

CURRICULUM VITAE

Dr. Evgeny Gershikov ד"ר יבגני גרשיקוב

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Date of Birth: December, 19, 1980

Citizenship: Israeli

Military service: Israeli Navy

EDUCATION

Ph.D. 2011, Electrical Engineering (courses average: 95), Faculty of Electrical Engineering, Technion, "On the Role of Color Information in Image Processing and Visual Communcation", supervised by Dr. Moshe Porat and Prof. Allen Tannenbaum.

M.Sc. 2006, Electrical Engineering (*cum laude*, courses average: 96), Faculty of Electrical Engineering, Technion, "On Subband Transform Coding for Color Image Compression", supervised by Dr. Moshe Porat.

B.Sc. 2002, Electrical Engineering (*summa cum laude*, courses average: 96), Faculty of Electrical Engineering, Technion, main Topics: Signal Processing, Communication, Computers .

RESEARCH INTERESTS

- Signal and Image Processing
- Color Processing and Vision
- Computer Vision and Teaching Applications
- Pattern Recognition
- Speech Recognition.

ACADEMIC APPOINTMENTS

2011 – present	Lecturer, Department of Electrical Engineering, Ort Braude Academic College of Engineering.
2005 – 2012	Teaching Assistant, Faculty of Electrical Engineering, Technion - Israel Institute of Technology.
2012 – 2014	Adjunct Lecturer, Faculty of Electrical Engineering, Technion - Israel Institute of Technology.
2002 – 2014	Project supervisor, Vision and Image Sciences Laboratory (VISL), Faculty of Electrical Engineering, Technion - Israel Institute of Technology.

TEACHING EXPERIENCE

ORT Braude College of Engineering:

Undergraduate Courses:

Introduction to Digital Signal Processing
Discrete Networks and Systems
Random Signal Processing
Image Processing
Matlab Applications in Signal Processing

The Technion–Israel Institute of Technology

Undergraduate Courses:

Introduction to Software Systems
Logic Design
Introduction to Data Structures and Algorithms
Control Systems 1

Graduate Courses:

Image Processing and Analysis (joint graduate/undergraduate course)

Private Tutor (partial list)

Linear Algebra
Differential and Integral Calculus
Ordinary Differential Equations
Probability
Physics 1 and 2
C Programming Language
Object Oriented Programming in C++

Object Oriented Programming in Java
 Matlab
 Signals and Systems
 Signal Processing
 Random Signals
 Control Systems
 Electrical Circuits
 Logic Design

ACADEMIC AND PROFESSIONAL AWARDS AND GRANTS

- 2012 Excellent paper “Comparison of Methods for Horizon Line Detection in Sea Images by *Tzvika Libe*, *Evgeny Gershikov* and *Samuel Kosolapov*”, Content 2012 conference, Nice, France, invited for extended article submission.
- 2008–2010 Nechemia Lev-Zion Scholarship for Excellent Ph.D. Students, Israel Ministry of Education (V.T.T. – the Budgeting and Planning Committee).
- 2009 Ollendorff Ph.D. Fellow, EE department, Technion.
- 1998–2001 President's list of Excellent Undergraduate Students, Technion.

PROFESSIONAL ACTIVITIES

ORT Braude College:

- 2016 – present Member, library committee.
- 2013 – 2016 Member, college research committee.
- 2013 – present Second/third year academic advisor.

Conferences:

- Member of the organizing committee: the eighth ORT Braude College Interdisciplinary Research Conference, Acre, Israel, October 2012.

Industrial Experience:

- 2010 – 2011 Algorithms development (R&D), Rafael, David Institute, Kiryat Bialik, Israel.
- 2002 – 2005 Software officer, IDF, Navy.
- 2001 – 2002 Zoran Microelectronics Inc., Israel: Architecture and Algorithms (A&A) and Verification projects. Part-time job during undergraduate studies.

