

Professional Profile

Has 20+ years of experience on software engineering (SE) and Software Management (SM) theory and practice. Has extensive knowledge and experience on Software Engineering topics such as, Software Management, Software Process Improvement, Quality Management, Organizational Development, Process Modeling, Object Oriented Analysis and Design, Software Requirements Engineering, Conceptual Modeling and Software Testing.

A dedicated team leader with experience in leading teams of 5 to 30 senior members.

Managed or took part as engineer in many Research and Development projects supported by national (TUBITAK) or international authorities (EUREKA-ITEA and CELTIC Programmes). Total budget of the projects span between 100K USD and 2M USD.

Acted as consultant or principal consultant on more than 15 process improvement projects, mainly CMMI, ISO 15504 (SPICE), Automotive SPICE and ISO 9001 based at various companies such as SAVRONİK, Innovera, TAKOSAN, Ministry of Health, Undersecretariat of Defense, Proline, CGM, Türksat, Başarsoft, STM, TAI, Meteksan Sistem, TUBİTAK UEKAE, TUBİTAK MAM BTE, SIEMENS, IBTech, Anadolu Bilişim Hizmetleri, BEKO, Arçelik, İş Bankası, Akbank, Fintek, GATE Elektronik, KAREL ARGE.

Took part as SCAMPI team member in formal CMMI appraisals.

Performed ISO 15504 (SPICE), ISO 20000, ISO 27001 and ISO 9001 based process appraisals.

ECQA certified Software Process Improvement Manager.

Successfully passed IRCA certified ISO 9001 LA and ISO27001 LA examinations.

ASQ Certified Software Quality Engineer.

Has experience on related topics such as ISO 20000, ISO 27001, COBIT, ITIL, measurement theory and practice, risk management, configuration management, supplier management, team management and Peopleware.

Provides academic (Adjunct Faculty at METU, Informatics Institute, Computer Engineering, Hacettepe University Information Systems Department) and commercial training courses on Personal Software Process (PSP™), Object-Oriented Software Development, Software Engineering, Software Requirements Engineering, Software Quality Management, Software Process Improvement, CMMI and ISO 15504 topics.

Actively takes part in software engineering related national/international conferences/activities such as UYMS, USMOS, YKGS, UYMK, IMPROQ, JDMS as organizing committee member, program committee member, advisory board member or review committee member.

Education

PhD in Information Systems, Middle East Technical University, Informatics Institute 09.2001 – 07.2008
CGPA 3.65 / 4.00

Thesis Topic: A framework for developing conceptual models of the mission space for simulation systems by utilizing domain specific modeling language paradigm

MS in Information Systems, Middle East Technical University, Informatics Institute 09.1999 - 08.2001
CGPA 3.94 / 4.00

Thesis Topic: Improving personal software development processes using Personal Software Process™

BS in Computer Engineering, Middle East Technical University, Department of Computer Engineering – Ranked 290th in the National University Entrance Examination (among 1 million attendees) 09.1995 - 06.1999

