

## Ehud Kroll

**Associate Professor**  
**Dept. of Mechanical Engineering**  
**ORT Braude College, Karmiel, Israel**

Phone: **+972-4-9086466** or **+972-4-9901945**

Email: [kroll@braude.ac.il](mailto:kroll@braude.ac.il)

## Biographical Data

B.Sc. (Cum Laude), 1980; M.Sc., 1986; D.Sc., 1989; all in Mechanical Engineering from the Technion-Israel Institute of Technology.

- 2015-present Mechanical Engineering Dept. Head, ORT Braude College, Karmiel, Israel.
- 2008-2015 Senior Research Fellow, Dept. of Aerospace Engineering, Technion, Haifa, Israel.
- 2000-2008 ORT Braude College, Karmiel, Israel, including four years as the Mechanical Engineering Dept. Head and Associate Professor since 2003.
- 1989-2000 Texas A&M University and the University of Missouri, Kansas City, USA.
- 1980-1984 R&D unit of IDF.

## Main Interests

Design theory and methodology; methods for conceptual and systems design; design cognition; design for manufacturing, assembly and disassembly; design education.

## Selected Publications

Kroll, E., Condoor, S. and Jansson, D.G. (2001). *Innovative Conceptual Design: Theory and Application of Parameter Analysis*. Cambridge University Press.

Condoor, S.S. and Kroll, E. (2008). Parameter analysis for the application of the principle of direct and short transmission path: A valve-actuator design case study. *Journal of Engineering Design*, **19** (4), 337-357.

Kroll, E. and Artzi, D. (2011). Enhancing aerospace engineering students learning with rapid prototyping wind tunnel models. *Rapid Prototyping Journal*, Vol. 17, No. 5, pp. 393-402.

Kroll, E. (2013). Design theory and conceptual design: Contrasting functional decomposition and morphology with parameter analysis. *Research in Engineering Design*, Vol. 24, No. 2, pp. 165-183 (special issue on design theory).

Kroll, E., Le Masson, P., and Weil, B. (2014). Steepest-first exploration with learning-based path evaluation: Uncovering the design strategy of parameter analysis with C-K Theory. *Research in Engineering Design*, Vol. 25, No. 4, pp. 351-373.

Kroll, E. and Koskela, L. (2015). On abduction in design. Chapter 19, pp. 327-344, in *Design Computing and Cognition '14*, Gero, J. S. and Hanna S. (eds.), Springer.

Kroll, E. and Koskela, L. (2016). Applying the proto-theory of design to explain and modify the parameter analysis method of conceptual design. *International Journal of Design Creativity and Innovation*, Vol. 4, No. 1, pp. 1-25.