

Name: Eran Gur

Date: February 22nd 2022

CURRICULUM VITAE

1. Personal Details

Permanent Home Address: 16 Remalt st., Ramat Gan, 52281, Israel

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2. Higher Education

A. Undergraduate and Graduate Studies

Period of Study	Name of Institution and Department	Degree	Year of Approval of Degree
1987-1991	Tel Aviv University Department of Electrical and Electronics Engineering	B.Sc.	1992
1994-1998	Tel Aviv University Department of Electrical and Electronics Engineering	M.Sc.	1999
1998-2004	Tel Aviv University Department of Electrical and Electronics Engineering	Ph.D.	2005

B. Post-Doctoral Studies

N.A.

3. Academic Ranks and Tenure in Institutes of Higher Education

Dates	Name of Institution and Department	Rank/Position
3/2004- 9/2009	Shenkar College of Engineering and Design, Department of Electrical and Electronics Engineering	Lecturer
10/2009- 9/2011	Shenkar College of Engineering and Design, Department of Electrical and Electronics Engineering	Senior Lecturer
09/2011- present	Azrieli - College of Engineering, Department of Electrical and Electronics Engineering	Senior Lecturer

4. Offices in Academic Administration

יש לציין בסדר כרונולוגי עולה תפקידים כמו: דיקן, ראש חוג, ראש מכון, ראש מגמה, ראש תכנית, תפקידים בוועדות וכיו"ב במוסד ובמוסדות אחרים להשכלה גבוהה.

2006 - 2011	Head, "Electronic Communications" specialization, Shenkar College of Engineering and Design, Department of Electronics Engineering.
2010 - 2011	Head, Electronics Engineering Department, Shenkar College of Engineering and Design.
2013 - Present	Member of the JCE acceptance committee, Azrieli Academic College of Engineering, Jerusalem.
2014 – 2015	Member of the Conference and Study Committee, Azrieli Academic College of Engineering, Jerusalem.
2015 – 2017	Dean of Students, Azrieli Academic College of Engineering, Jerusalem.
2017 – 2019 and	
2021- present	Head, Electronics Engineering Department, Azrieli Academic College of Engineering, Jerusalem.

5. Scholarly Positions and Activities outside the Institution

N.A.

6. Participation in Scholarly Conferences

a. Active Participation

הרצאות מוזמנות בכנסים יש להדגיש בגופן **בולט** (**Keynote speaker/Invited**) (lecture).

כנסים בארץ:

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
1996	Nineteenth Convention of Electrical and Electronics Engineers in Israel	Israel	Optical fuzzy controllers	
2002	12th Israeli Conference of Industrial Engineering and Management	Israel	Using Clustering for Improving System Investigation	

כנסים בינלאומיים:

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
1999	SPIE Enabling Photonic Technologies for Aerospace Applications	USA	Switching architecture iterative optimization	
2000	SPIE Applications and Science of Neural Networks, Fuzzy Systems, and Evolutionary Computation	USA	Optical implementation of fuzzy logic based controllers	
2000	SPIE Optics in Computing	USA	Multistage binary optical processing	
2002	ICO XIX	Italy	Optical generation of fuzzy based rules in a dual input environment	
2002	ICO XIX	Italy	Solving the out-of-focus OTF reduction using a phase only filter and fuzzy logic reasoning	
2002	Spie Photonics Asia	China	Modular optical systems for nonlinear data processing and manipulation	
2002	SPIE Applications and Science of Neural Networks, Fuzzy Systems, and Evolutionary Computation	USA	Phase-only filter solution based on fuzzy logic for the defocus problem	

