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CURRICULUM VITAE

Tugkan Tuglular

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EMPLOYMENT

September 2018 - present **Associate Professor**, Izmir Institute of Technology, Turkey

September 2000 - September 2018 **Assistant Professor**, Izmir Institute of Technology, Turkey

January 2013 - December 2013 **R&D Coordinator**, Softin Technology, Izmir, Turkey
(unpaid leave for one year from Izmir Institute of Technology)

April 2003 - February 2007 **Chief Information Officer**, Izmir Institute of Technology, Turkey
(through appointment within the University)

June 1996 - January 1998 **Research Associate**, COAST Laboratory, Purdue University, USA

January 1994 - September 2000 **Graduate Research Assistant**, Ege University, Turkey

EDUCATION

1995 - 1999 Ege University, Ph.D.
Major: Computer Engineering
Thesis Title: Development of Computer Use Policies (Bilgisayar Kullanım Yönergesi Geliştirilmesi)
Advisor: Şaban Eren, Ph.D.

1993 - 1995 Ege University, M.Sc.
Major: Computer Engineering

Thesis Title: Computer Controlled Security System Specifications for Protection of Multi-Access Environments (Çok Erişimli Ortamların Korunmasına Yönelik Bilgisayar Denetimli Güvenlik Sistemi Spesifikasyonları)

Advisor: Şaban Eren, Ph.D.

1988 - 1993 Ege University, B.S.
Major: Computer Engineering

HONORS AND AWARDS

- 2015 **National Software Engineering Symposium Best Paper Award**
Awarded for Paper entitled: "(Input Validation Analysis of JavaScript Libraries) JavaScript Kütüphaneleri için Girdi Doğrulama Analizi"
- 2000 **EICAR Outstanding Student Paper Award**
Awarded for Paper entitled: "A Preliminary Structural Approach to Insider Computer Misuse Incidents"
- 1993 **First place graduate** of Faculty of Engineering, Ege University

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

Ufuktepe, E., **Tuglular, T.**, Palaniappan, K. Tracking Code Bug Fix Ripple Effects Based on Change Patterns Using Markov Chain Models, *IEEE Transactions on Reliability*, vol 71, no. 2, pp.1141-1156, 2022.

Tuglular, T., Ekici, N.U. A Connectivity Improvement Method for Behavior Driven Acceptance Tests, *International Journal on Advances in Software*, vol. 14, no. 1 & 2, pp.162-172, 2021.

Tuglular, T., Coşkun, D.E., Gülen, Ö., Okluoğlu, A., Algan, K. Behavior-Driven Development of Microservice Applications, *International Journal of Computers*, vol. 15, 2021, DOI: 10.46300/9108.2021.15.130

Keklik, O., **Tuglular, T.**, Tekir, S. Rule-based Automatic Question Generation Using Semantic Role Labeling. *IEICE Transactions on Information and Systems*, Vol.E102-D, No. 7, pp. 1362-1373, July 2019.

Belli, F., Güler Dincer, N., Linschulte, M., **Tuglular, T.**, Model-based Selective Layer-centric Testing. *Journal of Information Processing*, Vol. 26, pp. 572-589, Sep. 2018, doi: 10.2197/ipsjip.26.572.

Ufuktepe, E., **Tuglular, T.** Estimating software robustness in relation to input validation vulnerabilities using Bayesian networks. *Software Quality Journal*, Volume 26, pp. 455-489, 2018, doi:10.1007/s11219-017-9359-5.

Tuglular, T. (A Software Design Pattern For Contextual Validation) Bağlamsal Doğrulama için Bir Yazılım Tasarım Şablonu. *DEU Fen ve Mühendislik Dergisi*, Volume 19, No 57, pp. 888-898, September 2017, doi: 10.21205/deufmd.2017195778 [in Turkish].

Belli, F., Budnik, C.J., Hollmann, A., **Tuglular, T.**, Wong, W.E. Model-based mutation testing—Approach and case studies. *Science of Computer Programming*, Volume 120, pp. 25–48, 1 May 2016, doi: 10.1016/j.scico.2016.01.003

Tuglular, T., Belli, F., Linschulte, M. Input Contract Testing of Graphical User Interfaces. *International Journal of Software Engineering and Knowledge Engineering*, Vol. 26, No.2, pp. 183-215, March 2016.

Tuglular, T., Muftuoglu, C.A., Belli, F., Linschulte, M. Model-Based Contract Testing of Graphical User Interfaces, *IEICE Transactions on Information and Systems*, Vol.E98-D, No. 7, pp. 1297-1305, July 2015.

Tuglular, T. Location aware self-adapting firewall policies. *WSEAS Transactions on Communications*, Vol. 7, No. 6, pp. 563-573, June 2008 [extended version of “Automatic Enforcement of Location Aware User Based Network Access Control Policies”].

Kayayurt, B., **Tuglular, T.** End-to-end security implementation for mobile devices using TLS protocol. *Journal of Computer Virology* (currently *Journal of Computer Virology and Hacking Techniques*), Springer Paris, ISSN: 1772-9890 (Paper) 1772-9904 (Online), Vol. 2, No. 1, pp. 87-97, August 2006 [published from 15th Annual EICAR Conference Proceedings].

Karaarslan, E., **Tuglular, T.**, Şengonca, H. (Foundations of Web Attack Detection and Prevention Systems) Web Saldırı Saptama ve Engelleme Sistemi Temelleri. *Türkiye Bilişim Vakfı Bilgisayar Bilimleri ve Mühendisliği Dergisi*, Vol. 2, No. 1, pp.107-118, December 2006 [in Turkish].

Tuglular, T., Yıldırım, Ş., Sinanoğlu, E.B., Erciyeş, K., Çankaya, H.C. (A Personal Computer-based Distributed Control System) Kişisel Bilgisayar Tabanlı Dağıtık Bir Kontrol Sistemi. *Ege Üniversitesi Bilgisayar Araştırma ve Uygulama Merkezi Dergisi*, Vol. 14, No. 1, pp. 21-27, June 1991 [in Turkish].

BOOKS & BOOK CHAPTERS

Kaya, M., **Tuglular, T.** "Bölüm 12: DevSecOps," SİBER GÜVENLİK VE SAVUNMA: Biyometrik ve Kriptografik Uygulamalar, Editörler: Şeref Sağıroğlu - Doç. Dr. Sedat Akleyek, Aralık 2020, Nobel Akademik Yayıncılık Eğitim Danışmanlık Tic. Ltd. Şti.

Belli, F., Beyazıt, M., Budnik, C.J., **Tuglular, T.** "Advances in Model-Based Testing of Graphical User Interfaces," *Advances in Computers*, vol. 107, A. M. Memon, Ed., 2017, pp. 219-280, Academic Press.

Tuglular, T., Velibeyoğlu, K., Tekir, S. (Knowledge-based Sustainable Development Strategy for Izmir) Izmir Bilgi Toplumu Temelli Kalkınma Stratejisi. 2013, Izmir Kalkınma Ajansı (IZKA), ISBN:978-605-5826-11-6, [Book in Turkish].

CONFERENCE PRESENTATIONS

PROCEEDINGS

Yapıcı, N.B., **Tuglular, T.**, Başoğlu N. Assessment of Human-Robot Interaction between Householders and Robotic Vacuum Cleaners, 2022 IEEE Technology and Engineering Management Conference (TEMSCON EUROPE), April 25 – 29, 2022, Izmir, Turkey.

Ufuktepe, E., **Tuglular, T.**, Palaniappan, K. The Relation between Bug Fix Change Patterns and Change Impact Analysis, *The 21st IEEE International Conference on Software Quality, Reliability, and Security (QRS 2021)*, December 6-10, 2021, Hainan Island, China.

Belli, F., **Tuglular, T.**, Ufuktepe, E. Heterogeneous Modeling and Testing of Software Product Lines, *The 21st IEEE International Conference on Software Quality, Reliability, and Security (QRS 2021)*, December 6-10, 2021, Hainan Island, China.

Khalilov, A., **Tuglular, T.**, Belli, F., Mutation Analysis of Specification-Based Contracts in Software Testing, 15. Ulusal Yazılım Mühendisliği Sempozyumu (UYMS 2021), November 17-19, 2021, Izmir, Turkey.

Yapıcı, N.B., **Tuglular, T.**, Başoğlu N. Application of Human-Robot Interaction Features to Design and Purchase Processes of Home Robots, *The 13th International Conference on Social Robotics (ICSR 2021)*, November 10-13, 2021, Singapore.

Tuglular, T., Coşkun, D.E. Behavior-Driven Development of Software Product Lines, *The Eighth International Conference on Dependable Systems and Their Applications (DSA 2021)*, Sept. 11-12, 2021, Yinchuan, China.

