# OpenDSS Training Workshop

Agenda for Taiwan Workshop, 22-23 March, 2016

## Day 1

* Introduction to distribution systems and modeling
* Introduction to DG Screener
  + Purpose
  + Installation
  + User Interface and Documentation
* Introduction to OpenDSS
  + Getting started with OpenDSS
  + Review of New User Primer
  + How Does OpenDSS Work?
  + OpenDSS Architecture
* Circuit Modeling Basics in OpenDSS
* OpenDSS Scripting Basics
  + Class Exercises
* Class Exercise
  + Driving OpenDSS via COM Interface with Excel
* Scripting for Large Circuit Models

## Day 2

* Scripting for Large Circuit Models, continued
* Loadshapes and Smart Grid Simulation – the Key to Dynamic Modeling
  + Examples
  + Modeling of Selected Volt-Var Control Devices
* Modeling PV and Storage
  + Time-series simulations of Volt-var, volt-watt, and power factor control
* Using DGScreener to Generate Custom OpenDSS Models
* Class Exercises
* Questions and Requests
* Misc. Examples
  + Harmonics analysis
  + Voltage sag analysis
  + *Ad Hoc Examples*

Roger Dugan is a Senior Technical Executive with EPRI in Knoxville, Tennessee. He is the principal author of the OpenDSS computer program and has over 40 years experience in distribution system analysis. Prior to joining EPRI, he was with Cooper Power Systems and Electrotek Concepts, Inc. He received the BSEE degree from Ohio University in 1972 and his Master’s degree in Electric Power Engineering from Rensselaer Polytechnic Institute in 1973.He is co-author of *Electrical Power Systems Quality* (McGraw-Hill). He is an IEEE Life Fellow and the recipient of the 2005 IEEE Excellence in Distribution Engineering award.

Huijuan Li is a project engineer of the Power System Studies Group at EPRI. Her current area of focus is power system studies of integration of distributed energy resources (DER) including Photovoltaic (PV) system modeling and control, smart inverters, etc. Before joining EPRI she worked for the Oak Ridge National Laboratory from 2010 to 2012. She received her PhD degree from the University of Tennessee at Knoxville in 2010, where she specialized in power systems voltage control with DER and power systems optimization.