

# Editorial Team of International Journal of Agricultural and Biological Engineering

## EDITOR-IN-CHIEF

Wang Yingkuan, PhD, Prof., Chinese Academy of Agricultural Engineering, Chinese Society of Agricultural Engineering, Beijing, China

## SECTION EDITORS

Li Hongwen, Section Editor of PMS, China Agricultural University, Beijing, China  
Debjyoti Banerjee, Section Editor of PMS, Texas A&M University, College Station, TX, USA  
Naiqian Zhang, Section Editor of PMS, Kansas State University, Manhattan, KS, USA  
Neil B. McLaughlin, Section Editor of PMS, Agriculture and Agri-Food Canada, Ottawa, ON, Canada  
Ou Yinggang, Section Editor of PMS, South China Agricultural University, Guangzhou, China  
Ruixiu Sui, Section Editor of PMS, USDA-ARS, Crop Production Systems Research Unit, Stoneville, MS, USA  
Sun-Ok Chung, Section Editor of PMS, Chungbuk National University, Korea  
He Xiongkui, Section Editor of PMS, China Agricultural University, Beijing, China  
Soni Peeyush, Section Editor of PMS, Indian Institute of Technology Kharagpur, Kharagpur, India  
Yang Qinghua, Section Editor of PMS & ITSCS, Zhejiang University of Technology, Hangzhou, China  
Shufeng Han, Section Editor of PMS & ITSCS, John Deere, Urbandale, IA, USA  
Guo Ya, Section Editor of PMS & SHE, Jiangnan University, Wuxi, China  
Chen Lei, Section Editor of NRES, Beijing Normal University, Beijing, China  
Lei Tingwu, Section Editor of NRES, China Agricultural University, Beijing, China  
Philip W. Gassman, Section Editor of NRES, Iowa State University, Ames, IA, USA  
Xiusheng (Harrison) Yang, Section Editor of NRES, University of Connecticut, Storrs, CT, USA  
Zhuping Sheng, Section Editor of NRES, Texas A&M University, TX, USA  
Victor B. Ella, Section Editor of NRES, University of the Philippines, Los Banos, Philippines  
Pei Huang, Section Editor of NRES & SHE, Wastewater Compliance Systems, Salt Lake City, UT, USA  
Baptista Fatima Folgoa, Section Editor of BBEE, University of Evora, Evora, Portugal  
Li Baoming, Section Editor of APFS, China Agricultural University, Beijing, China  
Lingjuan Wang Li, Section Editor of APFS, North Carolina State University, Raleigh, NC, USA  
Mohamed H Hatem, Section Editor of BBEE, Cairo University, Cairo, Egypt  
Yuanhui Zhang, Section Editor of REMS, University of Illinois at Urbana-Champaign, Urbana, IL, USA  
Chenghai Yang, Section Editor of ITSCS, USDA-ARS-SPARC, College Station, TX, USA  
Yufeng Ge, Section Editor of ITSCS, University of Nebraska-Lincoln, Lincoln, NE, USA  
Lie Tang, Section Editor of ITSCS, Iowa State University, Ames, IA, USA  
Ning Wang, Section Editor of ITSCS, Oklahoma State University, Stillwater, OK, USA  
Yanbo Huang, Section Editor of ITSCS, USDA-ARS, Crop Production Systems Research Unit, Stoneville, MS, USA  
Huang Wenjiang, Section Editor of ITSCS, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China  
Huihui Zhang, Section Editor of ITSCS, USDA-ARS, Water Management Research Unit, Fort Collins, CO, USA  
Ramin Shamshiri, Section Editor of ITSCS, Universiti Putra Malaysia, Serdang, Selangor, Malaysia  
Xiang Haitao, Section Editor of ITSCS, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China  
Li Minzan, Section Editor of ITSCS, China Agricultural University, Beijing, China  
Alvaro Romirez-Gomez, Section Editor of REMS, Technical University of Madrid, Madrid, Spain  
Hanwu Lei, Section Editor of REMS, Washington State University, Brookings, SD, USA  
Caixia (Ellen) Wan, Section Editor of REMS, University of Missouri, Columbia, MO, USA  
Yi Zheng, Section Editor of REMS, Kansas State University, Manhattan, KS, USA  
Sheng Chu, Section Editor of REMS, Natural Systems Utilities, LLC, Hillsborough, NJ, USA  
Jun Soojin, Section Editor of AFPS, University of Hawaii at Manoa, Honolulu, HI, USA  
Jianmei Yu, Section Editor of AFPS, North Carolina A&T State University, Raleigh, NC, USA  
Paul Chen, Section Editor of AFPS, University of Minnesota, Saint Paul, MN, USA  
Peng Yankun, Section Editor of AFPS, China Agricultural University, Beijing, China  
Shaojin Wang, Section Editor of AFPS, Washington State University, Pullman, WA, USA  
Wang Jun, Section Editor of AFPS, Zhejiang University, Hangzhou, China  
Zheng Xianzhe, Section Editor of AFPS, Northeast Agricultural University, Harbin, China  
Lope G. Tabil, Section Editor of APFS & REMS, University of Saskatchewan, Saskatoon, SK, Canada  
Sigfredo Fuentes, Section Editor of APFS & ITSCS, University of Melbourne, Melbourne, VIC, Australia  
Carlos Poblete Echeverria, Section Editor of APFS & ITSCS, Stellenbosch University, Stellenbosch, South Africa