Ufuktepe, E., **Tuglular, T.** Code Change Sniffer: Predicting Future Code Changes with Markov Chain, COMPSAC 2021 Conference, All-Virtual, July 12-16, 2021.

Tuglular, T. On the Composability of Behavior Driven Acceptance Tests, The Seventh International Conference on Advances and Trends in Software Engineering SOFTENG 2021, April 18-22, 2021, Porto, Portugal.

Tuglular, T., Leblebici, O., Coverage Guided Multiple Base Choice Testing, in *IEEE International Workshop on Automated and Intelligent Software Testing (AIST 2020) in conjunction with 20th IEEE International Conference on Software Quality, Reliability, and Security QRS 2020*, Dec. 11-14, 2020, Macau, China - ONLINE.

Khalilov, A., **Tuglular, T.,** Belli, F., Mutation Operators for Decision Table-Based Contracts Used in Software Testing, in *14. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2020*, Oct. 7-9, 2020, Istanbul, Turkey - ONLINE [in Turkish].

Tuglular, T., Leblebici, O., (Automatic Code Generation with Document Responsibility Collaboration Modelling Method) Belge Sorumluluk İş-Birliği Modelleme Yöntemi ile Otomatik Kod Üretimi, in *14. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2020*, Oct. 7-9, 2020, Istanbul, Turkey - ONLINE [in Turkish].

Imamoglu, Z., **Tuglular, T.,** Bastanlar, Y. (Container Damage Detection and Classification Using Container Images) Konteyner Görüntülerini Kullanarak Hasar Tespiti ve Sınıflandırması, in *28. Sinyal İşleme ve İletişim Uygulamaları Kurultayı SIU 2020*, Oct. 5-7, 2020, Turkey - ONLINE [in Turkish].

Tuglular, T., Beyazit, M., Öztürk, D., (Management of Feature-Oriented Test Models for Software Product Lines) Yazılım Ürün Hatları için Özellik Yönelimli Test Modellerinin Yönetimi, in *13. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2019*, Sept. 23-25, 2019, Izmir, Turkey [in Turkish].

Tuglular, T., Beyazit, M., Öztürk, D., Featured Event Sequence Graphs for Model-Based Incremental Testing of Software Product Lines. in *43rd International Conference on Computer, Software and Applications (COMPSAC 2019)*, July 15-19, 2019, Milwaukee, Wisconsin, USA.

Tuglular, T., Sensulun, S., SPL-AT Gherkin: A Gherkin Extension for Automated Feature-Oriented Testing of Software Product Lines. in *11th IEEE International Workshop on Software Testing Automation (STA 2019) in conjunction with 43rd International Conference on Computer, Software and Applications (COMPSAC 2019)*, July 15-19, 2019, Milwaukee, Wisconsin, USA.

Tuglular, T., Belli, F., Öztürk, D., (Validation of Feature-Oriented Product Configurations

Using Event Sequence Graphs) Özellik Yönelimli Ürün Konfigürasyonlarının Olay Sıra Çizgeleri ile Doğrulanması. in *12. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2018*, Sept. 10-12, 2018, Istanbul, Turkey [in Turkish].

Ufuktepe, E., **Tuglular, T.** A Program Slicing-based Bayesian Network Model for Change Impact Analysis. in *18th IEEE International Conference on Software Quality, Reliability, and Security QRS 2018*, July 16-20, 2018, Lisbon, Portugal.

Tuglular, T. Event Sequence Graph-based Feature-oriented Testing, A Preliminary Study. in *8th IEEE International Workshop on Model-based Verification & Validation (MVV 2018) in conjunction with 18th IEEE International Conference on Software Quality, Reliability, and Security QRS 2018*, July 16-20, 2018, Lisbon, Portugal.

Belli, F., Linschulte, M., **Tuglular, T.** (Decision Table Augmented Event Sequence Graph-based Test Case Generator) Karar Tablosu Destekli Olay Sıra Çizgeleri Temelli Sınama Durum Üretim Aracı. in *10. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2016*, pp. 408-413, October 24-26, 2016, Canakkale, Turkey, published on CEUR-WS at Nov 4, 2016 [in Turkish]

Ufuktepe, E., **Tuglular, T.** Automation Architecture for Bayesian Network Based Test Case Prioritization and Execution. in *8th IEEE International Workshop on Software Testing Automation (STA 2016) in conjunction with 40th International Conference on Computer, Software and Applications (COMPSAC 2016)*, June 10-14, 2016, Atlanta, Georgia, USA.

Tuglular, T., Cai, Y., Celik, D., Shyu, M. L., & Xia, T. (2016, June). Message from the WEDA 2016 Program Chairs. In *2016 IEEE 40th Annual Computer Software and Applications Conference (COMPSAC)* (pp. 561-561), IEEE Computer Society.

Ufuktepe, E., **Tuglular, T.** (Input Validation Analysis of JavaScript Libraries) JavaScript Kütüphaneleri için Girdi Doğrulama Analizi. in *9. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2015*, September 9-11, 2015, Izmir, Turkey, published on CEUR-WS at Oct 23, 2015 [in Turkish].

Ayav, T., **Tuglular, T.**, Belli, F. Model Based Testing of VHDL Programs. in *7th IEEE International Workshop on Software Testing Automation (STA 2015) in conjunction with 39th International Conference on Computer, Software and Applications (COMPSAC 2015)*, July 1-5, 2015, Taichung, Taiwan.

Ufuktepe, E., **Tuglular, T.** (Readiness Measurement of JavaScript Libraries to Untrusted Data using Bayesian Networks) JavaScript Kütüphanelerinin Güvenilir Olmayan Verilere Karşı Hazır Olma Durumlarının Bayesian Ağları ile Ölçülmesi. in *7. Uluslararası Bilgi Güvenliği ve Kriptoloji Konferansı (ISC-Turkey 2014)*, October 17-18, 2014, Istanbul, Turkey [in Turkish].

Tuglular, T., Şentuna, N, Tuğ, A. K., Dağhan, G., Güven, C. (Domain Specific Language Development and Usage for Container Logistics Terminal Management) Lojistik Merkez Konteyner Terminal Yönetimi Yazılımı için Alana Özgü Dil Geliştirimi ve Kullanımı. in *8. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2014*, September 8-10, 2014, METU KKK, Güzelyurt, North Cyprus, published on CEUR-WS at Aug 31, 2014 [in Turkish].

Tuglular, T., Tekir, S., Velibeyoğlu, K. Information and communication technology sector strategy map of Izmir. in *6th Knowledge Cities World Summit KCWS13*, September 9-12, 2013, Istanbul, Turkey.

Tuglular, T., Avcı, D., Çetin, Ş., Dağhan, G., Özemre, M., Oysal, T., An Approach to Find Integration and Monitoring Points for Container Logistics Business Processes, in *the Fourth International Conferences on Advanced Service Computing (SERVICE COMPUTATION 2012)*, July 22-27, 2012, Nice, France.

Tuglular, T., Gerçek, G. Mutation-Based Evaluation of Weighted Test Case Selection for Firewall Testing. in *5th IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI 2011)*, June 27-29, 2011, Jeju Island, South Korea.

Tekbacak, F., **Tuglular, T.**, Dikenelli, O., Policies for role-based agents in environments with changing ontologies, in the 10th International Conference on Autonomous Agents and Multiagent Systems (AAMAS '11) – Volume 3, pp. 1335–1336, May, 2011, Taipei, Taiwan.

Tuglular, T., Gerçek, G., Tos, U. (A Proposal for Internet-based File Storage Environment using Attribute-based Encryption) İnternet Üzerinde Özellik Tabanlı Şifreleme Kullanan Bir Dosya Saklama Ortamı Önerisi. in *XV. Türkiye'de İnternet Konferansı (INET-TR '10)*, December 2-4, 2010, Istanbul, Turkey [in Turkish].

Tuglular, T., Gerçek, G. Feedback Control Based Test Case Instantiation For Firewall Testing. in *7th IEEE International Workshop on Software Cybernetics (IWSC 2010)* in conjunction with 34th International Conference on Conference on Computer, Software and Applications (COMPSAC 2010), July 19-23, 2010, Seoul, South Korea.

Ayav, T., **Tuglular, T.**, Belli, F. Towards Test Case Generation for Synthesizable VHDL Programs Using Model Checker. in *2nd International Workshop on Model-Based Verification & Validation (MVV '10)* in conjunction with 4th IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI 2010), June 9-11, 2010, Singapore.

Türkmendağ, Ç., Yağcan, İ., **Tuglular, T.** Firewall Policy Visualization with Respect to Port-Based Vulnerabilities. in *4. Uluslararası Katılımlı Bilgi Güvenliği ve Kriptoloji Konferansı (ISC TURKEY '10)*, May 6-8, 2010, Ankara, Turkey.

