

APFITA 2019

FORESEE GLOBAL TREND IN NEW HORIZON OF
ASIA-PACIFIC SMART AGRICULTURE

Time	Agenda – October 30 (Wed.)			
09:00-09:30	報到 Reception			
09:30-09:50	大會&主持人致詞 Opening Remarks			
09:50-10:10	Invited Speaker I (Track A) Satoshi Sekiguchi, Vice-President of AIST, Japan			
10:10-10:30	Invited Speaker II (Track A) Huu-Sheng Lur, Professor of National Taiwan University, Taiwan			
10:30-10:50	休息時間 Break			
10:50-12:20	Track A (啟垣廳)	Track B (四國)	Track C (五國)	Track D(六國)
	(中文場) 【農業與地理資訊系統之應用】 (Mandarin Session) GIS Applications in Agriculture	ICT農業開發創新應用 ICT Development and Applications in Agriculture	資訊化農業與物聯網技術 Agricultural Informatization and IoT Technology	OGC亞洲論壇：互聯互通物聯網 OGC Asia Forum: Interconnectivity & the Internet of Things
12:20-13:30	午餐時間 Lunch			
13:30-13:50	Invited Speaker III (Track A) Mohd Faisal Ibrahim, Senior Lecturer of Universiti Kebangsaan Malaysia, Malaysia			
13:50-14:10	Invited Speaker IV (Track A) Magesh Chandramouli, Associate Professor of Perdue University, India			
14:10-14:30	休息時間 Break			
14:30 -16:00	Track A (啟垣廳)	Track B (四國)	Track C (五國)	Track D(六國)
	(中文場) 【農業防災】 (Mandarin Session) Disaster Management in Agriculture	農業資源之地理空間技術 Geospatial Technology in Agricultural Resources	大數據分析精準農業 Big Data Analysis for Precision Agriculture	資料科學農務系統應用(一) Data Science based Farming Support Systems(一)
16:00-16:20	休息時間 Break			
16:20-17:50	Track A (啟垣廳)	Track B (四國)	Track C (五國)	Track D(六國)
	物聯網之智慧化農業技術創新 IoT Applications in Smart Agriculture	地理空間技術應用於農業災害管理 Disaster Management in Agriculture through Geospatial Technology	生質能源 Biomass Energy	資料科學農務系統應用(二) Data Science based Farming Support Systems(二)

活動聲明：講者、議程及演講主題更動以主辦單位公布為主

Disclaimer: All information with regard to the conference such as speakers, agenda and presentation topics is announced on the APFITA website. The organizer reserves the right at any time to make alterations as may in their opinion be necessary in the best interests of the event.

APFITA 2019

FORESEE GLOBAL TREND IN NEW HORIZON OF
ASIA-PACIFIC SMART AGRICULTURE

Time	Agenda – October 31 (Thu.)			
09:00-09:30	報到 Reception			
09:30-09:50	Invited Speaker V (Track A) Nen-Fu Huang, Dean and Distinguished Professor of National Tsing Hua University, Taiwan			
09:50-10:10	Invited Speaker VI (Track A) Peter Baumann, Professor of Jacobs University, Germany			
10:10-10:30	休息時間 Break			
10:30-12:00	Track A (啟垣廳)	Track B (四國)	Track C (五國)	Track D (六國)
	(中文場) 【農業與社會科學中的ICT 應用創新】 (Mandarin Session) ICT Applications in Agriculture and Social Science	農業數據管理與應用 Agricultural Data Management and Applications	農業生物資訊學之應用 Bioinformatics and Applications in Agriculture	中文場 (Mandarin Session) UAV Side Event
12:00-13:00	午餐時間 Lunch / 委員會議 Board member meeting (Track E)			
13:00-13:20	Invited Speaker VII (Track A) Khairul Nizam Abdul Maulud, Associate Professor of Universiti Kebangsaan Malaysia, Malaysia			
13:20-13:40	Invited Speaker VIII (Track A) Kudang Boro Seminar, Dean and Professor of IPB University, Indonesia			
13:40-14:00	休息時間 Break			
14:00 -15:30	Track A (六國)	Track B (四國)	Track C (五國)	Track D(B114A 分鹿演座)
	(中文場) 【農業與社會科學中的ICT 應用創新】 (Mandarin Session) ICT Applications in Agriculture and Social Science	農業數據管理與應用 Agricultural Data Management and Applications	農業生產建模與仿真 Modeling and Simulation for Agricultural Production	農業感測網絡與應用 Agri-Sensor Networks and Applications
15:30-15:50	休息時間 Break			
15:50-17:20	Track A (六國)	Track B (四國)	Track C (五國)	Track D(B114A 分鹿演座)
	(中文場) 【智慧農業AI先導應用】 (Mandarin Session) AI Pilot Applications in Smart Agriculture	農業資訊系統 Agricultural Information System	農業生產建模與仿真 Modeling and Simulation for Agricultural Production	農業環境管理 Environmental Control in Agriculture
17:20-17:30	閉幕典禮 Closing Ceremony (Track A 六國)			