כנסים בינלאומיים - המשך

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
2002	SPIE Applications and Science of Neural Networks, Fuzzy Systems, and Evolutionary Computation	USA	CPU and memory allocation optimization using fuzzy logic	
2003	ICO topical meeting on Polarization Optics	Finland	Polarization control using three 1-D retarders and fuzzy logic reasoning	
2004	IEEE - ICIP2004	Singapore	Cell Nuclei Segmentation Using Fuzzy Logic Engine	
2007	World Congress on Engineering 2007	U.K.	Iterative Single-Image Digital Super-Resolution Using Partial High-Resolution Data	
2009	IEEE - IPFA2009	China	Improving failure analysis navigation Using optical super resolved imaging	
2010	ISPRS TC VII Symposium	Austria	Super resolved remote sensing by fusion of multi spectral and spatial data	
2010	IEEE – IPTA2010	France	An Adaptive Algorithm for Phase Retrieval from High Intensity Images	
2010	AMC-2010	USA	ULSI Copper and Silver Interconnect Microstructure Based Image Enhancement Algorithm	
2012	COSI-2012	USA	Speckle based Sensing Device for Fast Detection of Malaria	
2012	ICFHR-2012	Italy	Retrieval of Rashi Semi-Cursive Handwriting via Fuzzy Logic	
2013	SPIE -3-D Imaging, Visualization, and Display	USA	Usage of moving nanoparticles for improved holographic recording	
2013	OSA Technical Digest, Digital Holography and 3-D Imaging	USA	Resolution Enhancement and Orders Separation in On-axis Nanoparticles based Digital Holography	
2014	ICO-XXIII	Spain	Image Nonlinearity and Non-uniformity Corrections Using Gerchberg-Papoulis Algorithm in Imaging Systems with Gamma Detector	
2015	SEFI-2015	France	On the Necessity of Midterm Exams in Electrical Engineering Courses	
2016	SEFI-2016	Finland	Does preparing homework really help EE Students pass the final exams?	

2017	iCERi2017	Spain	On the necessity of preliminary requisitions in Undergraduate electrical engineering studies	
2018	iCERi2018	Spain	Gender Diversity in Electrical Engineering	
2018	iCERi2018	Spain	Grading Exams – More Than Just a Number	
2019	ACEID2019	Japan	Tailor Made Teaching for Students in Public Colleges	
2020	ICL2020	Estonia (Virtual)	Jewish Orthodox female in Israel Higher Education- A Test Case	
2021	REEE-2021	Italy (Virtual)	The Refractive Periscope – a Novel Concept	
2021	SEFI-2021	Germany (Virtual)	Pace – Pedagogy for Academic College Engineering - New Variants On Hybrid Learning	
2021	ICL2021	Germany	Tailor Made Hybrid Learning for Engineering Students in Peripheral Colleges	
2022	EduLearn22	Spain	Engineering Studies In Hebrew For Arabic Speaking Students – The Effect Of Studying In A Non-Native Language	

b. Organization of Conferences or Sessions

2011 Seminar on Microelectronics and VLSI, Shenkar College of Engineering and Design (7 lectures on April 14th 2011).

7. Invited Lectures\ Colloquium Talks

Date	Place of Lecture	Name of Forum	Presentation/Comments
2002	Spie Photonics Asia	China	Modular optical systems for nonlinear data processing and manipulation

8. Research Grants

a. Grants Awarded

Role in Research	Co-Researchers	Topic	Funded by/ Amount	Year
Ph.D. Student	David Mendlovic (PI), Zeev Zalevsky (Co-PI)	Modular optical systems for nonlinear data processing and manipulation*	Levi Eshkol scholarship by the Ministry of Science, Culture and Sport, Israel.	2000-2003
Co-Researcher	Dr. Amir Shemer, Dr. Ariel Schwarz	Medical ventilator	The Ministry of Science &	2020

		splitter	Technology	
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*Led to publication of Peer Reviewed papers 5-8, and Conference Proceedings 4-11

b. Submission of Research Proposals – Pending

N.A.

c. Submission of Research Proposals – Not Funded

N.A.

9. Scholarships, Awards and Prizes

N.A.

