CURRICULUM VITAE

NAME	Zeki Bayram

PERSONAL DATA	Born 13 November 1965, Famagusta, Cyprus. Married with two children. Languages spoken: Turkish (Native), English (Excellent), French (Good), Japanese (Fair), Greek (Fair)

RESEARCH INTERESTS	Semantic Web Services, Automated Deduction, Internet Technologies, Constraint Programming, Declarative Programming Languages, Expert Systems, Intelligent Agents

EDUCATION

Institution	Years	Degree	Major
University of Pennsylvania	1983-1987	B.Sc. Economics	Accounting
University of Alabama at Birmingham	1987-1988	M.Sc.	Computer and Information Sciences
University of Alabama at Birmingham	1988-1993	Ph.D.	Computer and Information Sciences

PROFESSIONAL POSITIONS HELD

Institution	Rank	Dates	Department
Boğaziçi University	Assist. Prof.	09/1993 – 11/1999	Computer Engineering
Boğaziçi University	Assoc. Prof.	11/1999 – 08/2000	Computer Engineering
Eastern Mediterranean University	Assoc. Prof.	09/2000 – Current	Computer Engineering

PROFESSIONAL ACTIVITIES

- Founding chairman of *Internet Technologies Research Center* at Eastern Mediterranean University (http://itrc.emu.edu.tr) (12/2005 - 2/2007).

- Founder and CEO of *Cybersoft Bilişim Teknolojileri Ltd.* (http://cybersoft-bil-tek.com), the first faculty member founded computer technology company at Famagusta Teknopark (2008-2011).

- Coordinator and main instructor of the EU funded project *Upgrading Internet Technology skills of Information and Communication Technologies (ICT) Professionals* (December 2009 - December 2011). As part of the project, conducted a series of educational training modules for around 200 students and computer professionals at the Famagusta Teknopark.

- Worked as part time researcher/consultant at TUBITAK research center (MAM) (12/95 – 1/98).

- Taught educational seminars for Erdemir (Ereğli Demir Çelik) company (1999).

- Performed consulting work and gave educational seminars on Object-Oriented Analysis and Design to Eczacıbaşı Holding employees (1998).

- Worked as part time instructor at Işık University (Istanbul) by appointment from Boğaziçi University (1998-2000).

- Served on the program/organizing committees of various conferences.

- Served as a reviewer of the *Journal of Kind Saud University*, *Expert Systems: The Journal of Knowledge Engineering* and *Turkish Journal of Electrical Engineering and Computer Sciences*.

- Gave a tutorial on Object-Oriented Programming at the 1995 Computing (Bilişim) activities in Istanbul.

- Gave a tutorial on Internet Programming at the 2000 Computing (Bilişim) activities in Istanbul.

- As the chairman of the computer engineering departmental ABET committee, planned and coordinated all the activities of the ABET application process, leading to full accreditation of both the Computer Engineering and Software Engineering programs in 2017. Similarly, the Computer Engineering program was accredited for the first time in 2011 under my direction.

ACADEMIC ACTIVITIES

Curriculum Development and Teaching Innovations

- Defined and taught new graduate course called *Automated Deduction.*

- Defined and taught new graduate course called *Constraint Programming.*

- Defined and taught new undergraduate elective course called *Internet Programming.*

- Defined new undergraduate elective course called *Modern Programming Platforms.*

Textbooks and Other Teaching Aids

- Developed an online *Tutorial for the ADA '95 Programming Language* (available at http://cmpe.emu.edu.tr/bayram/ada_tutorial/ada95_tutorial.html).

Courses Taught

- **Undergraduate:** Compiler Construction, Principles of Programming Languages, Discrete Mathematics, Formal Languages and Automata Theory, Database Systems, Algorithms and Data Structures, Programming Fundamentals, Internet Programming, Functional and Logic Programming, Object-Oriented Programming.

- **Graduate:** Automated Deduction, Logic Programming, Advanced Compiler Construction, Constraint Programming.

GRADUATE STUDENT SUPERVISION

- Ph.D. graduates: (i) Dr. Ruhsan Önder, (ii) Dr. Omid Sharifi, (iii) Dr. Samira Ghayekhloo (iv) Dr. Shahin Ataee

- Ph.D. candidates: (i) Mahmoud Obaid, (i) Umut Tekgüç

- Master's degree graduates: (i) Dr. Dilek Düştegör, (ii) Dr. Nagehan İlhan, (iii) Dr. Şenay Kafkas, (iv) Şengül Çobanoğlu, (v) Jane Anaekwe, (vi) Bijan Zamanian, (vii) Mohammed Fatemi Abhari, (viii) İmren Toprak, (ix) Saeid Asgarzadeh

