



NEW SWAN Digital Twin H2O Work Group

Goal:

To develop a common strategy for developing Digital Twin technology for global water utilities that will provide a means for managing operations and assets in real-time for greater operational efficiency, enhanced lifecycle asset management, and reduced costs. The global group members will help in identifying and developing a common understanding of the role of: the hydraulic model, asset management, diverse data sets (GIS, IoT, SCADA, CMMS, etc.) in both real-time and historical data, machine learning algorithms, and application integration for the calibration and use of the Digital Twin.

Objectives:

- ✓ Identify key challenges for utilities utilizing the hydraulic model in operational mode
- ✓ Identify key challenges with data accuracy and data normalization across multiple systems
- ✓ Develop a holistic view of a water system via the culmination of digital technologies: IoT, VR/AR, mobility, machine learning, cloud computing, drones, etc.
- ✓ Identify and develop best practices for hydraulic model calibration including the utilization of real-time data from consumption meters, GIS, SCADA, CMMS, and other IoT sensors
- ✓ Identify and develop best practices for aggregating digital twin subsystems (i.e. a pump digital twin)
- ✓ Identify and develop best practices for utilizing machine learning to help accurately model the water system
- ✓ Develop best practices for accessing data from the various silos of systems, applications, and IoT
- ✓ Develop best practices for application integration and application mobility
- ✓ Develop best practices for the collaboration of IT and OT in utilities

To help Kickstart the Digital Twin H2O Work Group, we have organized a half-day workshop on May 14th, one day prior to the SWAN conference in the same location. We will have speakers from utilities, technology companies, academia, engineering organizations, and government.

Pre-Conference Workshop:
SWAN Digital Twin H2O Work Group
Date: May 14th 2019 (2-6 pm)
Location: Tuttle South, Hyatt Regency Miami