Name: Samuel Itzikowitz **Date:** May 2017
School of Computer Science
College of Management Academic Studies

CURRICULUM VITAE

Personal Details

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Marital Status: Married

Higher Education

A. Undergraduate and Graduate Studies

B.Sc., Applied Mathematics

Tel Aviv University, Israel

Date of Award: March 1973

M.Sc., Applied Mathematics

Tel Aviv University, Israel

Date of Award: May 1975

B. Doctoral Degree and Post-Doctoral Studies

Ph.D., Applied Mathematics

Rensselaer Polytechnic Institute, Troy, NY, USA

Date of Award: May 1983

Title of Doctoral Dissertation: Theoretical Studies of Mesoscale Eddies and Their Influence on Acoustic Transmission through the Ocean

Computer Science Post-Doctoral Position

Computer Sciences Department, Tel Aviv University, Israel

October 1986 -September 1990

Academic Ranks and Tenure in Institutes of Higher Education

Dates	Institution and Department	Rank/Position
1986-1992	Computer Sciences Department, Tel Aviv University, Israel	Computer Science Post-Doctoral / Researcher Position Name of Advisor: Prof. Amir Averbuch
1987-1989	Computer Sciences Department, Tel Aviv University, Israel	Computer Science Post-Doctoral Position Name of Advisor: Prof. Amir Averbuch
1990-1992	Computer Sciences Department, Tel Aviv University, Israel	Project Co–Investigator (with Prof. Turkel and Prof. Amir Averbuch – Supported by the Israeli Academy of Science and Humanities). Title of Research: Asynchronous Methods for Numerical Solutions of PDEs on Parallel Computers
1992-1998	School of Business Administration College of Management Academic Studies, Israel	Senior Lecturer and Researcher
1998-2010	Computer Science Department, College of Management Academic Studies, Israel	Founder and Head of Computer Science Department
2000-Present	Computer Science Department, College of Management Academic Studies, Israel	Associate Professor, Faculty Member
2015 - Present	Computer Science Department, College of Management Academic Studies, Israel	Developing a Mechanism for Ongoing Monitoring and Improvement of School Program
2016 - Present	College of Management Academic Studies, Israel	Developing Computer Science MOOCs

Offices in Academic Administration

Dates	Institution and Department	Offices in Academic Administration
1998-2010	Computer Science Department, College of Management Academic Studies, Israel	Founder and Head of Computer Science Department
2002 -2011	Computer Science Department, College of Management Academic Studies, Israel	Head of R&D Institute for Intelligent Video Systems
2010 - Present	Computer Science Department, College of Management Academic Studies, Israel	Head of Academic Programs Development Committee
2015 - Present	Computer Science Department, College of Management Academic Studies, Israel	Head of R&D Institute for Computational Medicine

Scholarly Positions and Activities outside the Institution

Dates	Institution and Department	Scholarly Positions and Activities
1989 - 1992	Computer Science Department, Tel Aviv University, Israel	M.Sc. Co-Advisor (together with Prof. Amir Averbuch)

Participation in Scholarly Refereed Conferences

a. Active Participation

Date	Name of Conference	Place	Subject of Lecture/Discussion	Role
2002	22nd Convention of Electrical and Electronics Engineering in Israel	**Tel Aviv**	Arbitrary Background Picture Segmentation	Presenting the Paper
2003	3rd International Symposium on Image and Signal Processing and Analysis (ISPA)	**Rome**	Video Syntactic Coding Optimization	Presenting the Paper
2004	IEEE International Workshop on Biomedical Circuits and Systems	**Singapore**	Improving and Optimizing Video Contrast for Endoscopy Imaging	Presenting the Paper
2005	IEEE Int. Workshop on Biomedical Circuits and Systems	**Shanghai**	Endoscopy Imaging Intelligent Contrast Improvement	Presenting the Paper
2006	IEEE 10th International Symposium on Consumer Electronics ISCE	**St. Petersburg**	Video Syntactic Coding Optimization	Presenting the Paper
2008	Defense and Security International Conf., SPIE	**Orlando**	Automatic Improvement of X-ray Object Recognition	Presenting the Paper
2008	IEEE 25-th Convention of Electrical and Electronics Engineers in Israel	**Eilat**	Image Data Preparation for Intelligent Security Systems	Presenting the Paper
2009	Eurocon	**St. Petersburg**	Unmanned Object Detection for Image Surveillance Systems	Presenting the Paper

Research Grants

a. Grants Awarded

Role in Research	Co-Researchers	Topic	Funded by/Amount	Year
Co - Investigator	Prof. A. Averbuch, Prof. E. Turkel	Asynchronous Methods for Numerical Solutions of PDE on Parallel Computers	Israeli Academy of Sciences and Humanities/10,000 USD	1990

