Assoc. Prof. AYSU BETİN CAN

Personal Information

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International Researcher IDs
ScholarID: hqKRjBaUAAAAJ
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Publons / Web Of Science ResearcherID: C-2035-2013
ScopusID: 8368996300
Yoksis Researcher ID: 58263

Education Information

Doctorate, University of California, Santa Barbara, Bilgisayar Bilimleri, United States Of America 2001 - 2005
Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, Turkey
1996 - 1999

Research Areas

Computer Sciences, Software, Software Engineering, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Graduate School of Informatics, Information Systems, 2014 -
Continues
Assistant Professor, Middle East Technical University, Graduate School of Informatics, Information Systems, 2006 - 2014
Research Assistant, University Of California Santa Barbara, Computer Science, 2000 - 2005

Courses

Graduate seminar, Postgraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018
SOFTWARE DESIGN PATTERNS, Postgraduate, 2019 - 2020, 2018 - 2019
INTRODUC.TO SOFTWARE ENG., Postgraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018
SOFTWARE DESIGN PATTERNS, Doctorate, 2019 - 2020, 2018 - 2019, 2017 - 2018
INTRODUCTION TO SOFTWARE TESTING, Postgraduate, 2018 - 2019, 2017 - 2018
INTRODUCTION TO SOFTWARE ENGINEERING, Postgraduate, 2017 - 2018
Introduction to Software Testing, Postgraduate, 2018 - 2019
Software Verification, Doctorate, 2017 - 2018

Advising Theses

BETİN CAN A., Event points: A software size measurement model, Doctorate, T.HACALOĞLU(Student), 2021

BETİN CAN A., Detecting malicious behavior in binary programs using dynamic symbolic execution and API call sequences, Postgraduate, F.TAMER(Student), 2021

BETİN CAN A., Design of a context aware security model for preventing relay attacks using NFC enabled mobile devices, Doctorate, D.Çavdar(Student), 2020

BETİN CAN A., Mining eyetracking data to characterise users and theirpatterns of use, Postgraduate, M.Öder(Student), 2019

BETİN CAN A., An Entropy based DDoS detection method and implementation, Postgraduate, S.Fürkan(Student), 2019

BETİN CAN A., APPLICATION OF SUBSPACE CLUSTERING TO SCALABLE MALWARE CLUSTERING, Postgraduate, F.IŞIKTAŞ(Student), 2019

BETİN CAN A., A combinatorial test data generation approach using fault data analysis and discretization of parameter input space, Postgraduate, H.BOSNALI(Student), 2018

BETİN CAN A., TEZCAN C., Improved differential attacks on rectangle, Postgraduate, A.ŞENOL(Student), 2017

BETİN CAN A., Multi-objective regression test-selection in practice: An industrial case study, Postgraduate, R.ÖZKAN(Student), 2017

BETİN CAN A., An experimental comparison of messaging protocols MQTT and COAP, Postgraduate, H.FARUK(Student), 2017

BETİN CAN A., A software quality model for android applications, Postgraduate, M.VİLDAN(Student), 2016

BETİN CAN A., Haki: A runtime verification tool for javascript MVC web applications, Postgraduate, İ.BİLGE(Student), 2016

BETİN CAN A., HAKI: runtime verification tool for JavaScript MVC web applications, Postgraduate, İ.Bilge(Student), 2016

BETİN CAN A., A comparative study on automated Android application testing tools, Postgraduate, G.HÖKELEKLİ(Student), 2016

KARAGÖZ P., BETİN CAN A., A new search engine ontology for visually impaired users, Postgraduate, E.AKKAYA(Student), 2015

BETİN CAN A., An Approach for automated verification of web applications using model checking and replaying the scenarios of counterexamples, Postgraduate, Y.Paçin(Student), 2015

BETİN CAN A., ELA: An automated statistical fault localization technique, Doctorate, Ö.BAYRAKTAR(Student), 2015

BETİN CAN A., Automated test code generation and execution system for web, Postgraduate, S.FATİH(Student), 2015

BETİN CAN A., An approach for automated verification of web applications using model checking and replaying the scenarios of counter example, Postgraduate, Y.PAÇİN(Student), 2015

BETİN CAN A., Gui testing of android applications: A systematic mapping, Postgraduate, M.AYDIN(Student), 2014

BETİN CAN A., Measuring and assesment of well known bad practices in Android applications, Postgraduate, İ.ALPER(Student), 2014

BETİN CAN A., Web application testing: A systematic literature review, Postgraduate, S.DOĞAN(Student), 2013

BETİN CAN A., Assessing standard-compliance of public institution web sites of Turkey, Postgraduate, S.YALÇINKAYA(Student), 2012