10. Teaching

a. Courses Taught in Recent Years

Year	Name of Course	Type of Course Lecture/Seminar/ Workshop/High Learn Course/ Introduction Course (Mandatory)	Degree	Number of Students
2005-present	Communication Systems	Lecture	B.Sc.	30-40
2007-present	Signals and Systems	Lecture	B.Sc.	30-40
2008-2011, 2014-present	Digital Communications	Lecture	B.Sc.	10-20
2011-2017	Optical Communications	Lecture	B.Sc.	10-20
2014-2019	Introduction to Semiconductor Devices	Introduction Course	B.Sc.	30-40
2004-2010, 2013	Analog Circuits and Devices	Introduction Course	B.Sc.	30-40
2004-2010, 2016-present	Introduction to Electrical Engineering	Introduction Course	B.Sc	30-40
2009-2012	Optoelectronics Systems and Devices	Lecture	B.Sc./ M.Sc.	10-20
2011-2012	Semiconductor based IR Detectors	Lecture	B.Sc./ M.Sc.	10-20
2004, 2017- present	Engineering Software Tools (Matlab)	Lecture	B.Sc.	30-40
2020- present	Digital Electronic Circuits	Lecture	B.Sc.	10-20

b. Supervision of Graduate Students

N.A.

11. Miscellaneous

When I became the head of the department of Electronics and Electrical Engineering at Shenkar college of Engineering and Design, I established a new specialization field at Shenkar - "Lighting" - that combines Electro-optics and light design. I also initiated an annual conference on microelectronics and VLSI.

From September 2014 to September 2016, I was the coordinator on behalf of Azrieli Academic College of Engineering, of the EU project: "Tempus SESREMO" (Strengthening education in space-based remote sensing for monitoring of eco systems in Israel, Azerbaijan, and Kazakhstan). This project was headed by the Berlin Thechnical University. As a part of this cooperation with the EU, the department of Electrical and Electronics Engineering at Azrieli Academic College of Engineering incorporated Remote Sensing Applications in two advanced courses in Digital Communications and Digital Image Processing.

From October 2015 to October 2017, I served as the Dean of Students at Azrieli Academic College of Engineering, Jerusalem.

From October 2017 until mid-2019, I served as the head of the department of Electronics and Electrical Engineering at Azrieli Academic College of Engineering, Jerusalem. During that time I initiated, with the help of the department's senior staff, a new set of specializations for 4th year students.

PUBLICATIONS

A. Ph.D. Dissertation

The Ph.D. dissertation was done at Tel Aviv University, under the supervision of Prof. David Mendlovic, in Electrical Engineering, Physical Electronics – Electro-optics, during 1998-2004. The Ph.D. was named "Modular optical systems for nonlinear data processing and manipulation", and it combined knowledge in image processing, switching in communication networks and knowledge in modern optics, especially in the field of Diffractive Optical Elements (D.O.E.). The main topics covered during the Ph.D. are Multi stage binary phase-only image processing, Optical multi stage interconnection network optimization, Optical implementation of non-linear operators, Increasing depth-of-focus of optical imaging systems and Fuzzy logic inference engine

implementations, such as optical fiber polarization control and image segmentation (C1, Papers D5-8, F4-11). The Dissertation was 148 pages long and it was written in English.

A. Authored Books – Published

1. "New Approaches to Image Processing based Failure Analysis of Nano-Scale ULSI Devices (Micro and Nano Technologies)", Zeev Zalevsky, Pavel Livshits and Eran Gur. William Andrew, 2013. (110 pages)

Authored Books - Accepted for Publication

N.A.

B. Edited Books and Special Journal Issues – Published

N.A.

Edited Books and Special Journal Issues - Accepted for Publication

N.A.

C. Other Scientific Publications:

Published

1. "Modular Optical Systems for Data Processing and Manipulation: Theory and Applications", Eran Gur, Publisher - Verlag Dr. Muller, 2009. (162 pages)

Accepted for Publication

N.A.

