**Workshop on Dielectric Instrumentation and Measurements for Water Content and Property Determination**

**Friday, September 6, 2019**

**Morning**

**Welcome and Introductions Moderator: Yufeng Zou**

|  |  |
| --- | --- |
| **Time** |  |
| 9:00-9:15 | Welcome speech by Prof. Huanjie Cai  Director, Institute of Water Saving Agriculture in Arid Areas of China, Northwest A&F University |
| 9:15-9:30 | Goals of meeting and plans for future collaboration on topics of mutual interest  Prof. Scott Jones, Utah State University |
| 9:30-9:45 | Introduction to Institute of Agrophysics, Polish Academy of Sciences  Prof. Cezary Slawinski, Director of the Institute |
| 9:45-10:00 | Introduction to his group and their research  Prof. Wojciech Skierucha, Laboratory of Dielectric Spectroscopy, Institute of Agrophysics, Polish Academy of Sciences |
| 10:00-10:30 | Tea Break |

**Presentations (1): Dielectric Spectroscopy Moderator: Scott Jones**

|  |  |  |
| --- | --- | --- |
| **Time** | **Topic** | **Speaker** |
| 10:30-10:50 | Dielectric properties of milk and development on quality detector | Wenchuan Guo, Northwest A&F University |
| 10:50-11:10 | Mechanisms of crack initiation and propagation in clayey loess related to desiccation | Xin Wei, Xi’An Jiaotong University |
| 11:10-11:30 | Dielectric properties of agricultural products and its application for online monitoring of fermentation process of yogurt | Yunyang Wang, Northwest A&F University |
| 11:30-11:50 | Reference dielectric measurement system  as a tool for verification of soil moisture – dielectric permittivity calibration functions | Wojciech Skierucha, Institute of Agrophysics, Polish Academy of Sciences |
| 12:00 | Lunch | |

**Afternoon**

**Presentations (2): Sensors and Instrumentation Moderator: Wojciech Skierucha**

|  |  |  |
| --- | --- | --- |
| **Time** | **Topic** | **Speaker** |
| 13:30-13:50 | The Quest for Electromagnetic Water Content Sensor Standards of Quality | Scott Jones, Utah State University |
| 13:50-14:10 | The nonlinear model is used to correct the distance error of the two probes | Hengye Ren, Northwest A&F University |
| 14:10-14:30 | The nonlinear model is used to correct the distance error of the two probes | Aogukailin, Northwest A&F University |
| 14:30-14:50 | Influence factors of dielectric measurement with MiniVNA based on bilinear model | Jinghui Xu, Northwest A&F University |
| 14:50-15:10 | Monitoring devices of soil physical parameters from E-Test, Ltd. | Marcin Lewak, E-Test, Ltd., Poland |
| 15:10 | Tea Break | |

**Presentations (3): Time Domain Reflectometry and Applications**

**Moderator: Jinghui Xu**

|  |  |  |
| --- | --- | --- |
| **Time** | **Topic** | **Speaker** |
| 15:30-15:50 | Development of non-conventional TDR probes and applications in geotechnical engineering | Qingyi Mu, Xi’An Jiaotong University |
| 15:50-16:10 | TDR Array Design and Application | Wenyi Sheng, China Ag. University, Beijing |
| 16:10-16:30 | Miscellaneous applications of TDR beyond water content measurement | Xin Wei, Xi’An Jiaotong University |
| 16:30-16:50 | Error factor analysis of soil moisture content determination by dielectric method | Liangliang Wang, Nanjing SmartSensor Co., Ltd |
| 16:50-17:30 | Discussion | |
| 17:30 | Adjourn | |