

# Research Plan for Combinatorial Optimisation for Scheduling

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## Background of the research

TBD in the final version of the research plan.

## Research Question

TBD in the final version of the research plan.

## Method

TBD in the final version of the research plan.

## Planning of the research project

To make finish the project successfully a planning is outlined in this section. For each week the meetings and presentations are outlined in the fist subsection. The next subsection contains all the activities that should be performed and lastly a list of deliverables is provided to keep track of all parts required for the following weeks.

### 0.1 Week 1

#### 0.1.1 Meetings

Participants	Objective	Date and time
Peers + supervisor	Detailing research topic	April 20 9:00 am
Peers	Discussing research plan and background information	April 21 or April 22

### 0.1.2 Activities

Activity	Objective
Read reference paper from project forum	<ul style="list-style-type: none"><li>• Gain insight in the RCPSP problem</li><li>• Learn about the pre-emption variant of the problem</li><li>• Learn a way to model the problem</li><li>• Analyse the use of the model in a SAT-solver</li></ul>
Analyse research topic	<ul style="list-style-type: none"><li>• Formulate the research topic</li><li>• Formulate a research question</li><li>• Derive sub-questions</li><li>• Make search queries</li><li>• Selecting information sources</li><li>• Store information sources</li><li>• Generate a literature list</li></ul>
Read abstracts from literature list	<ul style="list-style-type: none"><li>• Make tags for literature list</li><li>• Find an example for a RCPSP problem model</li><li>• Gather information for the background of the research</li></ul>
Transform sub-questions into tasks	<ul style="list-style-type: none"><li>• Find the required tasks to answer the research question</li><li>• Make a time-line for the remaining 9 weeks of the project</li></ul>
Make a list of tools/software/data	<ul style="list-style-type: none"><li>• Making sure all required parts are accessible</li><li>• Checking for completeness with supervisor</li></ul>
Write research plan	<ul style="list-style-type: none"><li>• Finishing the first deliverable to get feedback from supervisor</li></ul>

### 0.1.3 Deliverables

After all the activities have been finished the following deliverables should have been made:

- Research question

- Sub-questions
- Information sources
- Literature list (with tags)
- Example for a RCPSP problem model
- Written background research
- List of tasks
- Time-line for tasks and official deadlines
- List of tools/software/data
- Final version research plan