D. Articles in Refereed Journals

Published

(IF=Impact Factor, Citations are according to Google Scholar, PI = Principle Investigator ,C = Co-Researcher, S = Student)

1. D. Mendlovic^{PI} and E. Gur^S, "Three Dimensional Sensing Using Lenslet, Dammann Grating and a Combination", Applied Optics, Vol. 37, No. 1, pp. 125-129, 1998. (IF = 1.689)
2. E. Gur^S, D. Mendlovic^{PI}, and Z. Zalevsky^C, "Optical Implementation of Fuzzy Logic Controllers: Part I", Applied Optics, Vol. 37, No. 29, pp. 6937-6945, 1998. (IF = 1.689, Cited 24 times)

3. E. Gur^S, D. Mendlovic^{PI}, and Z. Zalevsky^C, "Optical Implementation of Fuzzy Logic Controllers: Part II", *Applied Optics*, Vol. 38, No. 20, pp. 4354-4358, 1999. (IF = 1.689, Cited 3 times)
4. Z. Zalevsky^C, E. Gur^S, and D. Mendlovic^{PI}, "A Discussion on Multi Dimensional Fuzzy Control", *Applied Optics*, Vol. 39, No.2, pp.333-6, 2000. (IF = 1.689, Cited 14 times)
5. D. Mendlovic^{PI}, Z. Zalevsky^C, and E. Gur^S, "Optical Implementation of 2nd order Volterra Operators", *JOSA A*, Vol. 18, No. 1, pp. 164-169, 2001. (IF = 1.665, Cited 1 time)
6. E. Gur^S, D. Mendlovic^{PI}, and Z. Zalevsky^C, "Optical Generation of Fuzzy Based Rules", *Applied Optics*, Vol. 41, No. 23, pp. 4653-4761, 2002. (IF=1.689, Cited 3 times)
7. E. Gur^S, Z. Zalevsky^C, N. Cohen^S, and D. Mendlovic^{PI}, "Iterative Approach for Optimizing a Multistage Interconnection Network", *Journal of Optical Networking*, Vol. 1, No. 10, pp. 363-372, 2002. (IF = 1.433, Cited 1 time)
8. Z. Zalevsky^C, E. Gur^S, and D. Mendlovic^{PI}, "Fuzzy Logic Optical Optimization of Mainframe CPU and Memory", *Applied Optics*, Vol. 45, No.19, pp. 4647-4651, 2006. (IF=1.689, Cited 2 times)
9. E. Gur^{PI}, and Z. Zalevsky^C, "Single-Image Digital Super-Resolution A Revised Gerchberg-Papoulis Algorithm", http://www.iaeng.org/IJCS/issues_v34/issue_2/IJCS_34_2_14.pdf, IAENG, international journal of computer science, Vol. 32, Issue 2, paper 14, 2007. (Cited 21 times)
10. E. Gur^{PI}, V. Sarafis^C, I. Falat^C, F. Vacha^C, M. Vacha^C and Z. Zalevsky^C, "Super-resolution via iterative phase retrieval for blurred and saturated biological images", *Optics Express*, Vol. 16, Issue 11, pp. 7894-7903, 2008. (IF = 3.546, Cited 4 times)
11. E. Gur^C, and Z. Zalevsky^{PI}, "Image de-blurring through static or time varying random perturbation medium", *Journal of Electronic Imaging*, Vol. 18, 033016, 2009. (IF = 1.061, Cited 13 times)
12. E. Gur^C, Y. Weizman^C, and Z. Zalevsky^{PI}, "Superresolved Imaging of Microelectronic Devices for Improved Failure Analysis", *IEEE Transactions on Device and Materials Reliability*, Vol. 9, Issue 2, pp. 209 - 214, 2009. (IF = 1.516, Cited 2 times)
13. E. Grossman^C, R. Tzioni^C, A. Gur^C, E. Gur^C, and Z. Zalevsky^{PI}, "Optical through turbulence imaging configuration: experimental validation", *Opt. Lett.* Vol. 35, 453-455, 2010. (IF = 1.689, Cited 7 times)
14. E. Gur^C, Y. Weizman^C, P. Perdu^C, and Z. Zalevsky^{PI}, "Radon-Transform-Based Image Enhancement for Microelectronic Chip Inspection", *IEEE Transactions on Device and Materials Reliability*, Vol. 10, Issue 3, pp. 403-408, 2010. (IF = 1.516, Cited 8 times)
15. E. Gur^{PI} and Z. Zalevsky^C, "Resolution Enhanced Remote Sensing Via Multi Spectral And Spatial Data Fusion", *The International Journal of Image and Data Fusion*, Vol. 2, No. 2, pp. 149-165, 2011.