Gerçek, G., Yarımtepe, O., **Tuglular, T.** A Flow-based Network Traffic Characterization Tool. in *4. Uluslararası Katılımlı Bilgi Güvenliği ve Kriptoloji Konferansı (ISC TURKEY '10)*, May 6-8, 2010, Ankara, Turkey.

Tekbacak, F., **Tuglular, T.**, Dikenelli, O. (Policy-based Access Control Approach for Role-based Agents in Normative Multi-Agent Systems) Normatif Çoklu Etmen Sistemlerinde Rol Tabanlı Etmenler İçin Politika Tabanlı Bir Erişim Denetimi Yaklaşımı. in *Akademik Bilişim Konferansı (AB '10)*, February 10-12, 2010, Muğla, Turkey [in Turkish].

Tuglular, T., Belli, F. Protocol-Based Testing of Firewalls. in *4th South-East European Workshop on Formal Methods (SEEFM 2009)*, Dec. 5, 2009, Thessaloniki, Greece.

Tuglular, T., Müftüoğlu, C.A., Belli, F., Linschulte, M. Event-Based Input Validation Using Design-by-Contract Patterns. in *20th International Symposium on Software Reliability Engineering (ISSRE 2009)*, Nov. 16-19, 2009, Mysuru, India.

Tuglular, T., Müftüoğlu, C.A., Kaya, Ö., Belli, F., Linschulte, M. GUI Based Testing of Boundary Overflow Vulnerability. in *1st IEEE International Workshop on Software Testing Automation (STA 2009)* in conjunction with 33rd International Conference on Conference on Computer, Software and Applications (COMPSAC 2009), July 20-24, 2009, Seattle, Washington, USA.

Tekbacak, F., **Tuglular, T.**, Dikenelli, O. An Architecture for Verification of Access Control Policies with Multi Agent System Ontologies. in *4th IEEE International Workshop on Engineering Semantic Agent Systems (ESAS 2009)* in conjunction with 33rd International Conference on Conference on Computer, Software and Applications (COMPSAC 2009), July 20-24, 2009, Seattle, Washington, USA.

Tuglular, T., Belli, F. Directed Acyclic Graph Modeling of Security Policies for Firewall Testing. in *1st International Workshop on Model-Based Verification & Validation (MVV '09)* in conjunction with 3rd IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI 2009), July 8-10, 2009, Shanghai, China.

Tekbacak, F., **Tuglular, T.**, Dikenelli, O. (A Proposal for Role-based Access Control in Multi-Agent Systems) Çoklu Etmen Sistemlerinde Rol Tabanlı Erişim Denetimi için Bir Yaklaşım Önerisi. in *3. Uluslararası Katılımlı Bilgi Güvenliği ve Kriptoloji Konferansı (ISC TURKEY '08)*, December 25-27, 2008, Ankara, Turkey [in Turkish].

Tuglular, T., Müftüoğlu, C.A., Kaya, Ö. (Public Key Cryptography-based Kerberos Identity Control Application for Peer-based Anonymous File Sharing) Eşler Arası Anonim Dosya Paylaşımı İçin Açık Anahtarlı Bir Kerberos Kimlik Denetimi Uygulaması. in *3. Uluslararası Katılımlı Bilgi Güvenliği ve Kriptoloji Konferansı (ISC TURKEY '08)*, December 25-27, 2008, Ankara, Turkey [in Turkish].

Tuglular, T., Cetin, F., Yarimtepe, O., Gercek, G. Firewall Configuration Management Using XACML Policies. in *13th International Telecommunications Network Strategy and Planning Symposium (Networks 2008)*, Sep.28-Oct.2, 2008, Budapest, Hungary.

Tekbacak, F., **Tuglular, T.**, Dikenelli, O. A Semantic Based Certification and Access Control Approach Using Security Patterns on SEAGENT. in *20th International Conference on Software Engineering and Knowledge Engineering (SEKE 2008)*, July 1-3, 2008, San Francisco, USA.

Tuglular, T. Monitoring of Policy Operations in a Distributed Firewall Environment. in *8th International Symposium On Computer Networks (ISCN '08)*, June 18-20, 2008, Istanbul, Turkey.

Tuglular, T. Automatic Enforcement of Location Aware User Based Network Access Control Policies. in *7th WSEAS International Conference on TELECOMMUNICATIONS and INFORMATICS (TELE-INFO '08)*, May 27-30, 2008, Istanbul, Turkey.

Tuglular, T., Gürcan, G., Samanlı, E. (Access Control and Cryptography-based Security Architecture for Central File Storage Environments) Merkezi Dosya Saklama Ortamları için Erişim Denetimli Kriptografik Bir Güvenlik Mimarisi. in *Ağ ve Bilgi Güvenliği Ulusal Sempozyumu 2 (ABG '08)*, May 16-18, 2008, Girne, North Cyprus [in Turkish].

Çetin, F., Yarimtepe, O., **Tuglular, T.** (Experimental Evaluation of Policy Anomaly Detection Algorithm to Firewalls) Güvenlik Duvarları için Politika Anomali Belirleme Algoritmasının Deneysel Uygulaması. in *Akademik Bilişim Konferansı 2008 (AB '08)*, January 30 – February 1, 2008, Çanakkale, Turkey [in Turkish].

Karaarslan, E., **Tuglular, T.**, Şengonca, H. (Enterprise Web Security Architecture) Kurumsal Web Güvenliği Yapısı. in *Akademik Bilişim Konferansı 2008 (AB '08)*, January 30 – February 1, 2008, Çanakkale, Turkey [in Turkish].

Karaarslan, E., **Tuglular, T.**, Şengonca H. Enterprise-wide Web Security Infrastructure. In *TERENA Networking Conference 2007 (TNC 2007)*, May 21-24, 2007, Denmark.

Tuglular, T. Test Case Generation for Firewall Implementation Testing using Software Testing Techniques. in *International Conference on Security of Information and Networks (SIN 2007)*, May 8-10, 2007, Gazimağusa, North Cyprus.

Karaarslan, E., **Tuglular, T.**, Şengonca H. Does Network Awareness Make Difference In Intrusion Detection of Web Attacks. in *1st International Conference on Hybrid Information Technology (ICHIT 2006)*, Nov. 9-11, 2006, Cheju, South Korea.

Kayayurt, B., **Tuglular, T.** End-to-end security implementation for mobile devices using TLS protocol. in *15th Annual EICAR Conference*, April 29-May 2, 2006, Hamburg, Germany.

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Demiray, S., **Tuglular, T.** Improving Neural Networks Based Intrusion Detection Through Constant Extension of Training Dataset with New Attacks. in *1st International Symposium On Information Technologies (ISIT 2005)*, April 19-21, 2005, Girne, North Cyprus.

Semerci, H., **Tuglular, T.** Intrusion Prevention Systems: Could They Be Synergy Point of Current Network Security Solutions? in *13th Annual EICAR Conference*, May 1-4, 2004, Luxembourg, Luxembourg.

Karaarslan, E., **Tuglular, T.**, Sengonca, H. Enterprise Wide Web Application Security: An Introduction. in *13th Annual EICAR Conference*, May 1-4, 2004, Luxembourg, Luxembourg.

Tuglular, T., Algan, F., Hışıl, H., Akdemir, O., Altay, O., Örer, Y. (Software Development Experiences in University Environment) Üniversite Ortamında Yazılım Geliştirme Deneyimleri. in *1. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2003*, October 23-25, 2003, Izmir, Turkey [in Turkish].

Algan, F., **Tuglular, T.**, Dikenelli, O. (Application of Test-driven Software Development Methods to J2EE Platform and Component Models) Test Yönelimli Yazılım Geliştirme Metotlarının J2EE Platformu ve Bileşen Modellerine Uygulanması Üzerine Bir Çalışma. in *1. Ulusal Yazılım Mühendisliği Sempozyumu UYMS 2003*, October 23-25, 2003, Izmir, Turkey [in Turkish].

Tuglular, T., Cagrici, G. Construction of A Simple Intrusion Detection System For Alert Correlation Using Freeware Components. in *12th Annual EICAR Conference*, May 10-13, 2003, Copenhagen, Denmark.

Tuglular, T., Atay, S. (Conference Kit in the Pocket) Cepte Taşınabilir Konferans Çantası. in *Kablosuz Ağlar ve Güvenlik Sempozyumu WINS 2002*, December 13-15, 2002, Çeşme, Izmir, Turkey [in Turkish].

