IPPN Affordable Phenotyping Workshop: Plant Phenotyping with Minicomputers and Low-Cost Cameras
6-7-8 July 2021 Angers France

A short participative workshop oriented toward practical aspects of plant phenotyping with inexpensive, yet robust, minicomputers coupled with small cameras. Each important step, from system installation, network deploying, time lapse acquisition, image processing, machine learning and data analysis will be illustrated with talks and hands on.

The target audience are tech-minded biologists and engineers in charge of phenotyping trials from academic or private compagnies.

Invited Speakers:

Noah FAHLGREN (Danforth center, USA),

Sotirios TSAFTARIS (Edinburg University, UK),

Sebastian SCHULTHEISS (Computomics, Germany),

Jean-Pierre DA COSTA (Agrosup Bordeaux, France),

Julia BUITINK (INRA, Angers, France)

Supplementary Ressouces (Videos)

In preparation to the Workshop on plant phenotyping with Minicomputers and low-cost cameras, the organizers compiled a set of online ressouces:

Feel free to browse through our first two featured tutorial playlists, with topics on:

- Low-cost Imaging
- Plant Imaging in Controlled Environments

→ **Visit our Channel (https://www.youtube.com/channel/U(**

Organizers:

David ROUSSEAU (Université d'Angers, France), Pejman RASTI (ESAIP, France)

Local team: Hadhami GARBOUGE, Mouad El ZINE ABIDINE, David PIERRE, Geoffroy COUASNET,
Mathis CORDIER, Julien GARNIER, Félix MERCIER

Registration:

Please register before 31st **May 2021**: 100 euros including coffre breaks, lunch, gala dinner,
access to minicomputers, GPU programming station for machine learning, teaching material.

Registration at : **patricia.vandaele@inra.fr (mailto: patricia.vandaele@inra.fr)**

Program

Day 1:

9H-12H Time lapse acquisition;

13H-17H Pre-Processing time lapse image sequences.

17H-19H : Launching of a time lapse over a network of minicomputers.

Day 2:

9H-12H Course Machine learning for plant growth analysis ;

13H-17H Hands on machine learning for plant growth analysis ;

17H-19H : show case of industrial and home-made solutions.

Day 3:

8H-12H Example of Plant research with Minicomputers and low-cost cameras ;

14H-16H visit of PHENOTIC platform.

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IPPN Online **Workshop plant phenotyping with Minicomputers and low-cost cameras**

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Location, date and program: Online

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Organizers: David ROUSSEAU (Université d'Angers, France), Pejman RASTI (ESAIP, France)

Local team: Geoffroy COUASNET, Mathis CORDIER, Salma SAMIEI

Registration procedure before 31 May 2021: 100 euros including access to video, slides and codes.

Registration by « bon de commande » at : patricia.vandaele@inrae.fr

Partners

(https://www.plant-phenotyping.org/lw_resource/datapool/systemfiles/elements/images/3d835576-908e-11eb-a804-dead53a91d31/current/image/Hackaton.JPG)