

## Curriculum Vitae

### PERSONAL INFORMATION

Nazarathy Moshe      Date of Birth: 27/10/1951

### ACADEMIC DEGREES

1982      **Doctor of Science, Electrical Engineering, Technion, Haifa, Israel**  
1978      **B.Sc., Electrical Engineering, *cum laude*, Technion, Haifa, Israel**

### ACADEMIC APPOINTMENTS

Aug 2014-date      **Tenured Full Professor - EE Faculty, Technion, Israel Institute of Technology**  
2007-Aug 2014      **Tenured Assoc. Professor - EE Faculty, Technion**  
2002- 2007      **Visiting Assoc. Professor - EE Faculty, Technion**  
2001- 2002      **Visiting Scientist - EE Faculty, Technion**  
1982-1984      **Post Doctoral Fellow+Adjunct Lecturer, EE Dept., Stanford Univ., CA, USA**  
Host: Prof. J.W. Goodman, Information Systems Laboratory.

### PROFESSIONAL EXPERIENCE

2001-Date      **Venture Partner (part-time) –Giza Ventures Ltd.**, leading venture capital firm in Israel,  
2000-2001      **Chief Technical Officer+Senior VP Corporate+Acting VP R&D Harmonic Inc.**, USA  
1985-2000      **General Manager, Harmonic Lightwaves Ltd.** (Israel subsidiary), Caesaria, Israel. Also **Senior Vice President, Harmonic US corporate**, position held in parallel.  
1988-1993      **Senior Vice President, Research, Harmonic Inc.** Santa Clara, CA, USA.  
1988-2001      **Member of the Board of Directors, Harmonic Inc.** (HLIT on NASDAQ).  
1988      **Co-founder of Harmonic (Lightwaves) Inc.** , publicly traded on NASDAQ since 1995.  
1984-1988      **Hewlett Packard - Photonics and Instruments Laboratory, Palo Alto, CA.**  
*Member of Technical Staff promoted to the rank of Principal Scientist in 1987.*

### FELLOWSHIPS AND AWARDS

2014      First prize in the Sanford Kaplan “Competition for creative management in high tech in the 21<sup>st</sup> century,” together with two of my grad students – Bronica Entrepreneurial Center, Technion.  
2014      Fellow nomination, Optical Society of America, for inventing the time-lens concept in ultrafast optics, for technology and commercial development of broadband linearized analog optical transmission and more recently for contributions to energy-efficient signal processing for coherent photonic communication  
2013      “Alexander Goldberg Technion Prize” for distinguished research with Israeli industry impact  
2001      Viterbi Fellow – Faculty of Electrical Engineering – Technion.  
1995      Man-of The-Year Business Award (Elul Institute of Business Surveys)  
1982-1984      Weizmann Postdoctoral Fellowship  
1981      Miriam and Aaron Gutwirth fund scholarship  
1981      Landau Research Award, an Israeli award for outstanding academic achievements,  
1979      Second Prize in IEEE Student Paper Contest held in Zurich  
for the paper "Optical Spatial Spectrum Analysis Using a Simplified Approach"

### SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2004 – 2014      14 M.Sc. and one Ph.D. completed;      4 Ph.D. + 2 Ms.C in progress, – EE Technion

## TEACHING EXPERIENCE

Graduate students: Statistical Models in Optical Communication – EE Technion  
Undergrad/graduate students: Modern Comm. Techniques (digital), Analog Comm. – EE Technion  
Undergrad: Random Signals, Technion  
Grad: Operator Methods in Optics – EE Stanford Univ.  
Undergrad/grad: Digital Signal Processing, Fourier Transforms and Systems– EE Stanford Univ.  
Undergrad: Fourier Transforms and Systems, Circuits 101, Circuits 102 – EE Stanford Univ.

## ORGANISATION OF SCIENTIFIC MEETINGS

Sep 2012 Co-organized / co-moderated workshop “Software Defined Photonics,” >150 participants.  
European Conference of Optical Communication ECOC’12, Amsterdam, The Netherlands.  
Jun 2012 Co-organized / moderated workshop “Trends in linear and non-linear signal processing for comm.  
over all degrees of freedom of light.” >30 participants, SPPCOM’12 OSA Topical Meeting,  
USA.

## INSTITUTIONAL RESPONSIBILITIES

2014 – date Head, Centre of Communication and Information Technologies and Industrial Affiliates  
Program, EE Faculty, Technion.  
2008 – date Academic-Head of the Communications Laboratory, EE Faculty, Technion.  
2007 – date Member of the Technion Patent Committee – eval patent apps from all Technion  
faculties.