Tuglular, T. (Computer Security Policy Evaluation Criteria) Bilgisayar Güvenliği Politikası Değerlendirme Kriterleri. in *Türkiye Bilişim Derneği 19. Ulusal Bilişim Kurultayı*, September 3-6, 2002, Beylikdüzü, Istanbul, Turkey [in Turkish].

Tuglular, T. A Usage Based Computer Security Policy Generator. in *11th Annual EICAR Conference*, June 8-11, 2002, Berlin, Germany.

Tuglular, T. (Security Precutions for Wireless Networks) Kablosuz Ağlar İçin Güvenlik Önlemleri. in *Kablosuz Ağlar ve Güvenlik Sempozyumu WINS 2001*, November 14-17, 2001, Çeşme, Izmir, Turkey [in Turkish].

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Tuglular, T. (Policies for Intrusion Detection) Nüfuz Yönetim Politikaları. in Türkiye Bilişim Derneği 18. Ulusal Bilişim Kurultayı, September 4-7, 2001, Askeri Müze, Istanbul, Turkey [in Turkish].

Tuglular, T. Management Practices Of Information Security Policies. in *10th Annual EICAR Conference*, March 3-6, 2001, Munich, Germany.

Tuglular, T. A Preliminary Structural Approach to Insider Computer Misuse Incidents. In *9th Annual EICAR Conference*, March 4-7, 2000, Brussels, Belgium.

Tuglular, T., Eren , Ş. Development Of Policy Rules For Password Systems. in *14th International Symposium on Computer and Information Sciences (ISCIS XIV)*, October 18-20, 1999, Kusadasi, Turkey.

Tuglular, T., Eren , Ş. (Development of Computer Security Policies) Bilgisayar Güvenliği Yönergesi Hazırlanması. in *21nci Yüzyıl Harekatı ve Modern İstihkam Teçhizatı Sempozyumu*, October 07-08, 1999, Izmir, Turkey [in Turkish].

Tuglular, T., Eren , Ş. (An Example Computer Usage Policy for Student Laboratories) Öğrenci Laboratuvarları İçin Örnek Bir Bilgisayar Kullanım Politikası. in *Bursa V. Bilgisayar - Haberleşme Sempozyumu*, November 18-22, 1998, Bursa, Turkey [in Turkish].

Koltuksuz, A., **Tuglular, T., Eren , Ş.** (Globalization in Tourism: E-commerce) Turizmde Küreselleşmeye Doğru : Elektronik Ticaret. in *Adnan Menderes Üniversitesi Turizm İşletmeciliği ve Otelcilik Yüksekokulu IX. Ulusal Turizm Kongresi*, November 6-9, 1998, Kuşadası, Aydın, Turkey [in Turkish].

Tuglular, T., Eren , Ş. (Contingency Polices for Computer Systems) Bilgisayar Sistemlerinde Beklenmedik Durum Anı ve Sonrası Politikaları. in *Türkiye Bilişim Derneği*

15. *Ulusal Bilişim Kurultayı*, September 2-6, 1998, Beylikdüzü, Istanbul, Turkey [in Turkish].

Koltuksuz, A., Eren, Ş., **Tuglular, T.** (Computer Security Institutions in Transition from C3I to C4I and An Institution Proposal) C3I den C4I ya Geçişte Bilgisayar Güvenliği Kurumları ve Bir Kurum Önerisi. in *Kara Harp Okulu, 1. Sistem Mühendisliği Ve Savunma Uygulamaları Sempozyumu*, October 12-13, 1995, Ankara, Turkey [in Turkish].

Koltuksuz, A., Eren, Ş., **Tuglular, T.** (Statistical Methods in Cryptanalysis and Their Application to Turkey Turkish) Kriptanalizde İstatistiksel Yöntemler ve Türkiye Türkçesi İçin Bir Uygulama. in *2. Ulusal Ekonometri Ve İstatistik Sempozyumu*, June 1-2, 1995, Izmir, Turkey [in Turkish].

Koltuksuz, A., Şengonca, H., **Tuglular, T.** (Comparison of Two Cryptographic Methods for Magnetic Cards used in ATMs) ATM'lerde Kullanılan Manyetik Kartlar İçin İki Kriptografik Yöntemin Karşılaştırılması. in *Başbakanlık Devlet İstatistik Enstitüsü, Araştırma Sempozyumu '93*, November 22-24, 1993, Ankara, Turkey [in Turkish].

EXTENDED ABSTRACTS AND POSTERS

Bakshi, S., **Tuglular, T.** Security through human-factors and biometrics. 2013 IEEE International Conference on Security of Information and Networks (SIN'13), November 26–28, 2013, Aksaray, Turkey.

Tuglular, T., Avci, D., Çetin, Ş., Dağhan, G., Özemre, M., Oysal, T. An Approach to Find Integration and Monitoring Points for Container Logistics Business Processes. in *4th International Conferences on Advanced Service Computing (SERVICE COMPUTATION 2012)*, July 22-27, 2012 - Nice, France [Extended Abstract].

Tombak, C., Abolafya, N., **Tuglular, T.** An Implementation of Kerberized Captive Portal. in *4. Uluslararası Katılımlı Bilgi Güvenliği ve Kriptoloji Konferansı (ISC TURKEY '10)*, May 6-8, 2010, Ankara, Turkey [Poster].

Tuglular, T., Belli, F. Model-Based Mutation Testing of Firewalls. in *Testing: Academic & Industrial Conference, Practice and Research Techniques (TAIC-PART '08)*, August 29-31, 2008, Windsor, UK [Extended Abstract].

Tuglular, T. Test Case Generation for Firewall Testing. in *22nd Annual Computer Security Applications Conference (ACSAC 2006)*, Dec. 11-15, 2006, Miami Beach, Florida, USA [Extended Abstract].

Bellibas, S.E., Tuglular, I., Kayali, A., Tansug, N., **Tuglular, T.**, et al. Computer Assisted Therapeutic Monitoring Of Netilmicin In Neonates. in *6th European Congress Of*

Biopharmaceutics And Pharmacokinetics, April 22-24, 1996, Athens, Greece [Extended Abstract].

TALKS, PANELS, ORAL PRESENTATIONS

Tuglular, T., Karslı, G.T., Ocakoğlu, B., “Yazılım ve Bilgisayar Tabanlı Buluşların Patentlenebilirliği Semineri”, Teknopark İzmir, Dec. 23, 2021, İzmir, Turkey - ONLINE.

Tuglular, T., “Model-Based Event Sequence Testing of Graphical User Interfaces”, The Seventh International Conference on Advances and Trends in Software Engineering (SOFTENG 2021), April 18-22, 2021, Porto, Portugal

Kaya, M., **Tuglular, T.**, “DevSecOps: Integrating Security with DevOps”, in 6th Workshop on Dependability at Izmir Institute of Technology, Nov. 6, 2020, İzmir, Turkey - ONLINE.

Tuglular, T., “Bilgisayar Bilimi Özelinde Araştırma için Açık Veri”, Ulusal Araştırma Verileri Sempozyumu, May 25-26, 2021, Turkey - ONLINE.

Tuglular, T., “Açık Bilim için Açık Araştırma Yazılımları”, ÜNAK 2020: Akademik Yayıncılık, Açık Bilim ve Kütüphane(ci)ler, Oct. 1-3, 2020, Turkey - ONLINE.

Tuglular, T., “Bulut Bilişim ve Lisanslama”, IP Talks, Jan. 31, 2020, İzmir, Turkey.

Tuglular, T., Beyazit, M., Öztürk, D., Demirci, T., Erdogan, B., “Development of a Web-based Test Generation Tool for Agile Software Product Lines”, in *5th Workshop on Dependability at Izmir Institute of Technology*, May 16, 2019, İzmir, Turkey.

Tuglular, T. “Test by Contract for Software: A Survey” as an opening speech of International Workshop on Model-Based Verification & Validation (MVV 2016), co-located with the 2016 IEEE International Conference on Software Quality, Reliability, and Security (QRS 2016), August 1-3, Vienna, Austria.

Gungor, E., **Tuglular, T.** “Evaluation of a Mobile Application Developed for Children with Special Needs”, 1st International Developmental Pediatrics Congress, December 2-5, 2015, Istanbul, Turkey.

Girli, A., **Tuglular, T.**, Gungör, E., Çetin, C. “(Use of Mobile Applications for Skill Formation in Children with Autism-Teacher and Family Opinions-) Mobil Uygulamaların Otizmlı Çocuklara Beceri Öğretiminde Kullanımı-Öğretmenlerinin ve Ailelerinin Görüşleri-”, Uluslararası Engelsiz Bilişim 2015 Kongresi, September 2-4, 2015, Manisa, Turkey [in Turkish].

