

CURRICULUM VITAE

ACADEMIC DEGREES

- 2008 Ph.D., Aerospace Engineering, Technion - Israel Institute of Technology, Haifa, Israel
Dissertation: "Solid Propellant Enhancement by Liquid Oxidizer Addition"
- 2001 M.Sc., Aerospace Engineering, Technion - Israel Institute of Technology, Haifa, Israel
Thesis: "Solid Fuel Ramjet Regulation by Means of an Air-Division Valve"
- 1997 B.Sc., Aerospace Engineering, Technion - Israel Institute of Technology, Haifa, Israel

ACADEMIC APPOINTMENTS

- 2024- present Senior Lecturer, Mechanical Engineering Department , Braude College of Engineering
- 2022- present Head, Biomechanics Specialization, Braude College of Engineering
- 2021- present Braude's Flagship program – Engineering students for people with disabilities – coordination and supervision of student projects
- 2021-present Member of the Academic Council, Braude College of Engineering.
- 2020-present Academic advisor of undergraduate students, Mechanical Engineering Department, Braude College of Engineering
- 2019-2024 Lecturer, Mechanical Engineering Department, Braude College of Engineering
- 2019-2022 Judging Committee member, Excellence projects, Braude Academic College of Engineering
- 2019-present Library representative of Mechanical Engineering Department
- 10/2018-2/2019 Adjunct lecturer, Mechanical Engineering Department, ORT Braude College
- 2010-2014 Senior Researcher, Aerothermodynamics Laboratory, Faculty of Aerospace Engineering, Technion, Israel Institute of Technology
- 2011-2012 Adjunct lecturer, Rocket Propulsion Faculty of Aerospace Engineering, Technion, Israel Institute of Technology, Haifa, Israel
- 2008-2009 Researcher, Sylvia and David I.A. Fine Rocket Propulsion Center Faculty of Aerospace Engineering, Technion, Israel Institute of Technology, Haifa, Israel
- 2001-2008 Teaching assistant, Faculty of Aerospace Engineering, Technion, Israel Institute of Technology, Haifa, Israel

PROFESSIONAL EXPERIENCE

- 2015-2022 Center for Educational Technology (CET), Tel Aviv, Israel
Chairman, Exam committee (2019-2022): aerodynamics and aircraft motors
Exam committee member (2015-2019): aerodynamics and aircraft motors
- 2009-2011 Consultant, Research coordinator in the fields of propulsion and energetic materials, The Administration for the Development of Weapons and Technological Infrastructure (MAFAT), Technology Base Division , IMOD, Tel Aviv, Israel

TEACHING EXPERIENCE

- 2018-present Braude College of Engineering – undergraduate courses:
The Human Body as an Engineering System, Thermodynamics, Rocket Propulsion, Introduction to Engineering Graphics, Anatomy
- 2011-2012 Technion – Israel Institute of Technology – undergraduate courses:
Rocket Propulsion, Laboratory of Propulsion and Combustion
- 1998-2008 Technion – Israel Institute of Technology – undergraduate courses:
Teaching Assistant in: Rocket Propulsion, Laboratory of Propulsion and Combustion, Experimental Methods in Aerospace Engineering, Dynamics and Combustion of Fuel Sprays

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- 2019-2021 AIAA member (American Institute of Aeronautics and Astronautics)

FELLOWSHIPS, AWARDS and HONORS

- 2022-2024 Faculty Excellence Award, Braude College of Engineering
- 2022-2023 Braude's Excellence Projects, supervision of 1st place awarded student
- 2006 Teaching assistant excellence award
- 2006 Timnat scholarship for presentation at an international conference
- 2004-2005 Ilan Ramon Scholarship for excellence in studies and social activity, The Israeli Commercial and Industrial Club.
- 2004 Teaching excellence award
- 2003-2004 Uzi Rubin Prize for excellence in research
- 2004 Spectronix first prize for best poster presentation, The 20th Annual Symposium of the Israeli Section of the Combustion Institute, Dec. 9, 2004.
- 2000 Scholarship for outstanding research
- 1998, 1999 The Miriam and Aaron Gutwirth Special Distinction Fellowship Award
- 1998, 1999 Teaching assistant excellence award

NON-ACADEMIC CURRICULUM

- 2017-2022 Lecturer, Karkur College of Holistic Therapy
Courses: Connection to Higher-Consciousness, Consciousness in Space and Time, Energetic Healing
- 2015-present Therapist, private and community practice
- 2016-2017 Teaching Assistant: Body Psychotherapy, Karkur College of Holistic Therapy
- 2012-2016 Body Psychotherapy Diploma (accredited by the European Association for Body Psychotherapy, EABP), Karkur College of Holistic Therapy. Dissertation: “To move or to die; the influence of movement on the psychophysiology of dissociation”.

