# Research Project Problem Statement: Experts Search Engine

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## 1 Context

The task of finding a supervisor or an expert for a project or thesis is surprisingly time-consuming: first, one has to manually find a topic to work with, based off this the departments or academic organizations that may help. Finally, the last stage may be to contact them one by one, to see who may have availability or a possible contact that would be willing to provide guidance. Moreover, the fact that an academic is a member of a certain organization does not necessarily mean that they are interested or qualified in the topic at hand. The same can be said for any state authority looking to find the help and guidance of experts on an issue of public interest.

Therefore, we will aim to develop a tool to find Experts at ITU that have been classified as such based off their publications. The value of such a solution would be to provide immediate up-to-date feedback with the corresponding contact data and context (related publications, etc) of several matching experts to anyone who may need it while only requiring the topic of interest as input, instead of several hours (or days) of research on and back and forth emails.

## 2 State-of-the-art

Currently, the closest resource to the solution we propose is a page hosted at wiki.itu.dk

[Supervisors for projects and theses](#)

The website functions as a static "expert" directory listing some of the ITUs' supervisors and their research interests. It offers a broad coverage but relies on manual browsing and self-maintained profiles, which may result in outdated or missing information.

## 3 Method and deliverables

Initially, we will develop a database with all experts at ITU, their contact data and publications. On top of this database we will develop a website with a basic search engine which will use the experts' publications to search for the terms provided on the input field and return a ranked list of experts. Ideally, we would be able to retrieve

new publications periodically through APIs connected to online academic repositories - solving this way the problem of outdated information. This will be our starting point, which we intend to modify and expand further during our thesis project, by developing an LLM / chat bot (or similar) that would help narrow down and improve the "expert suggestion".