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Senior lecturer

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Work address:

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Academic Education:

2019   -   Ph.D Mechanical Engineering, Tel-Aviv University.

   Dissertation title: *Co-evolving Rationalizable Strategies for Zero-Sum Multi-objective Games.*

1992   -   M.Sc Mechanical Engineering, Technion, Israel.

   Thesis: *Identification of Vibrating Structures via Measurements Corrupted by Noise.*

1989   -   B.Sc Mechanical Engineering, Cum Laude, Technion, Israel.

Research interest

- Multi-objective games
- Multi-objective optimization
- Set-based optimization
- Genetic algorithms
- Coevolutionary algorithms

Academic appointments

2020-present   Senior lecturer, ORT Braude College, Department of Mechanical Engineering.

   Subjects: Control Systems, Integrated Systems Design, Theory of Vibration Kinematics & Dynamics, Solid Mechanics.

1997- 2019   Senior teacher, ORT Braude College, Department of Mechanical Engineering.

1998-1999   Lecturer, The Institute of Marine Training.

Subjects: Control systems for Marine Chief Engineers, preparation for the Israel Labor Ministry audits.

Subjects: Switching theory & digital systems, for Junior Staff.

1995-1996   Lecturer, Open University.

Subjects: Physics.

1990-1992   Teaching assistance, Mechanical Engineering Faculty. Technion.

Subjects: Control Systems, Elasticity, Measurements Systems & Sensors.

Professional experience:

1996-1997   **Dimar** - Mechanical engineer, mechanical design of cutting tools for wood processing.

Responsibilities: design of wood cutting tools per customers' request.

Head of ISO 9000 committees.

1992-1995   **Hanita Coatings** - Process manager for metallization, coating

Laminating & slitting of polymeric films.

Responsibilities: Design of coating equipment upgrades.

Documentation of products & processes. Member of the steering team for the qualification of ISO 9000. Member of R&D projects team.

1989-1990   **Elscint**- Mechanical engineer in the M.R.I department,

Responsibilities: Mechanical design with special materials considering the strong magnetic field.

Additional academic activities:

2004   Administrative Assistance, Mechanical Engineering Department, ORT Braude College.

2003 - Present   1st year students' counselor, in M.E department, ORT Braude College.

2005 - Present   Developed & built a website (Clickit3) for the following subjects: Theory of vibration, Dynamics, Kinematics, Control systems for Bio-technology, Control systems for IEM and Solid mechanics.

2000-2001   Ort Braude representative in a delegation of the Israeli Labor Ministry to Germany, for the development of a new program of teaching internet integrated control systems for practical engineers.

2005   Scientific advisor for the preparation of a high school textbook "Introduction to Control Systems", Ort Press, written by Rafael Gal & Nisim Ben- Or.

2004 - Present	Technical Education Center team member in writing Control Systems Mechanical Engineering Matriculation test for Technicians & Practical Engineering students.
2007 - 2010	Ministry of Education steering committee team member for teaching practical engineers.
2007 - 2008	Counselor to outstanding students" of M.E department that take part in the "Excellence Project", ORT Braude College.
2011 – 2015	Marie Curie researcher in FP7 program of the European community.

Articles in Refereed Journals

1. **Eisenstadt, E.**, & Moshaiov, A. (2018). *Decision-making in non-cooperative games with conflicting self-objectives*. Journal of Multi-Criteria Decision Analysis, 25(5-6), pp.130-141.

2. **Eisenstadt, E**., & Moshaiov, A. (2017). *Novel Solution Approach for Multi-objective Attack-Defense Cyber Games with Unknown Utilities of the Opponent*. IEEE Transactions on Emerging Topics in Computational Intelligence, 16–26.

3. Avigad G., **Eisenstadt E.**, & Schuetze, O., (2012). *Handling Changes of Performance-Requirements in Multi Objective Problems.* Journal of Engineering Design, 23(8):597-617.

4. Avigad G., **Eisenstadt E.**, Goldvard, A., and Salomon, S., (2012). *Transient Responses' Optimization by Means of Set-based Multi-Objective Evolution*. Engineering Optimization, 44(4):407-426.

5. Avigad G., **Eisenstadt E.,** & Weiss M., (2011). *Trajectory' Planning for Multi UMVs under Reciprocal Constraints*. Engineering Optimization, 43(12):1331-1350.

6. Avigad G. & **Eisenstadt E.** ,(2011). *The Multi-Single Objective Problem and its Solution by way of Evolutionary Algorithms.* Research in Engineering Design 22(2):87–102.

7. Avigad, G., **Eisenstadt E.,** & Shnits B., (2011). *Supporting the selection of robust engineering concepts under suppliers related uncertainties*. Journal of Engineering Design, 22(8): 543-563.

8. Avigad G., **Eisenstadt, E.,** & Schuetze, O., (2011). *Design and Evolution of Robust-to-Market-Changes Sets of Solutions to Multi Objective Problems*. Journal of Engineering Design, DOI: 10.1080/09544828.2011.630656, November 2011.

9. Avigad, G., **Eisenstadt E.**, & Goldvard, A., (2010). *Pareto Layer: Its Formulation and its Search by way of Evolutionary Multi-Objective Optimization*. Engineering Optimization, 42(5): 453-470.

Articles in Conference Proceedings

1. **Eisenstadt, E**., & Moshaiov, A. *Mutual Rationalizability in Vector-Payoff Games*. In International Conference on Evolutionary Multi-Criterion Optimization, pp. 593-604. Springer, Cham, 2019.

2. Harel, M., **Matalon-Eisenstadt, E**., & Moshaiov, A. (2017). *Solving Multi-objective Games using A-priori Auxiliary Criteria*. In Evolutionary Computation (CEC), 2017 IEEE Congress on (pp. 1428–1435). IEEE.

3. **Eisenstadt E**., Moshaiov A, Avigad G. *Co-evolution of strategies for multi-objective games under postponed objective preferences*. In Computational Intelligence and Games (CIG), 2015 IEEE Conference on 2015 Aug 31 (pp. 461-468). IEEE.

4. Avigad G., **Eisenstadt E.**, Valery Y. Glizer, (2012). *Evolving a Pareto Front for an Optimal Bi-Objective Robust Interception Problem with Imperfect Information*. A Bridge Between Probability, Set Oriented Numerics, and Evolutionary Computation II in Advances in Intelligent Systems and Computing 175, pp: 121-135. Springer, 2012.

5. Avigad G., **Eisenstadt E.**, Shaul Salomon, and Frederico Gadelha Guimares, (2012). *Evolution of Contours for Topology Optimization*. A Bridge Between Probability, Set Oriented Numerics, and Evolutionary Computation II in Advances in Intelligent Systems and Computing 175, pp: 397-412. Springer, 2012.