## ENGLISH EDITORS

Bill A. Stout, PhD, Prof Emeritus, Biological & Agricultural Engineering Department, Texas A & M University, College Station, TX, USA  
Cheryl J. Rutledge, PhD, Retired Associate Professor of English, Proprietor of AcademicEnglishEditing-DrRutledge.com, FL, USA  
Shamaila Zia, PhD, Institute of Agricultural Engineering, University Hohenheim, Stuttgart, Germany.

## EDITORIAL STAFF

Wang Yingkuan, Ji Fang, Xin Shiqiang, Wang Yiping, Wang Yuanjie (part-time), Paul Chen (part-time), Shi Xiuhuan (part-time)

# International Journal of Agricultural and Biological Engineering

## International Editorial Board

The Third Term(2016-2019)

(To be updated)

<https://www.ijabe.org>

### HONORARY CHAIRMEN

Jaw-Kai Wang, PhD, Prof., Member of National Academy of Engineering, University of Hawaii, Honolulu, HI, USA

Jiang Yiyuan, Prof., Academician of the Chinese Academy of Engineering, Northeast Agricultural University, Harbin, China

Li Peicheng, Prof., Academician of the Chinese Academy of Engineering, Chang'an University, Xi'an, China

Wang Maohua, Prof., Academician of the Chinese Academy of Engineering (CAE), Member of International Eurasian Academy of Sciences, China Agricultural University, Beijing, China

Bill A. Stout, Emeritus Prof. of Texas A&M University, Former and Honorary President of CIGR, College Station, TX, USA

Chenghai Yang, PhD, Agricultural Engineer, Former President of AOC, U.S. Department of Agriculture, Agricultural Research Service, College Station, TX, USA

### CHAIRMEN

Zhu Ming, Prof., President of CSAE, Chief Scientist, Chinese Academy of Agricultural Engineering, Beijing, China

Roger Ruan, PhD, Prof., Director, University of Minnesota, Saint Paul, MN, USA

### VICE-CHAIRMEN

Cao Weixing, PhD, Prof., Nanjing Agricultural University, Nanjing, China

Da-Wen Sun, PhD, Prof., CIGR Incoming President, Member of Royal Irish Academy, Member of Academia Europaea, National University of Ireland, Dublin, Ireland

Fu Zetian, PhD, Prof., China Agricultural University, Beijing, China

Juming Tang, PhD, Prof., Former President of AOC, Washington State University, Pullman, WA, USA

Kang Shaozhong, PhD, Prof., Academician of the CAE, China Agricultural University, Beijing, China

Luo Xiwen, Prof., Vice-President of CSAE, Academician of the CAE, South China Agricultural University, Guangzhou, China

Naiqian Zhang, PhD, Prof., Former President of AOC, Kansas State University, Manhattan, KS, USA

Qiang Zhang, PhD, Former President of AOC, Prof. and Head of Biosystems Engineering Department, University of Manitoba, Winnipeg, MB, Canada

Ruihong Zhang, PhD, Prof., Former President of AOC, University of California, Davis, CA, USA

Xiusheng Yang, PhD, Prof, Former President of AOC, President of ACAAS, University of Connecticut, Storrs, CT, USA

Ying Yibin, PhD, Prof., Zhejiang University, Hangzhou, China

Yuan Shouqi, PhD, Prof., Jiangsu University, Zhenjiang, China

Yubin Lan, PhD, Agricultural Engineer, Prof., South China Agricultural University, USDA-ARS-SPARC, TX, USA

Zhang Libin, PhD, Prof., Zhejiang University of Technology, Hangzhou, China

Zhao Chunjiang, PhD, Prof., Director, Academician of the Chinese Academy of Engineering (CAE), National Engineering Research Center for Information Technology in Agriculture, Beijing, China

Zhongli(John) Pan, PhD, Research Engineer, Prof., Former President of AOC, USDA-ARS-PWA, WRRC-PFR, ALBANY, CA, USA

### MEMBERS OF THE EDITORIAL BOARD

#### Australia

Allen (Jack) McHugh, National Centre for Engineering in Agriculture, University of Southern Queensland, Toowoomba, Australia

