Prof. **Menachem Domb**, DSc.

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1. Education:

Post Doctorate	**Washington University in MO**, USA. The engineering faculty, the optimization center. Research for the US Military Logistics Center
DSc, Doctor of Science	**Technion – Israel Institute of Technology**, Industrial and Management Engineering school, department of Operations research and Systems Analysis
MSc	**New York University (NYU)**, USA. Applied Mathematics and Computer Science –Currant Institute for Mathematical Sciences
MBA	**Tel Aviv University**, Israel, Faculty of Management, The Recanati center
MA	**Queens College**, New York, USA, Computer Science Department
BSc	**Bar-Ilan University**, Israel, Department of Mathematics and Computer Science

2. Academy experience:

2001-current	Associate Professor, Full time. Ashkelon Academy, Head of the Computer Science Department.
2010-Current	Associate Professor, Bar-Ilan University, Israel. Teaching at the CPA master's degree, risk management.
2012 - 2014	Associate Professor, Ben Gurion University in Beer Sheba, Israel. Software Engineering and Computer Science departments
2007 - 2009	Associate Professor, BITS PILANI, INDIA Head of Master's degree in Software engineering program in Pune, India.
2001 - 2002	Senior Lecturer Technion, Institute of Technology, Haifa, Israel. Industrial Engineering Department, Operations Research

1997 - 2001   Visiting Professor, Washington university MO, USA
School of engineering, the Optimization Center

1993 - 1996   Senior Lecturer, Technion, Institute of Technology, Haifa, Israel.
Teaching the Industrial Engineering Department, Operations Research

1993 - 1996   Lecturer, College of Management, Tel-Aviv, Israel.
Computer Science Department

3. <u>Professional experience</u>:

1997-2013   Amdocs, Director, Head of System-Integration and Consulting Division, India

1997-2001   Cognita – Generation of multi-agent Simulation systems. Founder and CEO

1987-1997   Comet, Vice President of Marketing and Software Development

1982-1987   Israeli Ministry of Defense, CIO, Headquarters in Israel and 4.5 years CIO of the Ministry of Defense Mission to the USA in NY, USA

4. <u>Research areas:</u>

1. Cyber Security with focus on Internet of Things [IoT]
2. Access control technologies and Security using Biometrics
3. Telecom and networks

5. Recent Magazine Publications

1. Domb, M.; Leshem, G. Secured Key Distribution by Concatenating Optical Communications and Inter-Device Hand-Held Video Transmission. Applied System Innovation 2020, vol 3, issue 1, 11. DOI 10.3390/asi3010011, MDPI 02-2020
2. Domb M.; Joshi J. Risk Mitigation Model for Data Loss: A Case Study Approach, Journal of Advanced Research in Dynamical and Control Systems 11(0009-SPECIAL ISSUE): pages: 440-447, DOI: 10.5373/JARDCS/V11/20192590
3. Joshi S.; Domb M. Mitigating Risk of Revenue Leakages on the Customer and Vendor side in Ecommerce Sector, International Journal of Engineering &Technology, 7 (3.29) 2018-10-09, Pages: 161-166

4. Domb M.; Bhatia S. Topography analysis using wearable devices and its integration in navigation systems, International Journal of Engineering and Technology(UAE) v7 n3 (2018): pages 125-129, 7844732802, DOI: 10.14419/ijet.v7i3.29.18539, August 2018

5. Domb M.; Leshem G.; An Adaptive Classification Framework for data streaming anomaly detection. Vol. 7, No. 3, 2017 on US-C Education Review A & B, ISSN2161-623X and 6248, USA

6. Joshi S.; Domb M. Impact of Flash Sales on Consumers & E-Commerce, Global Science and Technology Forum, GSTF Journal on Business Review (GBR). ISSN: 2010-4804, E-periodical: 2251-2888

7. Domb M.; Bonchek E.; Leshem G, Lightweight adaptive Random-Forest for IoT rule generation and execution, Elsevier, Journal of Information Security and Applications, Volume 34, Part 2, 2017, Pages 218-224, ISSN 2214-2126, http://www.sciencedirect.com/science/article/pii/S2214212616302332 https://doi.org/10.1016/j.jisa.2017.03.001

