

Curriculum Vitae

Contact Information

Eyal Setter

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Education

2008-2013: PhD student (special program towards direct PhD, GPA 98.4)

2004-2008: BSc in Mechanical Engineering, Technion (Summa Cum Laude, GPA 96.5)

1996-2000: Israeli Navy Officers' School (Summa Cum Laude)

Professional Experience

08/2016- present : Co-Supervisor to MSc in the Faculty of Mech. Eng. Technion (RSF Fund)

01/2016- 10/2016 : R&D Team Leader (Substitute), RAFAEL- Advanced Defense Systems LTD,

04/2012- present : R&D Engineer, RAFAEL- Advanced Defense Systems LTD,

10/2008-2013: Teaching assistant, faculty of Mechanical Engineering, Technion: Modeling and Identification in Vibrating Systems (graduates). Micro Processor Based Product Design; Dynamics; Theory of Vibration (undergraduates).

11/2007-10/2008: Research assistant, Technion R&D Foundation, Prof. Bucher Dynamics and Mechatronics lab

05/2007-11/2007: Mechanical designer, Semi-Conductor Devices (SCD) Israel

11/2006-06/2008: Academic tutor, The Students Promotion Program, Dean of Students, Technion

01/1997-10/2006: Marine officer, (Chief Engineer), Israeli Navy

IDF Military Service

11/2006- : Honorable discharge from Israeli Navy as a Major (active in reserve force)

10/2003-02/2004: Technical operations officer- Sa'ar 5 class squadron

06/2003-10/2003: Instructor; the Officers' School for Naval Commanders

10/2000-06/2002: Chief Engineering officer on board INS Eilat

05/2000-10/2000: Officers' school for naval commanders (with excellence)

01/1999-05/2000: Deputy Chief Engineering officer on board INS Hanit

01/1997-12/1998: Israeli Navy Officers' School (with excellence)

Awards and Distinctions

- President's Excellence Award, Technion, 2004-2008.
- The Mark Darlow award for best Mechatronics and Dynamics project, faculty of Mechanical Engineering, Technion 2008
- The Safra award for excellent students, 2008
- The Technion Graduate School Dean scholarship for excellent graduate students, 2008
- The Fine scholarship for excellent young Doctoral students, 2009
- Mechanical Engineering Dean scholarship for excellent graduate students, 2010

- Scholarship of the Irwin and Joan Jacobs Graduate School for graduate studies and research, Technion 2011
- Vivian Konigsberg Award for Excellence in Teaching, Technion (fall 2010/2011)
- Safra fund prize for outstanding research poster presentation, Technion 2011
- Vivian Konigsberg Award for Excellence in Teaching (persistent), Technion (spring 2010/2011)
- Scholarship of the Irwin and Joan Jacobs Graduate School for graduate studies and research, Technion 2012
- The Jacobs award for excellent PhD publication, Technion, 2012
- Olga and David Pnueli outstanding PhD thesis award, 2014
- Three department's prizes for initiative and excellence, 2013-2016

Research and Publications

Vibration of rectangular plates, review and investigation of traveling waves, with experimental validation, undergraduate special project, Technion 2008 (first prize winner of the Mark Darlow award)

Refereed papers in Conference proceedings (underlined author delivered the talk at the conference)

- R. Gabai, E. Setter, H. Plat, I. Bucher, Power flow control and travelling waves of vibration, the optimal force distribution, *ICEDyn- International Conference on Structural Engineering Dynamics*, Portugal 2009.
- E. Setter, I. Bucher, Elastic travelling waves in multi-dimensional structures with application to self propulsion, *ICME- Israeli Conference on Mechanical Engineering*, Tel-Aviv 2010.
- E. Setter, I. Bucher, Propulsion and self maneuvering of waving elastic bodies immersed in fluids, *ISMA- International Conference on Noise and Vibration Engineering*, Leuven Belgium 2010.
- E. Setter and I. Bucher, "A Micro-scale swimmer propelled by traveling surface waves", Symposium on Dynamics of MEMS and NEMS part of the 5th International Conference on Micro- and Nanosystems (MNS) ASME. Washington DC, USA, August 24 - 29, 2011.
- E. Setter, I. Bucher, "Optimal waving device in micro swimmer/pump: Analytical, numerical and experimental study, Proceedings of the ASME 2012 11th Biennial Conference On Engineering Systems Design And Analysis ESDA 2-4 July, 2012, Nantes, France.
- E. setter, "The Dynamics of a Jet Engine Rotor in the Design Process: A Combination of Analysis and Experiments", THE 15 TH ISRAELI SYMPOSIUM ON JET ENGINES AND GAS TURBINES, Technion, 2016

Journal papers

- E. Setter, I. Bucher, "Flexural vibration patterning using an array of actuators", *Journal of Sound and Vibrations*, vol. 330, pp. 1121-1140, 2011 (available online <http://dx.doi.org/10.1016/j.jsv.2010.09.027>)
- E. Setter, I. Bucher and S. Haber, "A Low-Reynolds-number swimmer utilizing surface traveling waves: Analytical and experimental study", *Physical Review E*, vol. 85, p. 066304, 2012 (available online <http://link.aps.org/doi/10.1103/PhysRevE.85.066304>)
- E. Setter and I. Bucher (2013), "A minimal-torque wave-generating mechanism for fluid manipulation", *Mechanism and Machine Theory*, doi: 10.1016/j.mechmachtheory.2013.07.017
- E. Setter, I. Bucher and S. Haber (2014), "Experimental investigation of propulsion by multiple surface traveling waves at low Reynolds numbers", *Mechanical Engineering Science*, online February 12, 2014, doi: 10.1177/0954406214523580

Patents

- E. Setter, I. Bucher, *A minimal-torque, wave-generating, propelling & pumping mechanism*, described and claimed in Provisional Patent Application No. 61/601,629 (filed: Feb. 22, 2012).