Deli Chen, The University of Melbourne, Melbourne, VIC, Australia

Guangan Chen, National Centre for Engineering in Agriculture, University of Southern Queensland, Toowoomba, Australia

Roderick A. Drew, Griffith University, Nathan, QLD, Australia

Sigfredo Fuentes, The University of Melbourne, Melbourne, VIC, Australia

Thomas Banhazi, National Centre for Engineering in Agriculture, University of Southern Queensland, Toowoomba, Australia

#### Bangladesh

Toufiq Iqbal, University of Rajshahi, Rajshahi, Bangladesh

## **Belgium**

Josse De Baerdemaeker, Katholieke Universiteit Leuven, Heverlee-Leuven, Belgium

## **Brazil**

Antonio Saraiva, University of Sao Paulo-Polytechnic School, Sao Paulo, Brazil

Luiz Henrique A Rodrigues, University of Campinas, Campinas, Brazil

Rodrigo Manzione, Universidade Estadual Paulista/Ourinhos, São Paulo, Brazil

## **Bulgaria**

Gabor Zsivanovits, Food Research and Development Institute (Former CANRI) of Plovdiv, Plovdiv, Bulgaria

## **Canada**

Bingcheng Si, University of Saskatchewan, Saskatoon, SK, Canada

Heather McNarin, Agriculture and Agri-Food Canada, Ottawa, ON, Canada

Huiqing Guo, University of Saskatchewan, Saskatoon, SK, Canada

Iris Xiaohong Xu, University of Windsor, Windsor, ON, Canada

Jan C. Jofriet, University of Guelph, Guelph, ON, Canada

Lope G. Tabil, Jr., University of Saskatchewan, Saskatoon, SK, Canada

Neil B. McLaughlin, Agriculture and Agri-Food Canada, Ottawa, ON, Canada

Nicolas Tremblay, Agriculture and Agri-Food Canada, Quebec, QC, Canada

Prasad Daggupati, University of Guelph, Guelph, Ontario, Canada

Manickavasagan Annamalai, University of Guelph, Guelph, Ontario, Canada

Qiang Zhang, University of Manitoba, Winnipeg, MB, Canada

Xiaomei Li, XY Green Carbon, Edmonton, AB, Canada

Xiying Hao, Agriculture and Agri-Food Canada, Lethbridge, AB, Canada

Xueming Yang, Agriculture and Agri-Food Canada, Harrow, ON, Canada

Ying Chen, University of Manitoba, Winnipeg, MB, Canada

## **China**

Cao Chengmao, Anhui Agricultural University, Hefei, China

Cao Weibin, Shihezi University, Shihezi, China

Cao Weixing, Nanjing Agricultural University, Nanjing, China

Cen Haiyan, Zhejiang University, Hangzhou, China

Chen Haitao, Northeast Agricultural University, Harbin, China

Chen Jian, Southwest University, Chongqing, China

Chen Jianneng, Zhejiang Sci-tech University, Hangzhou, China

Chen Lei, Beijing Normal University, Beijing, China

Chen Liping, China National Research Center of Intelligent Equipment for Agriculture, Beijing, China

Deng Lie, Citrus Research Institute, Chinese Academy of Agricultural Sciences, Chongqing, China

