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

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

Vinay Nangia, Section Editor of NRES, International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo, Syria

Xiuying (Susan) Wang, Section Editor of NRES, Texas A&M University, Rolling Meadows, IL, USA

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

Kai Liu, Section Editor of APFS, City University of Hong Kong, Hong Kong, China

Chaoyuan Wang, Section Editor of APFS, China Agricultural University, Beijing, China

Lope G. Tabil, Section Editor of APFS & REMS, University of Saskatchewan, Saskatoon, SK, Canada

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

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

Geng Bai, Section Editor of ITSCS, University of Nebraska-Lincoln, Lincoln, NE, USA

Zhao Zhang, Section Editor of ITSCS, North Dakota State University, Fargo, ND, USA

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

 $Fuqing\ Xu,\ Section\ Editor\ of\ REMS,\ Xi'an\ Jiaotong\ University,\ Xi'an,\ China$

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

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, Xin Shiqiang, Meng Dan, Wang Yiping

Part-time editors: Ji Fang, Yang Yan, Wang Yuanjie, Paul Chen, Shi Xiuhuan

International Journal of

Agricultural and Biological Engineering

International Editorial Board

The Third Term

(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

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

Guangnan 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

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 Quanjiu, 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 Guochen, 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

Demark

Claus Grøn Sørensen, Aarhus University, Aarhus, Demark

Guoqiang Zhang, Aarhus University, Aarhus, Demark

Victoria Blanes-Vidal, University of Southern Denmark, Obsense, Denmark

Egypt

Mahmoud HanyRamadan, 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, Sein äjoki University of Applied Sciences, Sein äjoki, Finland

Jukka Rintala, MTT Agrifood Research, Jokioinen, Finland

Markku Järvenp ää, MTT Agrifood Research, Jokioinen, Finland

France

Roger Martin-Clouaire, Institut National de la Recherche Agrono, 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 Universit ät 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, Maharastra, 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

Vllas M. Salokhe, Kaziranga University, Jorhat, Assam, India

Iran

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

Treland

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

lordan

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, Daejon, Korea

YongJoo Kim, Chungnam National University, Daejon, 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 Gára, Babimost, Poland
Tadeusz Kuczynski, University of Zielona Gora, Babimost, Zielona Gora, 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 Mayis, 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. Ileleji, 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, Montr éal, QC, Canada

Zhongli (John) Pan, USDA-ARS, PWA, WRRC-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