

Assoc. Prof. AYSU BETİN CAN

Personal Information

Email: betincan@metu.edu.tr

Web: <https://avesis.metu.edu.tr/betincan>

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, 2017 - 2018, 2018 - 2019, 2019 - 2020

SOFTWARE DESIGN PATTERNS, Postgraduate, 2018 - 2019, 2019 - 2020

INTRODUC.TO SOFTWARE ENG., Postgraduate, 2017 - 2018, 2018 - 2019, 2019 - 2020

SOFTWARE DESIGN PATTERNS, Doctorate, 2017 - 2018, 2018 - 2019, 2019 - 2020

INTRODUCTION TO SOFTWARE TESTING, Postgraduate, 2017 - 2018, 2018 - 2019

INTRODUCTION TO SOFTWARE ENGINEERING, Postgraduate, 2017 - 2018

Introduction to Software Testing, Postgraduate, 2018 - 2019

Software Verification, Doctorate, 2017 - 2018

Advising Theses

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 their patterns 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.İŞIKTAŞ(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., Multi-objective regression test-selection in practice: An industrial case study, Postgraduate, R.ÖZKAN(Student), 2017

BETİN CAN A., Improved differential attacks on rectangle, Postgraduate, A.ŞENOL(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.Paçın(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.PAÇIN(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

KOÇYİĞİT A., BETİN 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

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

- I. **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 (Journal Indexed in SCI)
- II. **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 (Journal Indexed in SCI)
- III. **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 (Journal Indexed in SCI)
- IV. **Software test-code engineering: A systematic mapping**
Yusifoglu V. G. , Amannejad Y., Can A.
INFORMATION AND SOFTWARE TECHNOLOGY, vol.58, pp.123-147, 2015 (Journal Indexed in SCI)
- V. **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 (Journal Indexed in SCI)
- VI. **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 (Journal Indexed in SCI)
- VII. **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 (Journal Indexed in SCI Expanded)
- VIII. **A model based on multi-features to enhance healthcare and medical document retrieval**
Al Zamil M. G. H. , Can A.
INFORMATICS FOR HEALTH & SOCIAL CARE, vol.36, pp.100-115, 2011 (Journal Indexed in SCI)
- IX. **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 (Journal Indexed in SCI)
- X. **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 (Journal Indexed in SCI)
- XI. **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 (Journal Indexed in SCI)
- XII. **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 (Journal Indexed in SCI)
- XIII. **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 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **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 (Refereed Journals of Other Institutions)

Other Publications

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

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

Citations

Total Citations (WOS):262

h-index (WOS):8