Ding Weimin, Nanjing Agricultural University, Nanjing, China

Dong Changsheng, Shanxi Agricultural University, Taigu, China

Dong Renjie, China Agricultural University, Beijing, China

Fu Qiang, Northeast Agricultural University, Harbin, China

Fu Zetian, China Agricultural University, Beijing, China

Gao Haiyan, Zhejiang Academy of Agricultural Sciences, Hangzhou, China

Gao Wanlin, China Agricultural University, Beijing, China

Ge Zhenyang, Kunming University of Science and Technology, Kunming, China

Guo Ya, Jiangnan University, Wuxi, China

Guo Yuming, Shanxi Agricultural University, Taigu, China

Han Lujia, China Agricultural University, Beijing, China

Han Wenting, Northwest A&F University, Yangling, China

He Dongjian, Northwest A&F University, Yangling, China

He Jin, China Agricultural University, Beijing, China

He Xinlin, Shihezi University, Shihezi, China

He Xiongkui, China Agricultural University, Beijing, China

He Yong, Zhejiang University, Hangzhou, China

Hong Tiansheng, South China Agricultural University, Guangzhou, China

Hu Yueming, South China Agricultural University, Guangzhou, China

Hu Yongguang, Jiangsu University, Zhenjiang, China  
Huang Guanhua, China Agricultural University, Beijing, China  
Huang Wenjiang, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China  
Ji Changying, Nanjing Agricultural University, Nanjing, China  
Ji Shiming, Zhejiang University of Technology, Hangzhou, China  
Jiang Yiyuan, Northeast Agricultural University, Harbin, China  
Lei Tingwu, China Agricultural University, Beijing, China  
Li Baoming, China Agricultural University, Beijing, China  
Li Chenghua, Shenyang Ligong University, Shenyang, China  
Li Dong, China Agricultural University, Beijing, China  
Li Guanglin, Southwest University, Chongqing, China  
Li Hong, Jiangsu University, Zhenjiang, China  
Li Hongwen, China Agricultural University, Beijing, China  
Li Ming, Yunnan Normal University, Kunming, China  
Li Minzan, China Agricultural University, Beijing, China  
Li Peicheng, Chang'an University, Xi'an, China  
Li Pingping, Nanjing Forestry University, Nanjing, China  
Li Shaowen, Anhui Agricultural University, Hefei, China  
Li Tianlai, Shenyang Agricultural University, Shenyang, China  
Li Wenzhe, Northeast Agricultural University, Harbin, China  
Li Zhanbin, Xi'an University of Technology, Xi'an, China  
Lin Hetong, Fujian Agriculture and Forestry University, Fuzhou, China  
Liu Donghong, Zhejiang University, Hangzhou, China  
Liu Ronghou, Shanghai Jiao Tong University, Shanghai, China  
Liu Yande, East China Jiaotong University, Nanchang, China  
Lu Anxiang, Beijing Research Center for Agricultural Standards and Testing, Beijing, China  
Lu Lixin, Jiangnan University, Wuxi, China  
Luo Xiwen, South China Agricultural University, Guangzhou, China  
Ma Haile, Jiangsu University, Zhenjiang, China  
Ma Xiaoyi, Northwest A&F University, Yangling, China  
Mao Hanping, Jiangsu University, Zhenjiang, China  
Ou Yinggang, South China Agricultural University, Guangzhou, China  
Peng Yankun, China Agricultural University, Beijing, China  
Ren Tusheng, China Agricultural University, Beijing, China  
Shang Shuqi, Qingdao Agricultural University, Qingdao, China  
Shao Ming'an, Chinese Academy of Sciences, Beijing, China  
Song Wenlong, Northeast Forestry University, Harbin, China  
Sun Songlin, Hunan Agricultural University, Changsha, China  
Wang Chaoyuan, China Agricultural University, Beijing, China  
Wang Chun, Heilongjiang Bayi Agricultural University, Daqing, China  
Wang Jihua, Beijing Research Center for Agricultural Standards and Testing, Beijing, China  
Wang Jinwu, Northeast Agricultural University, Harbin, China  
Wang Jun, Zhejiang University, Hangzhou, China  
Wang Liang, Shanghai Academy of Environmental Sciences, Shanghai, China  
Wang Maohua, China Agricultural University, Beijing, China  
Wang Qianjiu, Xi'an University of Technology, Xi'an, China  
Wang Xiangyou, Shandong University of Technology, Zibo, China  
Wang Yingkuan, Chinese Academy of Agricultural Engineering, Beijing, China  
Wei Xiuju, Chinese Academy of Agricultural Engineering, Beijing, China  
Wu Di, Zhejiang University, Hangzhou, China  
Wu Caicong, China Agricultural University, Beijing, China  
Wu Chuanyu, Zhejiang Sci-Tech University, Hangzhou, China  
Wu Huarui, National Engineering Research Center for Information Technology in Agriculture, Beijing, China  
Xiang Haitao, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China  
Xu Guangyin, Henan Agricultural University, Zhengzhou, China  
Yang Li, China Agricultural University, Beijing, China

Yang Qinghua, Zhejiang University of Technology, Hangzhou, China  
Yang Xinting, National Engineering Research Center for Information Technology in Agriculture, Beijing, China  
Yang Zhou, South China Agricultural University, Guangzhou, China  
Ye Xingqian, Zhejiang University, Hangzhou, China  
Yi Shujuan, Heilongjiang Bayi Agricultural University, Daqing, China  
Yi Weiming, Shandong University of Technology, Zibo, China  
Ying Yibin, Zhejiang University, Hangzhou, China  
Yuan Shouqi, Jiangsu University, Zhenjiang, China  
Yubin Lan, South China Agricultural University, Guangzhou, China  
Yue Tianli, Northwest A&F University, Yangling, China  
Yun Wenju, Land Consolidation and Rehabilitation Center of Land and Resources Ministry, Beijing, China  
Zhang Dongxing, China Agricultural University, Beijing, China  
Zhang Guocheng, Dalian Ocean University, Dalian, China  
Zhang Libin, Zhejiang University of Technology, Hangzhou, China  
Zhang Naiming, Yunnan Agricultural University, Kunming, China  
Zhang Quanguo, Henan Agricultural University, Zhengzhou, China  
Zhang Wei, Heilongjiang Bayi Agricultural University, Daqing, China  
Zhang Xianfeng, Peking University, Beijing, China  
Zhang Yalei, Tongji University, Shanghai, China  
Zhang Ying, Northeast Agricultural University, Harbin, China  
Zhao Chunjiang, National Engineering Research Center for Information Technology in Agriculture, Beijing, China  
Zhao Lixin, Chinese Academy of Agricultural Engineering, Beijing, China  
Zheng Baodong, Fujian Agriculture and Forestry University, Fuzhou, China  
Zheng Xianzhe, Northeast Agricultural University, Harbin, China  
Zhou Changji, Chinese Academy of Agricultural Engineering, Beijing, China  
Zhou Fujun, Northeast Agricultural University, Harbin, China  
Zhou Xinqun, Chinese Academy of Agricultural Engineering, Beijing, China  
Zhou Zhili, Henan University of Science and Technology, Luoyang, China  
Zhu Hongguang, Tongji University, Shanghai, China  
Zhu Ming, Chinese Academy of Agricultural Engineering, Beijing, China  
Zhu Songming, Zhejiang University, Hangzhou, China  
Zhu Wenxue, Henan University of Science and Technology, Luoyang, China  
Zhu Yan, Nanjing Agricultural University, Nanjing, China  
Zou Xiaobo, Jiangsu University, Zhenjiang, China