活動聲明：講者、議程及演講主題更動以主辦單位公布為主

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◆論文發表注意事項

1. 請於論文發表場次前15分鐘攜帶簡報檔案至會議室報到。
2. 發表流程：
主持人點名 → 開場 → 論文發表 → Q&A → 主持人結語
3. 每場次總發表時間為90分鐘。
4. 每篇論文口頭發表時間為15分鐘，問答3分鐘。
5. 第一次提醒時間為第12分鐘，第二次提醒為第15分鐘。

◆Presentation Notice

1. Please arrive at your session room 15 minutes early to prepare and set up any necessary configurations needed for your presentation.
2. Procedure :
Chairs call names → Opening → Oral presentation → Q&A → Chairs concludes.
3. Each oral session is scheduled 90 minutes.
4. Each oral presentation will be allotted 15 minutes for your talk, and 3 minutes for questions & answers.
5. There will be two reminders in 12 minutes and 15 minutes after your presentation start.

Number/場次編號: A10301

Date/日期: 30-Oct

Room/會議室: Track A(啟垣廳)

Time/時間: 10:50-12:20

Topic/主題: (Mandarin Session) GIS Applications in Agriculture / 中文場【農業與地理資訊系統之應用】

Chairs/主持人: 蕭榕瓊 主任 Dong-Chong Hsiou, Director

Number	Speaker	Title
A10301-1	Tung-Lin Guo 郭東霖	Automatic Identification System (AIS) Application in Fishing Vessel Safety and Fishery Management 船舶自動識別系統(AIS)於漁船安全及漁業管理之應用
A10301-2	Hsin-Yi Tsai 蔡馨儀	Long-Term Application of Multi-Source Optical Satellite Images for Estimating Planting Area of Peanut in the Second Crop Seasons 以多源衛星影像推估雲林縣二期作落花生種植面積
A10301-3	Hsin-Yi Tsai 蔡馨儀	Using Multi-Temporal Images to Monitor Garlic Planting Area in Yunlin County 運用多時期影像監測雲林縣大蒜種植面積
A10301-4	Chih-Hao An 安志豪	The Application of Phalaenopsis Image Identification System Applied in Plant Variety Protection 蝴蝶蘭影像辨識系統應用於植物新品種保護

Number/場次編號: A10302

Date/日期: 30-Oct

Room/會議室: Track A(啟垣廳)

