SLAVA KRYLOV, PH.D.

January 2020

PERSONAL

Date and place of birth:	May 7 1966, Leningrad, USSR
ID:	310939749
Citizenship:	Israeli
Marital status:	Married, 2 children
Military service:	"Shlav Bet", discharged. 2004-2006: Reserve service in the fast patrol boat branch, Dept. of Naval Architecture, Israeli Navy
Office address:	School of Mechanical Engineering, Faculty of Engineering, Tel Aviv University, Ramat Aviv, 69978, Tel Aviv Israel
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A. EDUCATION

1982-1989	Leningrad Shipbuilding Institute, Leningrad, USSR. Structural Mechanics, M.Sc., March 1989, with distinction (red diploma).
1989-1993	State Marine Technical University of St. Petersburg, Russia. Applied Mechanics, Ph.D., February 1993. Title of doctoral dissertation: "Radiation of Sound in a Transient Problem of Hydroelasticity", Thesis adviser - Prof. Leonid Slepyan.

B. EXPERIENCE

1989-1993	State Marine Technical University of St. Petersburg, Russia, Researcher.
1993-1997	Department of Solid Mechanics, Materials and Structures, Tel Aviv University, Postdoctoral Student.
1996-2000	Department of Civil Engineering, Academic College of Judea and Samaria, Ariel, Adjunct Lecturer.
1998-2000	Department of Structural Advanced Technologies, Engineering Division, Commercial Aircraft Group, Israel Aircraft Industries, R&D Engineer.
2000-2002	Memlink Ltd., Galgalei Haplada 6, Hertzlia, Co-founder and Principal Scientist.
1998-2002	Department of Solid Mechanics, Materials and Systems, Tel Aviv University, Adjunct Lecturer.
2002-2007	Department of Solid Mechanics, Materials and Systems, Tel Aviv University, Lecturer.
2007-2010	School of Mechanical Engineering, Faculty of Engineering, Tel Aviv University, Senior Lecturer with Tenure.
2010-2014	School of Mechanical Engineering, Faculty of Engineering, Tel Aviv University, Associate Professor.
2014-Present	School of Mechanical Engineering, Faculty of Engineering, Tel Aviv University, Professor.

C. VISITING POISITIONS AND CONSULTING

2002-2007	Teraop. Inc., Atir Yeda 17, Kfar-Saba, Israel, Consultant and member of Advisory Board.
2007-2009	bTendo Ltd., Atir Yeda 17, Kfar-Saba, Israel (acquired by STMicroelectronics in August 2012), Consultant.
2011	Tessera Israel Ltd., Habarzel 6, Tel Aviv, Israel, Consultant.
2012-2013	RiT Technologies Ltd., 24 Raoul Wallenberg St., Tel Aviv, Israel, Consultant.
2013-2015	Invencom Technologies Ltd., 24 Raoul Wallenberg St., Tel Aviv, Consultant.
Sept.-Dec. 2014, March-June 2015	MANOR A.D.T. Div., RAFAEL Advanced Defense Systems Ltd., Israel (Sabbatical).
2015-2017	NanoAir Ltd., Yokneam, Israel, Co-founder and consultant.
2016-Present	Unispectral Ltd., 12 Menachem Begin St., Ramat Gan, Israel, Consultant.
2016-March 2019	Innoviz Ltd., 17 Atir Yeda, Kfar Saba, Israel, Consultant.
2008-2013	School of Applied and Engineering Physics, Cornell University, Ithaca, NY. Visiting professor. Multiple appointments (Summer).
Jan.-March 2015, July-Sept. 2015	The Sibley School of Mechanical and Aerospace Engineering, Cornell University, Ithaca, NY, Mary Shepard B. Upson Visiting Professor in Engineering (Sabbatical).
March-Sept. 2015 Feb. 2016 August-Sept. 2016 October 2019	Center for the Nanoscale Science and Technology (CNST), The National Institute of Standards and Technology (NIST), Gaithersburg, MD, Visiting Researcher.

D. ACTIVE PARTICIPATION IN SCIENTIFIC MEETINGS

1994 25th Israel Conference on Mechanical Engineering, Technion City, Haifa (oral presentation).

1996 French-Israeli Symposium on Nonlinear and Quantum Optics, Les Arcs, France (oral presentation).

1996 348th Euromech Colloquium "Nonlinear Dynamics of Heterogeneous and Microstructured Solids," Tallinn, Estonia (oral presentation).

1996 James H. Belfer Memorial Symposium "Nonlinear Mechanics," Technion City, Haifa (oral presentation).

1997 Third Euromech Solid Mechanics Conference, Stockholm, Sweden (oral presentation).

1998 27th Israel Conference on Mechanical Engineering, Technion City, Haifa (oral presentation).

1998 27th Israel Conference on Mechanical Engineering, Technion City, Haifa（oral presentation).

2001 James. H. Belfer Memorial Symposium "MEMS Day in Israel," Technion City, Haifa（oral presentation）.

2002 Seminar of Israel Association for Computational Methods in Mechanics, Technion City, Haifa (oral presentation).

2002 The First National Conference of the Israeli MOEMS Society "ISRAMEMS'02", Technion City, Haifa (oral presentation).

2003 29th Israel Conference on Mechanical Engineering, Technion City, Haifa (oral presentation).

2003 19th Biennial Conference on Mechanical Vibration and Noise, Chicago, IL (oral presentation).

2003 The Second National Conference of the Israeli MOEMS Society "ISRAMEMS'03," Tel Aviv University, Tel Aviv (oral presentation).

2004 10th Micromachine Summit, Grenoble, France (oral presentation).

