Agenda

**OpenDSS Workshop**

University of Puerto Rico - Mayaguez  
**January 21-22, 2019**

This Workshop is an introduction to OpenDSS Version 8. The goal is not only to introduce users to OpenDSS but to encourage users to make use of the advanced features for parallel processing and other recently-introduced features. Participants in the Workshop should bring their own laptop computers (with Windows) with the software installed in order to participate in class exercises. Microsoft Excel would be useful.

Main OpenDSS Website: <https://www.epri.com/#/pages/sa/opendss?lang=en>

OpenDSS Installer Download Page: <https://sourceforge.net/projects/electricdss/>

OpenDSS-G Installer Download Page: <https://sourceforge.net/projects/dssimpc/>

**Day 1**

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| **Time (Nominal)** | **Description** |
| 8:00– 8:30 | Registration and Introductions |
| 8:30– 10:00 | What is OpenDSS?  Distribution Systems  Installation and Startup  How Does OpenDSS Work? |
| 10:00-- 10:15 | Break |
| 10:15 – 12:00 | Circuit Models in OpenDSS  Scripting Basics  Simple Scripting |
| 12:00 – 1:00S | Lunch |
| 1:00 – 2:00 | Scripting for Large Circuit Models |
| 2:00 – 2:15 | Break |
| 2:15 – 4:00 | Application Programming Interfaces  COM Interface Basics  Direct DLL Interface  Examples |

**Day 2**

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| **Time** | **Description** |
| 8:00 – 10:00 | Day 1 Review  Smart Grid Simulations  Using the COM interface with MATLAB, Python, VBA, etc.  Using Loadshapes to capture loading variation  Built-in simulation modes |
| 10:00 – 10:15 | Break |
| S10:15 – 12:00 | Intro to OpenDSS Parallel Machine  Actors and CPUs  Scripting for Parallel Processing  Temporal Parallelization |
| 12:00 – 1:00 | Lunch |
| 1:00 – 2:00 | PVSystem + InvControl  Storage + Storagecontroller |
| 2:00 - 2:15 | Break |
| 2:15 – remainder of day | Advanced Topics  Transformer Modeling  Regulators and Capacitor Controls  OpenDSS-G  Custom Models  Monte Carlo Fault example  Intro to A-Diakoptics |