

CURRICULUM VITAE

Dr. Avi Soffer

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ORT-Braude College, Department of Software Engineering,
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EDUCATION

- Ph.D. 2008, Systems Engineering. Faculty of Industrial Engineering and Management, Technion – Israel Institute of Technology, Haifa, Israel
- M.Sc. 1997, Computer Systems Management - Software Engineering Track. School of Management and Technology, University of Maryland. College Park, MD, (USA)
- B.Sc. 1986, Computer Science. Faculty of Mathematics and Natural Sciences, Department of Computer Science. The Hebrew University of Jerusalem, Israel

RESEARCH INTERESTS

- Application of Machine Learning and Data Mining techniques in Systems and Software Engineering
- Model-based systems and software development
- Software Testing, Integration, and Maintenance
- Engineering Academic Education

ACADEMIC APPOINTMENTS

- 2016 – present Senior Lecturer, ORT-Braude College of Engineering, in the Department of Software Engineering and the M.Sc. program in Systems Engineering
- 2008 – 2016 Lecturer, ORT-Braude College of Engineering.
- 2014 – 2015 Adjunct Researcher, Asher Space research Institute, Technion – Israel Institute of Technology
- 2005 – 2013 Adjunct Lecturer, Technion – Israel Institute of Technology, Faculty of Industrial Engineering & Management, Information Systems area
- 2006 – 2007 Adjunct Lecturer, Yizrael Valley Academic College, Department of Computer Science and Information Systems
- 2005 – 2006 Adjunct Lecturer, University of Haifa, Department of Management Information Systems

- 2004 – 2005 Teaching Assistant, University of Haifa, Department of Management Information Systems
- 2003 – 2005 Teaching Assistant, Technion – Israel Institute of Technology, Faculty of Industrial Engineering and Management

ACADEMIC AWARDS

- 2020 Outstanding Faculty Award, ORT-Braude College of Engineering, Karmiel, Israel
- 2019 Outstanding Faculty Award, ORT-Braude College of Engineering, Karmiel, Israel
- 2018 Outstanding Faculty Award, ORT-Braude College of Engineering, Karmiel, Israel
- 2014 Outstanding Faculty Award, ORT-Braude College of Engineering, Karmiel, Israel
- 2013 Outstanding Faculty Award, ORT-Braude College of Engineering, Karmiel, Israel
- 2006 The Gutwirth Prize for excellence in Graduate Research, Technion–Israel Institute of Technology, Haifa, Israel

TEACHING EXPERIENCE

ORT-Braude College of Engineering:

Graduate Courses (M.Sc.):

Software Engineering:

Advanced Topics in Software Engineering
Software Quality Assurance and Process Improvement
Software Project Management

Systems Engineering:

Model-based Systems Engineering
Software Intensive Systems Engineering

Undergraduate Courses (B.Sc.):

Introduction to Software Engineering
Engineering Methods for Software Systems Development
Capstone Project in Software Engineering
Software Quality Management
Software Project Management

Technion–Israel Institute of Technology

Graduate Courses:

Advanced Topics in Business Administration – Quality Management in the Hi-Tech Industry (MBA program)
Introduction to MIS for managers (MBA program)
Methodologies for Information Systems Development
Analysis of case studies in Information Systems Development

Undergraduate Courses:

Specification and Analysis of Information Systems
Project in Information Systems Engineering

University of Haifa:

Undergraduate Courses:

Analysis of Information Systems
Software Project Management

Yizrael Valley Academic College:

Undergraduate Courses:

Software Quality Management

PROFESSIONAL ACTIVITIES

ORT Braude College:

2015 – present	Member, Software Engineering B.Sc. program teaching committee.
2014 – 2015	Member of the “Team of Pioneers” – a college inter-departmental team that develops and promotes new and advanced teaching approaches.
2012 – present	Member, Software Engineering M.Sc. program teaching committee.
2010 – present	Member, Systems Engineering M.Sc. program teaching committee.
2010 – 2016	Head, ORT-Braude College Internet site committee.
2008 – 2009	Member of the development team of the Systems Engineering M.Sc. program, for approval by the Council for Higher Education.
2008 – 2011	Academic advisor to students in the Information Systems Engineering programs.

Research Grants:

- Czech-Israeli Cooperative Scientific Research grant. Project: Intelligent Testing and Analysis of Concurrent Software. With: Toledano-Kitai, D., Ur, S. and Volkovich, Z, February 2013.

Conferences:

- Member of the organizing committee and program committee: International Workshop on Patents and Software Engineering, ORT Braude College, December 2011.