8. Liao C.; Cheng S.; Domb M, On Designing Energy Efficient Wi-Fi P2P Connections for the Internet of Things, *2017 IEEE 85th Vehicular Technology Conference (VTC Spring),* Sydney, NSW, 2017, pp. 1-5, DOI: 10.1109/VTCSpring.2017.8108292. Published in IEEE Xplore

9. Domb M.; Joshi S., Measuring CES for Telecom Operators. Global Science and Technology Forum, Journal on Business Review (GBR) Vol.4 No.2, December 2015, pages 45-52

10. Domb M.A., Transaction independence: The road to cooperative systems, Elsevier, Mathematical and Computer Modelling, Volume 29, Issue 1, 1999, Pages 1-31, ISSN 0895-7177, https://doi.org/10.1016/S0895-7177(98)00176-9, http://www.sciencedirect.com/science/article/pii/S0895717798001769

6. <u>Recent Conference Publications</u>

1. Domb M. (2021) A Distributed Implementation of Signature Matching Algorithms for IoT Intrusion Detection. In: ICT Systems and Sustainability. Advances in Intelligent Systems and Computing, vol. 1270 Pages 165-175, Springer, Singapore. 15/12/2020, https://doi.org/10.1007/978-981-15-8289-9_16

2. Domb M., Leshem G. (2021) Suspected Software-Code Restoration Using a Dictionary Led System. In: Arai K., Kapoor S., Bhatia R. (eds) Proceedings of the Future Technologies Conference (FTC) 2020, Volume 3. FTC 2020. Advances in Intelligent Systems and Computing, vol. 1290. Springer, Cham. https://doi.org/10.1007/978-3-030-63092-8_61

3. Domb M. (2021) A Framework of Signature-Matching-Algorithms for IoT Intrusion Detection. In: Arai K., Kapoor S., Bhatia R. (eds) Proceedings of the Future Technologies Conference (FTC) 2020, Volume 3. FTC 2020. Advances in Intelligent Systems and Computing, vol. 1290. Springer, Cham. https://doi.org/10.1007/978-3-030-63092-8_60

4. Domb M. (2021) Distributed Modular Multiplication to Be Processed by a Network of Limited Resources Devices. In: Yang XS., Sherratt R.S., Dey N., Joshi A. (eds) Proceedings of Fifth International Congress on Information and Communication Technology. ICICT 2020. Advances in Intelligent Systems and Computing, vol. 1183. Springer, Singapore. https://doi.org/10.1007/978-981-15-5856-6_9

5. Leshem G., Domb M. (2020) Face Authentication Using Image Signature Generated from Hyperspectral Inner Images. In: Yang XS., Sherratt S., Dey N., Joshi A. (eds) Fourth International Congress on Information and Communication Technology. Advances in Intelligent Systems and Computing, vol. 1041. PP 113-125, Springer, Singapore. https://doi.org/10.1007/978-981-15-0637-6_9

6. Domb M., Joshi S. Risk Mitigation Model for Data Loss: A Case Study Approach, Journal of Advanced Research in Dynamical and Control Systems 11(0009-SPECIAL ISSUE):440-447, DOI: 10.5373/JARDCS/V11/20192590, 09/2019

7. Domb M., Joshi S. Managing Revenue Assurance in Ecommerce based on ML-AI and Big data. BIT's 6th Annual Global Congress of Knowledge & Economy [GCKE], 09-2019 China

8. M. Domb and G. Leshem, "Secured Key Generation and Transmission, using Intel-SGX and Optical Communications," 2019 Third World Conference on Smart Trends in Systems Security and Sustainability (WorldS4), London, United Kingdom, 2019, pp. 357-362, DOI: 10.1109/WorldS4.2019.8903956. Added to IEEE Xplore: 21 November 2019.

