region 8 Conference EuroCon 2013, Italy, pp.1
- XIX. **Tıbbi Görüntülerin TADD-HWHD ile Damgalanması**
ÜSTÜBİOĞLU A., ULUTAŞ G., Üstübioğlu B.
SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- XX. **Using correlation matrix to detect frame duplication forgery in videos**
ÜSTÜBİOĞLU B., ULUTAŞ G., NABIYEV V., ULUTAŞ M., ÜSTÜBİOĞLU A.
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- XXI. **Watermarking Medical Images with IDWT-FWHT**
ÜSTÜBİOĞLU A., ULUTAŞ G., ÜSTÜBİOĞLU B.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XXII. **Korelasyona Dayalı Hızlı Bir Çerçeve Tekrarlama Sahteciliği Tespit Yöntemi (A Fast Detection Method for Frame Duplication Forgery based on Correlation)**
ÜSTÜBİOĞLU B., ULUTAŞ G., NABIYEV V., ULUTAŞ M., ÜSTÜBİOĞLU A.
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- XXIII. **Tamper Localization of the Medical Images Based on Fragile Watermarking**
ÜSTÜBİOĞLU A., ULUTAŞ G., ÜSTÜBİOĞLU B.

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- XXIV. **AKD İle Videolarda Çerçeve Tekrarlama Sahteciliği Tespiti**
ÜSTÜBİOĞLU B., ULUTAŞ G., ULUTAŞ M., NABIYEV V.
9. Uluslararası Bilgi Güvenliği ve Kriptoloji Konferansı, 25 - 26 October 2016
- XXV. **COLOR LAYOUT DESCRIPTOR BASED VIDEO FORGERY DETECTION**
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9. ULUSLARARASI BİLGİ GÜVENLİĞİ VE KRİPTOLOJİ KONFERANSI, Ankara, Turkey, 25 - 26 October 2016, pp.178-182
- XXVI. **FRAME DUPLICATION FORGERY DETECTION BY USING DCT**
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9. ULUSLARARASI BİLGİ GÜVENLİĞİ VE KRİPTOLOJİ KONFERANSI, Ankara, Turkey, 25 October - 26 December 2016, pp.141-144
- XXVII. **Copy Move Forgery Detection Using Gabor Filter and Scaled ORB**
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- XXVIII. **A novel keypoint based forgery detection method based on local phase quantization and SIFT**
ÜSTÜBİOĞLU B., MUZAFFER G., ULUTAŞ G., NABIYEV V., ULUTAŞ M.
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- XXIX. **LBP-DCT Based Copy Move Forgery Detection Algorithm**
Ustubioglu B., Ulutas G., Ulutas M., Nabyev V., Ustubioglu A.
30th International Symposium on Computer and Information Sciences (ISCIS), London, Canada, 21 - 24 September 2015, vol.363, pp.127-136
- XXX. **Image Forgery Detection based on SIFT and k-means plus**
BAYKAL KABLAN E., ÜSTÜBİOĞLU B., ULUTAŞ G.
39th International Conference on Telecommunications and Signal Processing (TSP), Vienna, Austria, 27 - 29 June 2016, pp.474-477
- XXXI. **A Novel Keypoint Based Forgery Detection Method Based on LPQ and SIFT**
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"International Conference on Electrical and Electronics Engineering, ELECO 2015", Bursa, Turkey, 26 - 28 November 2015
- XXXII. **Enerji Olasılık Değerlerini Kullanan Görüntü Sahtecilik Tespit Yöntemi**
ÜSTÜBİOĞLU B., ULUTAŞ G., NABIYEV V., ULUTAŞ M.
IEEE 23. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, 16 May 2015
- XXXIII. **Renkli SIFT Tabanlı Görüntü Sahtecilik Tespit Yöntemi**
ÜSTÜBİOĞLU B., AYAS S., DOĞAN H., ULUTAŞ G.
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- XXXIV. **Image Forgery Detection Using Colour Moments**
ÜSTÜBİOĞLU B., NABIYEV V., ULUTAŞ G., ULUTAŞ M.
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- XXXV. **Image Forgery Detection based on Energy Probability**
ÜSTÜBİOĞLU B., ULUTAŞ G., NABIYEV V., ULUTAŞ M.
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- XXXVI. **Jpeg Ataklara Dayanıklı Hibrit Görüntü Doğrulama Yaklaşımı**
ÜSTÜBİOĞLU B., NABIYEV V., ULUTAŞ G., ULUTAŞ M.
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- XXXVII. **Performance Analysis in Common Color Spaces of 2D Gaussian Color Model for Skin Segmentation**
KETENCİ S., ÜSTÜBİOĞLU B.

IEEE Region 8 Conference EuroCon 2013, Roma, Italy, 1 - 04 July 2013

XXXVIII. Yüz Benzerliğinin Otomatik Tespiti

ÜSTÜBİOĞLU B., NABIYEV V., ÜSTÜBİOĞLU A.

5. Mühendislik ve Teknoloji Sempozyumu, 2012., Ankara, Turkey, 26 - 27 April 2012, pp.60-62

XXXIX. Similarity assessment with local binary patterns

NABIYEV V., ÜSTÜBİOĞLU B.

Signal Processing and Communications Applications Conference (SIU), Ankara, Turkey, 18 - 20 April 2012, pp.1-4

XL. Biyometrik Görüntülerin Ağ Üzerinden Güvenli Şekilde İletilmesi

ÜSTÜBİOĞLU B., NABIYEV V., ÜSTÜBİOĞLU A.

Çankaya Üniversitesi 4. Mühendislik ve Teknoloji Sempozyumu, Ankara, Turkey, 28 - 29 April 2011, pp.50-52

XLI. A novel keypoint based forgery detection method based on local phase quantization and SIFT

ÜSTÜBİOĞLU B., MUZAFFER G., ULUTAŞ G., NABIYEV V., ULUTAŞ M.

ELECO 2015 - 9th International Conference on Electrical and Electronics Engineering, IEEE, Bursa, Turkey, 26 - 28 October 2015, pp.185-189

Supported Projects

ULUTAŞ G., TUBITAK Project, Pasif Video Doğrulama Sistemi, 2015 - 2017

Metrics

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Scholarships

Teknoloji Liderleri Lisansüstü Burs Programı, Special Institutions and Organizations, 2011 - Continues