



UPM
UNIVERSITI PUTRA MALAYSIA
BERILMU BERBAKTI



WAGENINGEN UR
For quality of life

INTERNATIONAL CONFERENCE ON BIG DATA APPLICATIONS IN AGRICULTURE: *from nursery to field (ICBAA2017)*

4th & 5th December 2017 at Universiti Putra Malaysia

Big data is impacting agriculture in an unprecedented manner. It enables knowledge-guided crop management that leads to greater ecological efficiency and improved product value. It offers solutions to various inherent problems in crop production from selection of planting materials in the nursery to managing inputs, pests and environmental uncertainties in the field. The big data can be in the form of 'omics data, remote sensing data and field monitoring data. The wealth and complexity of the information generated could only be deciphered for beneficial use using powerful analytical tools and software. Building and managing database are essential for increasing the predictive value using the big data over time. This conference aims to provide exposure on the development in this field. Deliberations will cover acquisition, management and mining of data through various software, modelling and bioinformatics tools. Applications of big data in precision crop improvement and management will be emphasized.

A strong line up of keynote and plenary speakers from Japan, the Netherlands, India, Malaysia and Oil Palm Industry will be sharing their knowledge and vast research experience at the conference. You are invited to participate as an oral or poster presenter under one of the four conference sessions.

DESCRIPTION OF CONFERENCE SESSIONS

A. CROP SYSTEMS BIOLOGY

Research in crop systems biology focuses on modelling new variety of crop by using 'omics data. The research helps to predict crop phenotype and crop performance.

Topics of interest to the track include, but are not limited to:

- Functional analysis of omics data
- Omics revolution in agricultural research
- Phenotypic traits expressed at crop level
- Multi-omics data integration and analysis
- Crops modelling and simulation

B. TRANSLATIONAL GENOMICS

Research in translational genomics focuses on utilizing genomics data for crop improvement.

Topics of interest to the track include, but are not limited to:

- Genomic-assisted breeding
- Quantitative traits locus (QTL) mapping
- Plant genotyping
- Bioinformatics

C. EARTH OBSERVATION FOR PRECISION AGRONOMY

Research in earth observation for precision agronomy focuses on the manipulation of geospatial technology for observing and managing crop health status and yield.

Topics of interest to the track include, but are not limited to:

- Proximal and remote sensing of soil and crop
- Applications of Unmanned Aerial Systems (UAS) in agriculture
- Wireless sensor networks
- Geospatial data for optimization of crop production
- Pest and disease identification and prediction
- Smart farms

D. APPLIED INFORMATICS AND COMPUTATIONAL DATA ANALYTICS

Research in Applied Informatics engages computer scientists and experts from agriculture domains to develop innovative information technology applications to benefit society.

Research in Computational Data Analytics explores the computational approach to data acquisition, pre-processing, storage, management, analysis and visualization.

Topics of interest to the track include, but are not limited to:

- Modelling sensor based data
- Big data techniques with potential applications in agriculture
- Optimization and simulation models, including agent based simulation
- Decision support tools
- Big data analytics applications
- Policy development in big data utilization and applications
- Social framework of big data

TENTATIVE PROGRAMME

**TUESDAY
(5 DECEMBER 2017)**

Time	Activities
8.00 am – 9.00 am	REGISTRATION
9.00 am – 9.40 am	OPENING CEREMONY
9.40 am – 10.20 am	KEYNOTE ADDRESS I Dr. Sharifah Shahrul Rabiah Syed Alwee (FELDA Global Ventures R&D Sdn Bhd)
10.20 am – 11.00 am	TEA & POSTER VIEWING
	SESSION A: CROP SYSTEMS BIOLOGY
11.00 am – 11.30 am	PLENARY 1 Dr. JH (Jack) Vossen (Wageningen University, the Netherlands) <i>Virulence Monitoring in Potato Late Blight Resistance</i>
11.30am – 1.00 pm	Opportunity for Oral Presentation (3-4 Speakers)
1.00 pm – 2.10 pm	LUNCH
2.10 pm – 2.40 pm	PLENARY 2 Assoc. Prof. Dr. Qazi Fariduddin (Aligarh Muslim University, India) <i>Brassinosteroids: Abiotic Stress Tolerance In Plants</i>
	SESSION B: TRANSLATIONAL GENOMICS
2.40 pm – 3.10 pm	PLENARY 3 Prof. Dr. Siti Nor Akmar Abdullah (Universiti Putra Malaysia) <i>Genome Mining for Production of Nutritionally Rich Palm Oil</i>
3.10 pm – 4.40 pm	Opportunity for Oral Presentation (3-4 Speakers)
4.40 pm	TEA

CONFERENCE DINNER

**WEDNESDAY
(6 DECEMBER 2017)**

KEYNOTE ADDRESS II

9.00 am – 9.40 am Assoc. Prof. Dr Takeuchi (University of Tokyo, Japan)
Supporting Efficient Management of Oil Palm Plantation using RS, UAV, GIS and GNSS

SESSION C: EARTH OBSERVATION FOR PRECISION AGRONOMY

9.40 am – 10.10 am **PLENARY 4**

Mr. Mohd Zahlan Mohd Zaki (Sime Darby R&D Sdn Bhd)
Towards Operationalization of Geospatial Big Data in Oil Palm Plantations: The Sime Darby Experiences

10.10 am – 10.50 am **TEA & POSTER VIEWING**

10.50 am – 11.20 am **PLENARY 5**

Assoc. Prof. Dr. Abdul Rashid Mohamed Shariff
(Universiti Putra Malaysia)
Big Data for Smallholders