Experience

Cofounder / Board Member	PAYBULL Payment Services Co.	11.2018 –
	Board Member Responsible for Internal Control and Compliance.	
Cofounder	Proven Information Technologies	04.2014 –
	Responsible for sales and marketing, consultancy and test services, Quality Management, Research and Development functions.	
	Acts as principal consultant and project manager for process improvement projects. CMMI-Acq. and CMMI-Dev. Implementations for various customers including, TAKOSAN, Ministry of Health, Undersecretariat of Defense, Türksat, Başarsoft, Proline and CGM.	
	Provides testing, verification and validation consultancy services for ASELSAN, ATOS, SDT, STM and Ericsson	
	Provides training seminars on Software Requirements Engineering, Process Improvement, CMMI, ISO 15504 – SPICE and Quality Management topics.	
Group Manager - R&D Quality & Test	INNOVA IT Solutions	09.2012 – 04.2014
	Responsible for the coordination and execution of research and development projects, finding partners, collaborating with potential partners, managing the R&D team in addition to the Quality Management responsibilities.	
Quality Manager	INNOVA IT Solutions	07.2010 – 09.2012
	Responsible for the Quality Management team and the activities including quality assurance, process improvement and IT governance. Managed ISO 15504 based process improvement initiative and the surveillance assessments, coordinated ISO 27001 and ISO 20000 based process improvement projects, maintained the ISO 9001 quality management system, provided Software Engineering related courses to the employees in order to increase the quality of the work products.	
	Established and managed companywide Software Process Improvement Program, Total Cost of Quality Program, and Defect Analysis Program.	
	Acting as the Management Representative for the ISO 20000 Service Management System. Supports COBIT related assessments.	
Adjunct Faculty	Middle East Technical University, Informatics Institute	09.2003 –
	Middle East Technical University, Computer Engineering	09.2013 –
	Provides “Object Oriented Software Development, SM503”, “Personal Software Process, SM501”, “Software Requirements Engineering, SM521” and “Peopleware – SM702” courses as part of the curriculum of the Software Management (SM) Graduate Program.	
	Supervises or co-supervises master’s theses and graduation projects.	
Partner, Software Engineer and Consultant	Bilgi Grubu Software Research, Training and Consultancy Ltd.	06.2001 – 03.2009
	Partner between 2003 and 2009.	
	Took part as software developer, project manager, quality manager and consultant in software development, research and software process improvement projects.	

Acted as principal consultant in more than 15 process improvement projects.

Took part as a SCAMPI Team Member in CMMi Level-3 Appraisals.

Provided training seminars on object oriented software development, Personal Software Process™, Capability Maturity Model™ and software process improvement topics.

Software Development Team Leader	Middle East Technical University, Informatics Institute	05.2000 - 06.2001
	Took part as software development team leader in the Web based Learning Management System (LMS) development project. The project aimed to develop an LMS that would be used to support distance learning system provided by the Informatics Institute.	
Research Assistant	Middle East Technical University, Informatics Institute	09.1999 - 05.2000
	Assistant of the Introduction to Information Technologies course which aimed to provide introductory level computer literacy to the freshmen students.	
	Assistant of the Multimedia Information Systems course (IS 514). Also developed the online teaching material for this course in HTML.	

Courses Offered

Industrial

Object Oriented Software Development with UML	This course covers Use Case based software requirements analysis, object oriented design, introduction to design patterns and UML constructs. The 3-day version includes a workshop that aims to develop the analysis and design of an example software system. Central Bank of Turkey, Turkish Aerospace Industries, CoreTech Information Technology Services Inc., Is Bank Software Development Unit, OYAK Technology, TÜBİTAK BTAE and Naval Forces Genesis Project Teams, ALTAY Group, OYAK Information Systems
Introduction to CMMI	This 2-day course covers topics such as; basic process improvement concepts, evolution of CMMI, explanation of the process areas in 2 nd and 3 rd levels, how to establish a process improvement project. The 3-day version includes 4 th and 5 th level process areas. ROKETSAN, IBTECH – International Business Technologies, GATE Electronics

Academic

Software Testing Techniques	BYZ568, Computer Engineering Graduate Program, Hacettepe University 1 semesters, average 25 students per semester This 14-week course introduces the basic principles of testing, quality assurance, software engineering lifecycles, testing tools, test automation.
Personal Software Process	SM501, Software Management Graduate Program, Middle East Technical University 7 semesters, average 20 students per semester This 14-week course introduces the basic principles of the Personal Software Process™ and help individual engineers to improve their performance by bringing discipline to the way they develop software.
Object Oriented Software Development with UML	SM503, Software Management Graduate Program, Middle East Technical University 3 semesters, average 20 students per semester This 14-week course covers Use Case based software requirements analysis, object oriented design, introduction to design patterns and UML constructs. The course includes a workshop that aims to develop the analysis and design of a software system.
Software Requirements Engineering	SM521, Software Management Graduate Program, Middle East Technical University 5 semesters, average 27 students This 14-week course covers software requirements elicitation, analysis, specification, validation and requirements management topics. The course includes development of a Software Requirements Specification document as a term project.
Peopleware	SM702, Software Management Graduate Program, Middle East Technical University