Time/時間: 14:30-16:00

Topic/主題: (Mandarin Session) Disaster Management in Agriculture / 中文場【農業防災】

Chairs/主持人: 方耀民 研究教授 Yao-Min Fang, Professor

Number	Speaker	Title
A10302-1	Ching-Yu Chen 陳清瑜	Bird Flu Risk Analysis Through Geographic Environmental Factors 應用地理環境因子進行禽流感風險分析
A10302-2	Hsuan-Hui Wang 王宣惠	Cabbage Harvest Area Estimation Using Multi-Temporal and High-Resolution Satellite Imagery 利用多時期高解析度衛星影像進行甘藍收穫面積預測
A10302-3	Yu-Wen Lin 林毓雯	Application of GIS in Promoting Rational Fertilization and Improving Food Safety GIS在合理化施肥與農產品安全之應用
A10302-4	Yu-Chun Wang 王郁峻	The Initial Verification of the Intelligent Feeding Control System in Facility Aquaculture 智慧餵食控制系統於設施化養殖之初步驗證
A10302-5	Chih-Hsien Chang 張致銜	The Initial Setup of Cage Culture Biological Activity Monitoring System 箱網養殖生物活動力監測系統之初步建置(English)

Number/場次編號: A10303

Date/日期: 30-Oct

Room/會議室: Track A(啟垣廳)

Time/時間: 16:20-17:50

Topic/主題: IoT Applications in Smart Agriculture / 物聯網之智慧化農業技術創新

Chairs/主持人: 陳建元 教授 Chien-Yuan Chen, Professor

Number	Speaker	Title
A10303-1	Chi-Ling Chen	Internet of Things Technology Applied in Monitoring and Warning of Spondoptera litura Fabricius (Tobacco cutworm)
A10303-2	Yi-Ting Zhang	Building Extraction in Agricultural District Using Object-Based Image Analysis
A10303-3	Man-Hsia Yang	Introduction to the Plant Protection Network Platform
A10303-4	Bui Quang Hung	Rapid Assessment of Flood Inundation and Damaged Rice Area in Red River Delta from Sentinel 1A Imagery
A10303-5	Quoc Huy Nguyen	A Flash Floods Forecasting System Based on IoT and GIS Study Area: Thuan Chau District, Son La, Vietnam

Number/場次編號: B10301

Date/日期: 30-Oct

Room/會議室: Track B(第四國際會議室)

Time/時間: 10:50-12:20

Topic/主題: ICT Development and Applications in Agriculture / ICT農業開發創新應用

Chairs/主持人: 萬鈞 教授 Shiuan Wan, Professor

Number	Speaker	Title
B10301-1	Shiuan Wan	The Study of hyperspectral Image on Paddy Rice Image Classification through Back-Propagation Neural Network and Bacterial Foraging OptimizationMing-Yao, Chiang
B10301-2	Ken-Hua Chang	A Study on the Mobile Application Software Concept and Data Calculation Analysis of Nicaraguan Upland Rice Cultivation
B10301-3	Chi-Hung Fu	To Build Up a Platform of Demand-Oriented Agriproduct Analysis with the Electronic Invoice Record and the Diversified Open Data
B10301-4	Zi-Yin Liu	The study of environmental monitoring system in closed-type broiler houses
B10301-5	Kuo-Hsing Chai	Data-Mining-and-Textual-Analysis-for-Agriculture-Research-Fronts

Number/場次編號: B10302

Date/日期: 30-Oct

Room/會議室: Track B(第四國際會議室)

Time/時間: 14:30-16:00

Topic/主題: Geospatial Technology in Agricultural Resources / 農業資源之地理空間技術

Chairs/主持人: 吳耿東 副教授 Keng-Tung Wu, Associate Professor

Number	Speaker	Title
B10302-1	Sureporn Koadpratum	Surface Water Extraction by Applying Techniques of Remote Sensing and GIS
B10302-2	Subash Jayasinghe	Development of Location-based Mobile Application with Crop Land suitability identification
B10302-3	Tuan Tran Quang	Spatial Distribution of Heavy Metal in Agricultural Soil of Soc Trang Province, Mekong Delta - Vietnam
B10302-4	Nguyen Le Duy	Application of USLE and GIS Tool to Predict Soil Erosion: A Case Study in Thai Nguyen Sub-watershed
B10302-5	Xuan Linh Nguyen	Application of GIS for Sustainable Land Resource Management: A Case Study in Optimal Landfill Site Selection in Vietnam