Tuglular, T., Öztürk, P., Arı, M., Güngör, E., Bayındır Zorlu, Y., Aydın, N. “(Mobile Education and Communication Platform for Children with Autism Developed in “I Can Achieve, Too” Project) Otizmli Çocuklar için Ben de Başarabilirim Projesi Mobil Eğitim ve İletişim Platformu”, XIX. Türkiye'de İnternet Konferansı (İnet-tr '14), November 27-29, 2014, Izmir, Turkey [in Turkish].

Tuglular, T. “(Information Society Izmir) Bilgi Toplumu İzmir”, XIX. Türkiye'de İnternet Konferansı (INET-TR '14), November 27-29, 2014, Izmir, Turkey [in Turkish].

Güngör, E., Bayındır Zorlu, Y., Aydın, N., **Tuglular, T.** “(Development Atelier and Knowledge Workshop for Children with Autism) Otizmli Çocuklar için Gelişim Atölyesi ve Birikim Dükkanı”, Uluslararası Engelsiz Bilişim 2014 Kongresi, September 23-25, 2014, Izmir, Turkey [in Turkish].

Tuglular, T. “Attack Surface Reduction Through Software Testing”, Keynote Speech, 4nd IEEE International Workshop on Software Testing Automation (STA 2012) in conjunction with 36th International Conference on Conference on Computer, Software and Applications (COMPSAC 2012), July 16-20, 2012, Izmir, Turkey.

Tuglular, T. “Cloud Computing for Developing Countries”, Panel Speech, 36th International Conference on Conference on Computer, Software and Applications (COMPSAC 2012), July 16-20, 2012, Izmir, Turkey.

Tuglular, T. (panel moderator) “(Roadmap for Knowledge-based Sustainable Development of Izmir) İzmir'in Bilgi Temelli Sürdürülebilir Kalkınması için Yol Haritası”, İzmir Bilişim Vizyon Arama Konferansı, July 16, 2012, Izmir, Turkey [in Turkish].

Tuglular, T. “(Secure Internet Use) Güvenli İnternet Kullanımı”, İzmir İl Milli Eğitim Müdürlüğü İnternet Haftası Etkinlikleri, April 19, 2012, Izmir, Turkey [in Turkish].

Tuglular, T. “(Security Requirements of Enterprise Information Resources) Kurumsal Bilgi Kaynaklarının Güvenlik Gereksinimleri”, Türkiye'de İnternet Konferansı (INET-TR '11), November 30 - December 2, 2011, Izmir, Turkey [in Turkish].

Tuglular, T. “(Secure Internet Use for Children and Families) Aileler ve Çocuklar için Güvenli İnternet Kullanımı”, Türkiye'de İnternet Konferansı (INET-TR '11), November 30 - December 2, 2011, Izmir, Turkey [in Turkish].

Tuglular, T. “Future Directions of Software Cybernetics”, Panel Speech, 8th IEEE International Workshop on Software Cybernetics (IWSC 2011) in conjunction with 35th International Conference on Conference on Computer, Software and Applications (COMPSAC 2011), July 18-21, 2011, Munich, Germany.

Tuglular, T. “Model-based Input Contract Testing”, Keynote Speech, 2nd IEEE International Workshop on Software Testing Automation (STA 2010) in conjunction with 34th International Conference on Conference on Computer, Software and Applications (COMPSAC 2010), July 19-23, 2010, Seoul, South Korea.

Tuglular, T. “Adaptive Configuration Management for Survivability”, Panel Speech, 6th IEEE International Workshop on Software Cybernetics (IWSC 2009) in conjunction with 33rd International Conference on Conference on Computer, Software and Applications (COMPSAC 2009), July 20-24, 2009, Seattle, Washington, USA.

Tuglular, T. “New Trends in Access Control for Information Systems”, Invited Speech, 8th WSEAS International Conference on TELECOMMUNICATIONS and INFORMATICS (TELE-INFO 2009), May 30-June 1, 2009, Istanbul, Turkey.

Tuglular, T. “(Introduction to Communications Network Theory) Ağ Teorisine Giriş”, Adli Bilişim Kursu (Forensics Course), July 30 - August 4, 2007, Izmir, Turkey [in Turkish].

Tuglular, T. “(Information Security and Policies) Bilgi Güvenliği ve Politikaları”, Adli Bilişim Kursu (Forensics Course), July 30 - August 4, 2007, Izmir, Turkey [in Turkish].

Tuglular, T. “(UNIVERSIADE Accreditation: A Special Experience)” UNIVERSIADE Eşsiz Bir Deneyim Akreditasyon, COMPOTEK 2005, 21. Bilgisayar, Büro ve İletişim Teknolojileri Fuarı Bilişim Günleri, November 16-20, 2005, Izmir, Turkey [in Turkish].

Tuglular, T. “(Network Security) Ağ Güvenliği”, Wormy 2004, Bilgi Teknolojileri Güvenliği Okulu (School for Information Technology Security), February 9-13, 2005, Foça, Izmir, Turkey [in Turkish].

Tuglular, T. “(Software Security) Yazılım Güvenliği”, Wormy 2004, Bilgi Teknolojileri Güvenliği Okulu (School for Information Technology Security), February 9-13, 2005, Foça, Izmir, Turkey [in Turkish].

Tuglular, T. “(Disaster Recovery and Business Continuity Planning) Felaketten Dönüş ve İş Sürekliliği Planlama”, Wormy 2004, Bilgi Teknolojileri Güvenliği Okulu (School for Information Technology Security), February 9-13, 2005, Foça, Izmir, Turkey [in Turkish].

Tuglular, T. “(Security Standards) Güvenlik Standartları”, Wormy 2004, Bilgi Teknolojileri Güvenliği Okulu, February 9-13, 2005, Foça, Izmir, Turkey [in Turkish].

Tuglular, T. “(Information Security Policies) Bilgi Güvenliği Politikaları”, COMPOTEK 2003, 19. Bilgisayar, Büro ve İletişim Teknolojileri Fuarı Bilişim Günleri, October 8-12, 2003, Izmir, Turkey [in Turkish].

Tuglular, T. “(Information Security Policies in Universities) Üniversitelerde Bilgi Güvenliği Politikaları”, UlakNet Sistem Yönetimi Konferansı, October 3-4, 2003, Ankara, Turkey [in Turkish].

Tuglular, T. “(Intrusion Detection Systems in Network Security) Ağ Güvenliğinde Nüfuz Tespit Sistemleri”, COMPOTEK 2002, 18. Bilgisayar, Büro ve İletişim Teknolojileri Fuarı Bilişim Günleri, October 9-13, 2002, Izmir, Turkey [in Turkish].

Koltuksuz, A., **Tuglular, T.** “(Information Systems Security) Bilgi Sistemleri Güvenliği”, Maltepe Üniversitesi, Bilgisayar Mühendisliği Bölümü, Bilişim Günleri Etkinlikleri, May 15-17, 2002, Istanbul, Turkey [in Turkish].

TECHNICAL REPORTS

Krsul, I., **Tuglular, T.**, Spafford, E.H. A New Approach to the Specification of General Computer Security Policies. COAST TR-97/13 (Technical Report), COAST Laboratory, Dept. of Computer Science, Purdue University, West Lafayette, November 25, 1997, Indiana, USA.

UNPUBLISHED PAPER

Tuglular, T., Spafford, E.H. A framework for characterization of insider computer misuse. COAST Laboratory, Dept. of Computer Science, Purdue University, West Lafayette, 1997, Indiana, USA.

TELEVISION APPEARANCE

Tuglular, T. (Internet Security) İnternet Güvenliği. TRT2 Habervizyon (TV Konuşması), April 18, 2009, 09:30.

RESEARCH PROJECTS

RESEARCH PROJECT LEADER

Years	Project Title	Funding Organization
2021-2023	Test Strategy and Software Quality Processes R&D Study	Arkas – Bimar, Inc.
2021-2022	Development of Testing Methodologies for DSP Platform	Telenity, Inc.
2019-2020	DevOps Methodology for Dexmo Infrastructure	Univera, Inc.

