#### Assoc. Prof. YILMAZ AR

#### **Personal Information**

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#### **Education Information**

Doctorate, Middle East Technical University, Graduate School Of Informatics, Information Systems, Turkey 2007 - 2014 Postgraduate, Syracuse University, United States Of America 1999 - 2001 Undergraduate, Bursa Uludağ University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, Turkey 1993 - 1997

#### Dissertations

Doctorate, Improved probabilistic matrix factorization model for sparse datasets, Middle East Technical University, Graduate School Of Informatics, Information Systems, 2014

#### **Research Areas**

**Engineering and Technology** 

#### Academic Titles / Tasks

Assistant Professor, Ankara University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2020 - Continues Research Assistant, Ankara University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2004 - 2020

#### Academic and Administrative Experience

Vice Dean, Ankara University, Mühendislik Fakültesi, 2022 - Continues

#### **Supervised Theses**

Ar Y., Emotion recognition using deep learning focusing on the hand and facial expressions, Postgraduate, H.JAWAD(Student), 2024

Ar Y., Amped authenticate yazılımı kullanılarak sayısal görüntü üzerinde şüpheli kameranın tespit edilebilirliği, Postgraduate, M.GÜMÜŞ(Student), 2023

Tanrıöver Ö. Ö., AR Y., Makine öğrenmesi tabanlı topluluk yöntemleri ile yazılım kalitesi tahmini, Postgraduate, A.AYBERK(Student), 2022

AR Y., Uygulama programlama arayüzü (UPA) çağrılarının kullanılmasına dayalı makine öğrenmesi yöntemleriyle zararlı yazılım tespiti, Postgraduate, A.KUTAY(Student), 2021

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

- A new approach to Mergesort algorithm: Divide smart and conquer
  Emrah Amrahov S., AR Y., TUĞRUL B., Akay B. E., Kartli N.
  Future Generation Computer Systems, vol.157, pp.330-343, 2024 (SCI-Expanded)
- II. Deep Learning-Based Classification of Image Data Sets Containing 111 Different Seeds Tuğrul B., Eryiğit R., Ar Y.

Advanced Theory and Simulations, vol.6, no.11, 2023 (SCI-Expanded)

III. A Machine Learning Approach to Malware Detection Using Application Programming Interface Calls (MDAPI)

Yuksel A. K., Ar Y.

Traitement du Signal, vol.40, no.4, pp.1511-1520, 2023 (SCI-Expanded)

IV. Pros and Cons of Telemedicine for Inherited Metabolic Disorders in a Developing Country During the COVID-19 Pandemic

Yekeduez M., DOĞULU N., SÜRÜCÜ KARA İ., Oncul U., BAKIRARAR B., KÜLLÜ P., AR Y., KÖSE E., EMİNOĞLU F. T. TELEMEDICINE AND E-HEALTH, vol.28, no.11, pp.1604-1612, 2022 (SCI-Expanded)

- V. A NEW CURVE FITTING BASED RATING PREDICTION ALGORITHM FOR RECOMMENDER SYSTEMS Ar Y., Amrahov Ş., Gasilov N., Yiğit Sert S.
   KYBERNETIKA, vol.58, no.3, pp.440-455, 2022 (SCI-Expanded)
- VI. Mapping application-specific topology to mesh topology with reconfigurable switches
  KÜLLÜ P., AR Y., TOSUN S., Ozdemir S.
  IET COMPUTERS AND DIGITAL TECHNIQUES, vol.14, no.1, pp.9-16, 2020 (SCI-Expanded)

# VII. Evolutionary approaches for weight optimization in collaborative filtering-based recommender systems

YİĞİT SERT S., AR Y., BOSTANCI G. E. TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, no.3, pp.2121-2136, 2019 (SCI-Expanded)

## VIII. A genetic algorithm solution to the collaborative filtering problem AR Y., BOSTANCI G. E. EXPERT SYSTEMS WITH APPLICATIONS, vol.61, pp.122-128, 2016 (SCI-Expanded)

IX. Application-specific topology generation algorithms for network-on-chip design Tosun S., Ar Y., Ozdemir S.

IET COMPUTERS AND DIGITAL TECHNIQUES, vol.6, no.5, pp.318-333, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. Classification of human activities by smart device measurements
  KALKAN M., AR Y.
  Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, vol.65, no.2, pp.166-178, 2023 (Peer-Reviewed Journal)
- II. Prediction of software quality with Machine Learning-Based ensemble methods CERAN A. A., AR Y., TANRIÖVER Ö. Ö., Seyrek Ceran S. Materials Today: Proceedings, vol.81, pp.18-25, 2023 (Scopus)
- III. Classification of Trifolium Seeds by Computer Vision Methods

Eryiğit R., Ar Y., Tuğrul B.