Number/場次編號: B10303

Date/日期: 30-Oct

Room/會議室: Track B(第四國際會議室)

Time/時間: 16:20-17:50

Topic/主題: Disaster Management in Agriculture through Geospatial Technology / 地理空間
技術應用於農業災害管理

Chairs/主持人: Hai Son Trinh, Vice Director

Number	Speaker	Title
B10303-1	Trung Hieu Ha	An Overview of Geographic Information System (GIS) Applications for Natural Resources Management and Hazard Assessment in Vietnam
B10303-2	Hoang Thanh Van	Climate Change Impacts on Agriculture Productivity Using Salus Model
B10303-3	Chao-Chien Chen	The Application of UAV Combined with 3D-GIS in Rural Village Development and Planning
B10303-4	Yu-Bing Huang	Application of GIS System in Estimating Occurrences and Distribution of Agricultural Pests
B10303-5	Nguyen Thanh Long	Application of GIS Based Mapping for Integrated Disaster Risk Management Planning at the Provincial Level

Number/場次編號: C10301

Date/日期: 30-Oct

Room/會議室: Track C(第五國際會議室)

Time/時間: 10:50-12:20

Topic/主題: Agricultural Informatization and IoT Technology / 資訊化農業與物聯網技術

Chairs/主持人: 黃亦敏 助理教授 I-Min Huang, Assistant Professor

Number	Speaker	Title
C10301-1	Takashi Okayasu	Utilization of Growth Features for Strawberry Extracted by Deep Learning
C10301-2	Whai-En Chen	Reliable Downlink Transmission over Low-Power WAN (LPWAN) for Smart Farming Applications
C10301-3	Ryoei Ito	Construction of Cultivation Support System for Wine Grape Using Agriculture IoT
C10301-4	Yandra Arkeman	Application of Digital Technology in Cattle Farm Case Study: SPR Bojonegoro Cattle Farm
C10301-5	Yu-Dian Syu	An IoT-based Automated Cultivation Management System for Cantaloupes

Number/場次編號: C10302

Date/日期: 30-Oct

Room/會議室: Track C(第五國際會議室)

Time/時間: 14:30-16:00

Topic/主題: Big Data Analysis for Precision Agriculture / 大數據分析精準農業

Chairs/主持人: 萬一怒 教授 Ye-Nu Wan, Professor

Number	Speaker	Title
C10302-1	Teruaki Nanseki	Impacts of Smart Agriculture Technologies on Farm Mnagement
C10302-2	Hsin-Ping Wang	A novel approach for paddy rice image classification method based on the multi-source data and evidence theory
C10302-3	Fang-Yi Liu	Smart Agricultural Solutions: An Intelligent Mobile Application Service for Agricultural Production
C10302-4	Chih-Wei Kuan	Using Visualization Tool to Simulate the Yield and Trading Volume of Agriculture Products
C10302-5	Yao-Ming Yeh	Agricultural Futures Price Prediction Model based on Deep Learning Network

Number/場次編號: C10303

Date/日期: 30-Oct

Room/會議室: Track C(第五國際會議室)

Time/時間: 16:20-17:50

Topic/主題: Biomass Energy / 生質能源

Chairs/主持人: 朱正永 副教授 Cheng-Yung Chu, Associate Professor

Number	Speaker	Title
C10303-1	Rameshprabu Ramaraj	Ethanol Production from Sweet Corn Stalk Juice: Agricultural Waste to Energy
C10303-2	Alicia Sinsuw	Biogas Production from Mixed of Reed Hydrolysate after Acidogenesis Process and Pig Manure
C10303-3	Keng-Tung Wu	Developing an Innovative Agricultural Waste Gasification Power Generation Integrated the Portable Microgrids System
C10303-4	Chi-Hui Chen	The design of an anaerobic fermentation tank inflow preheating and thermal insulation monitoring and control system
C10303-5	Adriano Palma	A Modeling Application for GHG Fluxes Estimates in Betel Nuts Plantations in Taiwan