	1 semester, 20 students
	This 14-week course covers the human behavioral issues affecting software development processes. Topics are investigated at three layers: individual, team, and organizational. The role of individual behavior and productivity, the concept of effective teams and the role of organizational culture in software development are discussed. Results of various research studies are presented in the context of managing human capital in software projects..
Software Process Improvement	ISE515, Information Systems Engineering Graduate Program, Atılım University 1 semester, 10 students This 14-week course covers software process modeling and software process improvement techniques, business process modeling and BPMN, software process improvement models, process capability models such as, CMMI and ISO 15504.
Software Project and Process Management	SE556, Software Engineering Graduate Program, Middle East Technical University 1 semester, 18 students This 14-week course covers fundamentals of software project management in alignment with the PMBOK, Agile project management principles, software process management and improvement basics, team management, leadership and motivation topics.

Projects and Responsibilities

	<p>Took part as the project manager, quality manager and researcher in a number of research and development projects as listed below.</p> <p>As a PMO member and Project Manager, coordinated project activities, monitored project progress through periodic meetings, took part in the resolution of project risks.</p> <p>As an SQA Manager, developed the software quality plan, coordinated the software quality assurance activities, organized and took part in the technical reviews, reported to the project coordinator about the progress of the quality assurance activities, organized process audits in order to check for the compliance to the process definitions.</p> <p>As the project manager of research and development projects, developed the project proposal, presented the proposal to the referees assigned by the Scientific and Technological Research Council of Turkey, prepared the project plan, monitored the project through progress reports.</p>
Project Manager and Researcher	<p>TOR-X Test Automation Robot project</p> <p>PLURAL Distributed Process Modeling Tool project</p> <p>TESTIMATOR Test Effort Estimation Tool project</p> <p>HIPERMED EUREKA ITEA-2 Program, 3 year project focusing on tele-rehabilitation, HD quality video conferencing and e-health with collaboration of 15+ international partners.</p> <p>A2NETS EUREKA ITEA-2 Program, 4 year project with a focus on autonomous machine-to-machine networks, and sensor webs.</p> <p>IMPONET EUREKA ITEA-2 Program, Intelligent Monitoring of Power Networks, monitoring power networks for determining quality of service, representing expenditure trends for defining optimal cost rates.</p> <p>PERSONA 01.08.2002 – 01.09.2004,</p> <p>CORPUS 01.10.2004 – 31.12.2005,</p> <p>COSMOS 03.10.2005 – 31.12.2007 and</p> <p>CUBIT 01.01.2008 – 30.06.2009 are research projects developed by the grant of The Scientific and Technological Research Council of Turkey (TUBITAK), Support Program for Industrial Research and Development Projects.</p> <p>KAMA 01.06.2005 – 01.07.2007 is a research project accomplished for the Modeling and</p>