### **Czech Republic**

Jiří Blahovec, Czech University of Life Sciences Prague, Prague, Czech Republic

### **Denmark**

Claus Grøn Sørensen, Aarhus University, Aarhus, Denmark  
Guoqiang Zhang, Aarhus University, Aarhus, Denmark  
Victoria Blanes-Vidal, University of Southern Denmark, Odense, Denmark

### **Egypt**

Mahmoud Hany Ramadan, Al-Mansoura University, Al-Mansoura, Egypt  
Mohamed H Hatem, Cairo University, Giza, Egypt  
Said Elshahat Abdallah, Kafrelsheikh University, Kafr Elsheikh, Egypt  
Samy Badr Khadr, Zanzibar Joint Farm, Egypt

### **Finland**

Hannu E. S. Haapala, Seinäjoki University of Applied Sciences, Seinäjoki, Finland  
Jukka Rintala, MTT Agrifood Research, Jokioinen, Finland  
Markku Järvenpää, MTT Agrifood Research, Jokioinen, Finland

### **France**

Roger Martin-Clouaire, Institut National de la Recherche Agronomique, France

### **Germany**

Andreas Herbst, Federal Research Centre for Cultivated Plants, Braunschweig, Germany

Hans W. Griepentrog, University of Hohenheim, Stuttgart, Germany  
Ing. Henning J. Meyer, Technische Universität Berlin, Berlin, Germany  
Joachim Mueller, University of Hohenheim, Stuttgart, Germany  
Peter Schulze-Lammers, University of Bonn, Bonn, Germany  
Thomas Jungbluth, University of Hohenheim, Stuttgart, Germany

### **Ghana**

Nicholas kyei-baffour, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

### **Greece**

Franis Gemtos, University of Thessaly, Volos, Thessaly, Greece  
Nick Sigrimis, Agricultural University of Athens, Athens, Greece  
Stavros G. Vougioukas, Aristotle University of Thessaloniki, Thessaloniki, Greece

### **Iceland**

Sigurjon Arason, University of Iceland, Reykjavik, Iceland

### **India**

B K Kumbhar, GB Pant University of Agriculture and Technology, Uttarakhand, India  
Balram Panigrahi, Orissa University of Agriculture & Technology, Orissa, India  
Gopal U. Shinde, Marathwada Agricultural University, Parbhani, Maharashtra, India  
K N Tiwari, Indian Institute of Technology, Kharagpur, India  
M N Dabhi, Junagadh Agricultural University, Junagadh, Gujarat, India  
N. Kapilan, Nagarjuna College of Engineering and Technology, Devanahalli, Bangalore, India  
R K Panda, Indian Institute of Technology, West Bengal, India  
R S Prasad, Punjab Engineering College, Chandigarh, India  
Rajvir Yadav, Junagadh Agricultural University, Junagadh (Gujarat) India  
Ravindra Naik, Central Institute of Agricultural Engineering, Tamil Nadu, India  
Tridib Kumar Goswami, Indian Institute of Technology, Kharagpur, West Bengal, India  
Villas M. Salokhe, Kaziranga University, Jorhat, Assam, India

### **Iran**

Akbar Arabhosseini, University of Tehran, Pakdash, Tehran, Iran

### **Ireland**

Da-wen Sun, National University of Ireland, Dublin, Ireland  
Miao Song, Teagasc Food Research Centre, Moorepark, Fermoy, Co. Cork, Ireland  
Ultan Mc Carthy, University College Dublin, Belfield, Dublin, Ireland

### **Israel**

Isaac Shainberg, Agricultural Research Organization, Israel  
Ruth Ben-Arie, Israel Fruit Growers Association, Israel

