

Assoc. Prof. AYÇA KOLUKISA TARHAN

Personal Information

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Education Information

Post Doctorate, Eindhoven Teknoloji Üniversitesi / Endüstri Mühendisliği Ve Yenilik Bilimleri, Bilişim Sistemleri, Netherlands 2013 - 2015

Doctorate, Orta Doğu Teknik Üniversitesi, Bilişim Enstitüsü, Bilişim Sistemleri, Turkey 2000 - 2006

Postgraduate, Dokuz Eylül Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği, Turkey 1997 - 1999

Undergraduate, Ege Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği, Turkey 1990 - 1995

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, An assessment model for the applicability of statistical process control for software processes, Orta Doğu Teknik Üniversitesi, Enformatik Enstitüsü, Bilişim Sistemleri Anabilim Dalı, 2006

Postgraduate, Commitment management in software development, Dokuz Eylül Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 1999

Research Areas

Computer Sciences, Software, Software Engineering, Industrial Engineering , Quality and Reliability, Total quality Management, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Hacettepe Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Hacettepe Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2012 - 2018

Assistant Professor, Technische Universiteit Eindhoven, Industrial Engineering And Innovation Sciences, Information Systems, 2013 - 2015

Lecturer PhD, Hacettepe Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2007 - 2012

Research Assistant, Dokuz Eylül Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 1997 - 1999

Academic and Administrative Experience

Hacettepe Üniversitesi, Bilişim Enstitüsü, Sağlık Bilişimi Anabilim Dalı, 2017 - Continues
Hacettepe Üniversitesi, Bilişim Enstitüsü, Bilişim Sistemleri Anabilim Dalı, 2013 - 2013

Courses

BBS651 YAZILIM MÜHENDİSLİĞİ, Postgraduate, 2016 - 2017, 2017 - 2018
CMP782 SOFTWARE METRICS, Postgraduate, 2017 - 2018
BIL701 SEMINER, Doctorate, 2017 - 2018
BIL700 SPECIAL STUDIES, Doctorate, 2017 - 2018
BBM419 DESIGN PROJECT I, Undergraduate, 2017 - 2018
BIL600 SPECIAL STUDIES, Postgraduate, 2017 - 2018
BYZ695 DÖNEM PROJESİ, Postgraduate, 2016 - 2017, 2017 - 2018
BYZ660 GEREKSİNİM MÜHENDİSLİĞİ, Postgraduate, 2017 - 2018
BIL702 DOKTORA YETERLİK SINAVINA HAZIRLIK, Doctorate, 2017 - 2018
BIL601 SEMINER, Postgraduate, 2016 - 2017, 2017 - 2018
BYZ653 KİŞİSEL YAZILIM SÜRECİ, Postgraduate, 2016 - 2017
BBM430 PROJE II, Undergraduate, 2016 - 2017
KUM655 YAZILIM KALİTE YÖNETİMİ, Postgraduate, 2016 - 2017
BBM487 SOFTWARE ENGINEERING LAB, Undergraduate, 2016 - 2017
BBM102 INTRODUCTION TO PROGRAMMING II, Undergraduate, 2016 - 2017
BİL781 YAZILIM KALİTE YÖNETİMİ, Doctorate, 2016 - 2017
BBM429 PROJE I, Undergraduate, 2016 - 2017
BIL700 OZEL KONULAR, Doctorate, 2016 - 2017
BBM104 INTRODUCTION TO PROGRAMMING LAB II, Undergraduate, 2016 - 2017
BIL600 OZEL KONULAR, Postgraduate, 2016 - 2017
BBM382 SOFTWARE ENGINEERING, Undergraduate, 2016 - 2017
BBM475 YONETIM BILISIM SISTEMLERİ, Undergraduate, 2016 - 2017

Advising Theses

TARHAN A., A method for product defectiveness prediction with process enactment data in a small software organization, Postgraduate, D.SİVRİOĞLU(Student), 2012
TARHAN A., Improvement of software system test process through statistical process control, Postgraduate, C.GÜLENAY(Student), 2008
TARHAN A., An assessment and analysis tool for statistical process control of software processes, Postgraduate, S.KIRBAŞ(Student), 2007

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

- I. **Correlation of critical success factors with success of software projects: an empirical investigation**
Garousi V., KOLUKISA TARHAN A., Pfahl D., Coskuncay A., DEMİRÖRS O.
SOFTWARE QUALITY JOURNAL, vol.27, no.1, pp.429-493, 2019 (Journal Indexed in SCI)
- II. **A two-dimensional method for evaluating maintainability and reliability of open source software**
YILMAZ N., KOLUKISA TARHAN A.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.34, no.4, pp.1807-1829, 2019 (Journal Indexed in SCI)
- III. **Early software defect prediction: A systematic map and review**
Ozakinci R., KOLUKISA TARHAN A.

