



DE-RISKING FIELD DEPLOYMENT OF POWER SYSTEM INNOVATIONS USING HARDWARE-IN-THE-LOOP EXPERIMENTS

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OVERVIEW

The last decade has seen needs for integrating new technologies in power system. Unlike other industries, field mis-operation of novel technologies in power system can create heavy economic losses. Thus, de-risking field deployment is critical. This webinar will provide background on technology readiness level introduced by the space industry and the use of these readiness levels in power industry to assess the maturity level of power system technologies. This webinar will discuss the different approaches used to de-risk field deployment of controller technologies and power hardware technologies. This webinar will also discuss the challenges and limitations of these de-risking approaches. Finally, the webinar will provide results from hardware-in-the-loop experiments performed at National Renewable Energy Laboratory.

BIO

Dr. Kumaraguru Prabakar earned his Ph.D. degree from The University of Tennessee, Knoxville, TN, USA, in 2016, and his M.B.A. degree from the University of Colorado, Boulder, CO, USA, in 2021. He is a senior research engineer with Power Systems Engineering Center, the National Renewable Energy Laboratory, Golden, CO 80401 USA. He leads research projects targeting improvements in distribution system protection and interoperability of distribution system assets. He is a technical contributor in multiple microgrid controller evaluation projects and advanced distribution management systems evaluation projects. His research focuses on the controller hardware-in-the-loop, power hardware-in-the-loop, and remote hardware-in-the-loop experiments.

