

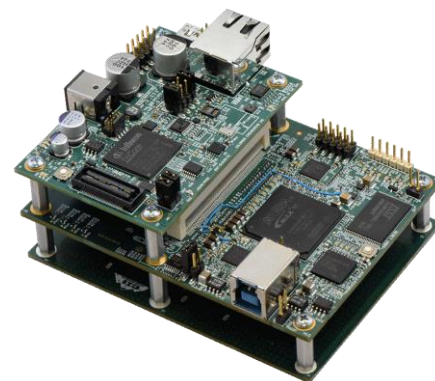
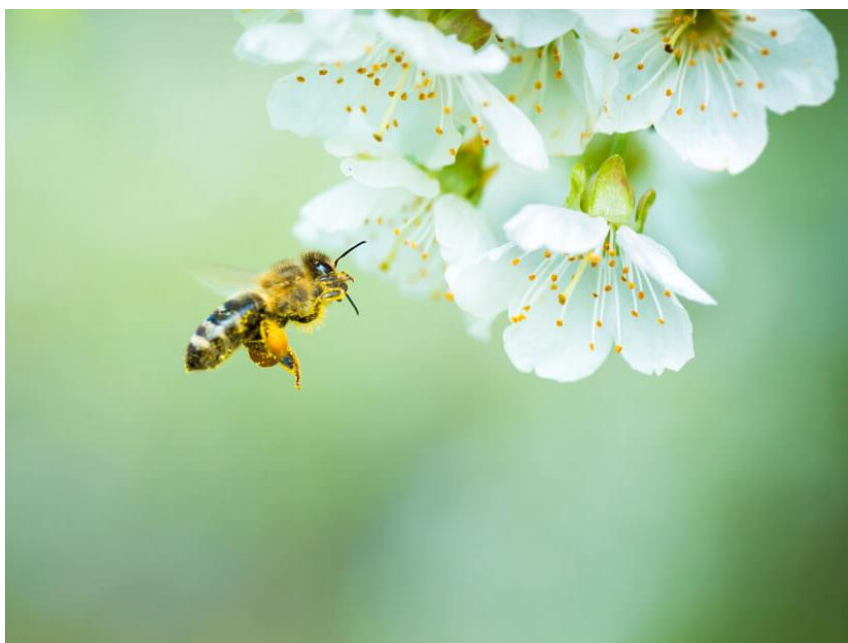
Student project - RADAR FOR MONITORING & TRACKING FLYING INSECTS

Small mobile radar systems, originally developed for the car industry, are more and more used for studying human and animals movements (bio-medical engineering). A consortium of TU Delft and Wageningen University aims to develop such radar system for monitoring insect movements in the wild and in greenhouses.

Insects are crucial for the pollination of both wild plant and agricultural crops, but these insects are declining at an alarming rate. A radar system would enable us to precisely monitor pollinator activity under various environmental conditions. Such information is crucial for the development of conservation strategies.

We look for an **internship or MSc thesis student** who would like to develop a mobile radar system for detecting and identifying pollinating insects in the wild. This work may include developing/optimizing the radar prototype and its control interface, writing software for identifying the insects based on the Doppler signal specific for their wingbeat or kinematic behaviour, and automatizing/ruggedizing the system for field deployment.

If you are interested in such project, please contact Francesco Fioranelli (TU Delft) or Florian Muijres (Wageningen University). The duration and the specific focus of the work can be discussed and agreed together.



Contact information:

Dr. Francesco Fioranelli

Department of Microelectronics
TU Delft

F.Fioranelli@tudelft.nl

Dr. Ir. Florian Muijres

Experimental Zoology Group
Wageningen University

florian.muijres@wur.nl

Start date:

Spring 2020 (before the pollinator field season)

Desired skills:

For Engineering students, background in radar systems or at least some understanding of electromagnetic scattering principles; some background in signal processing and some programming skills in MATLAB and/or Python.