PUBLICATIONS

Journal Papers
- **An Improved Abstract State Machine Based Choreography Specification and Execution Algorithm for Semantic Web Services.** Scientific Progamming (Hindawi Publishing). February 2018.   (With Shahin Mehdipour Ataee).
- **Pre-Filtering Strategy to Improve Performance of Semantic Web Service Discovery.** Scientific Progamming (Hindawi Publishing). September 2015. (With Samira Ghayekhloo)
- **A Novel Rubric and Feature-Based Appraisal and Comparison Framework for the Evaluation of Semantic Web Services Composition Approaches**. Indian Journal of Science and Technology. October 2015. (With Samira Ghayekhloo)
- **Unifying F-Logic Molecules: A Rectification to the Original Unification Algorithm.** (With Omid Sharifi) Journal of Logic and Computation, September 2014.
- **XSL Transformations: A delivery medium for executable content over the Internet**. In: Dr. Dobbs Journal 32 (5): 48 – 53, May 2007. (With Ruhsan Onder)
- **Business Object-Oriented Analysis and Design Methodology.** In: Journal of Object-Oriented Programming, March/April 1999, Vol. 12, No. 1, pp. 59-67. (Single author)
- **Implementing Constructor Calls with parameters in ADA'95.** In: Journal of Object-Oriented Programming, May 1998, Vol. 11, No. 2, pp. 43-46. (Single author)

International Conference Papers
- **Introducing Speedy Pay: A new Mobile Payment Scheme.** 2017 7th International Conference on Economics, Trade and Development (ICETD 2017), March 10-12, 2017, Paris, France. (With Mahmoud Obaid and Murad Saleh).

- **A critical evaluation of Web Service Modeling Ontology and Web Service Modeling Language.** 31. International Symposium on Computer and Information Sciences. October 27-28 2016, Krakow, Poland. (With Omid Sharifi)
- **A Novel Concise Specification and Efficient F-Logic Based Matching of Semantic Web Services in Flora-2.** 30th International Symposium on Computer and Information Sciences. ISCIS 2015, September 21-25 2015, Imperial College, London, UK. (With Shahin Mehdipour Ataee)
- **Semantic Web Services for University Course Registration.** Third Joint International Conference, JIST 2013, Seoul, South Korea, November 28--30, 2013, Lecture Notes in Computer Science, Vol. 8388, pp. 3-16, Kim, Wooju, Ding, Ying, Kim, Hong-Gee (Eds.) (With Sengul Cobanoglu)
- **Specifying Banking Transactions using Web Services Modeling Language (WSML).** Proceedings of the fourth International Conference on Information and Communication Systems (ICICS 2013), pp. 138-143, April 23-25 2013, Irbid, Jordan. (With Omid Sharifi)
- **Database Modelling Using WSML in the Specification of a Banking Application.** Proceedings of WASET 2013 ZURICH, SWITZERLAND, pp. 263-267, January 14-15, 2013 (With Omid Sharifi)
- **XLambda: A Functional Programming Language with XML Syntax.** Proceedings of the 24th International Symposium on Computer and Information Sciences (ISCIS 2009), pp. 663-668, September 14-16 2009, METU North Cyprus Campus, T.R.N.C. (With Ruhsan Onder)
- **Agent Coordination Using Enterprise Java Beans and XML Web Services in a Battlefield Environment.** Proceedings of the EECS'08 5th International Symposium on Electrical and Computer Systems, Gemikonağı, TRNC (Nov. 27-28, 2008) (With Bijan Zamanian)
- **A Proposal for Ontology Security Standards.** Proceedings of the 2008 International Conference on Semantic Web and Web Services, Monte Carlo Resort, Las Vegas, Nevada, USA (July 14-17, 2008), pp. 183-186. (With Muhammad Reza Fatemi and Atilla Alci)
- **A Constraint Logic Programming Solution to the Teacher Relocation Problem**. Proceedings of the 2nd International Computer Engineering Conference Engineering the Information Society (ICENCO 2006), December 26-28, 2006, Cairo, Egypt. (With Nagehan İlhan)
- **Two Different Approaches of Modeling the Teacher Relocation Problem in a Constraint Logic Programming System and their Comparison.** Proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCS2 06), organized as part of the International Joint Conferenceson Computer, Information, and Systems Sciences, and Engineering (CIS2E 06), December 4 - 14, 2006. Presented electronically over the Internet (With Nagehan İlhan)
- **XSLT Version 2.0 is Turing-Complete: A Purely Transformation Based Proof.** Proceedings of the 11th International Conference on Implementation and Applications of Automata. Aug. 21-23, 2006 (CIAA 2006), Taipei, Taiwan. (With Ruhsan Onder) published as Lecture Notes in Computer Science LNCS 4094, pp 275-276
- **A User Friendly Intelligent Algebra Tutor.** Proceedings of the V. International Educational Technologies Conference, pages 23-29, 21 - 23 September 2005, Sakarya - Turkey. (With Senay Kafkas, Huseyin Yaratan)
- **An Investigation of the Course-Section assignment problem**. Proceedings of the 20th International Symposium on Computer and Information Sciences (ISCIS 2005) published

as Lecture Notes in Computer Science LNCS 3733, pages 874-883, *October 26-28, 2005 - Istanbul, Turkey*

