

DAILAB-CAFE

Series - 68

Affiliation:

E-mail:

Date & Time: October 18, 2021 (15:30-16:30 IST)

Speaker: Yu ZHANG

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Research Center for Agricultural Information Technology,

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Application of AI and Imaging Techniques to Realize High-quality Stable Production in Smart Agriculture

Japanese agriculture faces various problems such as labor shortages, the aging of farmers, the increasing of abandoned cultivated land, and the decreasing in yield and quality due to frequent occurrence of pests and diseases. Smart agriculture powered by artificial intelligence(AI) shows huge potential in solving these problems. Al can provide farmers with real-time insights from their fields, predicting the optimal time for sowing and harvesting and identifying areas that need irrigation, fertilization, or pesticide treatment etc.

In this presentation, I will mainly introduce our research practices of automatic pest and disease detection and plant growth monitoring aiming at labor saving, cost reduction and profitability improvement by utilizing AI and image processing technology in field management. Firstly, I will give you a general introduction of smart agriculture and AI technique. After that, based on the present challenges in agriculture production. I will show how to use AI and image techniques to detect the pests and diseases for protecting crops production and monitoring crop growth state. Moreover, several examples will also be shown to help you understand the development of smart agriculture with AI and imaging techniques. Finally, Al limitations and future potential will be discussed from my point of view.

Introduction of Smart Agriculture & AI

オペレーターでも高精度の作業が可能となる

「スマート農業の実現に向けた研究会」検討結果の中間とりまとめ(平成26年3月28日公表)より 生展:農林水産省HP http://www.maff.go.jp/j/kanbo/kihyo03/gityo/「スマート農業の展開について」

2 作物の能力を最大限に発揮

センシング技術や過去のデータに基づく

きめ細やかな栽培により(精響概要)。 作物のボテンシャルを最大限に引き出し 多収・高品質を実現

4 誰もが取り組みやすい農業を実現 5 消費者・実需者に安心と信頼を提供





KhuranaMallika Organizer

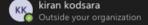
Archana (Guest)











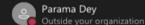


Outside 50 translation

KT KRISHA CIPANTS

PARTICIPANTS















SONAM FATHIMA MEHAK-18.. Outside your organization

Sosmitha Girisa (Guest)

Sushmitha Srinivasan - 20170





自動走行システム等の導入による

農業機械の夜間走行・複数走行・

D編物の読み下る」カンの乗位側を