9. Domb M. Remote Water-Meter Reading using Image Processing and RF, 15th Annual International Conference on Information Technology & Computer Science, Proceedings published by Springer, May 2019

10. Leshem G.; David A.; Domb M. Probability-Based Keys Sharing for IoT Security. IEEE International Conference on the Science of Electrical Engineering, pp. 1-5, DOI:10.1109/ICSEE.2018.8645999, Dec. 2018

11. Domb M.; Joshi S. Sources and Solutions of Revenue leakage in E-commerce due to Cyber Fraud and System/Support failures. ICEME-The 9th International Conference on E-business, Management, and Economics, Conference paper, ACM NY electronic library, Pages 22-27, 08/2018 Researchgate

12. Domb M.; Leshem G. Brief announcement: Image Authentication Using Hyperspectral Layers, 2nd International Symposium on Cyber Security Cryptography and Machine Learning book (CSCML 2018), DOI: 10.1007/978-3-319-94147-9_14, Chapter 14 Brief Springer Nature, June 2018

13. Domb M. IoT Anomaly Detection–Rule Generation and Execution. Conference paper of the ICC2017, ACM 10/2017

14. Domb M. Simulated Machine Learning for Classification and Anomaly Detection. Conference paper of the BIT's 4th Annual Congress of Knowledge

Economy, BIT's 4th Annual Congress of Knowledge Economy 2017, 19-20/09/2017, Qingdao, China Qingdao, China, 2017

15. Joshi S.; Domb M. Impact of Flash Sales on E-Commerce Industry, QQE 2017 Conference Proceedings/paper: ISSN: 2251-2012, E-Periodical ISSN: 2251-2020, DOI: 10.5176/2251-2012_QQE17.9, June 2017

16. Domb M. IoT Anomaly Detection–Rule Generation and Execution, Conference paper, ICC-2017, International conference in IoT and cloud computing, March 22, 2016, University of Cambridge, UK. ACM conference proceedings

17. M. Domb, G. Leshem, E. Bonchek-Dokow, E. David and Y. Lee, "Sparse sampling for sensing temporal data — building an optimized envelope," IEEE-2016 Conference on Technologies and Applications of Artificial Intelligence (TAAI), Hsinchu, 2016, pp. 241-247, DOI: 10.1109/TAAI.2016.7880162. Added to IEEE-Xplore on 20 March 2017

18. Domb M.; Bhatia S. Topography Analysis and its Integration in Navigation Systems. Conference Paper, Real-Time Web Solutions Conference 01-04/08/2016, New York University, NY, USA

19. Domb M.; Joshi S. OBC optimization for Maximizing Brand Equity in the Telecommunication Industry. Conference paper, 6th Annual International Conference on Qualitative and Quantitative Economics Research, QQE 2016, 05/2016 Singapore. Published in GSTF Journal on Business Review (GBR) Vol.4 No.3, December 2016

20. Domb M.; Impact of Online Brand Communities in Indian Telecom Industry, 9th Annual International Conference Athens Institute for Education and Research (Atiner), Greece, 03/2016

21. Domb M.; Joshi S. CES Measurement Technology for Telecom Operators. 5th Annual International Conference on Qualitative and Quantitative Economics Research (QQE 2015)

22. Domb M. Topography Aware Navigation Aid for the Visually Impaired Pedestrians. 8th Annual International Conference Athens Institute for Education and Research (Atiner), Greece

23. Domb M. Downsizing multi to comply with the Internet of Things constraints, IEEE SENSORS 2019, 27-30 Oct 2019, accepted

7. **Patents**:

Patent #	Year of Publication	Title
8,488,757	2013	System, method, and computer program product for determining a recommended device from a plurality of devices for initiating a phone call
8,401,937	2013	System, method, and computer program product for identifying an optimized rating scheme
8,380,593	2013	System, method, and computer program for dynamically altering a rating based on network conditions
9,301,315	2016	System, method, and computer program for transmitting network communications at a point in time automatically determined based on communication rates
9,749,247	2017	System, method, and computer program for transmitting network communications at a point in time automatically determined based on communication rates-continuation

Languages:

English