## INTERNATIONAL ACTIVITIES

Sep2012 – Mar2014 Guest Editor of the IEEE Signal Processing Magazine (SPM) Special Issue on  
*Advanced DSP and Coding for Multi-Tb/s Optical Transport*.  
2010 – 2013 Member of the Technical Programme Subcommittee 10 “Transmission Systems and  
Network Elements” of the *Optical Fibre Communication* (OFC) conference.  
2010 – 2012 Member of the Technical Programme Subcommittee 4 “Transmission Systems and  
Network Elements” of the *European Conference of Optical Communication* (ECOC).  
conference.  
2006 – 2008 Member of the Technical Programme Subcommittee of “Coherent Optical Techniques  
and Applications” (COTA) conference of the Optical Society of America.  
2006 – 2014 Conferences sessions presider - COTA’08,’09, ECOC’10,’11, SPPCOM’11,  
OFC’10,’12,’13, OECC’14  
2014 Evaluator of Scientific Proposal VadoNET on behalf of  
the Instituto de Telecomunicações, Lisbon, Portugal  
2012 Evaluator of senior promotion of faculty member on behalf of  
the Senior Promotion Committee, University College London (UCL)  
2012 Examiner of Ph.D. thesis, Monash, Univ., Australia.

## MEMBERSHIPS IN SCIENTIFIC SOCIETIES

2014 – date Fellow, Optical Society of America  
2005 – date Senior Member, IEEE  
1985 – date Member, Optical Society of America

## CAREER BREAKS

1985-2000 A 15 years long-career detour in the Industry: 4 years at HP Research Labs (photonic  
instrumentation), then co-founded Harmonic and took it from concept to public offering on NASDAQ in  
1995 and more growth till 2000, creating thousands of jobs in US, Israel and the EU. Returned to the  
Academia in 2001 to re-start academic career culminating in Full-Professor appointment in just 13 years.

## RESEARCH GRANTS

Oct 1014-date “Cooler, Simpler, Robuster, Faster Photonic Transmission Interfaces”, Israel Science Foundation Personal Grant, 220K x 4 years.

July 1014-July 2015 “Data-centers and short-reach (<300 Km) self-coherent photonic interconnects unprecedented in cost-effectiveness and information capacity,” Technion Fund for Applied Research,” \$75K grant.

1014-date “Control of GNSS Satellite Navigation Systems”, Coop between EE ComLab and Prof. G. Even-Tzur in Civil Engineering, Funded by Technion Fund for Security Research

2013-date EU FET (FP7 STREP) program - “Breaking the Barrier on Optical Integration (BBOI)” along with Italian, British and German universities. My part of the grant: 219Keuro over 3 years.

2013-date FP7 Call 8 EU STREP program - “Adaptive Software Defined Terabit Transceiver for Flexible Optical Networks (ASTRON)” – played the key role in writing the technical part of the proposal which got the highest grade among all submitted proposals and the max grade possible. My part of the grant: 120Keuro 26 months grant.

2013-date “Development of large antennas for space applications,” Coop between EE ComLab and Prof. Shmilovitch in Civil Engineering, Funded by Technion Fund for Security Research.

2012 Sub-contractor for MultiPhy (local start-up) in the framework of PIANO+ OTONES as mentioned further below. My part of the grant: NIS 140 1 year grant.

2010-date Co-founder of the TeraSanta Magnet Consortium in the field of Tb/s photonic communication (I initiated it with ECI’s CTO and two other company executives).  
3 year grant + 1 year extension. My part of the grant: ~600K per year average.  
Six of our faculty members and the ComLab staff participate(d) in this three-to-five years consortium. Received letter of appreciation from Chief Scientist staff on behalf of my ongoing effort and results in this consortium.

2011-date Played key role in formulating and winning the PIANO+ European multi-national grant for the “OTONES” project pertaining to Gb/s home modems over passive optical networks– together with German and British Researchers, Lucent-Alcatel, Finisar and other EU companies. Project started in 2011. Acting as subcontractor to Finisar Israel. My part of the grant: NIS 230 per year for three years.

2008 iGalileo and ISRC satellite navigation systems Government consortia (ComLab).

2009-13 ISF, “Advanced Photonic Communication Techniques for Sustained Growth of the Ultra-broadband Internet,” Principal investigator - with Prof. Dan Sadot of BGU.

2008-09 Horowitz fund, \$100K, “Wavelogic nano-optics: revolutionizing optical communication with photonic digital processing,” with Prof. Meir Orenstein and Prof. Baruch Fischer. Granted and withdrawn due to financial crisis.

2007-08 Horowitz fund, \$100K, “Wavelogic nano-optics: revolutionizing optical communication with photonic digital processing,” with Prof. Meir Orenstein.

2004-08 Mafa’at, “Optical Quantum Communications,” I initiated and won this grant. Other participants: Prof. Meir Orenstein, Prof. Yonina Eldar, Dr. Tal Mor, CS.