Principal Investigator	Prof. Armon Carmel	Technological Kit for Diagnosis, Monitoring, and Training Early Stage Dementia Patients	KROL/7,500 USD	2015

b. Submission of Research Proposals – Pending

Role in Research	Co-Researchers	Topic	Funded by	Year
Principal Investigator	**Israel**: Dr. Ido Ziv, Dr. Hadar Shalev **Germany**: Prof. Meyer_Lindenberg **PA**: Prof. Mohammed Shahin	Early Identification and Intervention for Stress Related Disorders Using mHealth	DFG	2016

Submission of Research Proposals – Not Funded

Role in Research	Co-Researchers	Topic	Funded by	Year	Score
Principal Investigator	**Israel**:Hartech Technologies LTD **South Korea**: Infosyscom Inc.	Network Centric Command and Control System Concepts Laboratory for Coastal Surveillance	KORIL – Korea Israel Binational Fund (500,000 USD)	2012	**Maximum** score. However, support **was stopped** as the Korean partner had never delivered his first milestone commitment

Scholarships, Awards and Prizes

Year	Scholarships, Awards and Prizes	Institution and Department	Awarded by	Topic
1987-1989	Computer Science Eshkol Post - Doctoral Fellowship (3 Yrs.)	Computer Science Department, Tel Aviv University	The Israeli National Council for Research and Development)	Parallel Processing, Signal Processing

Teaching

a. Courses Taught in Recent Years

Year	Course Name	Type: Lecture/Seminar/Workshop/ High Learn Course/Introduction	Degree	No. of Students
1995	Signal Processing	Lecture	M.Sc.	35
1998 - 2005	Complex Analysis for Signal Processing			

2000 - 2002	Mathematical Analysis for CAD	Lecture	B.Sc.	100
1998 - present	Calculus 1 Calculus 2 Calculus 3	Lecture	B.Sc.	70 Each
2014	Advanced Topics in Computer Science	Seminar	B.Sc.	30

b. **Supervision of Graduate Students**

Co - Advisor	Name of Student	Title of Thesis	Degree	Completion Date	Students' Achievements
Prof. A. Averbuch, Prof. M. Israeli	Dganit Amitai	Asynchronous Numerical Solution of PDEs on Parallel Computers	M.Sc.	1989	M.Sc. Tel Aviv University
Prof. A. Averbuch	Ayelet Firer	Adaptive Image Coding on a Parallel Machine	M.Sc.	1989	M.Sc. Tel Aviv University
Prof. A. Averbuch	Tal Kapon	Parallel Processing in Radar Single Target Tracking Processing	M.Sc.	1990	M.Sc. Tel Aviv University
Prof. A. Averbuch	Gil Aharoni	Local Cosine Transform – A Method for Reduction of the Blocking Effect	M.Sc.	1992	M.Sc. Tel Aviv University

Professional Experience

Dates	Institution and Department	Scholarly Positions and Activities
1986 - 1998	Israeli Ministry of Defense	Head of Two Long – Term Scientific Projects

The College of Management
Academic Studies

PUBLICATIONS[1]

Ph.D. Dissertation

Title of Doctoral Dissertation:

Theoretical Studies of Mesoscale Eddies and Their Influence on Acoustic Transmission through the Ocean

Names of Advisors: Prof. M. J. Jacobson and Prof. W. L. Siegmann

Department of Mathematical Sciences

Rensselaer Polytechnic Institute, Troy, NY, USA

Date of award: May 1983

Articles in Refereed Journals

Published

1. **S. Itzikowitz**, M.J. Jacobson, W.L. Siegmann, Short-range acoustic transmission through cyclonic eddies between a submerged source and receiver, J. Acoust. Soc. Am. 71 (5), 1131-1144 (1982).

2. **S. Itzikowitz**, M.J. Jacobson, W.L. Siegmann, Modeling of long-range acoustic transmission through cyclonic and anticyclonic eddies, J. Acoust. Soc. Am. 73 (5), 1556-1566 (1983).

3. **S. Itzikowitz**, M.J. Jacobson, W.L. Siegmann, Deep Ocean ray transmission over convergent and divergent sloping bottoms, J. Acoust. Soc. Am. 74 (4), 1250-1259 (1983)

4. Y. Feliks, S. **Itzikowitz**, Movement and geographical distribution of anticyclonic eddies in the Eastern Levantine Basin, Deep – Sea Research 34 (9), 1499- 1508 (1987).