2004 ASME/STLE Int. Joint Tribology Conference, Long Beach, California (oral presentation).

2004 Seminar of The Israel Society for Theoretical and Applied Mechanics (ISTAM), Tel Aviv University (oral presentation).

2005 45th Israel Annual Conference on Aerospace Sciences, Tel Aviv (oral presentation).

2005 11th Int. Conference on Fracture, Turin, Italy (oral presentation).

2005 Seminar of Israel Association for Computational Methods in Mechanics, Technion City, Haifa (oral presentation).

2005 30th Israel Conference on Mechanical Engineering, Dan Intercontinental, Tel Aviv (oral presentation).

2005 The Third National Conference of the Israeli MOEMS Society "ISRAMEMS'05," Technion City, Haifa (oral presentation).

2005 13th Int. Conference on Solid-State Sensors and Actuators "Transducers'05," Seoul, Korea (oral presentation).

2006 The Asia-Pacific Conference of Transducers and Micro-Nano Technology "APCOT2006", Singapore (oral presentation).

2006 The Fourth National Conference of the Israeli MOEMS Society "ISRAMEMS'06," Tel Aviv University, Tel Aviv (oral presentation, conference chair).

2007 20th IEEE Int. Conference on Micro Electro Mechanical Systems MEMS 2007, Kobe, Japan, January 21-25, 2007 (oral presentation).

2007 Workshop on Computations in Nanotechnology, Russel Berrie Nanotechnology Institute, Technion-Israel Institute of Technology, Haifa, May 9-10, 2007 (invited lecture).

2007 ECCOMAS Thematic Conference "Computational Methods in Structural Dynamics and Earthquake Engineering," Compdyn 2007, Rethymno, Crete, Greece, June 13-16, 2007 (**invited lecture**).

2007 ASME 2007 Int. Design Engineering Technical Conferences & Computers and Information in Engineering Conference IDETC/CIE, Las Vegas, NV, September 4-7, 2007 (oral presentation, symposium co-organizer).

2008 21st IEEE Int. Conference on Micro Electro Mechanical Systems IEEE MEMS 2008, Tucson, AZ, January 13-17, 2008 (poster presentation).

2008 6th Int. Conference on Computation of Shell and Spatial Structures IASS-IACM 2008: "Spanning Nano to Mega", Cornell University, Ithaca, NY, May 28-31, 2008 (oral presentation, symposium co-organizer).

2008 9th Biennial ASME Conference Engineering Systems Design and Analysis – ESDA 2008, Haifa, Israel, July 7-9, 2008 (oral presentation, symposium co-organizer).

2008 American Vacuum Society (AVS) 55th Int. Symposium and Exhibition, Boston, MA, October 19-24, 2008 (oral presentation).

2009 22st IEEE Int. Conference on Micro Electro Mechanical Systems IEEE MEMS 2009, Sorrento, Italy, January 25-29, 2009 (poster presentation).

2009 5th Workshop of the Tel Aviv University Center for Nanoscience and Nanotechnology, Ha-Goshrim, Israel, February 22-24, 2009 (**invited lecture**).

2009 NATO Advanced Workshop "Advanced materials and technologies for micro/nano-devices, sensors and actuators: From fundamentals to applications" St.Petersburg, Russia, June 29-July 2, 2009 (**invited lecture**).

2009 ASME 2009 Int. Design Engineering Technical Conferences (IDETC) & Computers and Information in Engineering Conference (CIE), August 30 - September 2, 2009, San Diego, CA (oral presentation, symposium co-organizer).

2009 American Vacuum Society (AVS) 56th Int. Symposium & Exhibition, San Jose, CA November 8-13, 2009 (oral presentation, member of the MEMS/NEMS technical committee).

2010 3rd Workshop on Naval Architecture and Shipbuilding Engineering, Ha Hotrim, Israel, July 15, 2010 (**invited lecture**).

2010 ASME 2010 Int. Design Engineering Technical Conferences (IDETC) & Computers and Information in Engineering Conference (CIE), August 15-18, 2010, Montreal, Canada (oral presentation, symposium organizer).

2010 American Vacuum Society (AVS) 57th Int. Symposium & Exhibition, Albuquerque, NM October 17-22, 2010 (oral presentation, member of the MEMS/NEMS technical committee).

2012 25st IEEE Int. Conference on Micro Electro Mechanical Systems IEEE MEMS 2012, Paris, France, January 30-February 2, 2012 (poster presentation).

2012 4th International Conference on Localization, Energy Transfer and Nonlinear Normal Modes in Mechanics and Physics - NNM2012 1 -5 July, 2012, Technion, Haifa, Israel (**invited lecture**).

2012 ASME 2012 Int. Design Engineering Technical Conferences (IDETC) & Computers and Information in Engineering Conference (CIE), August 12-15 2012, Chicago, IL (oral presentation, symposium co-organizer).

2012 EUROMECH Colloquium 540 Advanced Modeling of Wave Propagation in Solids, October 1-3, 2012, Prague, Czech Republic (**invited lecture**).

2012 The 32nd Israeli Conference on Mechanical Engineering, Tel Aviv University, October 17-18, 2012 (two oral presentations by students, symposium organizer).

2013 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering COMPDYN 2013, Kos Island, Greece, 12–14 June 2013 (**keynote lecture**).

2013 ASME 2012 International Design Engineering Technical Conferences& Computers and Information in Engineering Conference IDETC/CIE, August 4-7, 2013, Portland, OR, USA (oral presentation, symposium co-organizer).

2013 International Symposium on Dynamic Deformation and Fracture of Advanced Materials D2FAM 2013, Loughborough, UK, 9-11 September 2013 (oral presentation).