Number/場次編號: D10301

Date/日期: 30-Oct

Room/會議室: Track D(第六國際會議室)

Time/時間: 10:50-12:20

Topic/主題: OGC Asia Forum: Interconnectivity & the Internet of Things / OGC亞洲論壇：
互聯互通物聯網

Chairs/主持人: Trevor Taylor, Director

Number	Speaker	Title
D10301-1	Trevor Taylor	Location and Interoperability for Agriculture – Cross Community Responses to Trends and Challenges
D10301-2	Peter Baumann	From Sensor-Centric to Farmer-Centric: How Datacubes Help
D10301-3	Hsiao-Yuan Yin	The Current Development of Debris Flow Monitoring Technology in Taiwan
D10301-4	Chen-Yu Hao	Taiwan Datacube in Smart Agriculture

Number/場次編號: D10302

Date/日期: 30-Oct

Room/會議室: Track D(第六國際會議室)

Time/時間: 14:30-16:00

Topic/主題: Data Science based Farming Support Systems(一) / 資料科學農務系統應用(一)

Chairs/主持人: J. Adinarayana, Professor & Ninomiya Seishi, Professor

Number	Speaker	Title
D10302-1	Ninomiya Seishi	Data Science-based Farming Support System for Sustainable Crop Production under Climatic Change
D10302-2	Ryo Shigeta	Soil Monitoring System Design for Maintenance Effort Reduction
D10302-3	Kiyoshi Honda	Integrating Agro-Environmental Data for Analytical Data Pipeline
D10302-4	Tai-Shen CHEN	A Web Application for Visualizing the Agro-Environmental Data

Number/場次編號: D10303

Date/日期: 30-Oct

Room/會議室: Track D(第六國際會議室)

Time/時間: 16:20-17:50

Topic/主題: Data Science based Farming Support Systems(二) / 資料科學農務系統應用(二)

Chairs/主持人: J. Adinarayana, Professor & Ninomiya Seishi, Professor

Number	Speaker	Title
D10303-1	Wei Guo	Plant Phenotyping by Drone Images and AI
D10303-2	Nobukazu Minamioka	The Proposal of Optimized Irrigation Management by Information and Communication Technology in the Semi-arid Area on Decan Plateau in India
D10303-3	J. Adinarayana	Optimal Crop Management and High Throughput Plant Phenotyping researches at Agro-Informatics Lab, IIT Bombay – towards development of new methods/models

Number/場次編號: A10311

Date/日期: 31-Oct

Room/會議室: Track A(啟垣廳)

Time/時間: 10:30-12:00

Topic/主題: (Mandarin Session) ICT Applications in Agriculture and Social Science / 中文場
【農業與社會科學中的ICT應用創新】

Chairs/主持人: 莊永忠 副教授 Yung-Chung Chuang, Associate Professor

Number	Speaker	Title
A10311-1	Chun-Te Chuang 莊俊德	A Discussion on the Feasibility of Applying Airborne Multi-Spectral Images in Aquaculture Disaster Damage Investigation 應用空載微型多頻影像於養殖災損勘查之可行性探討
A10311-2	Yi-Hsuan Chen 陳怡璇	The Effect of Automatic Feeding Amount in Milking Robot on The Milk Composition 觀察擠乳機器人自動餵飼的精料量多寡對於牛隻乳成分的影響
A10311-3	Ling-Hsi Chen 陳令錫	Smart Irrigation Technique Based on the Evapotranspiration of Tomato Plant Under Ventilation Protected Culture in Sub-Tropical Taiwan 亞熱帶臺灣通風設施番茄作物基於蒸發散量的智慧灌溉技術
A10311-4	Ching-Han Chen 陳慶瀚	Seed Recognition Using Multi-Modal Features and Deep Neural Networks 使用多模態特徵和深度神經網路在種子辨識

Number/場次編號: A10312

Date/日期: 31-Oct

Room/會議室: Track A(第六國際會議室)

Time/時間: 14:00-15:30

Topic/主題: (Mandarin Session) ICT Applications in Agriculture and Social Science / 中文場
【農業與社會科學中的ICT應用創新】

