

CONTACT

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**RESEARCH
INTERESTS**

Software Architecture, Component Based Software Engineering,
Contracts, Formal Verification, Model Checking, Language semantics,
and Compiler construction

EDUCATION

Jan 2011 – September 2014

PhD in Computer Science

City University London, UK

Thesis Title: *A Design-by-Contract based Approach for Architectural
Modelling and Analysis*

Supervisor: Christos Kloukinas

Sept 2009 – Nov 2010

MSc in Computer Science

University of Essex, UK

Supervisor: Iain Langdon

Thesis Title: *Object-Oriented Analysis, Design and Implementation of a
Simplified Information System for Small Scale Car-Manufacturing Plants*

Holder of **R A Broker Prize** for the most successful student

Sept 2007– May 2008

Erasmus Student, BSc in Computer Science

University of Essex, UK

Sept 2005 – May 2009

BSc in Computer Engineering

Bilkent University, Turkey

Supervisor: Bedir Tekinerdogan

WORK

EXPERIENCE

Feb 2015-

Istanbul Kemerburgaz University, Turkey

Position: Assistant Professor

Department of Computer Engineering

Jan 2011 – Feb 2014

City University London, UK

Position: Research Assistant

Department of Computer Science

June 2010 – 30 June 2013

Internet Of Things (IOT@Work) EU project, London UK

Position: Research Student

Web: <https://www.iot-at-work.eu/>

PEER REVIEWED
PUBLICATIONS

SCI Journals and Book Chapters

1. **Ozkaya M.** (2015). *Formal Verification of Contractual Software Architectures using SPIN*. MJCS, Volume 28, No 4, pp 318-337.
2. **Ozkaya M.** (2015) . *Architectural Specification and Analysis of the Aegis Combat System*. 14th International Conference on Intelligent Software Methodologies, Tools and Techniques, Springer Berlin Heidelberg, pages 105-119
3. **Ozkaya M.** and Kloukinas C.. *Realizable, Connector-Driven Software Architectures for Practising Engineers*. 8th International Conference on Software and Data Technologies, Revised Selected Papers, Springer Berlin Heidelberg, 2014.
4. **Ozkaya M.** and Kloukinas C. *Highly Analysable, Reusable, and Realisable Architectural Designs with XCD*. Computer Applications for Software Engineering, Disaster Recovery, and Business Continuity. Springer Berlin Heidelberg, 2012. 72-79.

Conference Proceedings

1. **Ozkaya M.** (2016). *What is Software Architecture to Practitioners: A Survey*. In Proceedings of the 4th International Conference on Model-Driven Engineering and Software Development.
2. **Ozkaya M.** and Kloukinas C. (2014). *Design-by-Contract for Reusable Components and Realizable Architectures*. In the 17th International ACM Sigsoft Symposium on Component-Based Software Engineering.
3. **Ozkaya M.** and Kloukinas C. (2014). *Architectural Specification and Analysis with XCD - The Aegis Combat System Case Study*. In Proceedings of the 2nd International Conference on Model-Driven Engineering and Software Development, pages 368-375.
4. Kloukinas, C. and **Ozkaya M.** (2013). *Xcd – Modular, Realizable Software Architectures*. In Păsăreanu, C. and Salaün, G., editors, Formal Aspects of Component Software, volume 7684 of Lecture Notes in Computer Science, page 152–169. Springer Berlin Heidelberg.
5. **Ozkaya M.** and Kloukinas, C. (2013b). *Towards Design-by-Contract based software architecture design*. In SoMeT,, pages 157–164. IEEE.
6. **Ozkaya M.** and Kloukinas, C. (2013). *Are we there yet? Analyzing architecture description languages for formal analysis, usability, and realizability*. In Demirörs, O. and Türetken, O., editors, EUROMICRO-SEAA, pages 177–184. IEEE.
7. **Ozkaya M.** and Kloukinas C. (2014). *Towards a Design-by-Contract based approach for realizable connector-centric software architectures*. In Cordeiro, J., Marca, D. A., and van Sinderen, M., editors, ICSOFT, pages 555–562. SciTePress. **(Candidate for the Best Paper Award)**
8. **Ozkaya M.** and Kloukinas C. *XCD -- A Design-by-Contract Architecture Description Language*. Proceedings of the 2013 International Conference on Software Engineering Research and Practice. CSREA Press, 2013. 124-131
9. **Ozkaya M.** and Kloukinas C. *Facilitating Early Architectural Exploration with Connector-Centric Design (XCD)*. Technical Report YCS-2012-480, Department of Computer Science, The University of York, York, UK, 2012. 7-15.

TECHNICAL
REPORTS

1. Kloukinas, C. and **Ozkaya M.** (2012). *XCD – Simple, modular, formal software architectures*. Technical Report TR/2012/DOC/01, Department of Computing, School of Informatics, City University London, Northampton Square, London, EC1V 0HB, U.K.

