

July 2012

Positions are available for Graduate Students (pursuing an MSc or PhD in Mechanical or Aerospace Engineering, or an MSc in the interdisciplinary Design & Manufacturing Engineering program), Post-Docs and Researchers in the areas of **Design Theory & Methodology and **Systems Engineering**.**

Specific research topics include:

- Development of a new prescriptive model for conceptual design based on C-K theory [1] and the Parameter Analysis methodology [2].
- Formalizing technology observation to extract critical conceptual design parameters (see chapter 11 in [2]).
- Integration of TRIZ principles in Parameter Analysis.
- Interpretation of Parameter Analysis through the Function-Behavior-Structure (FBS) descriptive model of conceptual design.
- Developing a computerized design assistant for conceptual design by Parameter Analysis.

Students and researchers with interest and/or experience in design and systems engineering are invited to apply.

Contact:

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References:

1. Hatchuel, A. and Weil, B., C-K Design Theory: An Advanced Formulation, *Research in Engineering Design*, 19 (4), pp. 181-192, 2009.
2. Kroll, E, Condoor, S.S. and Jansson, D.G., *Innovative Conceptual Design*, Cambridge University Press, Cambridge, 2001.