

SPECIAL SESSION ON Data and Image Processing for Precision Agriculture (DIPPA '20)

Special session of the 9th International Conference on Image and Signal Processing (ICISP 2020),
June 4 - 6, 2020, Marrakech, Morocco

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CALL FOR PAPERS

Nowadays, agriculture faces several challenges to maintain productivity and reduce environmental impact. With advances in the technologies of robots, drones, IoT..., precision agriculture and smart farming have opened up new opportunities to meet these challenges... Huge amount of data (images, signals, ...) generated by the new technologies, provides key element for the modern agriculture. Therefore, interest in this digital revolution is growing rapidly in various domains of agriculture, particularly the management of inputs and decision-making. In this context, data analysis and modelling methods are an important topic for precision agriculture. For instance, plant disease detection and recognition using aerial imagery can be used to plan targeted actions and reduce the use of inputs; mathematical models of evolutions of the diseases or these species will allow act more preventively; robots with vision-based capabilities for weed detection and classification allows a more precise action. However, images and data analysis in agriculture are facing a several challenges such as data collection, image registration of different modalities taken over different spatial and time scales, spatio-temporal monitoring, data labelling, the accuracy of predictive models...

The goal of this special session is to bring together researchers and engineers working in the area of precision agriculture or smart farming to address the needs, challenges and recent developments in image processing methods, signal processing, artificial intelligence, machine learning, modelling data, ... for agriculture. We are soliciting original contributions, which address a wide range of theoretical and practical issues including but not limited to:

- Computer vision and artificial intelligence in precision agriculture
- Machine learning, deep learning and data Mining in precision agriculture
- Remote sensing, geostatistics, mapping and spatial data analysis in precision agriculture
- Hyperspectral / multispectral imaging and precision agriculture
- Wireless Sensor Networks, Internet of Things in Precision Agriculture
- Data acquisition for precision agriculture
- Smart farming
- ...

SUBMISSION

Prospective authors are encouraged to submit papers to no more than eight (8) pages one column including results, figures and references. All papers must be written in English and should describe original work. For guidelines, please follow the ICISP website link : <http://www.icisp-conf.org/submission.html>

DEADLINES

Consult the ICISP website: <http://www.icisp-conf.org/dates.html>