

Faculty of Environment, Society and Design

Summer Research Scholarship

Lincoln University 2021-2022

PROJECT DETAILS

<p>Supervisor(s): Stuart Charters Phone and e-mail: stuart.charters@lincoln.ac.nz 03 423 0415</p>
<p>Funder: AgResearch Contact person: Munir Shah munir.shah@agresearch.co.nz</p>
<p>Project title: Animal management: Fast and easy tracking of animals on-farm</p>
<p>Project Description: Animal management: Fast and easy tracking of animals on-farm UHF RFID Reader and antennas on key locations on-farm and UHF RFID smart tags on animals will enable us to count and track the movement of a mob of livestock into and out of paddocks around the farm. The design process will determine which animals will be tagged. In the first instance, this information would be useful for animal management. It can also help automate various reporting tasks both for regulation and on the farm in the future. Summer student will work in this wider project on a specific task as listed below in the milestones</p> <ul style="list-style-type: none">• Develop specifications for design and implementation of PoC UHF RFID Tags system• Design of physical and virtual infrastructure• Deployment of physical infrastructure• Development of data ingest and extraction tools.• Test of deployed systems• Reporting
<p>Project Outcomes: On-farm and virtual infrastructure for individual animal monitoring and management using UHF-RFID.</p>
<p>Tasks to be performed by student: The key milestone for the student would be to assist in develop initial PoC that would involve installing a Gateway with antennas (x2) at specific location in Ashley Dene farm, RFID tags on animals, and getting the data back</p>
<p>Prerequisite skills (if applicable): Python programming Ability to work with scientific data</p>
<p>Please indicate if Ethics Approval is necessary: No</p>
<p>Date: 13/12/2021</p>