

## Assoc. Prof. ERMAN ÇAKIT

### Personal Information

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### Biography

Erman Çakit received his Ph.D. in Industrial Engineering from the University of Central Florida, Orlando, USA, in 2013 where he worked under the supervision of Prof. Waldemar Karwowski. He is currently working as an associate professor at the Department of Industrial Engineering, Gazi University, Turkey. His research interests include applications of human factors / ergonomics and safety using machine learning and applied statistics.

### Education Information

Doctorate, University of Central Florida, Endüstri Müh., United States Of America 2010 - 2013

Post Graduate, Cukurova University, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği (YI) (Tezli), Turkey 2006 - 2008

Under Graduate, Gaziantep University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, Turkey 2001 - 2006

### Foreign Languages

English, C2 Proficiency

### Dissertations

Doctorate, Investigating the relationship between adverse events and infrastructure development in an active war theater using soft computing techniques, University of Central Florida, Endüstri Müh., 2013

Post Graduate, El becerisine etki eden faktörlerin değerlendirilmesine yönelik bulanık mantık yaklaşımı, Cukurova University, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği (YI) (Tezli), 2008

### Research Areas

Artificial Intelligence, Computer Learning and Pattern Recognition, Industrial Engineering , Ergonomics and Occupational Safety

### Academic Titles / Tasks

Associate Professor, Gazi University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2019 - Continues

Associate Professor, Aksaray University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2018 - 2019

Assistant Professor, Aksaray University, Faculty Of Engineering, Department Of Industrial Engineering, 2014 - 2018

Associate Professor, University of Central Florida, Department Of Industrial Engineering And Management Systems, 2017 - 2017

Research Assistant, Cukurova University, Mühendislik-Mimarlık Fakültesi, Endüstri Mühendisliği Bölümü, 2006 - 2009

## Professional Experience

Erasmus Coordinator, Aksaray University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2014 - 2018

Farabi Coordinator, Aksaray University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2014 - 2018

Deputy Head of Department, Aksaray University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2014 - 2018

## Courses

İş Etüdü, Under Graduate, 2017 - 2018

TEMEL BİLGİSAYAR BİLİMLERİ, Under Graduate, 2016 - 2017, 2017 - 2018

BİLGİSAYAR PROGRAMLAMA-II (MATLAB), Under Graduate, 2016 - 2017, 2017 - 2018

Ergonomics, Under Graduate, 2017 - 2018

Entrepreneurship, Under Graduate, 2017 - 2018

BİLGİSAYAR PROGRAMLAMA-I, Under Graduate, 2016 - 2017, 2017 - 2018

Proje Yönetimi, Post Graduate, 2017 - 2018

ERGONOMİ, Under Graduate, 2016 - 2017, 2017 - 2018

Process Management, Under Graduate, 2017 - 2018

Verimlilik ve Performans Analizi, Under Graduate, 2017 - 2018

Girişimcilik, Under Graduate, 2017 - 2018

Yalın Üretim, Under Graduate, 2016 - 2017, 2017 - 2018

Zaman Yönetimi, Under Graduate, 2016 - 2017

Mühendislikte Yapay Zeka Uygulamaları, Under Graduate, 2016 - 2017

Simülasyon, Under Graduate, 2016 - 2017

## Advising Theses

ÇAKIT E., Değiştirilebilir konum süresine sahip takip cihazlarında kümeleme parametrelerinin tahmini ve anormallik tespiti, Post Graduate, M.TOLGA(Student), 2020

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Estimation of clustering parameters and anomaly detection in tracking devices with changeable position time**  
Datlica M. T. , ÇAKIT E.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.1, pp.373-394, 2021 (Journal Indexed in SCI)
- II. **A Cross-Sectional Study of the Relationships between Work-Related Affective Feelings Expressed by Workers in Turkey**  
ÇAKIT E., Karwowski W., Marek T., Jaworek M., Wrobel G.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, vol.17, no.24, 2020 (Journal Indexed in SCI)
- III. **Application of soft computing techniques for estimating emotional states expressed in Twitter (R) time series data**  
ÇAKIT E., Karwowski W., Servi L.