Chairs/主持人: 費雯綺 所長 Wen-Chi Fei, Director

Number	Speaker	Title
A10312-1	Ching-Han Chen 陳慶瀚	Hybrid Deep Neural Network for Pet Identity Authentication 混合式深度神經網路在寵物狗身分識別
A10312-2	Chiao-Chien Chu 朱巧倩	Automatic 3D Scanning System for Dorsal Type Evaluation of Breeding Pigs 種豬背部體型3D量測應用
A10312-3	Me-Chi Yao 姚美吉	The Application of Wireless Sensor Networks Monitoring Technology in Insect-Control Management of Low Temperature Warehouse 無線感測網路監控在低溫稻穀倉防蟲管理之應用
A10312-4	Fu-Hsiang Chen 陳富翔	Optimizing Plant Protection and Pesticide Use Information Search Design 優化植物保護及農藥使用資訊查詢設計
A10312-5	Tai-Wei Lin 林泰維	IoT Information and Communication Framework in Smart Agriculture 智慧農業之物聯網資通訊架構

Number/場次編號: A10313

Date/日期: 31-Oct

Room/會議室: Track A(第六國際會議室)

Time/時間: 15:50-17:20

Topic/主題: (Mandarin Session) AI Pilot Applications in Smart Agriculture / 中文場【智慧農業AI先導應用】

Chairs/主持人: 雷祖強 教授 Tsu-Chiang Lei, Professor

Number	Speaker	Title
A10313-1	Yu-Hsuan Lai 賴羽萱	The Soil Storage Supply System in Taiwan and Its Applications 台灣土壤資料供應系統與其應用
A10313-2	Yong-An Tsai 蔡詠安	An Analysis on the Preliminary Benefits of Aquaculture Smart Aeration Control 水產養殖智慧增氧控制之初步效益分析
A10313-3	Kuo-Hua Li 李國華	Smart Monitoring of Dairy Farm Milk Storage Tank Temperature System 智慧化監測乳牛場貯乳槽溫度系統
A10313-4	Ming-Yao Chiang 江明耀	An Approach of Crop Pest Detection Using Deep Learning Technology
A10313-5	Chuan-Wei Tsao 曹全偉	IoT Technique Applying to Dairy Farms for Digital Management IoT物聯網技術應用於乳牛場數位化管理

Number/場次編號: B10311

Date/日期: 31-Oct

Room/會議室: Track B(第四國際會議室)

Time/時間: 10:30-12:00

Topic/主題: Agricultural Data Management and Applications /農業數據管理與應用

Chairs/主持人: 楊江益 副教授 Chiang-Yi Yang, Associate Professor

Number	Speaker	Title
B10311-1	Naeem Abbas Malik	Evaluation of EZZONE Tool for Delineation of Crop Management Zones Using Soil Properties Data
B10311-2	Naeem Abbas Malik	Delineation of Crop Management Zones Using Multiyear Crop Yield Monitor Data
B10311-3	Yu-Chen Lai	The Management and Efficiency Evaluation of Rural Areas with Artificial Intelligence
B10311-4	Chyi-How Lay	Feasibility study of net zero energy pig farm using biogas energy
B10311-5	Yu-Te Su	The Impact of Agricultural Science and Technology Innovation on the Development of Agricultural Information System

Number/場次編號: B10312

Date/日期: 31-Oct

Room/會議室: Track B(第四國際會議室)

Time/時間: 14:00-15:30

Topic/主題: Agricultural Data Management and Applications /農業數據管理與應用

Chairs/主持人: 葉耀明 教授 Yao-Ming Yeh, Professor

Number	Speaker	Title
B10312-1	Yi-Ting Li	The Investigation into The Development of Agricultural Adaptation Strategies to Cope with Climate Change in Taiwan-A Case Study on Pingtung Cacao Industry
B10312-2	Chiang-Yi Yang	A smart incoming and outgoing grain detection mechanism for low-temperature silos
B10312-3	Meng-Chun Tsai	A Sustainable Data Pipeline of Fresh Agri-Products Retail Price Estimation
B10312-4	Ping-Liang Chung	An Intelligent Control Strategy for Greenhouse Facilities
B10312-5	Yu-Wei Huang	Application of Fluorescent Imaging on the Detection of Whitebait Bleaching