2014 James H. Belfer Memorial Symposium Nonlinear Wave Phenomena: From weak nonlinearity to sonic vacuum, Jan. 13, 2014, Technion, Haifa, Israel (**invited lecture**).

2014 "Continuum Models and Discrete Systems" CMDS-13, University of Utah in Salt Lake City, July 21st - July 25th, 2014 (**invited lecture**).

2014 ASME 2014 International Design& Engineering Technical Conferences and Computers & Information in Engineering Conference IDETC/CIE, August 17–20, 2014 Buffalo, New York (2 oral presentations, symposium co-organizer).

2015 ASME 2015 International Design&Engineering Technical Conferences and Computers & Information in Engineering Conference IDETC/CIE, August 2–6, 2015 Boston, Massachusetts (3 oral presentations, symposium co-organizer).

2016 American Vacuum Society (AVS) 63rd International Symposium & Exhibition, Nashville, TN, November 6-11, 2016 (oral presentation, member of the Nanometer-Scale Science and Technology Division Executive Committee).

2016 The 3rd IEEE International Symposium on Inertial Sensors and Systems 2016, February 23-26, 2016, Laguna Beach, CA (poster presentation by a student).

2016 ISCMM-40, 40th Israel Symposium on Computational Methods in Mechanics, Tel Aviv University, April 7 2016 (oral presentation by a student, the best presentation award).

2016 ISCMM-41, 41th Israel Symposium on Computational Methods in Mechanics, The Sami Shamoon College of Engineering, Beer Sheva, October 27, 2016 (oral presentation).

2016 IEEE Sensors 2016, October 3-November 2, Orlando, FL, USA (oral presentation by a student)

2016 34th Israel Conference on Mechanical Engineering, Technion City, Haifa, November 22-23 2016 (oral presentation, three oral presentations by students).

2017 The 9th European Nonlinear Dynamics Conference (ENOC 2017), June 25-30 Budapest, Hungary (oral presentation, two more oral presentations by students).

2017 11th Micro Nano Systems Conference in the framework of the ASME 2017 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/CIE 2017, August 6-9, 2017, Cleveland, Ohio, USA.

2017 2017 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), November 13-15, Tel Aviv, Israel

2018 31st IEEE Int. Conference on Micro Electro Mechanical Systems IEEE MEMS 2018, 21 – 25 January 2018 Belfast, Northern Ireland, UK.

2018 12th Micro Nano Systems Conference in the framework of the ASME 2018 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/CIE 2018, August 26-29, 2019, Quebec, Canada.

2018 Colloquium 603 Dynamics of Micro and Nano Electromechanical Systems: Multifield Modelling and Analysis 5 September – 7 September 2018, Porto, Portugal.

2018 6th Nano Israel conference, October 10–11 2018, Jerusalem, Israel.

2018 IEEE Sensors 2018, October 28-31 2018, New Delhi, India (**invited lecture**).

2019 The First International Nonlinear Dynamics Conference, Sapienza University of Rome, February 17-20, 2019, Rome, Italy.

2019 13th Micro Nano Systems Conference in the framework of the ASME 2019 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/CIE 2019, August 18-21, 2019, Anaheim, CA.

2019 IEEE Sensors 2019, October 27-30 2019, Montreal, Canada.

2019 The 69th Symposium of the Israel Society for Theoretical and Applied Mechanics December 29, 2019, Technion, Haifa, Israel (**invited lecture**).

INVITED SEMINARS

January 1996	"Nonlinear waves in a Helix," Seminar of the Laboratoire de Modelisation en Mecanique, Universite Pierre et Marie Curie (Paris VI), Paris, France
January 1996	"Solitary Waves in a Helix," Seminar of the Department of Mechanics, École Polytechnique, Palaiseau, FRANCE
January 1 2001	"Some Aspects of Modeling of Micro Electro Mechanical Systems," Seminar of the Department of Solid Mechanics, Materials and Systems, Tel Aviv University
September 8 2003	"Transient Dynamics of Electrostatically Actuated Microstructures," Seminar of The Cornell NanoScale Science and Technology Facility, Cornell, Ithaca, NY
December 2 2004	"Some Aspects of Dynamics of Electrostatically Actuated Microstructures," Seminar of the Program in Materials Science and Engineering, Faculty of Engineering, Tel Aviv University
January 31, 2007	"Some Aspects of Mechanics of Long Displacement Micro Actuators," Micro-Nano Systems Center of Excellence International Seminar, Department of Micro-Nano Systems Engineering, Nagoya University, Japan
October 24, 2008	"Electrostatically Actuated Bistable Micro Structures," Mathematical Sciences Seminar, Worcester Polytechnic Institute, Worcester, MA
March 27, 2012	"Optically Excited Nanomechanical Oscillators and their Use in Mass Sensing, Nanomanupulation and Material Characterization", Seminar of the Division of Physics and Optical Engineering, Ort Braude College of Engineering, Carmiel, Israel
November 14,, 2012	"Structures with Time-Dependent Moment of Inertia and their Implementation in Sensors, Actuators, and Dynamic Materials," Seminar of the School of Engineering and Applied Science, Binghamton University, Binghamton, NY
January 16 2013	"Parametric Excitation of Micro Structures – Approaches and Applications", seminar of Makunet (Netværk for Maskinakustik), Department of Mechanical and Manufacturing Engineering, Aalborg University, Denmark
February 21, 2012	"Parametric Excitation of Microstructures", Seminar of Prof. Amit Lal group, School of Electrical and Computer Engineering, Cornell University, Ithaca, NY
March 30, 2015	"Parametrically Excited Electrostatically Coupled Micro Oscillators", Center for Nanoscale Science and Technology Nanofabrication Research Group Seminar Series, The National Institute of Standards and Technology (NIST), Gaithersburg, MD
September 17, 2015	"Parametrically Excited Electrostatically Coupled Arrays of Micro Oscillators", Institute of Systems Research (ISR) Microsystems Seminar Series, A. James Clark School of Engineering, University of Maryland, College Park, MD