Industrial Experience:

1998 – 2002	Software development team leader, senior member of the technical staff, IC ³ Division. Elbit Systems Ltd., Haifa, Israel
1997 – 1998	Senior Software Engineer – Software Engineering Specialist. Computer Sciences Corporation (CSC), Lanham, MD, USA
1995 – 1997	Manager of the Technical Services Department. Media Cybernetics, L.P., Silver Spring, MD, USA
1994 – 1995	Senior Software Engineer. Custom Command Systems, Inc., College Park, MD, USA
1993 – 1994	Senior Software Engineer. Systems/Technology Development Corp., Herndon, VA, USA
1990 – 1992	Senior Software Engineer. Custom Command Systems, Inc., College Park, MD, USA
1986 – 1990	Software Engineer. Elbit Computers Ltd., Haifa, Israel

LIST OF PUBLICATIONS

Refereed Papers

1. Lamberg, D., Soffer, A. and Volkovich, Z.. New Approach for Plagiarism Detection. *International Journal of Applied Mathematics*, Academic Press, 2016; Vol. 29, No 3, pp. 365-370.
2. Nibhani, R., Soffer, A., Mu'alem, A., Volkovich, Z., and Frenkel, Z. Application of a K-Ladder Connectivity Algorithm for Clustering of Protein Evolutionary Networks. *International Journal of Modeling and Optimization*. IACSIT Press, 2014; Vol. 4(5), pp. 367-374.
3. Avros, R., Soffer, A., Toledano-Kitai, D. and Volkovich, Z. Cluster Model Selection using Minimum Cost Spanning Trees. Accepted for publication in *Revised Selected Papers* from ASMDA'13, Barcelona, Spain, 2013 (to appear soon). Springer-Verlag Berlin Heidelberg 2013
4. Avros, R., Soffer, A., Volkovich, Z. and Yahalom, O. An Approach to Model Selection in Spectral Clustering with Application to the Writing Style Determination Problem. *Communications in Computer and Information Science*, Vol. 415 (2013), pp. 19-36. Springer-Verlag Berlin Heidelberg 2013.
5. Soffer, A and Dori, D. Bridging the Requirements-Implementation Modeling Gap with Object-Process Methodology. *Journal on Innovations in Systems and Software Engineering*, Vol. 5, Issue 1 (2009), p. 27.

Submitted Papers

1. Korenblat, K., Soffer, A. and Volkovich, Z.. Locating Software Defects by Analyzing Test Results. Submitted to: *International Journal of Software Engineering and Its Applications*, April 2016

Book Chapters

1. Soffer, A. and Dori, D. Model-based Requirements Engineering Framework for Systems Lifecycle Support. In: *Managing Requirements Knowledge*. W. Maalej and A. Thurimella (eds). Springer-Verlag Berlin Heidelberg, April 2013, pp. 291-314.

Conference Proceedings and Abstracts

1. Avros, R., Soffer, A., Toledano-Kitai, D. and Volkovich, Z. Cluster Model Selection using Minimum Cost Spanning Trees. Proceedings of the 15th Conference of the ASMDA International Society (ASMDA'13), Barcelona, Spain, June 2013.
2. Soffer, A. and Cohen, S. Alleviating Complexity of Modeling in System Engineering Tools. Proceedings of the International Conference on Systems Engineering and Modeling (ICSEM'07), Herzelia, Haifa, Israel, March 2007, pp. 110-117.
3. Cohen, S. and Soffer, A. Scrutinizing UML and OPM Modeling Capabilities with Respect to Systems Engineering. Proceedings of the International Conference on Systems Engineering and Modeling (ICSEM'07), Herzelia, Haifa, Israel, March 2007, pp. 93-101.
4. Soffer, A. Bridging Information Gaps in OPM-Based System Development Lifecycle. Proceedings of the International Conference on Ontologies, Databases, and Application of Semantics (ODBASE'04) PhD Symposium, October 2004, Cyprus. R. Meersman et al. (Eds): OTM Workshops 2004, LNCS 3292, pp. 787-797, 2004.
5. Dori, D., Korda, N., Soffer, A., and Cohen, S. SMART: System Model Acquisition from Requirements Text. Proceedings of the 2nd International Conference on Business Process Management (BPM'04) Potsdam, Germany, June, 2004, LNCS 3080, pp. 179-194.

Other Publications

Professional Reports:

1. Soffer, A. Bridging Information Gaps in OPM-Based System Development Lifecycle. Ph.D. Dissertation, Technion Graduate School. Advisor: Professor Dov Dori, Technion – Israel Institute of Technology, Haifa, Israel, July 2008.
2. Soffer, A. Realizing the OPM Philosophy in the Context of Full Lifecycle Support. IEEE International Conference on Software Science, Technology, and Engineering (SwSTE'03) Doctoral Symposium, Herzelia, Israel, October 2003.
3. Soffer, A. A Software Engineering Methodology for the Implementation Phase of the IAS. (IAS: the Image Assessment System – A segment of NASA's Landsat 7 satellite's ground system). M.Sc. Thesis. Advisor: Dr. Joseph Kasser, University of Maryland, December 1997.