2018-2020	Development of Event Sequence Graph based Test Generation Method for Agile Software Product Lines	Turkish National Science Foundation, Science and Technology Research Support Program
2018-2021	Development of Scrum-based Agile Testing Methodology for Ship Management Software	Arkas – Bimar, Inc.
2018-2018	Development of Contract-based Integration Testing Methodology for Uncosoft Mobile Game	Uncosoft, Inc.
2017-2019	Testing Methodologies for Web-based Software Artefacts	Siskon, Inc.
2017-2018	Cross-browser Test Automation for Games	Digitoy Games, Inc.
2016-2016	Web-based Test Automation for Sales and Distribution Software	Univera, Inc.
2015-2017	Adaptation of Precision Wellness Software to Clinical Usage	Softin Technology, Inc.
2014-2015	Testing BaseHealth API and Front-end Software for Security, Robustness, and Reliability	Softin Technology, Inc.
2011-2013	Development of Logistics Business Workflow Integration and Monitoring Framework	Ministry of Industry
2002-2002	Linux-based Traffic Collection System for Intrusion Detection	Izmir Institute of Technology

RESEARCH PROJECT MEMBER

Years	Project Title	Funding Organization
2022-2023	NoCode Machine Learning Platform (Univera, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2020-2021	Cloud Computing Based Cold Storage and Supply Management System with End-to-End Cold Chain Monitoring and Optimization Support (Biltaş, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2020-2020	Autonomous Collaborative Robot Control System with Image Processing Technology (Siskon, Inc.)	Small and Medium Enterprises Development Organization of Turkey, R&D

		and Innovation Support Program
2020-2021	Callisto – High Productivity Enterprise Application Development Platform and Field Operations Software (Univera, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2018-2019	Pincident – Location Based Reporting and Event Management System (Delta Smart Technologies, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2018-2019	Software Product Line for Mobile Collaborative Enterprise Applications (Kuika, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2017-2018	Institutional News Collection, Analysis, and Reporting (Arkas – Bimar, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2016-2017	Cloud-based Mobile Workflow Automation Platform (Kuika, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2013-2015	Innovative Logistics: Logistics Center Management System (Arkas – Bimar, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2011-2012	European Inter-Modal Information System (Arkas – Bimar, Inc.)	EUREKA Support (within EU 7 th Framework Program)
2009-2010	Web-based Integrated Logistics Agency Software (Arkas – Bimar, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program
2008-2010	Metadata-based Decision Support System for Primary Education Schools (BILSA, Inc.)	Turkish National Science Foundation, Technology and Innovation Support Program

PROFESSIONAL AFFILIATIONS AND SERVICES _____

Editorial Board – International Journals

- International Journal of Performability Engineering

Ad-hoc Reviewer – International Journals

- Complex & Intelligent Systems
- Computer Journal
- Computer Standards & Interfaces
- Computers and Electrical Engineering
- EURASIP Journal on Wireless Communications and Networking

- IEEE Computer
- IEEE Transactions on Reliability
- IEEE/ACM Transactions on Networking
- IEICE Transactions on Information and Systems
- IET Software
- Information and Software Technology
- International Advanced Researches and Engineering Journal
- International Journal of Communication Networks and Information Security
- International Journal of Information Security Science
- International Journal of Innovation and Technology Management
- Journal of Information Security and Applications
- Journal of Software Engineering and Knowledge Engineering
- Journal of Software Testing, Verification and Reliability
- Journal of Systems and Software
- Journal of Medical Systems
- Reliability Engineering and System Safety
- Science of Computer Programming
- Transactions on Computers
- Turkish Journal of Electrical Engineering & Computer Sciences

Ad-hoc Reviewer – National Journals

- Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi [in Turkish]
- Bilişim Teknolojileri Dergisi [in Turkish]
- DEÜ Fen ve Mühendislik Dergisi [in Turkish]
- Düzce Üniversitesi Bilim ve Teknoloji Dergisi [in Turkish]
- Gazi Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi [in Turkish]
- Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi [in Turkish]
- Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi [in Turkish]
- Türkiye Bilişim Vakfı Bilgisayar Bilimleri ve Mühendisliği Dergisi [in Turkish]
- Uluslararası Bilgi Güvenliği Mühendisliği Dergisi [in Turkish]

Program Chair

2022	“International Symposium on System Security, Safety, and Reliability (ISSSR)” Program Co-Chair of ISSSR 2020
2017	“Networks, Communications, Internet, & Web Technologies (NCIW) Symposium” Program Co-Chair of COMPSAC 2017 - The 41st Annual IEEE International Computer Software and Applications Conference
2016	“Technologies and Applications of the Internet (TAIN) Symposium” Program Co-Chair of COMPSAC 2016 - The 40th Annual IEEE International Computer Software and Applications Conference

2015 "Technologies and Applications of the Internet (TAIN) Symposium"
Program Co-Chair of COMPSAC 2015 - The 39th Annual IEEE
International Computer Software and Applications Conference

Track Chair

2014 "Networking" Track Co-Chair of COMPSAC 2014 - The 38th Annual
IEEE International Computer Software and Applications Conference,
July 21-25, 2014, Vasteras, Sweden

2013 "Machine-to-Machine (M2M) Networking and Internet of Things"
Track Co-Chair of COMPSAC 2013 - The 37th Annual IEEE
International Computer Software and Applications Conference, July
22-26, 2013, Kyoto, Japan

2011 "Formal Methods" Track Co-Chair of COMPSAC 2011 - The 35th
Annual IEEE International Computer Software and Applications
Conference, July 18-22, 2011, Munich, Germany

Workshops Chair

2013 Workshops Co-Chair of SIN 2013 - The 6th International Conference
on Security of Information and Networks, November 26-28, 2013
Aksaray, Turkey.

2011 Workshops Co-Chair of ICASE 2011 - The 2011 FTRA International
Conference on Advanced Software Engineering, May 26-28, 2011,
Busan, Korea

2011 Workshops Chair of SSIRI 2011 - The 5th IEEE International
Conference on Secure Software Integration and Reliability
Improvement, June 27-29, 2011, Jeju Island, Korea

Organization Chair

2012 Local Organization Chair of COMPSAC 2012 - The 36th Annual IEEE
International Computer Software and Applications Conference, July
16-20, 2012, Izmir, Turkey

Publication Chair

2015 Turkish National Software Engineering Symposium (Ulusal Yazılım
Mühendisliği Sempozyumu UYMS)

Workshop Organizer

- 2019
 - IDEAR 2019 The IEEE International Workshop on Debugging and Repair co-located with the 2019 IEEE International Symposium on Software Reliability Engineering, October 28-31, 2019, Berlin, Germany
 - The 9th Model-based Verification and Validation (MVV) Workshop co-located with the 2019 IEEE International Conference on Software Quality, Reliability and Security (QRS 2019), July 22-26, 2019, Sofia, Bulgaria
 - The 5th Workshop on Dependability, May 16, 2019, Izmir, Turkey
- 2018
 - The 8th Model-based Verification and Validation (MVV) Workshop co-located with the 2018 IEEE International Conference on Software Quality, Reliability and Security (QRS 2018), July 16-20, 2018, Lisbon, Portugal
 - The 4th Workshop on Dependability, May 21, 2018, Izmir, Turkey
- 2017
 - The 7th Model-based Verification and Validation (MVV) Workshop co-located with the 2017 IEEE International Conference on Software Quality, Reliability and Security (QRS 2017), July 25-29, 2017, Prague, Czech
 - The 3rd Workshop on Dependability, May 8, 2017, Izmir, Turkey
- 2016
 - The 6th Model-based Verification and Validation (MVV) Workshop co-located with the 2016 IEEE International Conference on Software Quality, Reliability and Security (QRS 2016), August 1-3, 2016, Vienna, Austria
 - The 2nd Workshop on Dependability, May 12, 2016, Izmir, Turkey
- 2015
 - The 5th Model-based Verification and Validation (MVV) Workshop co-located with the 2015 IEEE International Conference on Software Quality, Reliability and Security (QRS 2015), August 3-5, 2015, Vancouver, Canada
 - The 1st Workshop on Dependability, May 11, 2015, Izmir, Turkey
- 2012

The 4th Model-based Verification and Validation (MVV) Workshop co-located with the International Conference on Software Security and Reliability (SERE 2012), 20-22 June, 2012, Washington, D.C., USA
- 2011

The 3rd Model-based Verification and Validation (MVV) Workshop co-located with the 5th IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI 2011) June 27-29, 2011, Jeju Island, Korea
- 2010

The 2nd Model-based Verification and Validation (MVV) Workshop co-located with the 4th IEEE International Conference on Secure

- 2009 Software Integration and Reliability Improvement (SSIRI 2010) June 9-11, 2010, Singapore
The 1st Model-based Verification and Validation (MVV) Workshop co-located with the 3rd IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI 2009) July 8-10, 2009, Shanghai, China

Program Committee Member

- 2001 - 2002 Wireless Networks and Security Symposium (WINS)
2002 - 2004 Annual EICAR Conference
2007 - present International Conference on Security of Information and Networks (SIN)
2009 - present IEEE International Computer Software and Applications Conference (COMPSAC)
2010 - present IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI, SERE, now QRS)
2010 - present International Information Security and Cryptology Conference (ISC-Turkey)
2011 - 2012 International Workshop on Software Cybernetics (IWSC) co-located with IEEE International Computer Software and Applications Conference (COMPSAC)
2012 - present Workshop on Software Test Automation (STA) co-located with IEEE International Computer Software and Applications Conference (COMPSAC)
2012 - 2017 Turkey Internet Conference (INET-TR)
2015 - present Turkish National Software Engineering Symposium (UYMS)
2021 - present International Conference on Dependable Systems and Their Applications (DSA)
2022 - present Uluslararası Bilgisayar Bilimleri ve Mühendisliği Konferansı (UBMK)