Number/場次編號: B10313

Date/日期: 31-Oct

Room/會議室: Track B(第四國際會議室)

Time/時間: 15:50-17:20

Topic/主題: Agricultural Information System / 農業資訊系統

Chairs/主持人: 林威延 助理教授 Wei-Yen Lin, Assistant Professor

Number	Speaker	Title
B10313-1	Wan-Soo Kim	Influence of Moisture Contents on Traction Performance of Agricultural Tractor During Plow Tillage
B10313-2	Ming-Shu Yuan	Approved Import Plant List Inquiry System" Platform Planning and Development Research
B10313-3	Ping-Liang Chung	Development of a Crop Cultivation Monitoring System for Greenhouse Asparagus Production
B10313-4	Chi-Hung Fu	With Application of Digital Technology, 94 Friendly Shop Creates a Virtual Integration Supportive Network for Young Farmers
B10313-5	Hsin-Yu Chiang	Preliminary Study on Text Mining from Papers in Brassica Oleracea: A Case Study of Extracting Influencing Factors

Number/場次編號: C10311

Date/日期: 31-Oct

Room/會議室: Track C(第五國際會議室)

Time/時間: 10:30-12:00

Topic/主題: Bioinformatics and Applications in Agriculture / 農業生物資訊學之應用

Chairs/主持人: 江昭皚 教授 Chao-Ai Chiang, Professor

Number	Speaker	Title
C10311-1	Takaharu Kameoka	Cultivation Support for Vines Using Phenology Indexes and Multi-optical Sensing
C10311-2	Takashi Okano	Quantitative Analysis of Composition of Satsuma Mandarin Using Mid-infrared Spectroscopy and the Analysis of Mandarin Fruit Quality during Growing Proces
C10311-3	J. Adinarayana	LeafTipMarker: An Image-based Framework to Interactively Mark Leaf Tips for High Throughput Plant Phenotyping in Rice (<i>Oryza Sativa</i> L.)
C10311-4	Shih-Lun Fang	Water status assessment of tomato by using the leaf-air temperature difference and reflectance index in greenhouse
C10311-5	J. Adinarayana	Hyperspectral Data Analysis for Water Stress Detection of Tomato Plants Using Machine Learning Approach

Number/場次編號: C10312

Date/日期: 31-Oct

Room/會議室: Track C(第五國際會議室)

Time/時間: 14:00-15:30

Topic/主題: Modeling and Simulation for Agricultural Production / 農業生產建模與仿真

Chairs/主持人: 江信昱 資訊分析師 Hsin-Yu Chiang, Information Analyst

Number	Speaker	Title
C10312-1	Atsushi Hashimoto	Application of Color Calibration Method Based on Illuminating Spectral Information to Images Acquisition in Agricultural Fields
C10312-2	Seok-Pyo Moon	Strength Analysis of Compound Planetary Gear on Hydraulic Mechanical Transmission for 55 kW Class Tractor
C10312-3	Taek-Jin Kim	Study on Strength Analysis of Driving Gears for 78 kW Tractor by Equivalent Load of Plow Tillage
C10312-4	Hyeon-Ho Jeon	Development of Dynamics Simulation Model for Tractor Using Multi-body Dynamics Software

Number/場次編號: C10313

Date/日期: 31-Oct

Room/會議室: Track C(第五國際會議室)