- JOURNAL OF SYSTEMS AND SOFTWARE, vol.144, pp.216-239, 2018 (Journal Indexed in SCI)
- IV. **A Goal-Driven Evaluation Method Based On Process Mining for Healthcare Processes**
ERDOĞAN T., KOLUKISA TARHAN A.
APPLIED SCIENCES-BASEL, vol.8, no.6, 2018 (Journal Indexed in SCI)
 - V. **Challenges of software process and product quality improvement: catalyzing defect root-cause investigation by process enactment data analysis**
Soylemez M., KOLUKISA TARHAN A.
SOFTWARE QUALITY JOURNAL, vol.26, no.2, pp.779-807, 2018 (Journal Indexed in SCI)
 - VI. **Systematic Mapping of Process Mining Studies in Healthcare**
ERDOĞAN T., KOLUKISA TARHAN A.
IEEE ACCESS, vol.6, pp.24543-24567, 2018 (Journal Indexed in SCI)
 - VII. **Business process maturity models: A systematic literature review**
TARHAN A., TÜRETKEN O., Reijers H. A.
INFORMATION AND SOFTWARE TECHNOLOGY, vol.75, pp.122-134, 2016 (Journal Indexed in SCI)
 - VIII. **Systematic analyses and comparison of development performance and product quality of Incremental Process and Agile Process**
TARHAN A., YILMAZ S. G.
INFORMATION AND SOFTWARE TECHNOLOGY, vol.56, no.5, pp.477-494, 2014 (Journal Indexed in SCI)
 - IX. **Apply Quantitative Management Now**
TARHAN A., Demirors O.
IEEE SOFTWARE, vol.29, no.3, pp.77-85, 2012 (Journal Indexed in SCI)
 - X. **Investigating the effect of variations in the test development process: a case from a safety-critical system**
TARHAN A., Demirors O.
SOFTWARE QUALITY JOURNAL, vol.19, no.4, pp.615-642, 2011 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Maturity assessment and maturity models in health care: A multivocal literature review**
KOLUKISA TARHAN A., Garousi V., Turetken O., Soylemez M., Garossi S.
DIGITAL HEALTH, vol.6, 2020 (Journal Indexed in ESCI)
- II. **An Ontology Based Infrastructure To Support CMMI-Based Software Process Assessment**
Gazel S., SEZER E., KOLUKISA TARHAN A.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.25, no.1, pp.155-164, 2012 (Journal Indexed in ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **An Evaluation Approach for Selecting Suitable Defect Prediction Method at Early Phases**
Ozakinci R., KOLUKISA TARHAN A.
45th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) / 22nd Euromicro Conference on Digital System Design (DSD), Kallithea, Greece, 28 - 30 August 2019, pp.199-203
- II. **Process Mining for Healthcare Process Analytics**
ERDOĞAN T., KOLUKISA TARHAN A.
Joint Conference of 26th International Workshop on Software Measurement (IWSM) / 11th International Conference on Software Process and Product Measurement (Mensura), Berlin, Germany, 5 - 07 October 2016, pp.125-130
- III. **A Proposal on Requirements for COSMIC FSM Automation from Source Code**
KOLUKISA TARHAN A., ÖZKAN B., Icoz G. C.
Joint Conference of 26th International Workshop on Software Measurement (IWSM) / 11th International

Conference on Software Process and Product Measurement (Mensura), Berlin, Germany, 5 - 07 October 2016, pp.195-200