NEURAL COMPUTING & APPLICATIONS, vol.32, no.8, pp.3535-3548, 2020 (Journal Indexed in SCI)

- IV. **Assessing safety at work using an adaptive neuro-fuzzy inference system (ANFIS) approach aided by partial least squares structural equation modeling (PLS-SEM)**  
ÇAKIT E., Olak A. J. , Karwowski W., Marek T., Hejduk I., Taiar R.  
INTERNATIONAL JOURNAL OF INDUSTRIAL ERGONOMICS, vol.76, 2020 (Journal Indexed in SCI)
- V. **Safety knowledge and safe practices at work: A study of Polish industrial enterprises**  
Hejduk I., Olak A. J. , Karwowski W., Tomczyk P., Fazlagic J., Gac P., Hejduk H., Sobolewska S., Alrehaili O. A. , ÇAKIT E.  
WORK-A JOURNAL OF PREVENTION ASSESSMENT & REHABILITATION, vol.65, no.2, pp.349-359, 2020 (Journal Indexed in SSCI)
- VI. **Assessment of the perceived safety culture in the petrochemical industry in Japan: A cross-sectional study**  
ÇAKIT E., Olak A. J. , Murata A., Karwowski W., Alrehaili O., Marek T.  
PLOS ONE, vol.14, no.12, 2019 (Journal Indexed in SCI)
- VII. **Batch and data streaming classification models for detecting adverse events and understanding the influencing factors**  
Shi D., Zurada J., Karwowski W., Guan J., ÇAKIT E.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.85, pp.72-84, 2019 (Journal Indexed in SCI)
- VIII. **The relationships between the use of smart mobile technology, safety knowledge and propensity to follow safe practices at work**  
Olak A. J. , Hejduk I., Karwowski W., Tomczyk P., Fazlagic J., Gac P., Hejduk H., Sobolewska S., ÇAKIT E., Alrehaili O. A.  
INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS, 2019 (Journal Indexed in SSCI)
- IX. **Ergonomic assessment of airport shuttle driver tasks using an ergonomic analysis toolset**  
Cakit E.  
INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS, vol.24, no.2, pp.286-293, 2018 (Journal Indexed in SSCI)
- X. **A fuzzy overlay model for mapping adverse event risk in an active war theatre**  
Cakit E., Karwowski W.  
JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE, vol.30, no.5, pp.691-701, 2018 (Journal Indexed in SCI)
- XI. **Predicting the occurrence of adverse events using an adaptive neuro-fuzzy inference system (ANFIS) approach with the help of ANFIS input selection**  
Cakit E., Karwowski W.  
ARTIFICIAL INTELLIGENCE REVIEW, vol.48, no.2, pp.139-155, 2017 (Journal Indexed in SCI)
- XII. **Estimating electromyography responses using an adaptive neuro-fuzzy inference system with subtractive clustering**  
Cakit E., Karwowski W.  
HUMAN FACTORS AND ERGONOMICS IN MANUFACTURING & SERVICE INDUSTRIES, vol.27, no.4, pp.177-186, 2017 (Journal Indexed in SCI)
- XIII. **FUZZY INFERENCE MODELING WITH THE HELP OF FUZZY CLUSTERING FOR PREDICTING THE OCCURRENCE OF ADVERSE EVENTS IN AN ACTIVE THEATER OF WAR**  
Cakit E., Karwowski W.  
APPLIED ARTIFICIAL INTELLIGENCE, vol.29, no.10, pp.945-961, 2015 (Journal Indexed in SCI)
- XIV. **ASSESSMENT OF THE PHYSICAL DEMANDS OF WASTE COLLECTION TASKS**  
Cakit E.  
GLOBAL NEST JOURNAL, vol.17, no.2, pp.426-438, 2015 (Journal Indexed in SCI)
- XV. **A NEURAL NETWORK APPROACH FOR ASSESSING THE RELATIONSHIP BETWEEN GRIP STRENGTH AND HAND ANTHROPOMETRY**  
Cakit E., DURGUN B., Cetik O.  
NEURAL NETWORK WORLD, vol.25, no.6, pp.603-622, 2015 (Journal Indexed in SCI)
- XVI. **Investigating the relationship between adverse events and infrastructure development in an active war theater using soft computing techniques**

Cakit E., Karwowski W., Bozkurt H., Ahram T., Thompson W., Mikusinski P., Lee G.