### **Italy**

Antonio Lo Porto, Water Research Institute, Italian National Research Council (IRSA-CNR), Bari, Italy  
Daniele De Wrachien, The University of Milan, Via Celoria, Milan, Italy  
Mambretti Stefano, Polytechnic University of Milan, Milan, Italy  
Mauro Greppi, The University of Milan, Milan, Italy

### **Japan**

Hiroaki Somura, Shimane University, Matsue, Japan  
Jun Abe, Tokai University, Kumamoto Prefecture, Japan  
Noboru Noguchi, Hokkaido University, Sapporo, Japan  
Wang XiuLun, Mie University, Tsu, Japan

### **Jordan**

Bassam Snobar, University of Jordan, Amman, Jordan  
Taha M. Rababah, Jordan University of Science and Technology, Irbid, Jordan

### **Korea**

In-Bok Lee, Seoul National University, Seoul, Korea

In-Hwan Oh, Konkuk University, Chungbuk-do, Korea  
Myongsoo Chung, Ehwa Women's University, Korea  
Seonggu Hong, Hankyong National University, Kyonggi-Do, South Korea  
Seung-Jin Maeng, Chungbuk National University, Chungbuk, Korea  
Sun-Ok Chung, Chungnam National University, Daejeon, Korea  
YongJoo Kim, Chungnam National University, Daejeon, Korea  
Youngjung Kim, National Academy of Agricultural Sciences, Suwon, Korea

### **Malaysia**

Desa Ahmad, Universiti Putra Malaysia, Selangor Darul Ehsan, Malaysia  
Ramin Shamshiri, Universiti Putra Malaysia, Serdang, Selangor, Malaysia  
Olarewaju Akinola Johnson, Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia

### **Nepal**

Shreemat Shrestha, Nepal Agricultural Research Council, Kathmandu, Nepal  
Rabi Rasaily, REP of FAO Agricultural and Food Systems Group at Bangkok, Nepal Agricultural Research Council, Kathmandu, Nepal

### **New Zealand**

E. John Stevens, The New Zealand & Australia Branch of IAMFE, Cass Bay Lyttelton, New Zealand  
Hamish Gow, Massey University, Palmerston North, New Zealand  
John Hampton, Lincoln University, Lincoln, Canterbury, New Zealand

### **Nigeria**

Akindele Folarin ALONGE, University of Uyo, Uyo, Nigeria  
Azikiwe Peter Onwualu, African University of Science and Technology, Abuja, Nigeria  
Seth I. Manuwa, Federal University of Technology, Akure, Nigeria

### **Norway**

Petter Hieronymus Heyerdahl, Norwegian University of Life Sciences, Oslo Area, Norway

### **Oman**

Mushtaque Ahmed, Sultan Qaboos University, Al-Khoudh, Muscat, Oman

### **Pakistan**

Ashfaq Ahmad Chattha, University of Agriculture Faisalabad, Faisalabad, Pakistan  
Allah Bakhsh, University of Agriculture Faisalabad, Faisalabad, Pakistan  
Muhammad Naveed Tahir, PMAS-Arid Agriculture University, Rawalpindi, Pakistan  
Farman Ali Chandio, Sindh Agriculture University, Tandojam, Pakistan  
Khalil Ahmed Ibupoto, Sindh Agriculture University, Tandojam, Pakistan

### **Philippines**

Victor B. Ella, University of the Philippines Los Banos, Laguna, Philippines

### **Poland**

Jacek Dach, Poznan University of Life Sciences, Poznan, Poland  
Jacek Przybyl, Poznan University of Life Sciences, Poznan, Poland  
Oryna Slobodzian-Ksenicz, University of Zielona Góra, Babimost, Poland  
Tadeusz Kuczynski, University of Zielona Góra, Babimost, Zielona Góra, Poland  
Tadeusz Pawlowski, Industrial Institute of Agricultural Engineering, Poznan, Poland

### **Portugal**

Baptista Fatima Folgoa, University of Evora, Evora, Portugal

### **Romania**

Gabriela Teodorescu, Valahia University of Targoviste, Targoviste, Dambovita, Romania

### **Russia**

Aleksandr Perekopskii, Institute for Engineering and Environmental Problems in Agricultural Production, St. Petersburg, Russia  
Oleg S. Marchenko, All Russian Research Institute for Mechanization in Agriculture (VIM), Moscow, Russia  
Vladislav Minin, Russian Academy of Saint-Peterburg-Pushkin, Russia  
Vladimir Dmitrievic Popov, Institute for Engineering and Environmental Problems in Agricultural Production, St. Petersburg, Russia