11.20 am – 12.50 pm **Opportunity for Oral Presentation (3-4 Speakers)**

12.50 pm – 2.10 pm **LUNCH**

SESSION D: APPLIED INFORMATICS AND COMPUTATIONAL DATA ANALYTICS

2.10 pm – 2.40 pm **PLENARY 6**

Assoc. Prof. Dr. Fatimah Sidi (Universiti Putra Malaysia)
Visualisation of Agriculture Data using Tableau

2.40 pm – 3.10 pm **PLENARY 7**

Mr. Ayman Salama Mohamed
(Crops for the Future Research Centre, Malaysia)
Data-driven Intelligent Digital Agricultural System

3.10 pm – 4.40 pm **Opportunity for Oral Presentation (3-4 Speakers)**

4.40 pm – 5.10 pm **BEST POSTER PRESENTATION & CLOSING**

**THURSDAY
(7 DECEMBER 2017)**

9.00 am – 2.00 pm

POST-CONFERENCE TOUR

ORGANISING COMMITTEE

Chairperson	Prof. Datin Dr. Siti Nor Akmar Abdullah
Secretariat	Dr. Farrah Melissa Muharam (Head) Assoc. Prof. Dr. Siti Khairunniza Bejo Dr. Kong Lih Ling Mr. Nuzul Shazrin Zulnaidi Mr. Fariz Adzmi Ms. Nurul Ain Zubaidah Mohamad Maliki
Scientific & Technical	Assoc. Prof. Dr. Wong Mui Yun (Head) Prof. Datin Dr. Siti Nor Akmar Abdullah Assoc. Prof. Dr. Zulkefly Bin Sulaiman Prof. Dr. Mohamed Hanafi Musa Prof. Dr. Ho Chai Ling Assoc. Prof. Dr. Amin Mahir Abdullah Dr. Farrah Melissa Muharam Assoc. Prof. Dr. Siti Khairunniza Bejo Dr. Iskandar Ishak Assoc. Prof. Dr. Lilly Suriani Affendey Dr. Azzreena Mohamad Azzeme Mrs. Nurshafika Mohd Sakeh Dr. JH (Jack) Vossen (Wageningen University, the Netherlands) Mr. Mohd Zahlan Mohd Zaki (Sime Darby R & D Sdn Bhd)
Publicity & Logistic	Dr. Zailani Khuzaimah (Head) Mr. Norahim Omar Ms. Nurul Ain Zubaidah Mohamad Mr. Mohd Kamarulzaman Ismail Mr. Izamri Md. Nor Mr. Mohammad Nazri Abdul Bahari
Protocol & Finance	Mr. Muhammad Faiz Zakaria (Head) Mr. Zainal Abidin Ahmad Mrs. Rozila Abd. Rahman

LIST OF NEARBY HOTELS

Hotel	Distance from venue	Room per night		Contact		
		Deluxe	Single	Tel	Fax	Email/Website
Le Méridien Putrajaya (****)	4.8 km	RM474 USD110		+603 8689 6888	+603 8689 6899	www.lemeridienputrajaya.com/
Putrajaya Marriot Hotel (****)	5.8 km	RM350 USD82		+603 8949 8888	+603 8949 8999	www.marriott.com/hotels/travel/kulpg-putrajaya-marriott-hotel
Putrajaya Shangri-la Hotel (****)	10 km	RM272 USD64		+603 8887 8888	+603 8887 8889	www.shangrila.com/kualalumpur/putrajayashangrila/
Palace of the Golden Horses (****)	11.1 km	RM266 USD62		+603 8946 4888	+603 8943 2666	sales@pgh.mines.com.my www.palaceofthegoldenhorses.com.my/
Hotel Bangi-Putrajaya (****)	8.8 km	RM240 USD56		+603 8210 2222	+603 8210 2888	info@hotelbangi-putrajaya.com www.hotelbangi-putrajaya.com/en-us/home/
Palm Garden Hotel (****)	5.7 km	RM200 USD47		+603 8943 2233	+603 8943 1122	palmgarden@palmgarden.com.my www.palmgarden.com.my/
Philea Mines Beach Resort (****)	9.5 km	RM320 USD75	RM280 USD66	+603 8943 6688	+603 8943 5555	enquiry@phileahotel.com.my www.phileahotel.com.my/selangor/index.html
The Everly Putrajaya Hotel (****)	9 km	RM195 USD128		+603 8892 2929	+603 8892 2828	reservation.tep@theeverlygroup.com putrajaya.theeverlyhotel.com/
RHR Hotel @ Uniten (***)	4.1 km	RM175 USD41		+603 8922 2088	+603 8922 2080	reservationutn@rhrhotel.com www.rhrhotel.com/
Prescott Hotel Kajang (***)	8.9 km	RM170 USD40	RM145 USD34	+603 8737 5555	+603 8737 6666	reservation.phkj@everlygroup.com theeverlygroup.com/Prescott%20Hotel%20Kajang.aspx
Reko Inn (**)	9.2 km	RM88 USD21	RM68 USD16	+603 8739 8830		www.rekoinn.com/
101 Hotel Bangi (**)	6.4 km	RM120 USD28	RM80 USD19	+603 8927 4988		101bangihotel@gmail.com 101hotel.com.my/
Eco Hotel Putra Kajang (**)	8.0 km		RM78 USD18	+603 8740 3756		reservation@ecohotel.com.my www.ecohotel.com.my
Bangi Gateway Hotel (**)	11 km		RM95 USD22	+603 8920 9205		bangigatewayhotel.com/

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