APPLIED SOFT COMPUTING, vol.25, pp.204-214, 2014 (Journal Indexed in SCI)

**XVII. A Survey of Hand Anthropometry and Biomechanical Measurements of Dentistry Students in Turkey**

Cakit E., DURGUN B., Cetik O., YOLDAŞ H. O.

HUMAN FACTORS AND ERGONOMICS IN MANUFACTURING & SERVICE INDUSTRIES, vol.24, no.6, pp.739-753, 2014 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Computer-Aided Ergonomics: A Case Study for the Analysis of Resistance Training Exercises**  
ÇAKIT E.  
Ergonomics International Journal, 2020 (Refereed Journals of Other Institutions)
- II. **ENDÜSTRİ 4.0 ERGONOMİ İÇİN TEHDİT Mİ FIRSAT MI?**  
ÇAKIT E., ADEM A., DAĞDEVİREN M.  
Verimlilik Dergisi, no.3, pp.43-57, 2020 (Other Refereed National Journals)
- III. **Occupational health and safety risk assessment in the domain of Industry 4.0**  
ADEM A., ÇAKIT E., Dagdeviren M.  
SN APPLIED SCIENCES, vol.2, no.5, 2020 (Journal Indexed in ESCI)
- IV. **Application of Structural Equation Modeling (SEM) and an Adaptive Neuro-Fuzzy Inference System (ANFIS) for Assessment of Safety Culture: An Integrated Modeling Approach**  
ÇAKIT E., Karwowski W., Murata A., Olak A. J.  
SAFETY, vol.6, no.1, 2020 (Journal Indexed in ESCI)
- V. **Ergonomic Risk Assessment using Cornell Musculoskeletal Discomfort Questionnaire in a Grocery Store**  
ÇAKIT E.  
Ergonomics International Journal, vol.3, no.6, pp.1-5, 2019 (Refereed Journals of Other Institutions)
- VI. **A Cellular Automata Model of the Relationship between Adverse Events and Regional Infrastructure Development in an Active War Theater**  
Bozkurt H., Karwowski W., ÇAKIT E., Ahram T.  
TECHNOLOGIES, vol.7, no.3, 2019 (Journal Indexed in ESCI)
- VII. **NÖROERGONOMİ ÇALIŞMALARINA YÖNELİK BİR LİTERATÜR ARAŞTIRMASI**  
ADEM A., ÇAKIT E., DAĞDEVİREN M.  
Ergonomi, vol.2, no.2, pp.131-136, 2019 (Other Refereed National Journals)
- VIII. **Analysis of Noise Level in a Campus Area: Case Study for Gazi University Maltepe Campus**  
ÇAKIT E.  
Ergonomics International Journal, vol.3, no.4, pp.1-8, 2019 (Refereed Journals of Other Institutions)
- IX. **Potential Applications of Soft-Computing Techniques for Human Socio-Cultural Behavior Modeling**  
ÇAKIT E., Karwowski W.  
Journal of Computers, vol.12, no.4, pp.284-290, 2017 (Journal Indexed in ESCI)
- X. **Grip Strength Survey Based on Hand Tool Usage**  
ÇAKIT E.  
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, no.1, pp.230-234, 2017 (Other Refereed National Journals)
- XI. **Estimation of Energy Expenditure Based on Divided Manual Material Handling Task: Waste Collection Example**  
ÇAKIT E.  
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.13, no.1, pp.51-54, 2017 (Other Refereed National Journals)
- XII. **Assessing the Relationship between Economic Factors and Adverse Events in an Active War Theater Using Fuzzy Inference System Approach**  
ÇAKIT E., KARWOWSKI W.