- IV. **The Use of Maturity/Capability Frameworks for Healthcare Process Assessment and Improvement**
Söylemez M., TARHAN A.
16th International Conference on Software Process Improvement and Capability Determination (SPICE), Dublin, Ireland, 9 - 10 June 2016, vol.609, pp.31-42
- V. **Assessing Healthcare Process Maturity: Challenges Of Using A Business Process Maturity Model**
KOLUKISA TARHAN A., Turetken O., van den Biggelaar F. J. H. M.
9th International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth), İstanbul, Turkey, 20 - 23 May 2015, pp.339-342
- VI. **Run-time Calculation of COSMIC Functional Size via Automatic Installment of Measurement Code into Java Business Applications**
Gonultas R., KOLUKISA TARHAN A.
41st Euromicro Conference on Software Engineering and Advanced Applications 2015, Funchal, Portugal, 26 - 28 August 2015, pp.112-118
- VII. **Business Process Maturity Assessment: State of the Art and Key Characteristics**
KOLUKISA TARHAN A., Turetken O., Ilisulu F.
41st Euromicro Conference on Software Engineering and Advanced Applications 2015, Funchal, Portugal, 26 - 28 August 2015, pp.430-437
- VIII. **Investigating Defect Prediction Models for Iterative Software Development When Phase Data is Not Recorded Lessons Learned**
Aydin A., KOLUKISA TARHAN A.
9th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE), Lisbon, Portugal, 28 - 30 April 2014, pp.48-58
- IX. **Using Process Enactment Data Analysis to Support Orthogonal Defect Classification for Software Process Improvement**
Söylemez M., KOLUKISA TARHAN A.
Joint Conference of the 23rd International Workshop on Software Measurement and the 8th International Conference on Software Process and Product Measurement (IWSM-MENSURA), Ankara, Turkey, 23 - 26 October 2013, pp.120-125
- X. **Run-time measurement of COSMIC functional size for Java business applications: Is it worth the cost?**
Akca A. A. , KOLUKISA TARHAN A.
Joint Conference of the 23rd International Workshop on Software Measurement and the 8th International Conference on Software Process and Product Measurement (IWSM-MENSURA), Ankara, Turkey, 23 - 26 October 2013, pp.54-59
- XI. **Run-time measurement of COSMIC functional size for Java business applications: Initial results**
Akca A. A. , KOLUKISA TARHAN A.
Joint Conference of the 22nd International Workshop on Software Measurement / 7th International Conference on Software Process and Product Measurement (IWSM-MENSURA), Assis, Brazil, 17 - 19 October 2012, pp.226-231
- XII. **Assessment of Software Process and Metrics to Support Quantitative Understanding: Experience from an Undefined Task Management Process**
TARHAN A., DEMIRORS O.
11th International Conference on Software Process Improvement and Capability Determination, Dublin, Ireland, 30 May - 01 June 2011, vol.155, pp.108-110
- XIII. **Assessment of software process and metrics to support quantitative understanding**
TARHAN A., Demirors O.
Joint Meeting of the International Workshop on Software Measurement (IWSM)/International Conference on Software Process and Product Measurement (MENSURA), Palma de Mallorca, Spain, 5 - 07 November 2007, vol.4895, pp.102-104

Supported Projects

- KOLUKISA TARHAN A., ERDOĞAN T., Project Supported by Higher Education Institutions, CERRAHİ SÜREÇLERİN KEŞFİ İÇİN SÜREÇ MADENCİLİĞİ ÇALIŞMALARININ DEĞERLENDİRİLMESİ, 2017 - 2018
- KOLUKISA TARHAN A., ERDOĞAN T., Project Supported by Higher Education Institutions, Sağlık Süreç Analitiği İçin Süreç Madenciliği, 2016 - 2017
- KOLUKISA TARHAN A., Project Supported by Higher Education Institutions, İş Süreci Olgunluk Modelleri: Bir Sistemik Literatür Tarama, 2016 - 2017
- KOLUKISA TARHAN A., Project Supported by Higher Education Institutions, Yazılım test edilebilirliği: Bir sistemik literatür haritalaması, 2016 - 2016
- KOLUKISA TARHAN A., Söylemez M., Project Supported by Higher Education Institutions, OlgunlukYetenek Çerçevesinin Sağlık Süreçlerini Değerlendirme ve İyileştirmede Kullanımı, 2016 - 2016
- KOLUKISA TARHAN A., Güneş Yılmaz S., Project Supported by Higher Education Institutions, Artırmalı Süreç ve Çevik Sürecin Geliştirme Performansı ve Ürün Kalitesinin Sistemik Analizi ve Karşılaştırması, 2015 - 2016
- KOLUKISA TARHAN A., REIJERS H. A. , TÜRETKEN O., Project Supported by Higher Education Institutions, Olgun iş süreçleri performansta iyileşme sağlar mı? - Deneysel kanıt için bir literatür özeti, 2015 - 2016
- TARHAN A., TUBITAK Project, DEVELOPMENT OF A SELF ASSESSMENT APPROACH FOR BUSINESS PROCESS MATURITY, 2013 - 2014

Citations

Total Citations (WOS):151

h-index (WOS):6