Professional Organization Member

- 2009 - present The Institute of Electrical and Electronics Engineers (IEEE)
2012 - present Turkish Informatics Association
2014 - 2016 Turkish Quality Association
2014 - present The Institute of Electronics, Information and Communication Engineers (IEICE)
2017 - present Association for Computing Machinery (ACM)

TEACHING EXPERIENCE

SUMMARY

Undergraduate level

Core Courses (1st Year, 2nd Year and 3rd Year) in Computer Engineering

- Introduction to Algorithms & Programming (using C)
- Programming Basics (using Python)
- Data Structures (using C and Java)
- Fundamentals of Programming (object-oriented programming using Java)
- Concepts of Programming Languages (using Scheme and Prolog)
- Logic Design
- Computer Architecture

Technical Electives (3rd Year and 4th Year) in Computer Engineering

- Network Programming (using C)
- Hypermedia Programming (using J2EE)
- Building Software Systems (using object-oriented analysis, design and implementation following design patterns)
- Fundamentals of Enterprise Application Development (using J2EE)
- Software Quality Assurance
- Network Security
- Senior Design Project & Seminar I
- Senior Design Project & Seminar II

Non-technical Elective (2nd Year, 3rd Year and 4th Year) open to University

- Innovation

Graduate level

- Advanced Network Security
- Computer Security
- Database and Software Security
- Information Warfare and C4I
- Internet Security
- Intrusion Detection
- Software Testing
- Technology Entrepreneurship

DETAILED LIST BY SEMESTER

2022 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2022 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2022 Fall	CENG 552 Software Testing	Graduate
2022 Summer	SEDS 504 Software Construction	Graduate
2022 Spring	CENG 431 Building Software Systems	Undergraduate
2022 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2021 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2021 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2021 Fall	SEDS 504 Software Construction	Graduate
2021 Fall	TDIM 520 Technology Entrepreneurship	Graduate
2021 Spring	CENG 431 Building Software Systems	Undergraduate
2021 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2021 Spring	CENG 552 Software Testing	Graduate
2020 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2020 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2020 Fall	TDIM 520 Technology Entrepreneurship	Graduate
2020 Spring	CENG 431 Building Software Systems	Undergraduate
2020 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2020 Spring	CENG 486 Entrepreneurship for Smart Business	Undergraduate
2019 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2019 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2019 Fall	CENG 557 Advanced Design Patterns	Graduate
2019 Spring	CENG 112 Data Structures	Undergraduate
2019 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2019 Spring	CENG 552 Software Testing	Graduate
2018 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2018 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2018 Fall	CENG 431 Building Software Systems	Undergraduate
2018 Summer	CENG 113 Programming Basics	Undergraduate

2018 Spring	CENG 112 Data Structures	Undergraduate
2018 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2018 Spring	CENG 431 Building Software Systems	Undergraduate
2017 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2017 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2017 Fall	CENG 552 Software Testing	Graduate
2017 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2017 Spring	CENG 431 Building Software Systems	Undergraduate
2017 Spring	CENG 552 Software Testing	Graduate
2016 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2016 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2016 Fall	CENG 563 Database and Software Security	Graduate
2016 Spring	CENG 416 Senior Design Project & Seminar II	Undergraduate
2016 Spring	CENG 437 Software Quality Management	Undergraduate
2016 Spring	CENG 552 Software Testing	Graduate
2015 Fall	CENG 113 Programming Basics	Undergraduate
2015 Fall	CENG 415 Senior Design Project & Seminar I	Undergraduate
2015 Fall	CENG 431 Building Software Systems	Undergraduate
2015 Summer	CENG 112 Data Structures	Undergraduate
2015 Spring	CENG 437 Software Quality Management	Undergraduate
2015 Spring	CENG 562 Internet Security	Graduate
2014 Fall	CENG 431 Building Software Systems	Undergraduate
2014 Fall	CENG 563 Database and Software Security	Graduate
2014 Summer	CENG 112 Data Structures	Undergraduate
2014 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2014 Spring	CENG 562 Internet Security	Graduate
2012 Fall	CENG 431 Building Software Systems	Undergraduate
2012 Fall	CENG 563 Database and Software Security	Graduate
2012 Spring	CENG 431 Building Software Systems	Undergraduate
2012 Spring	MAN 205 Innovation	Undergraduate
2012 Spring	CENG 562 Internet Security	Graduate

2011 Fall	CENG 431 Building Software Systems	Undergraduate
2011 Fall	MAN 205 Innovation	Undergraduate
2011 Fall	CENG 563 Database and Software Security	Graduate
2011 Spring	CENG 432 Fund. of Enterprise App. Development	Undergraduate
2011 Spring	MAN 205 Innovation	Undergraduate
2011 Spring	CENG 547 Advanced Network Security	Graduate
2010 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2010 Fall	CENG 431 Building Software Systems	Undergraduate
2010 Fall	CENG 550 Formal Methods for Security	Graduate
2010 Spring	CENG 432 Fund. of Enterprise App. Development	Undergraduate
2010 Spring	CENG 548 Intrusion Detection	Graduate
2009 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2009 Fall	CENG 431 Building Software Systems	Undergraduate
2009 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2009 Spring	CENG 550 Formal Methods for Security	Graduate
2008 Fall	CENG 211 Fundamentals of Programming	Undergraduate
2008 Fall	CENG 431 Building Software Systems	Undergraduate
2008 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2008 Spring	CENG 548 Intrusion Detection	Graduate
2007 Fall	CENG 421 Network Programming	Undergraduate
2007 Fall	CENG 547 Advanced Network Security	Graduate
2007 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2007 Spring	CENG 424 Network Security	Undergraduate
2006 Fall	CENG 421 Network Programming	Undergraduate
2006 Fall	CENG 548 Intrusion Detection	Graduate
2006 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2006 Spring	CENG 424 Network Security	Undergraduate
2005 Fall	CENG 421 Network Programming	Undergraduate
2005 Fall	CENG 548 Intrusion Detection	Graduate
2005 Spring	CENG 547 Advanced Network Security	Graduate
2004 Fall	CENG 421 Network Programming	Undergraduate

2004 Fall	CENG 423 Hypermedia Programming	Undergraduate
2004 Fall	CENG 548 Intrusion Detection	Graduate
2004 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2004 Spring	CENG 547 Advanced Network Security	Graduate
2003 Fall	CENG 421 Network Programming	Undergraduate
2003 Fall	CENG 548 Intrusion Detection	Graduate
2003 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2003 Spring	CENG 547 Advanced Network Security	Graduate
2002 Fall	CENG 421 Network Programming	Undergraduate
2002 Fall	CENG 542 Computer Security	Graduate
2002 Fall	CENG 548 Intrusion Detection	Graduate
2002 Spring	CENG 112 Data Structures I	Undergraduate
2002 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2002 Spring	CENG 546 C4I and Information Warfare	Graduate
2001 Fall	CENG 113 Intro. to Algorithms & Programming	Undergraduate
2001 Fall	CENG 421 Network Programming	Undergraduate
2001 Fall	CENG 542 Computer Security	Graduate
2001 Spring	CENG 212 Concepts of Programming Languages	Undergraduate
2001 Spring	CENG 214 Logic Design	Undergraduate
2000 Fall	CENG 211 Data Structures II	Undergraduate
2000 Fall	CENG 311 Computer Architecture	Undergraduate
2000 Fall	CENG 546 C4I and Information Warfare	Graduate

GRADUATE THESIS ADVISOR

EKİCİ, Nazım Umut, “A Method for Combining Models and Contracts to Enhance Behavior-Driven Development”, Ph.D. in Computer Engineering, Izmir Institute of Technology (continues).

ERGÜN, Burcu, “Variability Management for Model-Based Testing in Test as a Service Applications”, Ph.D. in Computer Engineering, Izmir Institute of Technology (continues).

ÖZTÜRK, Dilek, “Automatic Software Product Line Testing Using Model Checking”, Ph.D. in Computer Engineering, Izmir Institute of Technology (continues).

KEKLİK, Onur, “Extracting Semantic Structure of Documents using Multimodal Data”, Ph.D. in Computer Engineering, Izmir Institute of Technology (continues).

YAŞAR, Eminullah, “Computational Models and Tests for Self-Awareness in Collaborative Robotics”, Ph.D. in Computer Engineering, Izmir Institute of Technology (continues).