Koçyiğit A., Betin Can A., QoS-aware service selection for web service composition, Postgraduate, R.ABDYLDAEVA(Student), 2012

BETİN CAN A., Automatic navigation model extraction for web load testing, Postgraduate, İ.REFİKA(Student), 2011

BETİN CAN A., Finding malformed HTML outputs and unhandled execution errors of ASP.NET applications, Postgraduate, M.ERDAL(Student), 2011

BETİN CAN A., Model checking of apoptosis signaling pathways in lung cancers, Postgraduate, M.AYFER(Student), 2011

BAYKAL N., BETİN CAN A., A framework for ranking and categorizing medical documents, Doctorate, M.GH.(Student), 2010

BETİN CAN A., Environment generation tool for enabling aspect verification, Postgraduate, Ş.LOKMAN(Student), 2010

BETİN CAN A., Dosso-automatic detector of shared objects in multithreaded java programs, Postgraduate, M.TOLUBAEVA(Student), 2009

BETİN CAN A., Rearchitecturing an electronic warfare system based on service oriented architecture, Postgraduate, B.ERZURUMLU(Student), 2008

BETİN CAN A., Automated refactoring of design pattern implementations to aspect oriented counterparts, Postgraduate, A.BUĞDAYCI(Student), 2007

Designed Lessons

Betin Can A., Software Design Patterns, Doctorate, 2006 - 2007
Betin Can A., Software Design Patterns, Postgraduate, 2006 - 2007

Published journal articles indexed by SCI, SSCI, and AHCI

I.   **Playtesting: What is Beyond Personas**
      Ariyurek S., Sürer E., Betin Can A.
      IEEE TRANSACTIONS ON GAMES, vol.15, no.3, pp.348-359, 2023 (SCI-Expanded)

II.   **Blockchain technology applications in the health domain: a multivocal literature review**
      Baysal M. V., Özcan Top Ö., Betin Can A.
      Journal of Supercomputing, vol.79, no.3, pp.3112-3156, 2023 (SCI-Expanded)

III. **Distribution Aware Testing Framework for Deep Neural Networks**
      Demir D., Can A. B., Sürer E.
      IEEE Access, vol.11, pp.119481-119505, 2023 (SCI-Expanded)

IV.   **Verifying Maze-Like Game Levels With Model Checker SPIN**
      Tekik O., Surer E., Can A. B.
      IEEE Access, vol.10, pp.66492-66510, 2022 (SCI-Expanded)

V.   **Automated Video Game Testing Using Synthetic and Humanlike Agents**
      Ariyurek S., Betin-Can A., SÜRER E.
      IEEE TRANSACTIONS ON GAMES, vol.13, no.1, pp.50-67, 2021 (SCI-Expanded)

VI.   **Multi-objective regression test selection in practice: An empirical study in the defense software industry**
      Garousi V., Özkan R., Betin-Can A.
      INFORMATION AND SOFTWARE TECHNOLOGY, vol.103, pp.40-54, 2018 (SCI-Expanded)

VII. **A survey of software engineering practices in Turkey**
      Garousi V., Coskuncay A., Betin-Can A., DEMIRORS O.
      JOURNAL OF SYSTEMS AND SOFTWARE, vol.108, pp.148-177, 2015 (SCI-Expanded)

VIII. **Software test-code engineering: A systematic mapping**
      Yusifoglu V. G., Amannejad Y., Can A.
      INFORMATION AND SOFTWARE TECHNOLOGY, vol.58, pp.123-147, 2015 (SCI-Expanded)

IX.   **Web application testing: A systematic literature review**
      Dogan S., Betin-Can A., Garousi V.
      JOURNAL OF SYSTEMS AND SOFTWARE, vol.91, pp.174-201, 2014 (SCI-Expanded)

X.   **A systematic mapping study of web application testing**
      Garousi V., Mesbah A., Betin-Can A., Mirshokraie S.
      INFORMATION AND SOFTWARE TECHNOLOGY, vol.55, no.8, pp.1374-1396, 2013 (SCI-Expanded)

XI.   **Modular Verification of Asynchronous Service Interactions Using Behavioral Interfaces**
      Betin-Can A., Hallé S., Bultan T.
      IEEE Transactions on Services Computing, vol.6, no.2, pp.262-275, 2013 (SCI-Expanded)

XII. **A model based on multi-features to enhance healthcare and medical document retrieval**
      Al Zamıl M. G. H., Can A.
      INFORMATICS FOR HEALTH & SOCIAL CARE, vol.36, pp.100-115, 2011 (SCI-Expanded)

XIII. **ROLEX-SP: Rules of lexical syntactic patterns for free text categorization**
      Al Zamil M. G. H., Can A.
      KNOWLEDGE-BASED SYSTEMS, vol.24, pp.58-65, 2011 (SCI-Expanded)

XIV. **Experimenting with software testbeds for evaluating new technologies**
      LINDVALL M., RUS I., DONZELLI P., MEMON A., ZELKOWITZ M., Betin-Can A., BULTAN T., ACKERMANN C., ANDERS B., ASGARI S., et al.