## **Serbia**

Lazar Savin, University of Novi Sad, Novi Sad, Serbia

Milan Martinov, University of Novi Sad, Novi Sad, Serbia

## **Singapore**

Chua Kian Jon Ernest, National University of Singapore, Singapore

## **Slovak Republic**

Ladislav Nozdrovicky, Slovak University of Agriculture, Nitra, Slovak Republic

## **South Africa**

Afam I O. Jideani, University of Venda, Thohoyandou, South Africa

Carlos Poblete Echeverria, Stellenbosch University, Stellenbosch, South Africa

Jeff Smithers, University of KwaZulu-Natal, Scottsville, South Africa

## **Spain**

Alvaro Romirez-Gomez, Technical University of Madrid, Madrid, Spain

Antonio Brasa Ramos, University of Castilla-La Mancha, Campus Universitario, Spain

Enrique Molto, Valencian Institute of Agricultural Research (IVIA), Valencia, Spain

Heiner Lehr, Syntesa Sp/F (Ltd.), Spain

## **Sweden**

Bo Mattiasson, Lund University, Lund, Sweden

Jing Liu, Lund University, Lund, Sweden

## **Switzerland**

Habil. Matthias Schick, Research Station ART, Ettenhausen, Switzerland

## **Thailand**

Athapol Noomhorm, Asian Institute of Technology, Pathumthani, Thailand

Peeyush Soni, Asian Institute of Technology, Pathumthani, Thailand

## **The Netherlands**

Eldert J. van Henten, Farm Technology Group, Wageningen UR, & Wageningen UR Greenhouse Horticulture, the Netherlands

Jeremy Harbinson, University of Wageningen, Wageningen, the Netherlands

Peter Groot Koerkamp, Wageningen University, Wageningen, the Netherlands

## **Turkey**

Ahmet INCE, Cukurova University, Adana, Turkey

Hulya Atil, Ege University, İzmir, Turkey

Yunus Pinar, University of Ondokuz Mayıs, Samsun, Turkey

## **United Kingdom**

David Tinker, European Society of Agricultural Engineers, Bedford, Bedfordshire, UK

Guoping Lian, Unilever Research Colworth, London, UK

Keith Weatherhead, Cranfield University, Cranfield, UK

Simon Blackmore, Harper Adams University College, Shropshire, UK

## **United States**

Aaron Mittelstat, University of Nebraska-Lincoln, Lincoln, NE, USA

Athanasios (Alex) Alexandrou, California State University, Fresno, CA, USA

B. Brian He, University of Idaho, Moscow, ID, USA

Bang S. Sookie, South Dakota School of Mines and Technology, Rapid City, SD, USA

Bill Stout, Texas A&M University, TX, USA

Caixia (Ellen) Wan, University of Missouri, Columbia, MO, USA

Chenghai Yang, USDA-ARS-SPARC, College Station, TX, USA

Chenxu Yu, Iowa State University, Ames, IA, USA

Cibin Raj, Pennsylvania State University, State College, PA, USA

Donghai Wang, Kansas State University, Manhattan, KS, USA

Edward T. Huang, California Institute of Environmental Design & Management, Los Angeles, CA, USA

