“Assessing the potential impact of utilizing drones in the construction industry”

General project information
Project title: Assessing the potential impact of utilizing of drones in the construction industry

Project supervision:

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  - Faculty of Engineering Technology
  - Department of Construction Management & Engineering

- ir. A. (Alexandr) Vasenev University of Twente
  - Faculty of Elec. Eng., Mathematics and Computer Science
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  - Department of Robotics And Mechatronics

Project context
The University of Twente, TU Delft and BeemFlights are collaborating in a 3TU Lighthouse project named “Throw in the i-drone”. This project has the ambition to demonstrate possibilities that drones can offer to the construction industry. We believe that drones equipped with (infrared) cameras can provide valuable information regarding both the progress of construction and about its result. With respect to the latter, drones can investigate, for instance, the thermal resistance of building skins or the condition of photovoltaic systems. Currently, we want to offer bachelor and master students possibilities to conduct their graduation project within the scope of the “Throw in the i-drone” project.

Project content
Although we are convinced that drones have the significant potential to help the construction industry, it is not known to what extent the construction industry has the same perception. Furthermore, several barriers can hamper the high impact potential of the drones. On the other hand, there may be many more applications that can benefit from utilizing drones in addition to mentioned examples. Therefore, we would like to ask you to assess the implementation potential of drones in the construction industry.

Project organisation
This bachelor/master research project will be, regarding the supervision, mainly embedded in the department of Construction Management and Engineering. We understand that most students want and need to do their research project external to the university. We can envision (and will provide support) that the student could conduct this research by staying at an external organisation. The profile of the organization needs to encompass possibilities to contact multiple stakeholders in the construction industry to get the proper empirical information by means of surveys and/or interviews. One can think of consultancy firms, research institutes, and/or the government.

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