16. E. Gur^{PI} and Z. Zalevsky^C, "Manipulating Multistage Interconnection Networks Using Fundamental Arrangements", *The International Journal of Computer Science and Information Technology*, Vol 2, No 6, pp. 1-11, 2011. (IF=0.477)
17. H. Duadi^C, P. Livshits^C, E. Gur^C, A. Inberg^C, Y. Shacham-Diamand^C, A. Weiss^C, and Z. Zalevsky^{PI}, "A novel algorithm to enhance blurred microscopy images of metallic ultra thin-films microstructures", *Microelectronic Engineering*, Vol. 92, pp. 145–148, 2012. (IF = 1.224, Cited 1 time)
18. D. Cojoc^C, S. Finaurini^C, P. Livshits^C, E. Gur^C, A. Shapira^C, V. Mico^C and Z. Zalevsky^{PI}, "Toward fast malaria detection by secondary speckle sensing microscopy", *Biomedical Optics Express* Vol. 3, Issue 5, pp. 991–1005, 2012. (IF = 3.176, Cited 27 times)
19. Z. Zalevsky^{PI}, E. Gur^C, J. Garcia^C, V. Micó^C, and B. Javidi^C, "Superresolved and field-of-view extended digital holography with particle encoding", *Optics Letters* Vol. 37, Issue 13, pp. 2766–2768, 2012 (IF = 1.689, Cited 23 times) – Also chosen by editors to be published in the *Virtual Journal of Biomedical Optics*, Vol. 7, Issue 9, 2012.
20. M. Aviv^C, E. Gur^C, and Z. Zalevsky^{PI}, "Experimental Results of Revised Missel Algorithm for Imaging through Weakly Scattering Biological Tissue", *Applied Optics* Vol. 52, Issue 11, pp. 2300–2305, 2013 (IF = 1.689) – Also chosen by editors to be published in the *Virtual Journal of Biomedical Optics*, Vol. 8, Issue 5, 2013.
21. A. Shemer^C, A. Schwarz^C, E. Gur^C, E. Cohen^C, and Z. Zalevsky^{PI}, "Image nonlinearity and non-uniformity corrections using Papoulis - Gerchberg algorithm in gamma imaging systems. *Journal of Physics (Conference Series)*, vol. 605, Issue 1, paper 012010, pp. 1-6, 2015. (related to paper F-22)
22. A. Sanjeev, Y. Kapellner, N. Shabairou, E. Gur, M. Sinvani & Z. Zalevsky, "Non-Invasive Imaging Through Scattering Medium by Using a Reverse Response Wavefront Shaping Technique", *Scientific Reports*, volume 9, Article number: 12275 (2019).
23. A. Sanjeev, Y. Kapellner, N. Shabairou, E. Gur, M. Sinvani & Z. Zalevsky, "Author Correction: Non-Invasive Imaging Through Scattering Medium by Using a Reverse Response Wavefront Shaping Technique", *Scientific Reports* volume 10, Article number: 6029 (2020).

E. Articles or Chapters in Scientific Books

(which are not Conference Proceedings)

Published

1. "Optical Information Processing: A Tribute to Adolf Lohmann", H. John Caulfield (Editor). David Mendlovic, Zeev Zalevsky, **Eran Gur**, Gal Shabtay,

- Uriel Levy, and Emanuel Marom, Chap. 13, section 4, pp. 279-307, SPIE press, (2002).
2. "Perspectives in Modern Optics and Optical Instrumentation", David Mendlovic, Zeev Zalevsky, Nadav Cohen, **Eran Gur** and Gal Shabtay, "Free space all optical switching," Anita Publications (New Delhi), 119-154 (2002).
 3. "Multi-dimensional Imaging", Amihai Meiri, **Eran Gur**, Javier Garcia, Vicente Mico, Bahram Javidi and Zeev Zalevsky, Chap10. Super resolved holographic configurations, John Wiley and Sons, 225-242, (2014).
 4. "Educating Engineers for Future Industrial Revolutions", Michael E. Auer, and Tiia Rützmänn (Eds.), **Eran Gur**, Jewish Orthodox Female in Israel Higher Education A Test Case, Springer Nature 757-763, (2021).