February 15, 2019 "Arrays of micro resonators interacting through fringing electrostatic fields", Dipartimento Di Ingegneria Civile E Ambientale, Politecnico Di Milano, Milan, Italy

E. ACADEMIC AND PROFESSIONAL AWARDS

1995-1996	Visiting Post-doctoral Fellowship, Laboratoire de Modelisation en Mecanique, Universite Pierre et Marie Curie (Paris VI), Paris, France.
1996-97	Colton postdoctoral fellowship, Tel Aviv University.
2004	Colton visiting fellowship, School of Applied and Engineering Physics, Cornell University, Ithaca, NY.
2005-2006	Teaching Excellence Award, Mechanical Engineering track, Tel Aviv University.
2005-2006	Teaching Excellence Award, Faculty of Engineering, Tel Aviv University.
2008-2009	Teaching Excellence Award, Mechanical Engineering track, Tel Aviv University.
2010	Best paper award – Symposium on Micro Nano Systems, ASME 2010 Int. Design Engineering Technical Conferences (IDETC) & Computers and Information in Engineering Conference (CIE), August 15-18, 2010, Montreal, Canada
2009-2010	Teaching Excellence Award, Mechanical Engineering track, Tel Aviv University.
2012-2013	Teaching Excellence Award, Rector list, Tel Aviv University.
2015	Mary Shepard B. Upson Visiting Professor in Engineering. The Sibley School of Mechanical and Aerospace Engineering, Cornell University.
2017	Best Paper Award of The Design Engineering Division, Micro and Nano Systems Technical Committee at the 11th Micro Nano Systems Conference in the framework of the ASM International Design Engineering Technical Conferences IDETC/CIE 2017, Cleveland, OH.
October 2018-Present	The Henry and Dinah Krongold Chair of Microelectronics

F. MEMBERSHIP IN PROFESSIONAL SOCIETIES

Israel Association for Computational Methods in Mechanics (IACMM), Oct 2015-Present – secretary and treasurer
Institute of Electrical and Electronics Engineers, Inc. (IEEE)
American Vacuum Society (AVS) - member of the Nanometer-Scale Science and Technology Division Executive Committee
American Society of Mechanical Engineers (ASME)

G. GRADUATE STUDENTS

PH.D. STUDENTS GRADUATED

1. Assaf Ya'akobovitz, "Sensitivity Enhancement of Micromechanical Sensors using Carbon Nano Tubes," Ph.D. Thesis, Tel Aviv University, (Prof. Y. Hanein co-advisor), **graduated 2013**.

2. David Schreiber, "Development of Thin Film Hard Magnetic Materials for Implementation in Inertial Micro Sensors and Actuators," Ph.D. Thesis, Tel Aviv University, (Prof. Y. Shacham co-advisor), **graduated 2013**.

3. Tsvi Shmilovich, "Development of Biocompatible Polymeric MEMS Devices Integrated into Endoscopic Platform and Miniaturized *In Vivo* Imaging Systems," Ph.D. Thesis, Tel Aviv University, (Prof. Y. Shacham co-advisor), **graduated 2014**.

4. Igor Sokolov, "Non-Linear Beam Models for Problems of Interaction," Ph.D. Thesis, Tel Aviv University, (Prof. I. Harari co-advisor), **graduated 2015**.
   European Community on Computational Methods in Applied Sciences Award for Best Ph.D. Thesis in computational mechanics in Israel 2015.

5. Yuval Gerson, "Meso Scale MEMS Actuators and Sensors," Ph.D. Thesis, Tel Aviv University, **graduated 2016**.

6. Leeya Engel, "Polymeric MEMS Devices", Ph.D. Thesis direct track, Tel Aviv University, (Prof. Y. Shacham - co-advisor). **graduated 2016**.

7. Jenny Shklovsky, "Polymeric Optomechanical Microdevices," Ph.D. Thesis, Tel Aviv University, (Prof. Y. Shacham – co-advisor). **graduated 2017.**

8. Lior Medina, "Dynamic Stability and Symmetry Breaking in Initially Curved Electrostatically Actuated Micro Beams," Submitted May 2018 (Prof. R. Gilat, - co-advisor). **graduated 2018.**

PH.D. STUDENTS IN PROGRESS

1. Erez Benjamin, "Angualr Rate Micro Sensors" Ph.D. Thesis, Tel Aviv University.

2. Naftaly Krakover, "Resonant Inertial Sensors based on Frequency Monitoring," Ph.D. Thesis, Tel Aviv University (submitted July 2019).

3. Ronen Maimon, "Compliant Structures with Time-Varying Moments of Inertia and Their Implementation in Angular Rate Sensors," Ph.D. Thesis, Tel Aviv University (part time).

4. Nir Dick, "Dynamics of Large Arrays of Micro Oscillators" (part time).

5. Yoav Kessler, "MEMS based Flow Sensors," Ph.D. Thesis, Tel Aviv University.
   (Prof. A. Liberzon- co-advisor).

6. Asaf Asher, "Electrostatically Actuated Bistable Micro Shells," Ph.D. Thesis, Tel Aviv University.
   (Prof. R. Gilat, - co-advisor).

