CURRICULUM VITAE

Prof. ZEEV BARZILY   פרופ"ח זאב ברזילי

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ORT Braude College, Department of Software Engineering,
P.O. Box 78, Karmiel 2161002, Israel
Telephone: +972-4-990-1994
Email: zbarzily@braude.ac.il

EDUCATION

Ph.D. 1974, Operations Research, Faculty of Industrial Engineering and Management, The Technion – Israel Institute of Technology, Haifa, Israel

M.Sc. 1970, Operations Research, Faculty of Industrial Engineering and Management, The Technion – Israel Institute of Technology, Haifa, Israel

B.Sc. 1967, (Cum Laude) Civil Engineering, Faculty of Civil Engineering, The Technion – Israel Institute of Technology, Haifa, Israel

RESEARCH INTERESTS

- Data Mining

- Model-based systems and software development

- Stocastic Processes

ACADEMIC APPOINTMENTS

2012 – present	Department Head, Department of Software Engineering, ORT Braude College,
2004 – 2012	Head Program of Information Systems Engineering and Associate Professor (since 2007), Ort Braude College
2000 – 2004	Senoir Lecturer, Department of Industrial Engineering and Management, Ort Braude College
1995 – 2000	Department Head, Department of Industrial Engineering and Management, ORT Braude College
1980 – 1984	Senoir Lecturer, Department of Industrial Engineering and Management, The Technion – Israel Institute of Technology

TEACHING EXPERIENCE

ORT Braude College of Engineering:

  Graduate Courses:

    Software Engineering:
    Advanced methodologies in software development
    Systems Engineering:
    Operations Research for Systems Engineering
  Undergraduate Courses:
    Introduction to Software Engineering
    Analysis of Information Systems
    Deterministic Models in Operations Research
    Project in Industrial Engineering
    Project in Information Systems
    Stochastic Models in Operations Research
    Production Management

The Technion–Israel Institute of Technology

  Undergraduate Courses:

    Analysis of Information Systems
    Deterministic Models in Operations Research
    Stochastic Models in Operations Research
    Probability
    Introduction to Statistics
    Introduction to Data Processing

PROFESSIONAL ACTIVITIES

- Chairman of the development team of the new M.Sc. Program in the Department of Software Engineering

- Member of The Higher Education Council Professional Committee for Examining The Jerusalem High Technological School M.Sc. Program in Information Systems Engineering, 2006-2007.

- Member of Organizing Committee, Workshop Stochastic Models: Theory and Applications, Joint Israeli - Russian workshop, Ort Braude College, April 2006.

- Member of Organizing Committee, Workshop on Algorithmic Techniques for Data Mining, Ort Braude College, May 2005.

- Member of The Higher Education Council Professional Committee for Examining The Open University B.Sc. Program in Information Systems Engineering, 2003- 2004.

- Member of the ORT Braude IE Department Curriculum Committee.

- Chairman of the ORT Braude IE Department Computing Committee.

- Member of the committee for the establishment of an independent information system for ORT Braude College 2001-2002.

- Member of ORT Braude College Academic Council 1999-2001.

- Member of ORT Braude College Teaching Committee 1999-2001.

- Member of the development team of a B. Sc. Program in Information Systems Engineering at ORT Braude College, 2001.

- Member of the development team of a B. A. Program in Management at ORT Braude College, 2001.

- Member of the ORT Braude Organizational Structure Committee 2001.

- Head of the committee on settling of accounts between ORT Braude College and ORT Israel 2001.

- Member of the ORT Braude Information Systems Analyst recruiting team 2001.

- Member of the organizing committee of the Regional Economic Development Conference Karmiel 2000.

- Chairman of the development team of an MBA program at ORT Braude College 1998-1999.

- Head of the Graduates Survey Team 1999.

- Member of the Organizing Committee of the Multi- Echelon Inventory Models Meeting, Washington D.C. 1979.

Industrial Experience

1996 - 1999	M.S.K. Heshev, Information Systems Projects Consultant
1995 - 1996	Free lancer, Information Systems Projects Consultant
1987 - 1995	Israel Shipyards Ltd, Information Systems Manager
1983 - 1987	IBM Israel, Systems Engineer
1979 - 1980	Israel Ministry of Defense, Armament Development Authority, Operations Research Analyst
1974 - 1975	Project Leader, Operations Research and Computing Ltd

LIST OF PUBLICATIONS

A. Papers published in refereed journals:

1. Z. Volkovich, Z. Barzily, G.-W. Weber, D. Toledano-Kitai and R. Avros,, G.-W. Weber, Resampling Approach for Cluster Model Selection, Machine Learning, *Machine Learning*, 85(1-2), 209-248, 2011.

2. Z. Volkovich, Z. Barzily, R. Avros and D. Toledano-Kitay, On Application of a Probabilistic *K*-Nearest Neighbors Model for Cluster Validation Problem, Communications in Statistic, 40, 2997-3010, 2011.

3. Z. Volkovich, D. Toledano-Kitai, Z. Barzily, G.-W. Weber and R. Avros, An Application of the Minimal Spanning Trees Approach to the Cluster Stability Problem, European Journal of Operation Research, v 20, Issue 1, 119- 139, 2012.

4. Z. Volkovich, Z. Barzily, D. Toledano-Kitay and R. Avros, The Hotelling's metric as a cluster stability measure, Computer Modeling & New Technologies, (to appear), 2010.

5. Z. Volkovich, V. Kirzhner, Z. Barzily, S. Hosid and K. Korenblat, A Linguistic Approach to Classification of Bacterial Genomes, Pattern Recognition, v. 43, Issue 3, 1083-1093, 2010.