F. Articles in Conference Proceedings

Published

1. Gur E., and Mendlovic D., "Optical fuzzy controllers", Nineteenth Convention of Electrical and Electronics Engineers in Israel Proceedings (Cat. No.96TH8190), IEEE, 1996, pp.375-8, Israel. (Cited 1 time)
2. Zalevsky Z., Gur E., Cohen N., and Mendlovic D., "Switching architecture iterative optimization", Proceedings of SPIE - the International Society for Optical Engineering, Vol. 3714, 1999, pp.71-9, USA.
3. Mendlovic D., Zalevsky Z., and Gur E., "Optical implementation of fuzzy logic based controllers", Proceedings of SPIE - the International Society for Optical Engineering, vol.4120, 2000, pp.86-100, USA.
4. Gur E., Zalevsky Z. and Mendlovic D., "Multistage binary optical processing", Proceedings of SPIE - the International Society for Optical Engineering, vol. 4089, 2000, pp. 225-31, USA.
5. Gur E., Mendlovic D., and Zalevsky Z., "Optical generation of fuzzy based rules in a dual input environment", ICO XIX, SPIE proceeding Vol. 4829, 2002, pp.425-426, Italy.
6. Zalevsky Z., Gur E., Elkind D., and Mendlovic D., "Solving the out-of-focus OTF reduction using a phase only filter and fuzzy logic reasoning", ICO XIX, SPIE proceeding Vol. 4829, 2002, pp.1051-1052, Italy. (Cited 1 time)
7. Chizi B., Gur E., Zalevsky Z., and Maimon O., "Using Clustering for Improving System Investigation", Proceedings of the 12th Israeli Conference of Industrial Engineering and Management, 2002, pp.27-32, Israel.

8. Mendlovic D., Zalevsky Z., and Gur E., "Modular optical systems for nonlinear data processing and manipulation", Optical Information Processing Technology, Proceedings of SPIE Vol. 4929, 2002, pp. 10-25, China.
9. Zalevsky Z., Gur E., Elkind D., and Mendlovic D., "Phase-only filter solution based on fuzzy logic for the defocus problem", Proceeding of SPIE Vol. 4787, 2002, pp. 250-258, USA.
10. Zalevsky Z., Gur E., and Mendlovic D., "CPU and memory allocation optimization using fuzzy logic", Proceeding of SPIE Vol. 4787, 2002, pp. 259-266, USA.
11. Gur E., Zalevsky Z., Mendlovic D., and Marom E., "Polarization control using three 1-D retarders and fuzzy logic reasoning", ICO topical meeting on Polarization Optics, 2003, pp. 88-89, Finland.
12. Begelman G., Gur E., Rivlin E., Rudzsky M., and Zalevsky Z., "Cell Nuclei Segmentation Using Fuzzy Logic Engine", ICIP2004, IEEE International Conference on Image Processing, pp. 2937-2940, Singapore. (Cited 57 times)
13. Gur E., and Zalevsky Z., "Iterative Single-Image Digital Super-Resolution Using Partial High-Resolution Data", Lecture Notes in Engineering and Computer Science, World Congress on Engineering 2007, pp. 630-634, U.K. (Cited 6 times)
14. Gur E., Weizman Y., and Zalevsky Z., "Improving failure analysis navigation Using optical super resolved imaging", IEEE 16th International Symposium on the Physical & Failure Analysis of Integrated Circuits (IPFA-2009), pp. 19-23, China.
15. Gur E., Zalevsky Z., and Javidi B., "Super resolved remote sensing by fusion of multi spectral and spatial data", ISPRS TC VII Symposium - 100 Years ISPRS, July 5-7, 2010, IAPRS, Vol. XXXVIII, Part 7B, pp. 255-258, Austria. (Cited 1 time)
16. Avidor G. and Gur E., "An Adaptive Algorithm for Phase Retrieval from High Intensity Images", IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA-2010), pp. 225-228, France.
17. Duadi H., Livshits P., Gur E., Inberg A., Shacham-Diamand Y., Weiss A., and Zalevsky Z., "ULSI Copper and Silver Interconnect Microstructure Based Image Enhancement Algorithm", Proceedings of the Advanced Metallization Committee (AMC), (October 2010), Albany, NY, USA.
18. Cojoc D., Finaurini S., Livshits P., Gur E., Shapira A., Mico V., and Zalevsky Z., "Speckle based Sensing Device for Fast Detection of Malaria", Proceedings of Computational Optical Sensing and Imaging (COSI-2012), Monterey, California, USA.
19. Gur E. and Zalevsky Z., "Retrieval of Rashi Semi-Cursive Handwriting via Fuzzy Logic", Proceedings of the 13th International Conference on Frontiers in Handwriting Recognition (ICFHR-2012), pp. 354-359, Bary, Italy. (Cited 1 time)
20. Meiri A., Gur E., Garcia J., Micó V., Javidi B. and Zalevsky Z., "Usage of moving nanoparticles for improved holographic recording", Proceedings of

