Transdisciplinary Engineering Design Processes

PROJECT DESCRIPTION

"This is a transdisciplinary research project carried out at the Faculty of Engineering which involves extensive literature review of cognitive and educational psychology and design methodology and collection of the empirical data from engineering professors through surveys and semi-structured interviews. The collected data is being analyzed, using statistical software, in line with the academic and educational regulations documentations, and the results should be communicated to the public via posters, presentations and workshops.

Expected Tasks:

- Performs literature search on design and cognition and educational methodology and creates literature data bases and spreadsheets
- Performs collection of empirical data: assists with surveys design and conduction of interviews with participants, filling all collected data, performing data entry
- Assists with the statistical analysis of the collected empirical data
- Assists with the website design development and preparation of posters and presentations
- Assists with the development of an educational methodology based on the results of the empirical research and cognitive and educational psychology
- Assists with the analysis of the documentation of the academic and regulatory bodies
- Participants in all group meetings and activities

FACULTY-DEPARTMENT

Engineering - Mechanical

DESIRED FIELD OF (STUDENT) STUDY

Statistics, Educational Psychology, Neuroscience, Cognitive Psychology, Social Sciences
Must be a senior undergraduate
The candidate would ideally have background in any of the following areas: Psychology, Education, Statistics, Computer Science or Programming. The candidate would have the following qualities and skills:
- Computer proficiency in a Windows environment using MS Office, spreadsheets and databases
- Having completed at least one statistics course as a part of curriculum
- Having taken courses in the area of psychology would be an asset
- Knowledge of descriptive statistics and working knowledge of a statistics package such as SPSS, Minitab etc.
- Knowledge of graphic design and web design is an asset

INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
University of Alberta International
intern@ualberta.ca
<table>
<thead>
<tr>
<th>NUMBER OF INTERNSHIP POSITIONS</th>
<th>1</th>
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<tbody>
<tr>
<td>INTERNSHIP START DATE</td>
<td>January 2, 2018</td>
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<tr>
<td>INTERNSHIP END DATE</td>
<td>12 weeks from start date</td>
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<td>ARE THE DATES FLEXIBLE?</td>
<td>Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.</td>
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