



PhD vacancy

OR&S searches motivated researchers (m/f)

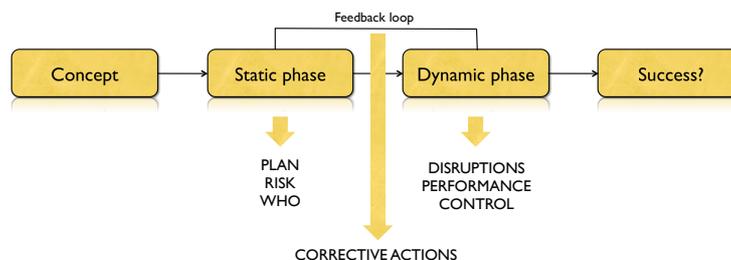
“Curiosity is one of the permanent and certain characteristics of a vigorous intellect” (Samuel Johnson)

Research description

The Operations Research and Scheduling (OR&S) group at the faculty of Economics and Business Administration (Ghent University) develops decision support systems for academic purposes, based on a well-balanced combination between **academic state-of-the-art knowledge** and **practical relevance**. The OR&S group searches for new, young and dynamic researchers for the project entitled “Searching for static and dynamic project drivers to predict and control the impact of management/contingency reserve on a project’s success”.

The research topic will be devoted to **Integrated Project Management and Control** using well-known as well as novel project management tools and techniques, and includes the construction of a baseline schedule, the analysis of project risk as well as the improvement of project control.

The methodology used for the research consists of a mix of data analysis, simulation and optimisation using state-of-the-art tools and techniques. This methodology, known as **Operations Research** is applicable to many complex business processes.



Job description

You carry out academic and/or applied research in the field of Integrated Project Management and Control and you aim at holding a **doctoral degree**, after approximately 4 years research. You participate in the international debate on research and practitioner conferences across the world and you publish your research papers in international top flag journals. You are prepared to give exercise sessions (in English and Dutch) to classes with commercial engineers and/or civil engineers.

Your profile

You have an enthusiastic personality and a quantitative mind and you are holder of a university degree (preferably commercial engineering, applied economic sciences, civil engineer, bio engineer or a master's degree in IT or computer science). You have a wide interest in optimisation applications and you really want to complete research in this field. You are familiar with at least one higher program language (e.g. C, C++, Visual Basic, Java) or you are prepared to make efforts for learning a program language. You can work independently, accurately and systematically. You have a very good knowledge of the English and Dutch language (both orally and in writing).

Our offer

A contract as full-time scientific employee within the Ghent University with a young, dynamic and enthusiastic team of researchers (meet them at www.projectmanagement.ugent.be, click on staff - members). You will get in contact with prominent national and international research groups and companies, and you will have the possibility to present research results on important international conferences.

Interested?

Feel free to contact **Mario Vanhoucke**, promotor of these research projects, by e-mail to mario.vanhoucke@ugent.be or send your CV to Faculty of Economics and Business Administration, Secretariat Department EBO8, to the attention of Mario Vanhoucke, Tweekerkenstraat 2, B-9000 Ghent (Belgium).

OR&S: Operations Research and Scheduling Group

In collaboration with OR-AS: Operations Research - Applications and Solutions

Contact us: www.projectmanagement.ugent.be or www.or-as.be

Apply Now



Concerted Research Actions

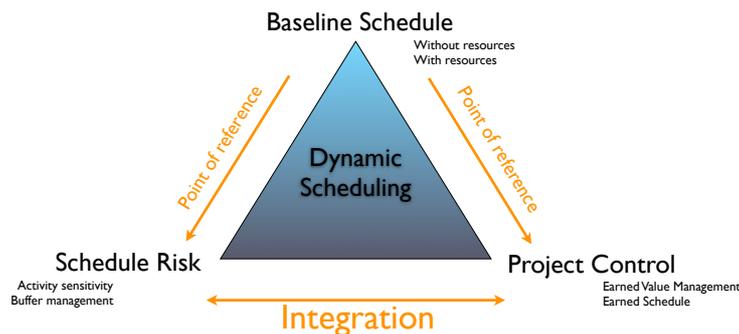
Each year the Flemish Government allocates research funds to Ghent University so as to implement the Flemish Government's Resolution of 8 September 2000. Concerted research actions are research projects with a duration of four to six years of which the **scientific excellence** can be demonstrated on the basis of objective data – more specifically on the basis of publications and other indicators that show the scientific quality of the research group(s) in question.

In 2011, the research proposal submitted by Mario Vanhoucke titled “Searching for static and dynamic project drivers to predict and control the impact of management/contingency reserve on a project's success” has been awarded after a review process and a final presentation to the jury.

In order to assure that the research has practical business relevance, we don't work on an island. This “more than a million euro” research project is strongly supported by various professional organisations, such as EVM Europe (www.evm-europe.eu), the Belgian chapter of the Project Management Institute (www.pmi-belgium.be), the College of Performance Management (US, www.mycpm.org) and CERN (Switzerland, www.cern.ch) and by recognised universities such as the George Washington University (US) and University College London (UK).

Integrated Project Management and Control

Integrated Project Management and Control, often referred to as **Dynamic Scheduling**, is the integration of baseline scheduling, risk analysis and project control and aims at understanding static and dynamic drivers of project success.



You will be part of this ambitious research project to carry out different experiments on fictitious and empirical project data. The aim is to write top academic papers as well as more practical oriented guidelines that bring value to the project management discipline.

The research project can be considered as a follow-up study of the research study “**Measuring Time**” which has led to various international publications, a book published by Springer and two awards. Building further on this study, the aim is to extend the traditional Schedule Risk Analyses and Earned Value Management approaches to statistical extensions. To that purpose, novel algorithms for scheduling projects will be developed which will then be used to test the performance of projects in progress using extensive Monte-Carlo simulation experiments.

Preliminary progress results will be presented at the yearly EVM Europe conference and will be incorporated in the software tool ProTrack (www.protrack.be) and the research tool P2 Engine (www.p2engine.com) to make it accessible to both researchers and practitioners. Simplified and easy-to-understand articles will be made accessible via the free online learning platform PM Knowledge Center (www.pmknowledgecenter.com).

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