5. A. Averbuch, **S. Itzikowitz**, T. Kapon, Parallel implementation of multiple model tracking algorithms, IEEE Trans. On Parallel Distributed Systems 2 (2), 242 – 252 (1991).

6. A. Averbuch, **S. Itzikowitz**, T. Kapon, Radar target tracking – Viterbi vs. IMM, IEEE Trans. On Aerospace and Electronics Systems 27 (3), 550-563 (1991).

7. **S. Itzikowitz**, E. Sammsonov, H. Primack, and A. Averbuch. Efficient Parallel Algorithm for the Solution of Tridiagonal Systems Associated with the Underwater Acoustic Parabolic Equation, in Computational Acoustics – Acoustic Propagation, edited by D. Lee, R. Vichnevetsky, A.R. Robinson (Elsevier Science Publishers B.V., The Netherlands, 1993), pp.221-232.

8. D. Amitai, A. Averbuch, M. Israeli, **S. Itzikowitz**, Parallel adaptive and time-stabilizing schemes for constant – coefficient parabolic PDEs, Computers & Mathematics with Applications 24 (10) 33-53, (1992).

[1] **Order of Authors is alphabetic if their contribution is the same and non-alphabetic otherwise**

9. **S. Itzikowitz**, A. Averbuch, General smoothing techniques for estimating deterministic undamped sinusoidal frequencies from noisy data, IEEE Trans/ on Acoustics, Speech, and Signal Processing 41 (4), 1698 – 1701, (1993).

10. D. Amitai, A. Averbuch, M. Israeli, **S. Itzikowitz**, E. Turkel, A survey of Asynchronous finite – difference methods for parabolic PDEs on multiprocessors, Applied Numerical Methods 12' 27 – 45 (1993).

11. D. Amitai, A. Averbuch, **S. Itzikowitz**, E. Turkel, Asynchronous and corrected – asynchronous numerical solutions of parabolic PDEs on parallel MIMD multiprocessors, Numerical Algorithms, 6 (III-IV), 275 -296 (19914).

12. A. Averbuch, E. Gabber, **S. Itzikowitz**, B. Shoham, On parallel and elliptic single/multi – grid solutions about aligned and nonaligned bodies using VMMP, Scientific Programming 3, 13 – 32 (1994).

13. D. Amitai, A. Averbuch, M. Israeli, **S. Itzikowitz**, On parallel asynchronous high – order solution of parabolic PDEs, Numerical Algorithms, 12 (I), 159 – 192, (1996).

14. **S. Itzikowitz,** A. E. Mackay, E. Z. Prisman, Negative option values implicit in the Israeli bond market, Banking Review (1995).

Articles in Refereed Conference Proceedings

Published

1. **S .Itzikowitz,** S. Sheraizin. Arbitrary Background Picture Segmentation. Proceeding of the 22nd Convention of Electrical and Electronics Engineering in Israel, December 2002
2. **S. Itzikowitz**, S. Sheraizin. Video Syntactic Coding Optimization. Proceeding of the 3rd International Symposium on Image and Signal Processing and Analysis (ISPA), Rome, September 2003
3. **S. Itzikowitz**, S. Sheraizin. Improving and Optimizing Video Contrast for Endoscopy Imaging. 2004 IEEE International Workshop on Biomedical Circuits and Systems, Singapore, December 2004
4. S. Sheraizin, **S. Itzikowitz**. Endoscopy Imaging Intelligent Contrast Improvement, IEEE Int. Workshop on Biomedical Circuits and Systems, September 2005, Shanghai
5. **S. Itzikowitz**, S. Sheraizin. Video Syntactic Coding Optimization, IEEE 10th International Symposium on Consumer Electronics ISCE 2006 St. Petersburg (Russia), June 2006

6. **S. Itzikowitz**, S. Sheraizin. Automatic Improvement of X-ray Object Recognition. Defense and Security International Conf., SPIE, Orlando, Florida, USA, March 2008
7. **S. Itzikowitz,** S. Sheraizin. Automatic Improvement of X-ray Object Recognition. Defense and Security International Conf., SPIE, Orlando, Florida, USA, March 2008
8. S. Sheraizin, **S. Itzikowitz**. Unmanned Object Detection for Image Surveillance Systems, Eurocon 2009, St. Petersburg (Russia), May 2009

Other Scientific Publication

Published

1. **S. Itzikowitz**, R. F. Henrick, M. J. Jacobson, W.L. Siegmann, Acoustically relevant eddy effect on ocean surface height, RPI Math, Rep. No. 122, January 1979

Summary of My Research Activities and Future Plans

Since 2015 I have changed my research focus on Computational Medicine and Process Mining (**NOT** Data Mining)