

Segmentation Techniques and Challenges in Plant Phenotyping: Introducing the iPlantSeg+ Tool

Segmentation is the process of partitioning a digital image into multiple homogeneous regions by grouping pixels based on similarity in terms of intensity, texture, or color. Segmentation is an indispensable prerequisite for computing plant phenotypes. The quality of segmentation is critical to accurate phenotype computation and subsequent phenotype-genotype mapping analysis. The workshop will have two components: (A) a presentation of segmentation techniques used for plant phenotyping in both controlled and field-based phenotyping platforms; and (B) an interactive session to introduce a software tool named as iPlantSeg+ to facilitate image segmentation and compute a set of generic phenotypes.

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Workshop Presenters



Sruti Das Choudhury is a Research Assistant Professor in the School of Natural Resources with courtesy appointment in the School of Computing at the University of Nebraska-Lincoln, USA. Previously, she was a Postdoctoral Research Associate in the School of Computing at the University of Nebraska-Lincoln and an Early Career Research Fellow in the Institute of Advanced Study at the University of Warwick, UK. She obtained Ph.D. in Computer Science Engineering from the University of Warwick, UK and Master of Technology in Computer Science and Application from the University of Calcutta, India. Her research focuses on computer vision, artificial intelligence and robotic solutions in smart agriculture and genome to phenome mapping.



Srinidhi Bashyam is a Systems Software Developer in University Operations at the University of Nebraska-Lincoln, USA. He obtained Master of Science from the School of Computing of the same university. His research focuses on computer vision, machine learning, and automation in plant phenotyping.

March 14, 2023

3:00 PM - 5:00 PM

(Central Time, UTC-6)

Purpose:

Demonstrate a software tool for image segmentation, applied to plant phenotyping.

Register for this Zoom virtual workshop:

<https://tinyurl.com/AG2PI-w18>

Upon registration, you will receive a confirmation email with information about joining the meeting.

A recording will be available at a later date at: www.ag2pi.org.

Registration is not required to view the recording.