



## **UI-ASSIST STUDENT WEBINAR SERIES**

*Thursday, 03/12/2020, Virtual Meeting*  
*Time: 08:00 p.m. (IST) / 09:30 a.m. (EST)*

### **“SYNCHRONIZATION OF INVERTERS WITH GRID: REQUIREMENTS AND CHALLENGES”**

**Presenter: Pankaj D. Achlerkar, Research Scholar**  
**Indian Institute of Technology Delhi, New Delhi, India**



#### **About the Presenter:**

Pankaj D. Achlerkar received his Bachelor of Engineering in Electrical, Electronics and Power from Govt. College of Engineering Aurangabad, Maharashtra in 2013; and Master of Technology in Power Systems from Indian Institute of Technology Bhubaneswar, India in 2016. Currently he is pursuing PhD at IIT Delhi. His research interests include signal processing applications to power systems, microgrids, renewable energy systems.

#### **Abstract:**

Synchronization of energy source with interconnected grid has always been a requirement. However, power electronic converters offer very different characteristics in terms of dynamic behaviour of synchronization. With increasing penetration of renewable energy and storage systems in grid, new requirements (such as disturbance ride-through) include to maintain synchronism of inverters under abnormal operating conditions. This webinar session will take a tour of technical difficulties and open research areas in achieving, maintaining and analysing synchronism under all possible grid scenarios. A new synchronization scheme will be presented as a step towards mitigating these challenges.