7. Omer Halevy, "Resonant Micro Accelerometers," Ph.D. Thesis, Tel Aviv University.

M.SC. STUDENTS (WITH THESIS) GRADUATED

1. Igor Kovalsky, "Analytical and Numerical Investigations of a Hierarchy of Dynamic Models with Application to MEMS," (Prof. I. Harari co-advisor), **March 2004.**

2. Menachem Eisenshtat, "Consistent Representation of Loading in Structural Reduction of Slender Bodies using the Euler Bernoulli Model," (Prof. I. Harari co-advisor), **March 2005**.

3. David Gadasi, "Consistent Representation of General Three-Dimensional Loading in Beams," (Prof. I. Harari co-advisor), **April 2006.**

4. Yaron Cohen, "Stabilization of Electrostatically Actuated Microstructures using Parametric Excitation," **May 2007.**

5. Shimon Seretensky, "Multistability of Curved Electrostatically Actuated Beam," **March 2007.**

6. Tsvi Shmilovich, "Novel Design Concepts of Electrostatic Tilting Actuators," **May 2007, with distinction.**

7. Igor Sokolov, "Consistent Representation of General Three-Dimensional Loading in Thin Plates," (Prof. I. Harari co-advisor), **January 2007**.

8. Assaf Ya'akobovitz, "Large Angle Tilting Actuator with Integrated Motion Transformer and Amplifier," **August 2007, with distinction.**

9. Jennie Elport, "Large Angle Rotational Compliant Micro Actuators with Virtual Pivot," **May 2008.**

10. Yuval Gerson, "Long Motion Multistable Electrostatic Actuator," **August 2008.**

11. Jennie Shklovsky, "Characterisation of Materials at Micro Scale," (Prof. L. Banks-Sills co-advisor), **February 2009, with distinction .**

12. Emil Amir, "Micro Accelerometer," **November 2009, with distinction (*summa cum laude*).**

13. Nir Dick, "Dynamics of Electrostatically Actuated Bistable Microbeams," **August 2010.**

14. Yael Hikri, "Measurements of the Poisson's ratio of Materials at Micro Scale," (Prof. L. Banks-Sills co-advisor)**, August 2010.**

15. Michael Dorfman, "Angular Rate Sensor with Parametric Amplification," (Prof. N. Brauner coadvisor), **August 2011, with distinction.**

16. Uri Pomerantz, "Topological Optimization of Tilting Microfabricated Device,"
(Prof. M. Fuchs co-advisor), **May 2012.**

17. Amir Reuveny, "Neural Micro Probes Incorporating Electroactive Polymeric Actuators," (Prof. Y. Shacham co-advisor), **September 2012**, **with distinction**.

18. Lior Medina, "Dynamic Stability and Symmetry Breaking in Initially Curved Electrostatically Actuated Micro Beams," (Dr. R. Gilat, Ariel University-co-advisor), **November 2012, with distinction.**

19. Shila Rabanim, "Bistable Accelerometric Device with Geometrically Nonlinear Self-Limiting Suspension," **April 2013, with distinction.**

20. Naftaly Krakover, "Displacement Sensor with Frequency Sensing Mode," **November 2014, with distinction.**

21. Lital Bar-Dea, "Sensitivity Enhancement of Micromechanical Inertial Sensors using Carbon Nano Tubes," (Prof. Y. Hanein – co-advisor), **October 2015.**

22. Meital Hershkovitz, "Pneumatic Micro Actuator," (part time, Dr. G. Kosa – co-advisor), **January 2015.**

23. Erez Benjamin, "Bistable Accelerometric Device with Geometrically Nonlinear Self-Limiting Suspension," **October 2016**.

24. Yoav Kessler, "MEMS Flow Sensor," (Prof. A. Liberzon – co-advisor), **December 2016 (with distinction)**.

25. Inbar Schneider, "Nonlinear Waves in Lattices," **March 2017 (with distinction)**.

26. Tamir Perl, "Control of Vibratory MEMS Gyroscope with Parametric Resonance," (part time, Prof. N. Shimkin, Technion – co-advisor). **November 2017.**

27. Asaf Asher, "Electrostatically Actuated Bistable Micro Shells." **June 2018 (with distinction).**

28. Yoav Feldman, "MEMS device made of electroactive polymer," (Prof. Y. Shacham – co-advisor), **March 2019.**

29. Omer Halevy, "Accelerometer Based on Frequency Monitoring," **March 2019.**

M.SC. STUDENTS (WITH THESIS) IN PROGRESS

1. Oren Gad-Levy, "Resonant Inertial Sensors."
2. Ohad Zohar, "Tuning Fork Angular Rate Sensor," (part time).
3. Ben Torteman, "MEMS based flow sensor" (Prof. A. Liberzon-co-advisor))

M.SC. STUDENTS (WITHOUT THESIS)

1. Ofir Malachi, "Consistent Representation of Three-dimensional Electrostatic Loading in Micro Beams," M.Sc. Project, **graduated 2009**.
2. Shimi Elmalem, "Resonant Micro Accelerometer based on Carbon Nanotubes (CNT's)," **graduated 2011**.
3. Dov Kleczewski, "Electrostatically Actuated Micro Manipulator," **graduated 2012**.
4. Timur Sibgatullin, "Parametric Excitation of Microbeams under Thermal Actuation," **graduated 2012**.
5. Nadav Kleinberger, "Bimorph Actuators with Enhanced Performance," **graduated 2019**.