LIST OF PUBLICATIONS

Refereed Papers

1. Evgeny Gershikov and Samuel Kosolapov, "On Image Based Fast Feedback Systems for Academic Evaluation", International Journal of Signal Processing Systems, Vol. 3, No. 1, pp. 19-24, June, 2014.
2. Samuel Kosolapov, Nissim Sabag, Evgeny Gershikov, "Evaluation of Two Camera-Based Approaches for Collecting Student Feedback", Educational Alternatives, Vol. 12, pp. 1173-1182, Oct. 2014.
3. Evgeny Gershikov and Samuel Kosolapov, "Camera-Based Instant Feedback Systems", International Journal of Advanced Computing, Vol. 47, No. 1, pp 1463-1473, June, 2014.
4. Evgeny Gershikov, Tzvika Libe and Samuel Kosolapov, "Horizon Line Detection in Marine Images: Which Method to Choose? ", International Journal On Advances in Intelligent Systems, Vol. 6, No. 1 and 2, pp. 79-88, June 2013.
5. Evgeny Gershikov, "Perceptually Optimized Coding of Color Images for Band-limited Information Networks", International Journal on Communications (IJC), Vol.2, No. 2, pp. 49-62, June 2013.
6. Evgeny Gershikov, "Color Image Compression using Demosaicing and Optimized Color Spaces", International Journal of Computer Science and Application (IJCSA), Vol. 2, No. 2, pp. 27-33, May 2013.
7. Evgeny Gershikov, "On a Probabilistic Approach to Rate Control for Optimal Color Image Compression and Video Transmission", International Journal of Computational Engineering Research (IJCER), Vol. 3, No. 4, pp. 85-98, April 2013. (Impact Factor = 1.145)
8. Ilan Lifshitz, Evgeny Gershikov and Benjamin Milgrom, "New Methods for Horizon Line Detection in Infrared and Visible Sea Images", International Journal of Computational Engineering Research (IJCER), Vol 3, No. 3, pp. 226-233, March 2013. (Impact Factor = 1.145)
9. Evgeny Gershikov, "Optimized Color Transforms for Image Demosaicing", International Journal of Computational Engineering Research (IJCER), Vol. 3, No. 3, pp. 1-7, March 2013. (Impact Factor = 1.145)
10. Evgeny Gershikov, Emilia Lavi (Burlak) and Moshe Porat, "Correlation-Based Approach to Color Image Compression", Signal Processing: Image Communication, Vol. 22, No. 9, pp. 719-733, Oct. 2007. (Impact Factor = 1.286, 5-Year Impact Factor = 1.423)
11. Evgeny Gershikov and Moshe Porat, "On Color Transforms and Bit Allocation for Optimal Subband Image Compression", Signal Processing: Image Communication, Vol. 22, No. 1, pp. 1-18, Jan. 2007. (Impact Factor = 1.286, 5-Year Impact Factor = 1.423)

Book Chapters

12. Ilan Lifshitz, Evgeny Gershikov and Benjamin Milgrom, "New Methods for Horizon Line Detection and Target Marking in Infrared and Visible Sea Images", in "Advanced in Marine Robotics", pp. 334-348, LAP LAMBERT Academic Publishing, June 2013.
13. Evgeny Gershikov and Moshe Porat, "Data Compression of Color Images using a Probabilistic Linear Transform Approach", in LNCS # 4310, T. Boyanov, S. Dimova, K. Georgiev, G. Nikolov (Eds.) pp. 582-589, Springer-Verlag Berlin Heidelberg, 2007.

Conference Proceedings and Abstracts

14. Evgeny Gershikov, "Efficient Horizon Line Detection Using an Energy Function" , ACM RACS 2017, Krakow, Poland, 20-23 Sept. 2017.
15. Evgeny Gershikov, "New Method of Grading Exams based on Computational Statistics", IECMSA-2017, Budapest, Hungary, 15-18 Aug. 2017.
16. Evgeny Gershikov and Samuel Kosolapov, "Efficiency Evaluation of Multiple-Choice Exams", ASMDA 2017, London, UK, 6-9 June 2017.
17. Evgeny Gershikov, "Is Color Important for Horizon Line Detection?" , International Conference on Advanced Technologies for Communications (ATC), Hanoi, Vietnam, Oct. 15-17, 2014.
18. Samuel Kosolapov, Nissim Sabbag and Evgeny Gershikov, "Evaluation of two Camera-Based Approaches Collecting Student Feedback", International Conference on Education, Research and Development (ERD), Elenite, Bulgaria, 4–8 Sept. 2014.
19. Yossi Amoyal and Evgeny Gershikov, "Automatic Smile and Blur Detection for Still Images", International Conference On Advances in Computer and Electronics Technology (ACET) 2013, Hong Kong, China, August 2013.
20. Ilan Lifshitz and Evgeny Gershikov, "New Methods for Horizon Line Detection in Infrared and Visible Sea Images", EMS 2013, Budapest, Hungary, July 2013.
21. Evgeny Gershikov and Samuel Kosolapov, "Reliability Evaluation of 2D Barcode OCR by using Monte-Carlo Simulation", ASMDA 2013, Barcelona, Spain, June 2013.
22. Samuel Kosolapov, Evgeny Gershikov and Nissim Sabag, "Feasibility of a Camera-Based Instant Feedback System", Content 2013, pp. 23-29, May 2013. (Impact Factor = 12.1)
23. Tzvika Libe, Evgeny Gershikov and Samuel Kosolapov, "Comparison of Methods for Horizon Line Detection in Sea Images", Content 2012, Nice, France, July 2012.
24. Evgeny Gershikov and Ivgeni Furman, "Color Image Compression Using Inter-color Correlations", Eighth Braude Research Conference, Acre, Israel, Oct. 2012.
25. Evgeny Gershikov and Moshe Porat, "Efficient Color Image Compression using Demosaicing", The IEEE Computer Society Signature Conference on Computers, Software and Applications (COMPSAC), Seoul, South Korea, July 2010.
26. Evgeny Gershikov and Moshe Porat, "Towards Optimal Color Image Coding using Demosaicing", The IEEE International Conference on Imaging Systems and Techniques (IST), Thessaloniki, Greece, July 2010.

