Fakultät für Wirtschaftswissenschaften

Technische Universität München

The **Chair of Operations Management** at **TUM School of Management** and **Infineon Technologies AG** are looking for an interested and qualified student to conduct his/her

Master's Thesis

on the topic

Flexible project resource allocation in a high-tech environment on the example of Infineon's supply chain

Description:

The semiconductor industry is known as one of the most challenging businesses in today's global economy. The complexity that characterizes its manufacturing and planning processes is also reflected in the projects that are conducted within the supply chain organization. Most of these projects require highly skilled employees whose scarce resources need to be carefully allocated.

Before a project starts good estimations can be made on the amount of resources needed to conduct the project. However, the execution of a project is subject to uncertainty. E.g. during the execution of a project the resource availability can change (a highly skilled worker required for critical activities is seriously ill). This might lead to a delay of the project and thus also affect the start and execution of other projects as well.

This thesis shall investigate the necessity for a flexible resource allocation approach for supply chain projects on the example of Infineon Technologies AG, Europe's second largest semiconductor manufacturer. Recommendations shall be derived on the appropriate degree of flexibility in relation to gain of efficiency to be expected. The study will be conducted by means of the already existing ESSIP tool (Evaluation and Selection of Supply chain Innovation Projects).

Requirements:

This thesis is suitable for TUM-BWL, TUM-WITEC or TUM-WIN students with a major in the area of operations and supply chain management. Candidates must have a strong analytical background, have to be able to work independently and must show absolute reliability. Very good MS-Office skills (Word, Excel, PowerPoint) are mandatory. The student must have knowledge in the area of project management (acquired e.g. in the modules "Project Management – A Quantitative Approach" or "Planning and Scheduling of Complex Operations: Models, Methods and Applications"). The thesis has to be conducted in English.

During this thesis full-time employment with Infineon Technologies AG is provided.

Begin:	as soon as possible
Advisors (TUM):	Alexander Döge, M.Sc. (alexander.doege@tum.de)
Mentor (Infineon):	Dr. Thomas Ponsignon

Any interested student, please send by email your application together with your curriculum vitae and transcripts of records both in Bachelor and Master study programs.