Glenn Warner, University of Connecticut, Storrs, CT, USA



Gonzalez L Jose, South Dakota State University, USA  
H. Erdal Ozkan, Ohio State University, Columbus, OH, USA  
Haibo Yao, Mississippi State University, Starkville, MS, USA  
Haiqiang Chen, University of Delaware, Newark, DE, USA  
Hanwu Lei, Washington State University, Richland, WA, USA  
Hao Feng, University of Illinois, Urbana, IL, USA  
Heping Zhu, USDA-ARS, Wooster, OH, USA  
Hongwei Xin, Iowa State University, Ames, IA, USA  
Huihui Zhang, USDA-ARS, Water Management Research Unit, Fort Collins, CO, USA  
Jaw-Kai Wang, University of Hawaii, Honolulu, HI, USA  
Jian Yu, University of Hawaii at Manoa, Honolulu, HI, USA  
Jianmei Yu, North Carolina A&T State University, Raleigh, NC, USA  
Jiannong Xin, University of Florida, Gainesville, FL, USA  
Jian Shi, University of Kentucky, Lexington, KY, USA  
Jiele Xu, North Carolina State University, Raleigh, NC, USA  
Juming Tang, Washington State University, Pullman, WA, USA  
Jungang Gao, Blackland Research & Extension Center-USDA, Texas A&M AgriLife Research, Temple, TX, USA  
Jun Zhu, University of Arkansas, Fayetteville, AR, USA  
Klein E. Ibeleji, Purdue University, West Lafayette, IN, USA  
Kyle R. Douglas-Mankin, U.S. Fish and Wildlife Service, Washington DC, USA  
Lie Tang, Iowa State University, Ames, IA, USA  
Lihan Huang, USDA-ARS, Wyndmoor, PA, USA  
Lijun Wang, North Carolina A&T State University, Raleigh, NC, USA  
Lingjuan Wang-Li, North Carolina State University, Raleigh, NC, USA  
Lingying Zhao, The Ohio State University, Columbus, OH, USA  
Manoj K. Jha, North Carolina A&T State University, Greensboro, NC, USA  
Margaret Kalcic, The Ohio State University, Columbus, OH, USA  
Naiqian Zhang, Kansas State University, Manhattan, KS, USA  
Nalladurai Kaliyan, University of Minnesota, Paul, USA  
Ning Wang, Oklahoma State University, Stillwater, OK, USA  
Patricia Bresnahan, University of Connecticut, Storrs, CT, USA  
Paul Chen, PhD, University of Minnesota, Saint Paul, MN, USA  
Pei Huang, Wastewater Compliance Systems, Salt Lake City, UT, USA  
Philip W. Gassman, Iowa State University, Ames, IA, USA  
Phillip E. Savage, Pennsylvania State University, University Park, PA, USA  
Qixin Zhong, University of Tennessee, Knoxville, TN, USA  
Raj Khosla, Colorado State University, Fort Collins, CO, USA  
Reginald S. Fletcher, USDA-ARS, Integrated Farming & Natural Resources Research Unit, Weslaco, TX, USA  
Roger Ruan, University of Minnesota, Saint Paul, MN, USA  
Ruihong Zhang, University of California, Davis, CA, USA  
Ruixiu Sui, USDA-ARS, Crop Production Systems Research Unit, Stoneville, MS, USA  
Ruplal Choudhary, Southern Illinois University, Carbondale IL, USA  
Shaojin Wang, Washington State University, Pullman, WA, USA  
Sheng Chu, Natural Systems Utilities, LLC, Hillsborough, NJ, USA  
Shuangning Xiu, North Carolina A&T State University, Greensboro, NC, USA  
Shufeng Han, John Deere - Intelligent Solutions Group, Urbandale, IA, USA  
Shulin Chen, Washington State University, Pullman, WA, USA  
Soojin Jun, University of Hawaii at Manoa, Honolulu, HI, USA  
Steven J. Thomson, USDA-ARS, Washington D.C, USA  
Wade Yang, Alabama A&M University, Normal, AL, USA  
Wei Gao, Colorado State University, Fort Collins, CO, USA  
Weilin Wang, Monsanto Company, St Louis, MO, USA  
Wenqiao (Wayne) Yuan, North Carolina State University, Raleigh, NC, USA  
William Bill Joseph Chancellor, UC Davis, Davis, CA, USA  
William R Gibbons, South Dakota State University, Brookings, SD, USA  
William S. Kisaalita, University of Georgia, Athens, GA, USA

Xiaofei Ye, University of Tennessee, Knoxville, TN, USA  
Xinlei Wang, University of Illinois, Urbana-Champaign, IL, USA  
Xiusheng (Harrison) Yang, University of Connecticut, Storrs, CT, USA  
Xiuying (Susan) Wang, Texas A&M University, Blackland Research Center, TX, USA  
Xuejun (Jun) Pan, University of Wisconsin-Madison, Madison, WI, USA  
Xuesong Zhang, Pacific Northwest National Laboratory, University of Maryland, College Park, MD, USA  
Yanbo Huang, USDA-ARS, Crop Production Systems Research Unit, Stoneville, MS, USA  
Yang Tao, University of Maryland, MD, USA  
Yao-wen Huang, University of Georgia, Athens, GA, USA  
Yecong Li, Sapphire Energy, Inc., San Diego, CA, USA  
Yeqiao Wang, CELS-NRS Coastal Institute, Kingston, RI, USA  
Yi Liang, University of Arkansas, Fayetteville, AR, USA  
Yifen Wang, Auburn University, AL, USA  
Yigang Sun, University of Illinois, Urbana-Champaign, IL, USA  
Yi-Heng Percival Zhang, Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA, USA  
Yi Zheng, Kansas State University, Manhattan, KS, USA  
Yuanhui Zhang, University of Illinois at Urbana-Champaign, Urbana, IL, USA  
Yuzhou Luo, University of California, Davis, CA, USA  
Zhen (Jason) He, Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA, USA  
Zhiming Qi, McGill University, Macdonald Campus, Montréal, QC, Canada  
Zhongli (John) Pan, USDA-ARS, PWA, WRRRC-PFR, Albany, CA, USA  
Zhuping Sheng, Texas A&M Univ, TX, USA  
Ziyu Wang, North Carolina State University, Raleigh, NC, USA

#### **Venezuela**

Jeszael Alexander Cristopher, Universidad De Oriente, Monagas Branch, Maturín, Monagas, Venezuela

#### **Yemen**

Mohammed El-Faki Mozib, University of Sana'a, Sana'a, Yemen