B.SC. PROJECTS

1. Ofir Malachi, "Consistent Representation of Three-dimensional Electrostatic Loading in Micro Beams," **2006**.
2. Rotem Cohen, "Experimental Setup for Evaluation of Coefficient of Thermal Expansion at the Micro Scale," **2012 with distinction** (Prof. L. Banks-Sills co-advisor).
3. Moran Houri, "Dynamic Stability Mapping of Bistable Microbeams," **2013.**
4. Leora Ronen, Boaz Perek, "3D Printed Macro Models of Compliant Mechanisms for MEMS," **2014.**
5. Ahuva Rubnstein, "Micro device fabrication using double SOI substrate." (Prof. Shachar Richter-co-advisor).

H. SCIENTIFIC ACTIVITIES

Associate Editor: *ASME Journal of Vibrations and Acoustics*

Guest co-editor: *Int. Journal for Multiscale Computational Engineering*,
Special Issue "Multiscale Computational Engineering in Israel", 2008 (Prof. D. Givoli-co-editor).

Finite Elements in Analysis and Design,
Special Issue "Analysis and Design of MEMS/NEMS", 2011 (Prof. I. Harari-co-editor).

ASME Journal of Vibrations and Acoustics,
Special issue "Dynamics of Micro and Nanoelectromechanical systems (MEMS/NEMS) 2017 (J. F. Rhoads, H. Cho, J. Judge, S.W. Shaw, M. Younis – co editors).

Reviewer of journal papers:	Applied Physics A, Applied Physics Letters, ASME Journal of Heat Transfer Chemical Physics Letters, Communications in Nonlinear Science and Numerical Simulations, Computational Nonlinear Dynamics, IEEE Journal of Microelectromechanical Systems, IEEE Sensors, Int. Journal of Bifurcations and Chaos, Int. Journal for Multiscale Computational Engineering, Int. Journal for Numerical Methods in Engineering, Int. Journal of Mechanical Sciences, Int. Journal of Non-Linear Mechanics, Int. Journal of Smart and Nano Materials, Int. Journal of Solids and Structures, Int. Journal on Mechatronics, Journal of Applied Mechanics, Journal of Micromechanics and Microengineering, Journal of Sound and Vibration, Mathematical Problems in Engineering, Mechanical Systems and Signal Processing, Mechanism and Machine Theory, Mechatronics, Microelectromechanical Systems Letters, Micromachines, Micro Nano Letters, Microelectronic Engineering, Nonlinear Dynamics, Physica D: Nonlinear Phenomena, Physical Review Letters, Physical Review B, Sensors and Actuators A: Physical, Sensors and Actuators B: Chemical, Strain, Structural Engineering and Mechanics, Zeitschrift für Angewandte Mathematik und Mechanik (ZAMM).
Reviewer of research proposals:	Germany Israel Foundation (GIF), Israeli Ministry of Industry and Trade, Israel Science Foundation (ISF), Israeli Ministry of Defense (head of the "red team" – a committee for evaluation of research and R&D projects supported by MAFAT)

Oct 2015 –Present: Israeli Association for Computational Methods in Mechanics (IACMM) – secretary and treasurer

Scientific conferences organizer:

Local co-organizer. 15th Israel Symposium on Computational Mechanics, (ISCM-15). 23 October 2003, Tel Aviv University.

Local co-organizer. 20th Israel Symposium on Computational Mechanics, (ISCM-20), 23 March 2006, Tel Aviv University.

Session chair. The Asia-Pacific Conference of Transducers and Micro-Nano Technology "APCOT2006", 25-28 June 2006, Singapore.

Conference chair. The Fourth National Conference of the Israeli MOEMS Society "ISRAMEMS'06," 21 December 2006, Tel Aviv University.

Session chair. ASME 2007 Int. Design Engineering Technical Conf. & Computers and Information in Engineering Conf. IDETC/CIE 2007, September 4-7, 2007, Las Vegas, NV.

Local co-organizer. 24th Israel Symposium on Computational Mechanics, (ISCM-24). 3 April 2008, Tel Aviv University.

Mini-Symposium organizer and chair. "Micro-Nano Structures," at the Sixth Int. Conference on Computation of Shell and Spatial Structures "Spanning Nano to Mega," 28-31 May 2008, Cornell University, Ithaca, NY.

Session co-chair. "Micro and Nano Sensors and Actuators," 9th Biennial ASME Conference on Engineering Systems Design and Analysis, ESDA08, July 7-9, 2008, Haifa, Israel.

Session chair. ASME 2009 Int. Design Engineering Technical Conferences (IDETC) & Computers and Information in Engineering Conference (CIE), August 30 - September 2, 2009, San Diego, CA.

Local co-organizer. 27th Israel Symposium on Computational Mechanics, (ISCM-27). 15 October 2009, Tel Aviv University.

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 56th Symposium and Exhibition, Nov 8-13, 2009, San Jose, CA.

Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS" at The 4th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2010: August 15-18, 2010, Montreal, Quebec, Canada

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 57th Symposium and Exhibition, Oct 18-22, 2010, Albuquerque, NM.

Local co-organizer. 30th Israel Symposium on Computational Mechanics, (ISCM-30). 15 March 2011, Tel Aviv University.

Mini-Symposium co-organizer and session chair. "Micro- and Nano-Electro-Mechanical Systems (MEMS and NEMS)" at The 7th European Nonlinear Dynamics Conference ENOC 2011, July 24-29, 2011 – Rome, Italy.

Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS" at The 5th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2011: August 29-31, 2011, Washington, DC.

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 58th Symposium and Exhibition, Oct 30-Nov 4, 2011, Nashville, TN.

Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS" at The 6th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2012: August 29-31, 2012, Chicago, IL.