## Books & Book Chapters

### I. **Gaining Insight by Applying Geographical Modeling**

ÇAKIT E., Karwowski W.

in: Modeling Sociocultural Influences on Decision Making Understanding Conflict Enabling Stability, Joseph V. Cohn, Sae Schatz, Hannah Freeman, David J. Y. Combs, Editor, CRC Press, pp.243-266, 2016

## Refereed Congress / Symposium Publications in Proceedings

### I. **A Review on Applications of Soft Computing Techniques in Neuroergonomics During the Last Decade**

ÇAKIT E., Karwowski W.

International Conference on Applied Human Factors and Ergonomics, United States Of America, 16 - 20 July 2020, pp.37-43

### II. **ST-DBSCAN ALGORİTMASININ KONUM VERİLERİ ÜZERİNDE UYGULANMASI VE RUTİNLERİN TESPİTİ**

Datlıca M. T. , ÇAKIT E.

BİLİTEK ULUSLARARASI BİLİM, TEKNOLOJİ VE SOSYAL BİLİMLERDE GÜNCEL GELİŞMELER SEMPOZYUMU, Ankara, Turkey, 20 - 22 December 2019, pp.79-84

### III. **An investigation of the new occupational risks posed by Industry 4.0**

ADEM A., ÇAKIT E., DAĞDEVİREN M.

5th International Conference on Engineering Sciences: Proceedings of the ICES2019, 19 September 2019

### IV. **Detecting Adverse Events in an Active Theater of War Using Advanced Computational Intelligence Techniques**

Zurada J., Shi D., Karwowski W., Guan J., ÇAKIT E.

13th International Conference on Theory and Application of Fuzzy Systems and Soft Computing — ICAFS-2018, Poland, 26 - 27 August 2018, pp.914-921

### V. **Endüstri 4.0 Ergonomi İçin Tehdit Mi, Fırsat Mı?**

ÇAKIT E., ADEM A., DAĞDEVİREN M.

24. Ulusal Ergonomi Kongresi, Erzurum, Turkey, 28 - 30 September 2018, pp.74

### VI. **Nöroergonomi Çalışmalarına Yönelik Bir Literatür Araştırması**

ADEM A., ÇAKIT E., DAĞDEVİREN M.

24. Ulusal Ergonomi Kongresi, Erzurum, Turkey, 28 - 30 September 2018, pp.104

### VII. **Detecting Adverse Events in an Active Theater of War Using Data Mining Techniques**

Zurada J., Shi D., Karwowski W., Guan J., ÇAKIT E.

The Eighth International Conference on Business Intelligence and Technology, 18 - 22 February 2018, pp.43-44

### VIII. **Understanding the Social and Economic Factors Affecting Adverse Events in an Active Theater of War: A Neural Network Approach**

ÇAKIT E., Karwowski W.

International Conference on Applied Human Factors and Ergonomics, United States Of America, 17 - 21 July 2017, pp.215-223

### IX. **Assessing the Relationship Between Hand Dimensions and Manual Dexterity Performance for Turkish Dental Students**

ÇAKIT E., DURGUN B., ÇETİK M. O.

International Conference on Physical Ergonomics and Human Factors, United States Of America, 27 - 31 July 2016, pp.469-479

### X. **Understanding patterns of infrastructure development in the active war theater of Afghanistan over the period 2002 2010**

ÇAKIT E., KARWOWSKI W.

6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, United States Of America, 26 - 30 July 2015, vol.3, pp.3876-3882

**XI. Correlation analysis between the occurrence of adverse events and infrastructure development in an active war theater**

ÇAKIT E., KARWOWSKI W.

19th Triennial Congress of the International Ergonomics Association (IEA 2015), Melbourne, Australia, 9 - 14 August 2015

**XII. Katı Atık Toplama İşlemi Sırasındaki Çalışma Duruşlarının Üç Boyutlu Ergonomik Analizi**

ÇAKIT E.

20. Ulusal Ergonomi Kongresi, Ankara, Turkey, 26 - 28 September 2014, pp.10

**XIII. Yolcu Taşımacılığında Sürücülerin Çalışma Duruşlarının Üç Boyutlu Ergonomik Analizi: Havaalanı Servis Sürücüsü Vaka Çalışması**

ÇAKIT E.