Time/時間: 15:50-17:20

Topic/主題: Modeling and Simulation for Agricultural Production / 農業生產建模與仿真

Chairs/主持人: 許輔 教授 Fu Hsu, Professor

Number	Speaker	Title
C10313-1	Seung-Yun Baek	Analysis of Fuel Consumption for Electric AWD Tractor Using Simulation Model
C10313-2	Seung-Min Baek	Analysis of Load Distribution for Hydraulic Mechanical Transmission of Agricultural Tractor
C10313-3	Nam-Gyu Lee	Analysis of Driving Shift Gear for 86 kW Class Tractor According to Micro-geometry
C10313-4	Chu-Chung, Chen	Simulation on the Growth of Iceberg Lettuce by STICS Model in Central Taiwan
C10313-5	Chia-Lee Yang	Veterinary pharmacists, Learning roadmap, Competence Set Expansions, Hybrid multicriteria decision-making (MCDM)

Number/場次編號: D10311

Date/日期: 31-Oct

Room/會議室: Track D(第六國際會議室)

Time/時間: 10:30-12:00

Topic/主題: (Mandarin Session)UAV Side Event / 中文場 【UAV Side Event】

Chairs/主持人: 葉美伶 研究副教授 Mei-Ling Yeh, Associate Professor

Number	Speaker	Title
D10311-1	Hsin-Yuan Chen 陳杏圓	Innovative Application of AI Unmanned Vehicle for the Next Generation 次世代AI無人載具之創新應用
D10311-2	Yi -Hui Wu 吳怡慧	Using Unmanned Aerial Vehicle to Release Anastatus Fulloii - a Natural Enemy of Litchi Stinkbug Tessaratoma PAP Illosa 平腹小蜂應用於荔枝椿象防治之效益及未來願景
D10311-3	Wen-Ren Yang 楊文然	An Agricultural Internet-of-Things Platform for Corn Health Diagnosis
D10311-4	Kai-Chi Hsu 許愷岐	Developing a Landslide Revegetation Method Using the Technology of Unmanned Aerial Vehicles
D10311-5	Sheng-Nan Li	The Study of UAV Application in Upstream River Retaining Structures in Ecological Engineering Methods

Number/場次編號: D10312

Date/日期: 31-Oct

Room/會議室: Track D(分鹿演座 B118A)

Time/時間: 14:00-15:30

Topic/主題: Agri-Sensor Networks and Applications / 農業感測網絡與應用

Chairs/主持人: 黃青雲 助理教授 Hoang Thanh Van, Assistant Professor

Number	Speaker	Title
D10312-1	Md. Abu Ayub Siddique	A Study on PID Control Algorithm of Proportional Valve for Rice Transplanter
D10312-2	Chen-Yi Lu	A Greenhouse Whitefly Early Warning System Based on Autoregressive Recurrent Neural Network
D10312-3	Leisa Armstrong	Decisions, Decisions: Smart Technologies Securing Australian Agricultural Sector
D10312-4	Pei-Shou Hsu	The Development of Taiwan Nectar and Pollen Source Crop Geographic Information System

Number/場次編號: D10313

Date/日期: 31-Oct

Room/會議室: Track D(分鹿演座 B118A)

Time/時間: 15:50-17:20

Topic/主題: Environmental Control in Agriculture / 農業環境管理

Chairs/主持人: 郭寶錚 教授 Pao-Cheng Kuo, Professor

Number	Speaker	Title
D10313-1	Le Thi Giang	Determination of Change of Agricultural Land Use in Coastal Zone of Nam Dinh Province Period 2005-2015 Using GIS and Remote Sensing Technology
D10313-2	Apisom Intralawan & Panate Manomaivibool	Land Use Land Cover Change Detection, Relating Policy, Commons Property and the Ecosystem Service Analysis: A Case Study of Wiang Nong Lom Wetland, Chiang Rai
D10313-3	Hong-Ren Lin	Monitoring Poisonous Pesticide Usage in Taiwan Based on Traceability Certification Information.
D10313-4	Ching Chuang	Multifunctional value of forest, Payment of Ecosystem Services, Ecosystem Services, Fallow Land, Bared land, Areca garden
D10313-5	Pei-Chen Hsiu	An Instant Spodoptera litura Monitoring System