Mini-Symposium co-organizer and session chair. "MEMS and NEMS" at the 32nd Israeli Conference on Mechanical Engineering - ICME 2012 October 17-18 2012 – Tel Aviv University.

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 59th Symposium and Exhibition, Oct 28-Nov 2, 2012, Tampa, FL.

Local co-organizer and member of program committee. 34th Israel Symposium on Computational Mechanics, (ISCM-34). 25 April 2013, Tel Aviv University.

Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS" at The 7th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2013: August 4-7, 2013, Portland, OR.

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 60th Symposium and Exhibition, Oct 27-Nov 1, 2013, Long Beach, CA.

Member of the Technical Committee, The 8th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2014: August 17-20, 2014, Buffalo, NY. Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS".

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 61th Symposium and Exhibition, 9–14 November 2014, Baltimore, MA.

Member of the Technical Program Committee, The 2nd IEEE International Symposium on Inertial Sensors and Systems, Big Island of Hawaii, March 23-26, 2015.

Member of the Technical Committee, The 9th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2015: August 2-5, 2015, Boston, MA. Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS".

Member of the Technical Committee, The 10th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2016: August 22-24, Charlotte, North Carolina, USA. Mini-Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS".

Member of the MEMS/NEMS Committee and of the Program Committee. AVS 61th Symposium and Exhibition, 9–14 November 2014, Baltimore, MA.

Nov 2015-Present: Executive Committee Member, Nanometer-Scale Science and Technology Division, American Vacuum Society (AVS).

Symposium co-organizer and session chair (with Prof. Anil Bajaj, Perdue Univ. and Prof. Eihab Abdel-Rahman, Waterloo Univ.). "Micro- and Nano-Electro-Mechanical Systems" at the 9th European Nonlinear Dynamics Conference (ENOC 2017), Budapest, Hungary, 25-30 June, 2017.

Symposium co-organizer and session chair. "The Dynamics of MEMS and NEMS" at The 11th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2017: August 6-9, 2017, Cleveland, Oh.

General Co-Chair (with Prof. M. Younis), The 11th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2017: August 6-9, Cleveland, OH, USA.

Local co-organizer and member of program committee. 43th Israel Symposium on Computational Mechanics, (ISCM-43). October 19 2017, Tel Aviv University.

Symposium organizer. "The Dynamics of MEMS and NEMS" at The 12th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2018: August 26-29, 2018, Quebec, Canada.

Scientific Committee member. EUROMECH Colloquium 603: "Dynamics of Micro and Nano Electromechanical Systems: Multi-Field Modelling and Analysis", 5 September – 7 September 2018, Porto, Portugal

Session chair. The First International Nonlinear Dynamics Conference, Sapienza University of Rome, February 17-20, 2019, Rome, Italy.

Symposium organizer. "The Dynamics of MEMS and NEMS" at The 13th Int. Conference on Micro- and Nanosystems (MNS), IDETC 2019: August 18-21, 2019, Anaheim, CA.

Thematic session co-organizer (with Prof. Attilio Frangi). Nanostructures and MEMS. The 25th International Congress of Theoretical and Applied Mechanics (25th ICTAM), August 23 – 28, 2020, Milano, Italy.

Mini symposium organizer. Micro- and Nano-Electro-Mechanical Systems. ENOC2020: 10th European Nonlinear Dynamics Conference, July 5-10, 2020, Lyon, France.

EUROMECH Colloquium 616 co-organizer (with Dr. Valentina Zega and Prof. Varvara Kouznetsova) "Unification of Microsystems and Metamaterials for New Generation Engineering Solutions," Milano, Itly, 2021.

I. RESEARCH GRANTS

INTERNAL GRANTS

2003-2005 S. Krylov,
"Dynamic Interaction between Primary and Secondary Degrees of Freedom in Parametrically Excited Electrostatic Microstructures," Tel Aviv University

EXTERNAL GRANTS

2004-2010 S. Krylov (PI), I. Harari (PI), G. Zilman (PI),
"Structural Analysis of Fast Ships in a Rough Sea (Simplified and Accurate Methods)," Israeli Ministry of Defense ($332,124).

2004-2013 S. Krylov (PI) and Y. Shacham-Diamand (PI),
"Novel Concepts in Rate Sensors," Israeli Ministry of Defense ($381,335).

2005-2006, 2009-2010 S. Krylov (PI),
"Long Motion Actuator," RAFAEL ($21,722).

2005 Y. Selzer (PI), Y. Hanein (PI), S. Krylov (co_PI),
"Plasma Enhanced Chemical Vapor Deposition (PECVD) Tool,"
Institutional Equipment Grant, ISF ($500,000).

2005-2010 L. Banks-Sills (PI) and S. Krylov (Co-PI)
Development of a Methodology for Determination of Mechanical Properties and Failure Analysis of Materials Used in Micro-Devices, Israeli Ministry of Defense, ($148,608).

2006 S. Krylov (PI),
"Laser Doppler Vibrometer tool for the dynamic characterization of microstructures," FMF Equipment Grant ($83,000).

2007-2008 Y. Shacham-Diamand (PI), S. Krylov (co-PI), G. Rosenman (PI)
"Development of Biocompatible Polymeric MEMS Devices Integrated into Endoscopic Platform and Miniaturized *In Vivo* Imaging Systems,"
Consortium "Biomedical Photonics", Ministry of Industry and Trade ($86,816).

2008-2010 Y. Shacham-Diamand (PI), S. Krylov (co-PI)
"Development of Biocompatible Polymeric MEMS Devices Integrated into Endoscopic Platform and Miniaturized *In Vivo* Imaging Systems,"
Consortium "Biomedical Photonics", Ministry of Industry and Trade ($81,505).

