The Dr. Theo Schöller Chair of Technology and Innovation Management offers a **Master's Thesis** with the following topic:

Measuring Interdisciplinarity Using Natural Language Processing

Background and motivation

The thesis compares the text of scholars' publications from multiple disciplines within the Collaborative Research Center 768 -- Managing Cycles in Innovation Processes – Integrated Development of Product-Service Systems Based on Technical Products -- and measures the extent to which a scholar's work integrates language from distal and proximate disciplines. The measure is tested on all members of the CRC employed at TUM and LMU between 2008 and 2018. Comparisons among text, citation, and co-authorship are carried out. Measures of interdisciplinary, measures of disciplinarily, and other variables such as identified topic models are employed.

Objectives and Methodology

The goal of this thesis is to answer the following questions:

- What is the structure of collaboration within the interdisciplinary research center?
- How is the structure related to different performance criteria?

To answer these questions, a mix of literature review and quantitative text analysis might be appropriate.

What we offer

- Work on one of the hottest topics in Innovation Management
- Employing Natural Language Processing for research
- Close mentoring and clear milestones
- A fun but also challenging working environment

What we expect

- General interest in Measuring Interdisciplinarity using Natural Language Processing
- Very good grades
- Interest in working on / with big datasets
- Decent Python or R Skills

Contact

Please contact Claus Schöttl (claus.schoettl@tum.de) if you are interested in this topic. Your application should include a short letter of motivation, your CV and a current transcript of records. For more information on our general requirements, the application procedure, the application deadlines, and the style guidelines, please go to http://www.tim.wi.tum.de/index.php?id=210.