

CALL FOR PAPERS

FRONTIERS IN IMAGING: FOOD AND AGRICULTURE**WORKSHOP SESSION — SUBMISSIONS INVITED**

Guaranteeing food security, understanding the impact of climate change in agriculture, quantifying the impact of extreme weather events on food production and automating the process of food quality control are a few topics where modern imaging technologies can provide much needed solutions. This workshop session welcomes contributions on innovative imaging systems, computer vision, machine/deep learning research and augmented reality focusing on applications in food and agriculture. Workshop topics consider how novel imaging technologies can address issues related to the impact of climate change, handling and fusion of remote sensing and in-situ data, crop yield prediction, intelligent farming, and livestock management among others. Topics related to food and beverage industry that include food recognition, calorie estimation, food waste management (among others) are included.

HOT TOPICS

Submissions that address image processing, computer vision, and remote sensing in food and agriculture systems are welcome:

- Climate change impact detection, monitoring
- Remote sensing and in-situ data fusion
- Mobile apps and cloud computing
- AR/VR in the food and beverage industry
- Plant segmentation and classification
- Precision agriculture
- Food quality assurance
- Automation, robots, drones
- Food waste management

WORKSHOP TOPIC AREAS***Environment**

- Data sets, multi-sensor and data fusion
- Environmental degradation assessment and rehabilitation
- Ecological disaster management

Agriculture, Farms, and Food

- Plant growth and growing conditions
- Livestock management
- Flower detection, counting, density estimation
- Pest and weed detection
- Food freshness estimation

Cameras, Computing Units, and Sensors

- Remote sensing and in-situ cameras
- Automation, deep learning
- Broad spectrum detection systems
- Global datasets

* See workshop webpage for detailed listing of subtopics.

ABOUT THE SYMPOSIUM

A week of interconnected imaging science events including:

- Short courses taught by international experts
- 17 conferences—from Autonomous Vehicles to VR to Image Quality
- Opportunities for Students and Young Professionals
- 3 engaging Plenary Talks
- Joint sessions to increase knowledge across areas
- 3D Theater, Demonstration Session, Exhibition, Receptions, and more

WORKSHOP WEBSITE

A complete list of workshop topics and details for submission is found on the workshop webpage: bit.ly/EI2020_WFA

SUBMISSION OPTIONS

Presentation + proceedings paper: Submit a 500-word structured abstract (template provided). Accepted authors write 4-6 page paper for inclusion in the Open Access workshop proceedings.

Presentation-only: Submit a 500-word short abstract. Accepted authors present work, but do not write a proceedings paper.

Journal-first paper: Submit a full, journal-ready paper, for Open Access publication in the selected journal (provides journal citation) and inclusion in the workshop proceedings. Authors present their papers at EI. Select either the *Journal of Imaging Science and Technology* (JIST) or *Journal of Perceptual Imaging* (JPI).

SUBMISSION DEADLINES

Early decision: 15 July 2019

JIST- /JPI-first: 15 July 2019

Regular submission: 30 September 2019

FINAL PROCEEDINGS MANUSCRIPT DEADLINE

Typical length: 4-6 pages

- **FastTrack viewing** (available online at EI): 25 November 2019
- **Post-EI viewing:** 10 February 2020

To register or learn more, visit
www.ElectronicImaging.org