<p>Principal Consultant</p>	<p>Major Role: Principal Software/Systems Process Improvement Consultant.</p> <p>Took part in the gap analysis of the existing processes, improved the software / systems process definitions according to the targeted CMMI Level goals and practices with a focus on engineering and management process areas, developed the process models and process definitions as required, provided support during formal SCAMPI appraisals, reviewed existing process definitions.</p> <p>Defined, tailored, deployed and trained software development processes throughout the organization in accordance with international standards and models such as CMMI, ISO15504, ISO12207, ISO 20000, ISO 27001 and ISO9001. Planned and managed the software process improvement project within the organization.</p>
<p>Consulted Organizations</p>	<p>SIMPLEX, SPICE based Consultancy ODELO-FARBA, Automotive SPICE based Consultancy Daiichi, Automotive SPICE based Consultancy SAVRONİK, CMMI – DEV Level 3 TAKOSAN, Automotive SPICE based Consultancy Ministry of Health, Department of Information Systems, ISO 15504 based Consultancy Undersecretariat for Defense Industries, CMMI Acquisition Level-3 Consultancy Proline, CMMI – DEV Level 3 TÜRKSAT, CMMI – DEV Level 3 CompuGroup Medical, CMMI – DEV Level 3 BaşarSoft, CMMI – DEV Level 3 SIEMENS SIS SWP PSE TR – SIEMENS IT Solutions and Services, Software Practice, Program & System Engineering Turkey Branch, CMMI L3 GATE Electronics, CMMI L3 Fintek, CMMI Advisory IBTECH – International Business Technologies, Information Systems Department of Finansbank, Beko Electronics Research and Development Unit, CMMI L3 ABH – Anadolu Information Services, CMMI L3 AKBANK BT – The Information Technologies Department of AKBANK, CMMI L3 TUBITAK MAM BTE - The Scientific and Technological Research Council of Turkey Marmara Research Center Information Technologies Institute, CMMI L3 Arcelik ATGM – The Research and Technology Development Center of Arcelik, CMMI L3 TAGSOFT – The organization serves as the information systems department of Is Bank, CMMI L3 Is Bank – Software Development Unit, CMMI L3 KAREL ARGE – Research and Development Branch of KAREL, CMMI L3 Meteksan Sistem IT Solutions, CMMI L3 TUBITAK UEKAE – The Scientific and Technological Research Council of Turkey National Research Institute of Electronics and Cryptology, CMMI L3 TAI – Turkish Aerospace Industries Inc. Information Systems Department, CMMI L3 STM – Systems and Software Development Departments, CMMI L3 INNOVA IT Solutions – ISO 15504, ISO 9001, ISO 20000, ISO 27001</p>
<p>Software Quality Assurance Expert Acquirer Organizations</p>	<p>Took part as an independent member of Software Quality Assurance teams. Performed process and product quality assurance activities such as process reviews, product reviews, and audits.</p> <p>AYESAS, KAREL ARGE – Research and Development Branch of KAREL</p>
<p>Mentor</p>	<p>Provided mentoring services on Object Oriented Analysis and Design concepts.</p>
<p>Acquirer Organizations</p>	<p>CoreTech Information Technology Services Inc., Is Bank – Software Development Unit, ALTAY Group</p>