AKINCI, Furkan Samet, “Harnessing API test scenarios for GUI testing”, M.S. in Computer Engineering, Izmir Institute of Technology (continues).

SAYLAM, Kaan, “Mutation Analysis of Microservice Contract Tests”, M.S. in Computer Engineering, Izmir Institute of Technology (continues).

TARKAN, Yalçın, “Development of machine learning platform for analysis of mitochondrial features in live-cell images”, M.S. in Computer Engineering, Izmir Institute of Technology (continues).

YAPICI, Nur Beril, (2022) “The Effect Of Human-Robot Interaction On Design and Use Process of Home Robots”, M.S. in Technology, Design and Innovation Management, Izmir Institute of Technology.

KALECİK, Mert, (2022) “Design and Implementation of a Domain Specific Language for Event Sequence Graphs”, M.S. in Computer Engineering, Izmir Institute of Technology (continues).

OĞUZER, Lütfü Melih Buğra, (2022) “Wireless Mesh Network Throughput Analysis Using Petri Nets”, M.S. in Computer Engineering, Izmir Institute of Technology.

YALÇIN, Ali Görkem, (2022) “Development of Co-Evolution Tracker Tool for Software with Acceptance Criteria”, M.S. in Computer Engineering, Izmir Institute of Technology.

KHALILOV, Abbas, (2021) “Mutation analysis of specification-based contracts in software testing”, M.S. in Computer Engineering, Izmir Institute of Technology.

LEBLEBİCİ, Onur, (2020) “Application of Graph Neural Networks on Software Modeling”, M.S. in Computer Engineering, Izmir Institute of Technology.

ÖZTÜRK, Dilek, (2020) “A Model-based Test Generation Approach for Agile Software Product Lines”, M.S. in Computer Engineering, Izmir Institute of Technology.

UFUKTEPE, Ekincan, (2019) “Test Case Prioritization for Regression Testing Using Change Impact Analysis”, Ph.D. in Computer Engineering, Izmir Institute of Technology.

ŞENSÜLÜN, Sercan, (2019) "Domain Specific Modeling Based Feature-Oriented Automatic Test Generation Methodology for Software Product Lines", M.S. in Computer Engineering, Izmir Institute of Technology.

PARKIN, Kübra, (2019) "Tag Based Storage and Retrieval System for Organization Related News", M.S. in Computer Engineering, Izmir Institute of Technology.

EKİCİ, Zeynep, (2019) "Container Damage Detection and Classification Using Container Images", M.S. in Computer Engineering, Izmir Institute of Technology.

KEKLİK, Onur, (2018) "Automatic Question Generation Using Natural Language Techniques", M.S. in Computer Engineering, Izmir Institute of Technology.

ÖZKAN, Mustafa Tunahan, (2018) "Tag-based Dynamic Ranking System For Organization Related News", M.S. in Computer Engineering, Izmir Institute of Technology.

ATICI, İrem, (2015) "Collection and Classification of JavaScript Libraries Included in Web Sites", M.S. in Computer Engineering, Izmir Institute of Technology.

UFUKTEPE, Ekinan, (2014) "Measurement of JavaScript Applications' Readiness to Untrusted Data Using Bayesian Networks", M.S. in Computer Engineering, Izmir Institute of Technology.

GERÇEK, Gürcan, (2012) "Network Security Using Feedback", M.S. in Computer Engineering, Izmir Institute of Technology.

SAMANLI, Ezgi, (2011) "Development of an Monitoring and Analysis Tool for Network Attacks", M.S. in Computer Engineering, Izmir Institute of Technology.

TOPUZ, Bertan, (2010) "Development of a Static Analysis Tool to Find Security Vulnerabilities in Java Applications", M.S. in Computer Engineering, Izmir Institute of Technology.

MÜFTÜOĞLU, Can Arda, (2009) "Detection and Correction Approach for Overflow Vulnerabilities in Graphical User Interfaces", M.S. in Computer Engineering, Izmir Institute of Technology.

YARIMTEPE, Oğuz, (2009) "Anomaly Detection Using Network Traffic Characterization", M.S. in Computer Engineering, Izmir Institute of Technology.

KAYA, Özgür, (2009) "Traffic Generator for Firewall Testing", M.S. in Computer Engineering, Izmir Institute of Technology.

ERDOĞAN, Yunus, (2008) "Automated Adaptive Quiz Generator for Handheld Mobile Devices", M.S. in Computer Engineering, Izmir Institute of Technology.

ÇETİN, Füsün, (2008) "Anomaly Reporting For Distributed Firewalls", M.S. in Computer Engineering, Izmir Institute of Technology.

ÇAKI, Oğuzhan, (2008) "Access Monitoring System For Distributed Firewalls", M.S. in Computer Engineering, Izmir Institute of Technology.

BACI, Recep, (2008) "Development of a Web Services Security Architecture Based on .NET Framework", M.S. in Computer Engineering, Izmir Institute of Technology.

HENDRICKSON, Selim, (2006) "Web Services Security", M.S. in Computer Engineering, Izmir Institute of Technology.

ÖZARDIÇ, Onur, (2006) "Statistical Methods Used For Intrusion Detection", M.S. in Computer Engineering, Izmir Institute of Technology.

TEKBACAK, Fatih, (2006) "Generating A Security Mechanism For Software Agents", M.S. in Computer Engineering, Izmir Institute of Technology.

ALGAN, Fatih, (2005) "Development of EJB Based J2EE Applications Using Extreme Programming Methodologies", M.S. in Computer Engineering, Izmir Institute of Technology.

ASARCIKLI, Şükran, (2005) "Firewall Monitoring Using Intrusion Detection Systems", M.S. in Computer Engineering, Izmir Institute of Technology.

DEMİRAY, Sadettin, (2005) "Improving Misuse Detection with Neural Networks", M.S. in Computer Engineering, Izmir Institute of Technology.

KAYAYURT, Barış, (2004) "Development Of Integrated Security Services For Mobile Resource Constraint Devices", M.S. in Computer Engineering, Izmir Institute of Technology.

SEMERCİ, Hakan, (2004) "Analysis of Intrusion Prevention Methods", M.S. in Computer Engineering, Izmir Institute of Technology.

DORUK, Alpay, (2002) "Standards And Practices Necessary To Implement A Successful Security Review Program For Intrusion Management Systems", M.S. in Computer Engineering, Izmir Institute of Technology.

TAPUCU, Dilek, (2002) "Comparison Of Recovery Requirements With Investigation Requirements For Intrusion Management Systems", M.S. in Computer Engineering, Izmir Institute of Technology.

YÜKSEL, Ulaş, (2002) "Development Of A Quality Assurance Prototype For Intrusion Detection Systems", M.S. in Computer Engineering, Izmir Institute of Technology.

ADMINISTRATIVE DUTIES AND EXTRACURRICULAR ACTIVITIES _____

2022 - present	Eurogia Technical Committee Member
2021 - present	Founder of R&D company, Research Ecosystems A.Ş.
2018 - 2019	Cevdet İnci Teşvik Ödülleri Jury Member
2018 - 2021	Member of Engineering Faculty Board
2017 - present	Member of Departmental Education Commission, Izmir Institute of Technology
2017 - 2018	Ministry of Industry, Science, and Technology Ambassador to Izmir
2016 - 2018	Head of Departmental Industrial Relations Commission, Izmir Institute of Technology
2014 - 2016	Member of Board of Directors, Turkish Quality Association Izmir Branch
2014	Team Leader for Development of iOS and Android apps for children with special needs for Autism Association with Izmir Development Agency grant
2013 - 2018	Owner of R&D company, iDivino Ltd.
2013	Member of team that taught programming using Scratch to children of ages between 8-12
2012 - present	Webmaster of Turkish "Books for Everybody" Foundation http://www.herkesekitapvakfi.org
2012 - 2013	Leader of "Development of Knowledge-based Sustainable Development Strategy for Izmir" project sponsored by Izmir Development Agency
2012	Member of Board of Directors, Continuous Education Center, Izmir Institute of Technology
2011 - 2013	Partner of R&D company, iDivino Inc.

2011 - 2012	Member of Industrial Relations Commission, Izmir Institute of Technology
2010 - present	Information Technologies Advisor to the President of the University, Izmir Institute of Technology
2009 - 2012	Member of Library Commission, Izmir Institute of Technology
2007 - 2011	Head of Departmental Education Commission, Izmir Institute of Technology
2005	Head of Accreditation Commission, Izmir University, Turkey
2004 - 2005	ERA Coordinator, Izmir Institute of Technology
2002 - 2003	Project Manager for the development of Web-based Student Information System, Izmir Institute of Technology