- **Interpreting Imperative Programming Languages In Extensible Stylesheet Language Transformations (XSLT).** Proceedings of the IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA 2005), Grindelwald, Switzerland, February 21-23, 2005. pp. 131-136 (With Ruhsan Onder)
- **A Scalable Application Architecture for Composing News Portals on the Internet.** Proceedings of the 1st International Computer Engineering Conference, New Technologies for the Information Society (ICENCO'2004), Cairo, EGYPT, December 27-30, 2004. pp. 779-783 (With Serpil Tok)
- **Distance Education Using XML Technology.** 5th International Conference on Information Technology Based Higher Education and Training (ITHET '04), 31 May - 2 June 2004, Istanbul, Turkey. (With Senay Kafkas)
- **Forward-Chained Rules for Specifying Algorithms.** In: Proceedings of the Eleventh International Symposium on Computer and Information Sciences, (1999)
- **SSST (State-Space Search Tool): A Probabilistic Forward-Chained Expert System Shell with Full Backtracking.** In: Proceedings of the Eleventh International Symposium on Computer and Information Sciences, pp. 395-404 (1996)
- **A Deductive Declarative Object-Oriented Data Model and Query Language based on Narrowing.** In: Proceedings of the Eleventh International Symposium on Computer and Information Sciences, pp. 235-244 (1996)
- **ROSE: A Practical Higher-Order Functional/Logic Language.** In: Proceedings of the Eleventh International Symposium on Computer and Information Sciences, pp. 713-721 (1996)
- **Functional-Logic programming for Smalltalkers: the FLOOP System.** In: Proceedings of the Tenth International Symposium on Computer and Information Sciences, pp. 651-658 (1995)
- **Conditional Term Rewriting as a Deductive Database Language.** In: Proceedings of the 1992 Joint International Conference and Symposium on Logic Programming, Deductive Databases Workshop, pp. 126-135 (1992)

Technical Reports
- **An Integrated E-Unification/Narrowing Algorithm.** *Technical Report* at the Department of Computer and Information Sciences, UAB. (1990) *(Single author)*

Other publications
- **Integrating Functional, Logic and Object-Oriented Programming Programming Language Paradigms with Application to Deductive Databases**. *Ph.D. Thesis, University of Alabama in Birmingham, Computer and Information Sciences Department. (1993)*
- **Integrating Functional, Logic and Object-Oriented Programming Paradigms (Abstract). In:** *The Journal of the Alabama Academy of Science,* Vol. 64, No. 2, page 161 (April 1993) *(Single author)*

FUNDED RESEARCH GRANTS

- *Development of a Semantic Web Services Architecture for e-Government applications.* TRNC Ministry of Education research grant. Funded 10,000 YTL – (approx. 6800 USD at the time). Duration: June 2006-June 2007.

- *Integration of SSST and ROSE.* Funded (250,000,000TL- approx. 3000USD at the time) by the research fund of Boğaziçi University. Duration: June 1996 - June 1998.

- *Development of an expert system shell with constraint solving capability.* Funded (100,000,000TL approx. 2500 USD at the time) by the research fund of Boğaziçi University. Duration: January-December 1994.

- *Development of benchmark programs for evaluating real-time AI tools.* Performed as part of a research team at Boğaziçi University within the Euclid RTP11.3 "Mission and Battlefield Simulation" project. Duration: January 1994 - July 1994.

- *Integration of Functional and Logic Programming Languages.* Student research grant from the Alabama Academy of Science (4/91).

SCHOLARLY AWARDS AND SCHOLARSHIPS

- Awarded 9-day trip to Paris by L'alliance Française after being successful in a written French examination (1981)

- Awarded CASP scholarship by the U.S.A. for undergraduate studies at the University of Pennsylvania (1983-1987)

- Awarded Japanese *Monbusho* Scholarship to attend and conduct research at Ibaraki University in Japan (April 1989 – Sept. 1990)

PARTICIPATION IN PROFESSIONAL ORGANIZATIONS

- Professional Member of the Association for Computing Machinery (ACM).

SERVICES FOR THE UNIVERSITY

- ABET committee chairman at the Computer Engineering Department (January 2010 - continuing).

- Engineering Faculty ABET committee member (January 2010 - continuing).

- Departmental promotion committee member (2008 - 2012).

- Member of the faculty search committee (2002 - 2003).

- Member of Summer Training committee. Re-organized and streamlined the summer training procedures. (2004 - 2005).

- Member of a committee for writing a thesis guideline for graduate students of the faculty of Engineering (2004).

- Appeared several times on local TV stations, promoting the university.

SERVICES FOR THE COMMUNITY

- Member of the Eastern Mediterranean Primary Parent-Teacher Association (2002 - 2004)

- Member of the Eastern Mediterranean College Parent-Teacher Association (2005 - 2009)