20. Ulusal Ergonomi Kongresi, Ankara, Turkey, 26 - 28 September 2014, pp.11

**XIV. Using Geographic Information Systems Analysis for Mapping Adverse Events in an Active War Theater**

ÇAKIT E., KARWOWSKI W.

5th International Conference on Applied Human Factors and Ergonomics, Krakow, Poland, 19 - 23 July 2014, pp.187-197

**XV. El Kavrama Kuvvetine Etki Eden Antropometrik Faktörlerin Değerlendirilmesine Yönelik Adaptif Ağ Tabanlı Bulanık Mantık Çıkarım Sistemi ANFIS Yaklaşımı**

ÇAKIT E., DURGUN B., ÇETİK M. O.

14. Ulusal Ergonomi Kongresi, Trabzon, Turkey, 30 October - 01 November 2008

**XVI. Ergonomide Bulanık Mantık ve Uygulamaları**

ÇAKIT E., DURGUN B., ÇETİK M. O.

Yöneylem Araştırması ve Endüstri Mühendisliği 28. Ulusal Kongresi, İstanbul, Turkey, 30 June - 02 July 2008

**XVII. El Becerisine Etki Eden Antropometrik ve Biyomekanik Faktörlerin Bulanık Mantık ile Değerlendirilmesi**

ÇAKIT E., DURGUN B., ÇETİK M. O.

Yöneylem Araştırması ve Endüstri Mühendisliği 28. Ulusal Kongresi, İstanbul, Turkey, 30 June - 02 July 2008

## Supported Projects

ÇAKIT E., Project Supported by Higher Education Institutions, Zihinsel İş Yükünün Analizine İlişkin Bir Model Önerisi, 2020 - Continues

## Activities in Scientific Journals

Human-Intelligent Systems Integration, Committee Member, 2019 - Continues

Ergonomics International Journal, Committee Member, 2019 - Continues

Augmented Human Research, Committee Member, 2019 - Continues

International Journal of Machine Learning and Computing , Committee Member, 2015 - Continues

## Memberships / Tasks in Scientific Organizations

Foundation for Professional Ergonomics , Member of Advisory Board, 2017 - Continues, United States Of America

## Scientific Refereeing

WILEY INTERDISCIPLINARY REVIEWS-DATA MINING AND KNOWLEDGE DISCOVERY, Journal Indexed in SCI-E, December 2020  
COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, November 2020  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCI-E, November 2020  
APPLIED SOFT COMPUTING, SCI Journal, November 2020  
APPLIED SOFT COMPUTING, SCI Journal, October 2020  
INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS, Journal Indexed in SSCI, July 2020  
APPLIED SOFT COMPUTING, Journal Indexed in SCI-E, June 2020  
INTERNATIONAL JOURNAL OF FUZZY SYSTEMS, SCI Journal, July 2019  
Human-Intelligent Systems Integration , Other Indexed Journal, July 2019  
INTERNATIONAL JOURNAL OF FUZZY SYSTEMS, SCI Journal, June 2019  
COMPUTERS IN HUMAN BEHAVIOR, SCI Journal, April 2019  
JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE, SCI Journal, April 2019  
Engineering Reports , Journal Indexed in ESCI, March 2019  
NEURAL COMPUTING & APPLICATIONS, SCI Journal, November 2017  
COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, May 2017  
HUMAN FACTORS AND ERGONOMICS IN MANUFACTURING & SERVICE INDUSTRIES, Journal Indexed in SSCI, July 2016  
COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, June 2016  
ARTIFICIAL INTELLIGENCE REVIEW, Journal Indexed in SCI-E, July 2015  
EXPERT SYSTEMS, SCI Journal, December 2014  
ERGONOMICS, Journal Indexed in SCI-E, November 2011

## Tasks In Event Organizations

Çakıt E., 12th International Conference on Applied Human Factors and Ergonomics (AHFE 2021) and the Affiliated Conferences, Scientific Congress, New York, United States Of America, Temmuz 2021

## Citations

Total Citations (WOS):83

h-index (WOS):6

## Scholarships

Doktora , Ministry of Education, 2010 - 2013

Dil Okulu, Ministry of Education, 2009 - 2009