- SPIE. 8738, Three-Dimensional Imaging, Visualization, and Display 2013, 873808, Baltimore, Maryland, USA.
21. Zalevsky Z., Meiri A., Gur E., Micó V., Garcia J., and Javidi B., "Resolution Enhancement and Orders Separation in On-axis Nanoparticles based Digital Holography", OSA Technical Digest, Digital Holography and Three-Dimensional Imaging (DH) 2013 paper: DTh1A.1.
 22. Shemer A., Schwarz A., Gur E., Cohen E., and Zalevsky Z., "Image Nonlinearity and Non-uniformity Corrections Using Gerchberg-Papoulis Algorithm in Imaging Systems with Gamma Detector", ICO 23rd Congress Electronic Book: Optical-Imaging 346-466, pp.1-4, Santiago de Compostela, Spain, 2014. (related to paper D-21)
 23. Gur E., "On the Necessity of Midterm Exams in Electrical Engineering Courses," Proceedings of The 43rd Annual Conference of the European Society for Engineering Education- SEFI2015, chapter 2, pp. 1-8, paper 51010, Orléans, France, 2015.
 24. Gur E., "Does preparing homework really help EE Students pass the final exams?," Proceedings of The 44th Annual Conference of the European Society for Engineering Education- SEFI2016, Quality Assurance and Accreditation, pp. 1-8, paper 111, Tampere, Finland, 2016.
 25. Gur E., "On the necessity of preliminary requisitions in undergraduate electrical engineering studies," Proceedings of ICERI2017 10th Conference, 7, pp. 4424-4428, Seville, Spain, 2017.
 26. Gur E., "Gender Diversity in Electrical Engineering," Proceedings of ICERI2018 , pp. 51-54, Seville, Spain, 2018.
 27. Gur E., "Grading Exams – More Than Just a Number," Proceedings of ICERI2018 , pp. 9921-9924, Seville, Spain, 2018.
 28. Sanjeev A., Kapellner Y., Shbero N., Gur E., and Zalevsky Z., "Non-contact optical wavefront shaping for focusing light and high-resolution imaging inside and behind biological scattering medium," Proceedings Volume 10932, Emerging Digital Micromirror Device Based Systems and Applications XI; 1093204 (2019), <https://doi.org/10.1117/12.2507797>, SPIE OPTO, 2019, San Francisco, California, United States.
 29. Gur E. "Jewish Orthodox female in Israel Higher Education- A Test Case," ICL2020 – 23rd International Conference on Interactive Collaborative Learning, 23–25 September, Virtual Conference (TalTech, Tallinn, Estonia), Pages 60-67, 2020.
 30. Gur E. "Challenges in Online Exams for Engineering Undergraduate Courses," ICERI2021, pp. 9279-9283, Seville, Spain, 2021.
 31. Gur E. "Making Room for Innovation - Engineering Education in the 21st Century," ICERI2021, pp. 9274-9278, Seville, Spain, 2021.
 32. Gur E., "PACE – Pedagogy for Academic College Engineering - New Variants on Hybrid Learning," Proceedings of The 49th Annual Conference of the European Society for Engineering Education- SEFI2021, pp. 894-903, Berlin, Germany, 2021.