RESEARCH INTERESTS

- Brain Machine Interface (BMI)
- VR Rehabilitation
- Mechanical properties of soft tissues (Fascia)
- Experimental psychophysiology
- Theories of consciousness
- New approaches in engineering education

PUBLICATIONS

Published Papers

- Pelosi, A.D., Roth, N., Yehoshua, T. et al. Personalized Rehabilitation Approach for Reaching Movement Using Reinforcement Learning, Scientific Reports, 14, 17675 (2024). <https://doi.org/10.1038/s41598-024-64514-6>
- Salih, A., Roth, N., Buginim, O. and Pelosi, A.D., “A Low-Cost Open-Source Uniaxial Tensile System for Soft Tissue Testing”, Hardware, 2, 292–305, (2024). <https://doi.org/10.3390/hardware2040015>
- Solomon, S. and Pelosi, A. D., "Film Cooling of a Blunt Body in Supersonic High Enthalpy Flows", Journal of Spacecraft and Rockets, 58(8), pp. 1-10, (2021), <https://doi.org/10.2514/1.A34865>
- Pelosi, A. D. and Gany, A., “Modeling the Combustion of an Endothermically Evaporating Liquid Oxidizer Droplet Contained in a Solid Fuel”, Journal of Propulsion and Power, Vol. 28, No. 6, pp. 1379-1388 (2012)
- Pelosi, A. D. and Gany, A., “The Mechanisms Involved in the Combustion of a Liquid Oxidizer Capsule Contained in a Solid Fuel”, International Journal of Energetic Materials and Chemical Propulsion, Vol. 7, No. 6, pp. 523-547 (2008)
- Pelosi, A. D. and Gany, A., “Combustion of a Solid Fuel Tube with Contained Liquid Oxidizer in a Hot Gas Atmosphere”, Combustion Science and Technology, Vol. 179, pp. 265-280 (2007)
- Pelosi-Pinhas, D. and Gany, A., “Bypass-Regulated Solid Fuel Ramjet Combustor in Variable Flight Conditions”, Journal of Propulsion and Power, Vol. 19, No. 1, pp.73-80 (2003)

- Pelosi-Pinhas, D. and Gany, A., “Analysis and Testing of Fuel Regression Rate Control in Solid Fuel Ramjets”, International Journal of Energetic Materials and Chemical Propulsion, Vol. 5, No. 1-6, pp. 340-353 (2002)
- Pelosi-Pinhas, D. and Gany, A., “Solid-Fuel Ramjet Regulation by Means of an Air-Division Valve”, Journal of Propulsion and Power, Vol. 16, No. 6, pp. 1069-1074 (2000).

Chapters in Edited Books and Special Journal Issues

- Dahan, A., Roth, N., Pelosi, A.D. and Reiner, M., “A Reinforcement Learning Framework for Personalized Adaptive E-Learning”, in “Advanced Technologies and the University of the Future - Chapter 2: Artificial Intelligence”, Lecture Notes in Networks and Systems Book Series, Cukierman, U.R., Auer, M. and Vendrell E. Editors, Springer, accepted for publication, May 2024.
- Pelosi, A.D. and Gany, A., "Study of a Concept of Energetic Materials Consisting of a Solid Fuel Matrix Containing Liquid Oxidizer", in "Innovative Energetic Materials: Properties, Combustion Performance and Application", W. Pang, L.T. DeLuca, A.A. Gromov and A. Cumming Editors, Springer Singapore, 2020, pp. 3-15, <https://doi.org/10.1007/978-981-15-4831-4>.
- Gany, A., Pelosi, A.D. and Livne, A., "Concept and Study of the Combustion of Liquid Oxidizer Contained in a Solid Propellant", Zel'Dovich Memorial, Vol. 1, edited by A.A. Borisov and S.M. Frolov, Torus Press, Moscow, 2014, pp. 107-111 (2014)
- Pelosi, A. D. and Gany, A., “The Mechanisms Involved in the Combustion of a Liquid Oxidizer Capsule Contained in a Solid Fuel”, K. K. Kuo and K. Hori Editors, Begell House Inc. Publishers, New York, pp. 523-547 (2008)
- Pelosi-Pinhas, D. and Gany, A., “Analysis and Testing of Fuel Regression Rate Control in Solid Fuel Ramjets”, in “Combustion of Energetic Materials”, K.K. Kuo and L.T. De Luca Editors, Begell House Inc. Publishers, New York, pp. 340-353 (2002)