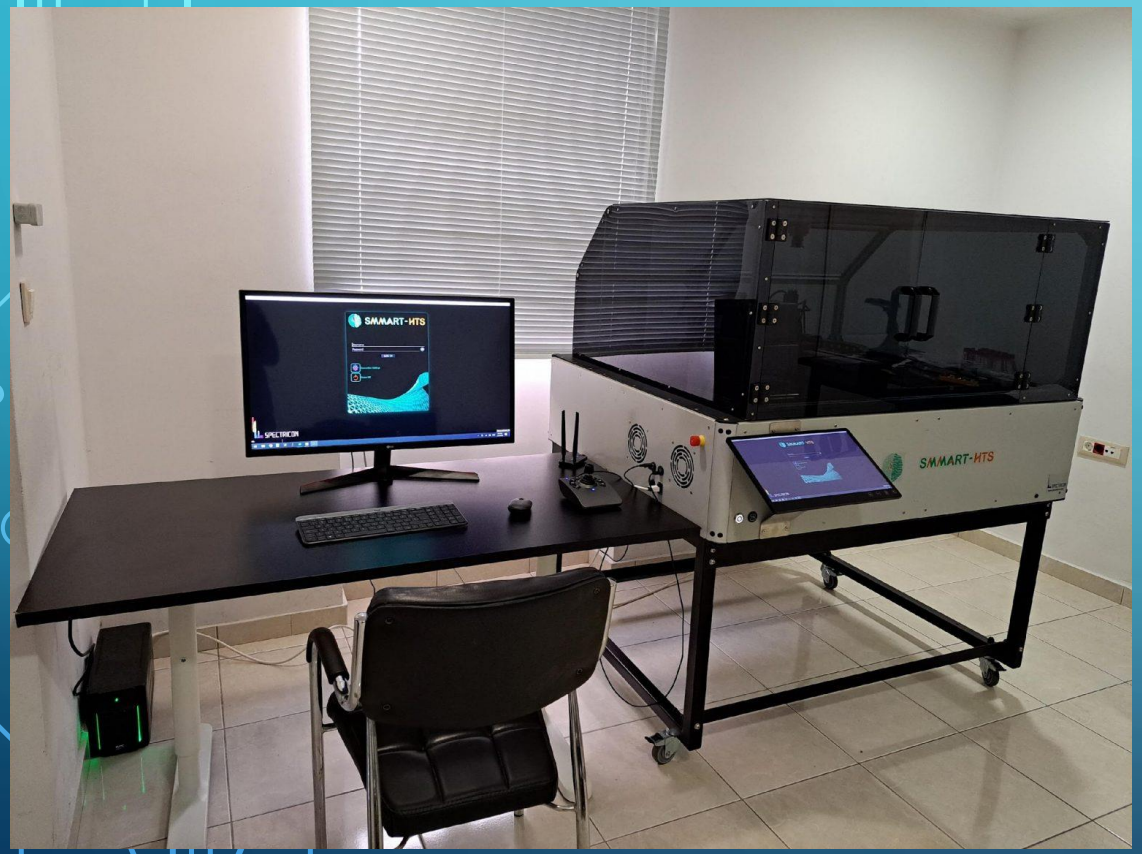
Image Processing

https://www.shuttle-pcp.eu/

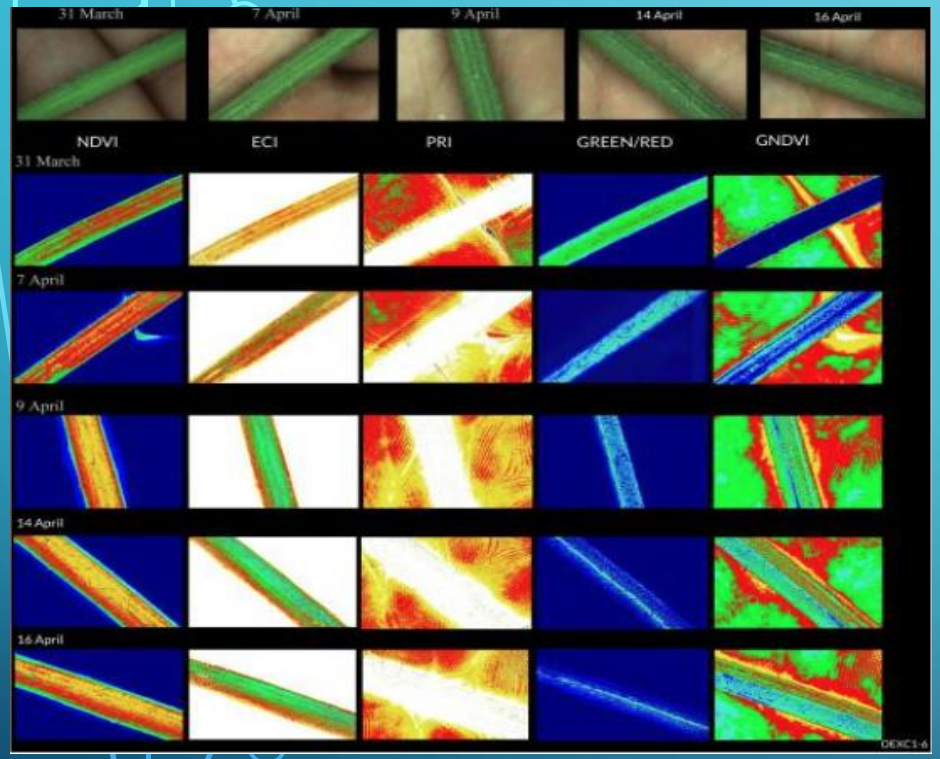
SMMART FORENSICS TOOLKIT



KEY FEATURES OF MY WORK

- Developed the Analysis application, including the code running for the sample analysis and the application's environment.
- Evaluation (time, accuracy) and implementation of supervised and unsupervised algorithms (KMeans,DBSCAN,KNN etc.) from scratch without the use of external libraries.
- Implementation of Morphological Indices
- Implementation of Texture Analysis
- GPU implementation of clustering algorithms using OpenGL.

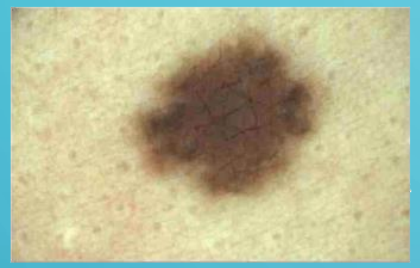
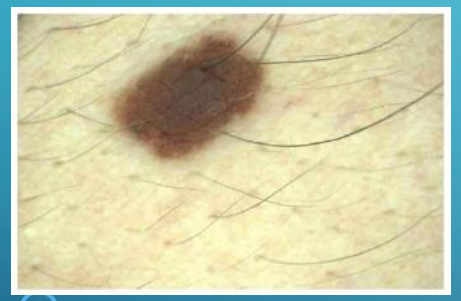
CROP INDUSTRY



KEY FEATURES OF MY WORK

Experiment where I was performing on-hand measurements using a multimodal spectral device to study plant damage prevention via spectroscopy. After taking the measurements, I was analyzing the spectral data to observe any visible patterns over time in unhealthy plants exposed to salinity, compared to healthy ones.



MEDICAL

KEY FEATURES OF MY WORK

I was tasked with improving an existing hair-removal algorithm by reducing execution time and make it less destructive from the previous one.

Implementation of morphology image processing techniques like top/black hat, erosion , dilation etc. to identify the mole during research phase as well as creating an algorithm for a less destructive result.