WSEAS Transactions on Systems, vol.22, pp.313-320, 2023 (Scopus)

## IV. A method for analyzing suspect-filler similarity using convolutional neural networks AYDIN D. E., AR Y.

Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, vol.64, no.2, pp.129-151, 2022 (Peer-Reviewed Journal)

## V. Emotion Recognition System from Speech using Convolutional Neural Networks AYDIN M., TUĞRUL B., AR Y.

Journal of Computer Science, 2022 (Peer-Reviewed Journal)

## VI. An initialization method for the latent vectors in probabilistic matrix factorization for sparse datasets

AR Y.

EVOLUTIONARY INTELLIGENCE, vol.13, no.2, pp.269-281, 2020 (ESCI)

## VII. An Ensemble Model for Collaborative Filtering to Involve All Aspects of Dataset AR Y.

Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, vol.60, no.2, pp.15-26, 2018 (Peer-Reviewed Journal)

### VIII. A Thread Building Blocks Based Parallel Genetic Algorithm BOSTANCI G. E., AR Y., YİĞİT SERT S.

International Journal of Research and Reviews in Applied Sciences, vol.31, no.1, pp.1-8, 2017 (Peer-Reviewed Journal)

## IX. Transitive Associations for Domain Transfer Problem on Opinion Mining AR Y.

International Journal of Advances in Computer Science and Its Applications, vol.6, no.1, pp.232-238, 2016 (Peer-Reviewed Journal)

## Books

I. **BİR C++ PROGRAMININ YAZILMASI, DERLENMESİ VE ÇALIŞTIRILMASI** AR Y.

in: Programlama Temelleri, , Editor, ATATÜRK ÜNİVERSİTESİ AÇIKÖĞRETİM FAKÜLTESİ YAYINEVİ, pp.65-82, 2019

### II. İLK C++ PROGRAMI (MERHABA DÜNYA)

AR Y.

in: Programlama Temelleri, , Editor, ATATÜRK ÜNİVERSİTESİ AÇIKÖĞRETİM FAKÜLTESİ YAYINEVİ, pp.47-64, 2019

## Papers Published in Refereed Scientific Meetings

- I. An Artificial Bee Colony Based Mapping Method for Three Dimensional Network-on-Chip KÜLLÜ P., YİĞİT SERT S., ÖZKAN OKAY M., AR Y.
   2023 International Conference on Emerging Trends in Networks and Computer Communications (ETNCC), NAMİBİA, 16 - 18 August 2023
- II. A NEW DATASET FOR INTRUSION DETECTION IN WIRELESS LOCAL AREA NETWORK
  ÖZKAN OKAY M., AR Y., SAMET R.
  The 8th International Conference on Control and Optimization with Industrial Applications, Azerbaijan, 24 August 2022
- III. Prediction of Software Quality with Machine Learning-Based Ensemble Methods CERAN A. A., AR Y., TANRIÖVER Ö. Ö., SEYREK CERAN S.
   4th International Engineering Research Symposium, Turkey, 4 - 06 March 2022
- IV. Automobile Price Prediction in Turkey Marketplace with Linear Regression

Satioglu M. C., AR Y., TUĞRUL B.

International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Bolu, Turkey, 21 October 2021

### V. Evolutionary Fuzzy Adaptive Motion Models for User Tracking in Augmented Reality Applications AR Y., ÜNAL M., Sert S. Y., BOSTANCI G. E., Kanwal N., GÜZEL M. S. 2nd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2018, Kizilcahamam, Ankara, Turkey, 19 - 21 October 2018 VI. The Impact of Dataset Characteristics on Collaborative Filtering AR Y., ÖZDEMİR O. C. International Conference on Theoretical and Applied Computer Science and Engineering, Turkey, 10 - 11 November 2017 VII. Development of Recommender Systems Based on the Curve Fitting Method EMRAH Ş., AR Y., GASİLOV N., FATULLAYEV A. G. International Conference on Mathematics and Mathematics Education, Turkey, 12 - 14 May 2016 VIII. Transitive Associations for Domain Transfer Problem on Opinion Mining AR Y. Third International Conference on Advances in Information Processing and Communication Technology - IPCT 2015, ROMA, Italy, 10 - 11 December 2015 IX. Power-aware topology generation for application specific NoC design Tosun S., AR Y., Ozdemir S. 2012 6th International Conference on Application of Information and Communication Technologies, AICT 2012, Tbilisi, Georgia, 17 - 19 October 2012 X. TopGen: A new algorithm for automatic topology generation for network on chip architectures to reduce power consumption

AR Y., Tosun S., Kaplan H.

2009 International Conference on Application of Information and Communication Technologies, AICT 2009, Baku, Azerbaijan, 14 - 16 October 2009

### **Supported Projects**

Ar Y., Ünal M., Yiğit Sert S., Bostancı G. E., Project Supported by Higher Education Institutions, Artırılmış Gerçeklik Uygulamalarında GPS-INS Tabanlı Kullanıcı Takibi için Akıllı Hareket Modeli Seçim Yöntemi Geliştirilmesi, 2016 - 2018

### **Metrics**

Publication: 30 Citation (WoS): 115 Citation (Scopus): 144 H-Index (WoS): 5 H-Index (Scopus): 4