EMPIRICAL SOFTWARE ENGINEERING, vol.12, no.4, pp.417-444, 2007 (SCI-Expanded)

XV. **Highly dependable concurrent programming using design for verification**
Betin-Can A., BULTAN T.
FORMAL ASPECTS OF COMPUTING, vol.19, no.2, pp.243-268, 2007 (SCI-Expanded)

XVI. **Eliminating synchronization faults in air traffic control software via design for verification with concurrency controllers**
Can A., Bultan T., LINDVALL M., Lux B., Topp S.
AUTOMATED SOFTWARE ENGINEERING, vol.14, no.2, pp.129-178, 2007 (SCI-Expanded)

XVII. **MedicoPort: A medical search engine for all**
Can A., Baykal N.
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, vol.86, no.1, pp.73-86, 2007 (SCI-Expanded)

Articles Published in Other Journals

I. **Turkish national software engineering symposium**
Yeşilada Y., BETİN CAN A., Demirörs O.
CEUR Workshop Proceedings, vol.1221, 2014 (Scopus)

II. **Interface-based specification and verification of concurrency controllers**
Betin-Can A., Bultan T.
Electronic Notes in Theoretical Computer Science, vol.89, no.3, pp.464-479, 2003 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

I. **Web uygulamalarinda dolasim ve erisim kontrolü hatalarinin tespiti ve yeniden canlandirilmasi**
Paçin Y., BETİN CAN A.
9th Turkish National Software Engineering Symposium, UYMS 2015, İzmir, Turkey, 9 - 11 September 2015, vol.1483, pp.514-528

II. **Android uygulamalari bellek hatalari yakalanmasi ve etkileri**
Sağlam I. A., BETİN CAN A.
8th Turkish National Software Engineering Symposium, UYMS 2014, Guzelyurt, Turkey, 8 - 10 September 2014, vol.1221, pp.199-212

III. **Toward effective medical search engines**
Zamil M. A., Can A. B.
2010 5th International Symposium on Health Informatics and Bioinformatics, HIBIT 2010, Antalya, Turkey, 20 - 22 April 2010, pp.21-26

Other Publications

I. **Playtesting: What is Beyond Personas**
Ariyurek S., Sürer E., Betin Can A.
Other, pp.1-11, 2021

II. **Enhancing the Monte Carlo Tree Search Algorithm for Video Game Testing**
Arıyürek S., Betin Can A., Sürer E.
Other, pp.1-8, 2020

III. **Automated Video Game Testing Using Synthetic and Human-Like Agents**
Arıyürek S., Betin Can A., Sürer E.
Other, pp.1-21, 2019

Supported Projects

BETİN CAN A., ÜNVER F., ÖZCAN İ. B., HÖKELEKLİ G., Ever E., Project Supported by Higher Education Institutions, Bulut üzerinde algısal veriler ile iletişim kuran Mobil Uygulamalar ve Otomatik Test Yöntemleri: Bir Keşif Çalışması, 2016 - 2016

Scientific Refereeing

JOURNAL OF SYSTEMS AND SOFTWARE, Journal Indexed in SCI-E, August 2021
INFORMATION AND SOFTWARE TECHNOLOGY, Journal Indexed in SCI-E, December 2020
Ulusal yazılım Mühendisliği Sempozyumu, Conference Paper (Full Text), October 2020
Ulusal Savunma Uygulamaları Modelleme ve Simülasyon Konferansı, Conference Paper (Full Text), November 2019
JOURNAL OF SYSTEMS AND SOFTWARE, Journal Indexed in SCI-E, January 2017

Tasks In Event Organizations

Betin Can A., Karagöz P., Ulusal savunma uygulamaları modelleme ve simulasyon konferansı, Scientific Congress, Ankara, Turkey, Kasım 2019
Betin Can A., Erten Y. M., Ayav T., ulusal yazılım mühendisliği sempozyumu, Scientific Congress, İzmir, Turkey, Eylül 2019
Betin Can A., Tarhan A., Yılmaz C., Yenigün H., Ertan Y. M., ÖZKAN YILDIRIM S., Ulusal Yazılım Mühendisliği Sempozyumu, Scientific Congress, İstanbul, Turkey, Eylül 2018

Metrics

Publication: 49
Citation (WoS): 320
Citation (Scopus): 484
H-Index (WoS): 10
H-Index (Scopus): 12