Selected Publications

National Refereed Conference	O. Türetken, H. van den Hurk, N. A. Karagöz and A. Ünal; "Plural Yöntemi ile BPMN tabanlı Özne Yönelimli Süreç Modelleme: Örnek Olay İncelemesi", Proceedings of the <i>National Software Engineering Symposium UYMS15</i> , İzmir, Turkey
Book Chapter	T.G.Erdoğan, A.Tarhan and N.A.Karagöz, "An Integrated Infrastructure Using Process mining Techniques for Software Process Verification", <i>Uncovering Essential Software Artifacts through Business Process Archaeology</i> , 2013, IGI Global
International Journal (SCI Expanded)	O. Kaynak, N.A. Karagöz; "Experience Report: Implementation Of A Multi-Standard Compliant Process Improvement Program", <i>Journal of Software Evolution and Process</i> , 2013. doi: http://dx.doi.org/10.1002/smr.1610
National Refereed Conference	Oumout Chouseinoglou, N. Alpay Karagöz, Deniz İren, Güven Özen and Semih Bilgen; "AiOLoS: Yazılım Geliştiren Organizasyonlarda Örgütsel Öğrenmeyi Değerleme Modeli", Proceedings of the <i>National Software Engineering Symposium UYMS13</i> , İzmir, Turkey
International Journal (SCI)	O. Chouseinoglou, D. İren, N. A. Karagöz and S. Bilgen, "AiOLoS: A Model for Assessing Organizational Learning in Software Development Organizations," <i>Information and Software Technology</i> , 2013. doi: http://dx.doi.org/10.1016/j.infsof.2013.05.004
International Refereed Conference	G. Ozen, N. A. Karagöz, O. Chouseinoglou, and S. Bilgen, "Assessing Organizational Learning in IT Organizations: An experience report from industry" Accepted to be published in the Proceedings of the Joint Conference of the 23rd International Workshop on Software Measurement (IWSM) and the 8th International Conference on Software Process and Product Measurement (Mensura), October 2013, Ankara, Türkiye
National Refereed Conference	Aksu, Ü., Karagoz, N.A., (2012) "Yazılım Süreç İyileştirme Modelleri Özellikleri, Seçimi ve Karşılaştırılması: ISO/IEC 15504 (SPICE) ve CMMI" <i>Ulusal Yazılım Mühendisliği Sempozyumu UYMS12</i> , Ankara, Türkiye
International Refereed Conference	Kaynak, O., Karagoz, N.A., (2012) "Experience Report: Implementation of A Multi-Standard Compliant Process Improvement Program" 19th European Conference on Systems, Software and Services Process Improvement (EuroSPI 2012), CCIS Vol. 301, Springer-Verlag, June 2012.
National Refereed Conference	Aksu, Ü., Karagoz, N.A., (2011) "Bir Süreç İyileştirme Programında Yazılım Kalite Maliyeti Kullanımı" <i>Ulusal Yazılım Mühendisliği Sempozyumu UYMS11</i> , Ankara, Türkiye
National Refereed Conference	Küçükayvuz, F., Karagoz, N.A., Demirors, O., (2011) "Görev Uzayındaki Kavramsal Modellerin Simülasyon Uzayındaki Modellere Dönüşümü", USMOS 2011, Ankara, Turkey.
International Refereed Conference	Küçükayvuz, F., Karagoz, N.A., Demirors, O., (2011) "Constructing Bridges between Mission Space Conceptual Models and BOM" <i>Simulation Interoperability Workshop Spring11</i> , Boston MA.
Book Chapter	Book Chapter: Karagoz, N.A., Demirors, O., (2010) <i>Conceptual Modeling for Discrete-Event Simulation</i> , (Robinson, S., Brooks, R.J., Kotiadis, K., van der Zee, DJ eds.) Boca Raton, FL: CRC Press
National Refereed Journal	Bilgen, S., Demirors, O., Karagöz, N.A., (2010) "Kavramsal Modelleme ve Simülasyon Projelerinde Önemi", <i>Savunma Sanayii Gündemi Dergisi</i> 2010/1 Sayı:11, ISSN 1307-8380 pp. 32-37
International Refereed Conference	Eryılmaz, U., Karagöz, N.A. (2009) "KAMA: A Tool for Developing Conceptual Models For C4ISR Simulations", <i>European Simulation Interoperability Workshop (EuroSIW09)</i> , Istanbul, Turkey.
International Refereed Conference	Karagöz, N.A., Zorba, H.O., Atun, M., Can, A. (2008) "Developing Conceptual Models of the Mission Space (CMMS) – An Experience Report", <i>Simulation Interoperability Workshop Fall 08</i> , Orlando FL.
PhD Thesis	Karagöz, N.A. (2008) "A Framework for Developing Conceptual Models of the Mission Space for Simulation Systems", Middle East Technical University, Informatics Institute, Department of Information Systems, Ankara, Turkey.
International Refereed Conference	Karagöz, N.A., & Demirors, O., & Gencel, Ç. (2007) "Acquiring Innovative Software Systems: Experiences from the field", <i>EuroMicro Conference</i> , Luebeck, Germany.

International Refereed Conference	Karagöz, N.A., & Demirors, O. (2007) "Developing Conceptual Models of the Mission Space (CMMS) – A Metamodel Based Approach" <i>Simulation Interoperability Workshop Spring07</i> , Norfolk VA.
International Refereed Conference	Karagöz, N.A., & Demirors, O., (2001) "An Automated Support for PSP". <i>ISCIS-XVI</i> , 5-7 November 2001, Antalya, Turkey.
International Refereed Conference	Yilmaz, B., Karagöz, N.A., Yalabik N., (2001) Net-Class and A Comparison of Web Based Course Management Tools. <i>Informing Science Conference</i> , 19-22 June, Krakow, Polonya.
MSc. Thesis	Karagöz, N.A. (2001) "Improving Individual Software Engineering Skills: A Tool to Support Personal Software Process", Middle East Technical University, Informatics Institute, Department of Information Systems, Ankara, Turkey.