ISSN 1364-4009.

AWARDS AND ACHIEVEMENTS

- 2011 - 2014 **City University London UK**
Full PhD Scholarship
- 2009 - 2010 **University of Essex UK**
R A Broker Prize for the most successful student in MSc Computer Science,
- 2007 - 2008 **University of Essex, UK**
Erasmus European Union Scholarship for the Study Abroad Program,
- 2005 - 2009 **Bilkent University, Turkey**
Honour Student

CERTIFICATIONS

- **Microsoft Certified Professional (MCP)**
- **Microsoft Certified Application Developer (MCAD)**

SOFTWARE PROJECTS

- 2016- **TÜBİTAK 1002 Project (ID: 291905)**
Title: Visual Specification of Software Architectures and their Analysis
- 2011 – 2014 **PhD in Computer Science, City University London**
XCD Architecture Description Language (with a tool support)
Description: A Design-by-contract based language for architectural
modelling and formal analysis via SPIN's ProMeLa
Website: www.staff.city.ac.uk/c.kloukinas/Xcd/
- 2010 – 2011 **MSc in Computer Science, University of Essex, UK**
Prototype Information System for Car Manufacturing Plants
- 2009 **B.S. in Computer Engineering, Bilkent University, Turkey**
Context Sensitive Guidance System

PROFESSIONAL ACTIVITIES

- External Reviewer**
- 2015 Int'l Journal of Software Engineering and Knowledge Engineering
- 2013 Imperial College Computing Student Workshop
- 2012 Imperial College Computing Student Workshop

TEACHING EXPERIENCE

- 2016-
Assistant Professor
Undergraduate courses given in 2016 Spring
 - **CE370 Software Engineering**
 - **CE322 Internet and Web Programming**

Postgraduate courses given in 2016 Spring

- **IT560 Software Engineering Online Course**

2015-

Assistant Professor

Undergraduate courses given in 2015 Spring

- **CE102 Computer Programming**
- **CE370 Software Engineering**

Postgraduate courses given in 2015 Spring

- **IT502 Programming Workshop**

Undergraduate courses given in 2015 Autumn

- **ECE511 Advanced Software Engineering**

Postgraduate courses given in 2015 Autumn

- **CE361 Database Systems**
- **CE481 Software Architectures**

2012 – 2013

Tutor for **IN2018 Team Project**

2011 – 2012

Tutor for **IN2018 Team Project**

Tutor for **IN1005 Software Engineering**

Tutor for **IN2018p Team Project Preparation**

SKILLS

- **Programming Languages:** C, C++, Java, C#
- **Language Development Frameworks:** Eclipse Xtext and Xtend
- **Formalisms:** FSP, CSP, ProMeLa
- **Model Checkers:** LTSA for FSP and SPIN for ProMeLa
- **Operating Systems:** Linux and Windows
- **Database Systems:** MSSQL Server, MySQL

GIVEN TALKS

1. **Ozkaya M.** (2016). *What is Software Architecture to Practitioners: A Survey*. In Proceedings of the 4th International Conference on Model-Driven Engineering and Software Development.
2. **Ozkaya M.** (2015). *Architectural Specification and Analysis of the Aegis Combat System*. 14th International Conference on Intelligent Software Methodologies, Tools and Techniques, Springer Berlin Heidelberg. pages 105-119
3. **Ozkaya M.** (2014). *Towards a Design-by-Contract based approach for realizable connector-centric software architectures*. In Cordeiro, J., Marca, D. A., and van Sinderen, M., editors, ICSOFT, pages 555–562. SciTePress, Reykjavik, Iceland.
4. **Ozkaya M.** (2014). *Architectural Specification and Analysis with XCD - The Aegis Combat System Case Study*. In Proceedings of the 2nd International Conference on Model-Driven Engineering and Software Development, pages 368-375, Lisbon, Portugal.
5. **Ozkaya, M.** (2013). *Towards Design-by-Contract based software architecture design*. In SoMeT, pages 157–164. IEEE, Budapest, Hungary.
6. **Ozkaya, M.** (2012) *Highly Analysable, Reusable, and Realisable Architectural Designs with XCD*. Computer Applications for Software Engineering, Disaster Recovery, and Business Continuity. Springer Berlin Heidelberg, 2012. 72-79, Jeju, South Korea.
7. **Ozkaya, M.** (2012) *Facilitating Early Architectural Exploration with Connector-Centric*

Design (XCD). Technical Report YCS-2012-480, Department of Computer Science, The University of York, York, UK, 2012. 7-15

POSTER

PRESENTATIONS

1. - **Ozkaya M.** (2011) *Connector-Centric Design (XcD) – A Novel Approach to Specifying Software Architectures*, In Imperial College Computing Student Workshop ICCSW'12, London, UK, September 2012.

1. REFERENCES

- Christos Kloukinas **City University London, UK**

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CITIZENSHIP

Turkey