27. Evgeny Gershikov and Moshe Porat, "Optimal Color Spaces for Image Demosaicing", IEEE International conference on Image Processing (ICIP), Cairo, Egypt, Nov. 2009.
28. Evgeny Gershikov and Moshe Porat, "Image Interpolation using Optimized Color Transforms", EUSIPCO 2009, Glasgow, Scotland, Aug. 2009.
29. Evgeny Gershikov and Moshe Porat, "On Color Optimization for Image Compression and Representation", the 15th International Conference on Virtual Systems and Multimedia (VSMM), Vienna, Austria, Sep. 2009.
30. Evgeny Gershikov and Moshe Porat "On Image Compression Systems for Band-limited Information Networks", The International Symposium on Intelligent Systems and Informatics (SISY), Sep. 2008.
31. Evgeny Gershikov and Moshe Porat, "Optimal Color Image Compression using Localized Color Components Transforms", EUSIPCO 2008, Lausanne, Switzerland, Aug. 2008.
32. Evgeny Gershikov and Moshe Porat , "On a Perceptual Rate-Distortion Model for Color Image Coding", EUSIPCO 2007, Poznan, Poland, Sep. 2007.
33. Evgeny Gershikov and Moshe Porat , "Correlation Vs. Decorrelation of Color Components in Image Compression - Which is Preferred?", EUSIPCO 2007, Poznan, Poland, Sep. 2007.
34. Evgeny Gershikov and Moshe Porat, "Data Compression of Color Images using a Probabilistic Linear Transform Approach", the Sixth International Conference on Numerical Methods and Applications (NM&A 2006).
35. Evgeny Gershikov and Moshe Porat, "An Optimization Based Approach to Color Image Compression Using a Rate-Distortion Model", the Sixth International Conference on Modelling, Simulation and Optimization (MSO), Sep. 2006.
36. Evgeny Gershikov and Moshe Porat, "A Rate-Distortion Approach to Optimal Color Image Compression", EUSIPCO 2006, Florence, Italy, Sep. 2006.
37. Evgeny Gershikov, Emilia Lavi-Burlak and Moshe Porat, "On a Rate-Distortion Model for Color Images using a Correlation-Based Approach ", 24th IEEE Israel Conference, Israel, 2006.
38. Evgeny Gershikov and Moshe Porat "Does Decorrelation Really Improve Color Image Compression?", The International Conference on Systems Theory and Scientific Computation (ISTASC '05), Malta, 2005.

Other Publications

Professional Reports:

1. Evgeny Gershikov, On the Role of Color Information in Image Processing and Visual Communication, Ph.D. Dissertation. Advisors: Dr. Moshe Porat and Prof. Allen Tannenbaum, Technion – Israel Institute of Technology, Haifa, Israel, April 2011.
2. Evgeny Gershikov, On Subband Transform Coding for Color Image Compression, M.Sc. Thesis, Advisor: Dr. Moshe Porat, Technion – Israel Institute of Technology, Haifa, Israel, March 2006.

3. Evgeny Gershikov and Moshe Porat, "Color Image Coding using Optimal Color Components Transforms at Subband Level", CCIT report No. 689, Technion (February 2008).
4. Evgeny Gershikov and Moshe Porat, "Towards Perceptually Optimal Coding of Color Images using Subband Transforms", CCIT report No. 624, Technion (June 2007).
5. Evgeny Gershikov and Moshe Porat, "On Subband Transform Coding for Color Image Compression", CCIT report No. 571, Technion (January 2006).