MSc Theses and Graduation Projects (Supervised or Co-Supervised)

- * Perception Of Organizational Maturity Increase From The Perspective Of Software Development Teams, Ayşegül Ünal, 2017
- * Software Test Estimation Methods Usage In Turkey, Zeynep Gürel, 2016
- * A Tool to Support PLURAL: Subjective BPM Methodology, Metehan Karabiber, 2015
- * A Study of Mission Assurance Concepts in Turkish Defence Industry, Arda Özerten, 2014
- * Adaptive Data Exchange Framework Adoption Factors in Public Sector, Onur Fenar, 2014
- * Agile Tsp: A Blended Process Model For Software Development Organizations, Ünal Aksu, 2013
- * Relationship Between Project Success and Requirements Quality, Hüseyin Onur Güngör, 2013
- * A Study To Assess Learning Capabilities Of It Organizations By Using Aiolos Model, Güven Özen, 2013
- * Cloud Computing: Adoption Issues In Public Sector, Ibrahim Oguz, 2012
- * Transforming Conceptual Models of the Mission Space Into Simulation Space Models, Fatih Kucukyavuz, 2011
- * Application of the KAMA framework in an industrial simulation, Yunus Ege, 2009
- * A survey of Root Cause Analysis Techniques and Application of selected ones within a CMMI Level-5 Company, Ilgi Keskin, 2009
- * Determining Cost of Software Quality in a Systems Development Company within the context of a CMMI based process improvement initiative, Onur Kaynak, 2009
- * Meta-model editor for Conceptual Modeling, Farid Khalikov, 2008
- * Software Process Modeling with Kama Notation, Halil Kizilca, 2008
- * Conceptual Model Development with KAMA-C4ISR MOS Notation – An Analyst’s Approach, Serkan Gulenc, 2007
- * Modeling a Sample Mission Space of TAF by Using Kama-C4ISR MOS Notation, Muhsin Civelek, 2006

Academic Activities

Memberships

- * ACM Member, 2003 – present
- * Member of Software Management Research Group (<http://www.ii.metu.edu.tr/~smrg/>), 2008 – present
- * NMSG-058 (NATO Modeling and Simulation Group Conceptual Modeling Task Group) 2006 – 2007

Other Activities

- * ISACA Ankara Chapter Member, 2012, Ankara, Turkey
- * Organizing Committee Member, UYMS (National Software Engineering Symposium), 2011, Ankara, Turkey
- * Review Committee Member, Journal of Defense Modeling and Simulation (JDMS)
- * Conference Advisory Board Member, UYMS (National Software Engineering Symposium), 2009, Istanbul, Turkey
- * Program Committee Member, YKGS (Software Quality and Software Development Tools Conference), 2008, 2010 Istanbul, Turkey

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- * Program Committee Member, UYMK (National Software Architecture Conference), 2008, Izmir, Turkey
 - * Program Committee Member , UYMK (National Software Architecture Conference), 2006, Istanbul, Turkey
 - * Book Chapter Review Committee Member, Model-Driven Software Development, Sami Beydeda, Matthias Book, Volker Gruhn (Eds.), 2005, Springer- Verlag, Berlin Heidelberg
 - * Program Committee Member, IMPROQ (Impact of Process on Software Quality Workshop), 2004, Izmir, Turkey
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Certificates

- * IRCA certified ISO 9001 LA, March 2013, Ankara
- * IRCA certified ISO 27001 LA, December 2011, Istanbul
- * SPICE Provisional Assessor Training, September 2011, Ankara
- * Introduction to SPICE, 22-23 January 2011, Ankara
- * SCAMPI Team Training, 18 August 2008, Ankara
- * Introduction to CMMI, Staged and Continuous, Software Engineering Institute, 28-30 March 2005, Ankara
- * Personal Software Process I: Planning, Software Engineering Institute, December 2000, Ankara