



Lee is currently a post-doc fellow at UMR AMAP – INRAE, Montpellier, France. Working on computer vision and machine learning, she is interested in solving problems encountered in automated plant disease identification system using Deep Learning approach.

Email: adeline87lee@gmail.com

**25 FEB 2020** 11h00 – 11h40

Salle 201, Bâtiment PS1, CIRAD-UMR AMAP, Boulevard de la Lironde

## PLANT HEATH: Plant disease monitoring in crowdsourced image stream

presented by

## Dr. Lee Sue Han

UMR AMAP - INRAE, Montpellier, France

## **ABSTRACT**

Plant diseases are a major threat to agricultural production, causing a severe food recession and affecting crop quality. Automated identification of plant diseases has mainly been carried out on a single crop/host species using hand-crafted approaches and, since deep learning, has demonstrated extremely high recognition capabilities, replacing the need to manually design feature representations, multiple host species and disease-based models, which are receiving increasing attention. In this presentation, I will present the results of my research on the conceptual study of the use of deep learning to solve the problem of plant disease identification. It covers preliminary results on the effect of transfer learning on model training, the exploration of a new modelling method based on recurrent neural network and the latest state-of-the-art method for modelling multiple host species and disease images taken in a real-life scenario.

**KEY WORDS** Plant disease identification; Deep learning; Transfer learning

**Invited and animated by:** Dr. Pierre Bonnet / Dr. Hervé Goëau (UMR AMAP)

**Type:** Research results

Oral language:EnglishLanguage of PPT:english