2008-2011 Y. Hanein (PI), S. Krylov (PI),
"Sensitivity Enhancement of Micromechanical Sensors using Carbon Nano Tubes,"
Office of the Chief Scientist, RAFAEL ($146,973).

2008-2013 S. Krylov (PI),
"Novel Concepts in Accelerometers", Israeli Ministry of Defense ($207,481).

2008-2012 S. Krylov(PI),
"Dynamics and Stability of Electrostatically Actuated Bistable Microstructures,"
Israeli Science Foundation (ISF) ($142,936).

2008 S. Krylov (PI),

	"Fast camera for the dynamic characterization of microstructures," FMF Equipment Grant ($44,495).
2009-2012	S. Krylov (PI), "Micro accelerometer," RAFAEL, R&D Program (three years program) ($63,711).
2009-2011	H. G. Craighead (PI), S. Krylov (co-PI), "Research on Miniaturized Devices for Trace Atmospheric Vapor Sensing," Israeli Ministry of Defense and FMF ($300,000).
2010	S. Krylov (PI), "Real Time Spectrum Analyzer," FMF Equipment Grant ($44,425).
2011	S. Krylov (PI) "Micromachined Pressure Sensor Array for Biomedical Applications," MATIMOP-Joint Israel-Italy R&D Program (18 month program) ($27,700).
2012	S. Krylov (PI), "Dual Channel Arbitrary Waveform Generator," FMF Equipment Grant ($35,784).
2010-2014	Y. Shacham-Diamand (PI), S. Krylov (PI), 7th Framework EU-IST "Heart-e-Gel" (H-e-G) project ($317,451).
2013-2015	S. Krylov (PI). L. Slepyan, "PARM-2—Vibro-Impact Machines Based on Parametric Resonance: Concepts, Mathematical Modelling, Experimental Verification and Implementation," Marie Curie Actions—Industry-Academia Partnerships and Pathways (IAPP) ($214,127).
2013-2018	S. Krylov (PI) "Inertial Micro Sensors," Israeli Ministry of Defense (NIS 200,000 per year).
2014-2016	S. Krylov (PI), R. Gilat (PI), "MEMS/NEMS Logic", Broadcom TAU Authentication Initiative, ($30,000).
2014-2015	Y. Shacham (PI), S. Krylov (PI), "Electrically-Actuated Integrated Microfluidic Circuitry," Collaborative project with Berkley University ($18,000).
June 2015- July 2017	Y. Shacham (PI), S. Krylov (PI), "Printed Electronics," Consortium "Printed Electronics," Ministry of Industry and Trade (NIS 800,000).
June 2015- October 2017	H. Haushtein (PI), S. Krylov (PI), "Pulsating Micro Jets for Direct Chip Cooling," Department of Defense- DOD, Office of Naval Research Global ($100,000).
May 2016-April 2019	Y. Tzur (PI-Technion Israel Institute of Technology), I. Lubomirsky (PI- Weizmann Institute of Science), Y. Shacham (PI), S. Krylov (PI), "Integrated Electrostrictive Actuators," Ministry of Science, Technology and Space, (455,000 NIS out of 2,500,000 NIS).
October 2016- September 2020	S. Krylov (PI), R. Gilat (Co-PI, Ariel University), "Electrostatically Actuated Bistable Microplates," Israeli Science Foundation (ISF) (1,088,720 NIS).
October 2017- September 2020	S. Krylov (PI), A. Liberzon (PI), "Flow Sensors based on Displacement Detection of Micro Structures," Ministry of Science, Technology and Space, (830,272 NIS).
March 2018- February 2022	S. Krylov (PI), "Angular Rate Sensor", RAFAEL, 700,000 NIS.
April 2019- March 2020	"Inertial Micro Sensors," Israeli Ministry of Defense (NIS 150,000).
June 2019- May 2020	"Vibrating Beam Accelerometer," Israeli Ministry of Defense (NIS 998,100).

J. COURSES TAUGHT

Tel Aviv University

Undergraduate	Fundamentals of solid mechanics for biomedical engineering Introduction to microsystems Introduction to the Finite Element Method Programming tools for engineers Statics of rigid bodies Solid mechanics I Solid mechanics II Statics of rigid bodies for architects Solid mechanics for architects Theory of vibrations
Graduate	Design and modeling of microelectromechanical systems (MEMS) Elastic waves in solids and structures Strength of ships Structural dynamics

Academic College of Judea and Samaria

Computational methods in structural analysis
Solid mechanics

Cornell University, Ithaca, NY, USA

Special Investigations in Mechanical and Aerospace Engineering:
Modeling and Design of Micro- and Nanoelectromechanical Systems MEMS/NEMS (graduate level)

K. UNIVERSITY ACTIVITES

2003-2005	Member, Faculty of Engineering Computer Committee
2005-2010	Seminar coordinator, Department of Solid Mechanics, Materials and Structures, Faculty of Engineering
2008-2011	Member, Faculty of Engineering Master's Degree Study Programs Committee
2011-2014	Director of Undergraduate Studies, School of Mechanical Engineering, Faculty of Engineering
2015-Present	Head, School of Mechanical Engineering, Faculty of Engineering
2016-Present	Member of the 'Small Senate", Tel Aviv University
2018-Present	Member of the Industrial Liaison Committee, Faculty of Engineering, Tel Aviv University
2019-Present	Faculty of Engineering Advisory aboard for Industrial Liaisons
2019-Present	Faculty Governing Board - Faculty of Engineering, Tel Aviv University