6. P.Soreanu, Z. Volkovich, Z. Barzily and M. Golani, Mitigating jamming attacks in wireless sensor networks: an energy-efficient method in a mobile jammer environment, Journal of Pure and Applied Mathematics, v. 56, no. 4, 533-550, 2009.

7. Z. Barzily , Z. Volkovich, B. Akteke-Ozturk and G.-W. Weber**,** On a minimal spanning tree approach in the cluster validation problem, Informatica, issue 2 (June), 2009.

8. Z. Volkovich, Z. Barzily, and L. Morozensky, A statistical model of cluster stability**,** Pattern Recognition, 41, 2174- 2188, 2008.

9. A. Grusho, E. Timonina E., Z. Volkovich, and Z. Barzily, On a probabilistic model of intrusion detection, J. of Pure and Applied Mathematics, vol. 34, No 1, 2007.

10. Volkovich, Z. Barzily, P. Sureanu, The Levy-Khinchine representations and functional algebras of test functions, J. of Pure and Applied Mathematics, v.25, No.1, 103-121, 2005.

11. Smith W. and Barzily Z., Kalman Filter Techniques for Control of Repeated Economic Surveys, J. of Economic Dynamics and Control, Vol. 4, 1982.

12. Zacks S., and Barzily Z., Bayes Procedures for Detecting a Shift in the Probability of Success in a Series of Bernoulli Trials, J. Statistical Planning and Inference, Vol. 5, pp. 107 - 119, 1981.

13. Barzily Z., Marlow W. H. and Zacks S., Survey of Approaches to Readiness, Naval Research Logistics Quarterly, Vol. 26, No. 1, pp 21 - 31, 1979.

14. Barzily Z. and Rubinovitch M., On platoon Formation on Two-Lane Roads, J. Appl. Prob., Vol. 16, pp. 347 - 361, 1979.

15. Barzily Z. and Yadin M., The Effects of Prior Assumptions on the Expected Cost of M/M/1 Queuing Systems with Unknown Arrival Rate, <u>Naval Research Logistics Quarterly</u>, Vol. 23, No 4, pp. 663 - 671, 1976.

16. Silman L. A., Barzily Z. and Passy U., Planning the Route System for Urban Buses, <u>Computers and Operations Research,</u> Vol. 1, No 2 , pp 201 - 211, 1974.

B. Books

1. A. Bolshoy, Z. Volkovich, V. Kirzhner and Z. Barzily, Genome Clustering: from linguistic Models to classification of genetic Texts, Springer-Verlag, 2010.

C. Chapters in Books

1. Z. Volkovich, V. Kirzhner and Z. Barzily, On a linguistic classification of the bacterial genome, Systems and Means of Informatics, Special Issue, Mathematical and Computer Modeling in Applied Problems, Institute Informatics Problems, RAS, 6-15, 2008.

2. Z. Barzily, M. Golani and Z. Volkovich, On a simulation approach to cluster stability validation, Special Issue, Mathematical and Computer Modeling in Applied Problems, Institute Informatics Problems, RAS, 86-112, 2008.

D. Conference Proceeding and Abstracts:
D1. Referred Proceedings

1. Z. Volkovich, Z. Barzily, R. Avros and D. Talidano-Katay, On application of the K-nearest neighbors approach for cluster validation, The XIII International Conference Applied Stochastic Models and Data Analysis (ASMDA 2009), Vilnius, 2009.

2. Z. Volkovich, Z. Barzily, G.-W. Weber and D. Talidano-Katay, Cluster Stability Estimation Based on a Minimal Spanning Trees Approach, the International Program Committee at Second Global Conference on Power and Optimization (PCO2009), Bali, Indonesia, 2009.

3. P. Soreanu, Z. Volkovich and Z. Barzily, Energy-Efficient Predictive Jamming Holes Detection Protocol for Wireless Sensor Networks, Sensor Technologies and Applications, 2008. SENSORCOMM '08. Second International Conference, 306 – 311, 2008.

4. Z. Barzily , Z. Volkovich, , B. Akteke-Ozturk and G.-W. Weber, Cluster, Stability Using Minimal Spanning Trees, Proceedings of 20-th Mini Conference "Continuous Optimization and Knowledge-Based Technologies", EurOPT' 2008, Lithuania, 248-253, 2008.

5. Z. Volkovich, and Z. Barzily, On application of probability metrics in the cluster stability problem, 1st European Conference on Data Mining (ECDM'07), Lisbon, Portugal, July 5-7, 2007.

6. Z. Volkovich, Z. Barzily, and L. Morozensky, A cluster stability criteria based on the two-sample test concept, Proceedings of the 2nd Workshop on Algorithmic Techniques for Data Mining 2006 (ATDM 2006), Ben-Gurion University of the Negev, Beer-Sheva, Israel, June 5-7, 2006, 329-338.

D2. Abstracts

1. Z. Volkovich, Z. Barzily, R. Avros and D. Talidano-Katay, K-nearest neighbors' stochastic models in the cluster validity problem, , The 23rd European Conference on Operational Research, Bonn, 2009.
2. A. Grisho, E. Timonina, Z. Volkovich and Z. Barzily, On asymptotical equivalence of statistical criteria in discrete problems, The 23rd European Conference on Operational Research, Bonn, 2009.
3. Z. Volkovich, Z. Barzily, On a statistical model of cluster stability, PASCAL Workshop on stability and resampling methods for clustering, Max Planck Institute for Biological Cybernetics, Tubingen, Germany, July 2007.
4. Z. Barzily , Z. Volkovich, , B. Akteke-Ozturk and G.-W. Weber, Cluster, Stability Using Minimal Spanning Trees, 22nd European on Operational research Conference EURO XXII Prague, Czech Republic, July 2007.

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