Dairy Farmers Dashboard

The Dairy Farmers Dashboard will take data from the SLU Gigacow database and use it to provide actionable information for farmers participating in the SLU Gigacow network. In Gigacow, data on milk production, animal activity and other production parameters are collected daily from the herd management systems on each farm. The purpose of the Dairy Farmers Dashboard is to return some of these data as actionable information that support the daily operations of the farm. In the project the student(s) will perform three tasks:

- Collaborate with two pilot farms to set initial requirements and evaluate these requirements within the Gigacow network.
- Create functions for processing data in the Gigacow database for the Dashboard.
- Create a customizable Dashboard accessible to farmers using their mobile, tablets and computer.

The project is suited for a master’s degree project and can be split up so that 1-3 students work as a development team within the Gigacow network. During the project we will arrange so that you visit some farms to get an insight into the rapid digitalization of the agricultural sector and the requirements of the end users. Office space is available at the Swedish University of Agricultural Sciences at campus Ultuna in Southern Uppsala and work can also be conducted remotely.

To ensure code maintainability the preferred languages working in Gigacow is Python, R and the JavaScript framework Vue.js. You can visit the Gigacow website (https://www.slu.se/gigacow) or contact for more information) Dr Tomas Klingström (tomas.klingstrom@slu.se, https://www.slu.se/cv/tomas-klingstrom/) for further information.

Swedish Red and White cattle and close ups of the DeLaval Voluntary Milking System used at many Swedish farms. Each cow will visit the milking robot 2-3 times per day to get milked and receive a small batch of feed. Each cow is identified at the entry gate and let into the milking system if sufficient time has passed since the previous milking. A laser guided robot arm automatically cleans the teats and attach the milking cups. The robot also collects information such as the time and duration of milking, milk flow per second, total amount of milk and electrical conductivity of the milk which is stored in the herd management system and collected every night from the farms by SLU Gigacow.