33. Haltovsky A., Shemer A., Schwarz A., and Gur E. "The Refractive Periscope – a Novel Concept," IOP Conference Series: Earth and Environmental Science, 4th International Conference on Renewable Energy and Environment Engineering, Vol. 897, pp. 1-9, Florence, Italy, 2022.
34. Gur E., Tailor Made Hybrid Learning for Engineering Students in Peripheral Colleges. ICL 2021 - Mobility for Smart Cities and Regional Development - Challenges for Higher Education. Lecture Notes in Networks and Systems, vol 390, pp. 456-464, 2022.
35. Gur E., Engineering Studies in Hebrew for Arabic Speaking Students – The Effect of Studying in A Non-Native Language, EDULEARN22 Proceedings, pp. 391-396, 2022.

Accepted for Publication

G. Entries in Encyclopedias

N.A.

H. Other Scientific Publications

N.A.

I. Other Publications

N.A.

J. Other Works Connected with my Scholarly Field

N.A.

K. Submitted Publications

Zalevsky Z. and Gur E., Fuzzy Logic Based Inference Engine Clustering and CPU and Memory Allocation Optimization, submitted to Applied Intelligence, July 2022.

L. Summary of my Activities and Future Plans

During my Ph.D. studies, my main contribution was in the following fields:

1. Fuzzy logic inference engine implementations (such as optical fiber polarization control and image segmentation and Opto-electronic Fuzzy Control Systems) – a pioneer in the field of combining Fuzzy

logic and Opto-electronics. This is the most common contribution one may find in my papers.

2. Multi stage binary phase-only image processing – prior to this work, only non binary calculations were used, although practically binary elements are much easier to manufacture.
3. Optical multi stage interconnection network optimization – decreasing the complexity of interconnection networks below a commonly suggested minimum.
4. Optical implementation of non-linear operators – the first time the non-linear Volterra integrals were implemented optically to represent a non-linear system.

During my position as a Lecturer at Shenkar College of Engineering and Design, I mainly focused on super-resolution, image-deblurring and phase retrieval, for both medical purposes and microelectronic design purposes. The starting point was always a low resolution image, which is either an under-sampled version of the high resolution required image, or a distorted version of the high resolution required image. Most of these research work incorporated fuzzy logic inference engines. (Papers C8-14, F12-17)

Since I got my position as a Lecturer at Azrieli – College of Engineering, I mainly focused on Resolution enhanced remote sensing, multistage interconnection networks, microscopy of blurred images (including vast improvement in malaria detection), super-resolution and handwriting recognition (Papers P15-20, C18-21). Currently I continue to work on topics related to image enhancement (one paper was presented at the ICO 23rd conference) and I began conducting research in the field of engineering education and teaching (one paper was presented at the SEFI-2015 conference).

My future research plans are in the following areas:

1. Imaging through scattering medium: My colleagues from Bar Ilan and I have a model for the physics/mathematics on how light propagates through the medium. To perform the reconstruction we propose to use simulated annealing or Gerchberg-Saxton optimization.
2. Multi stage phase retrieval: optimization of iterative methods (increasing the number of stages until adding one more stage increases the computational error, and thus decreases the result accuracy) and presentation of specific analytical methods (manipulating images in

such a way that retrieving the intensity immediately retrieves the phase).

3. Engineering Education research for improvement of College teaching. In this work I will try to use my own experience and that of my peers to find out what are the best teaching strategies in electrical and electronics engineering studies.