

Contribution – Question 2.11

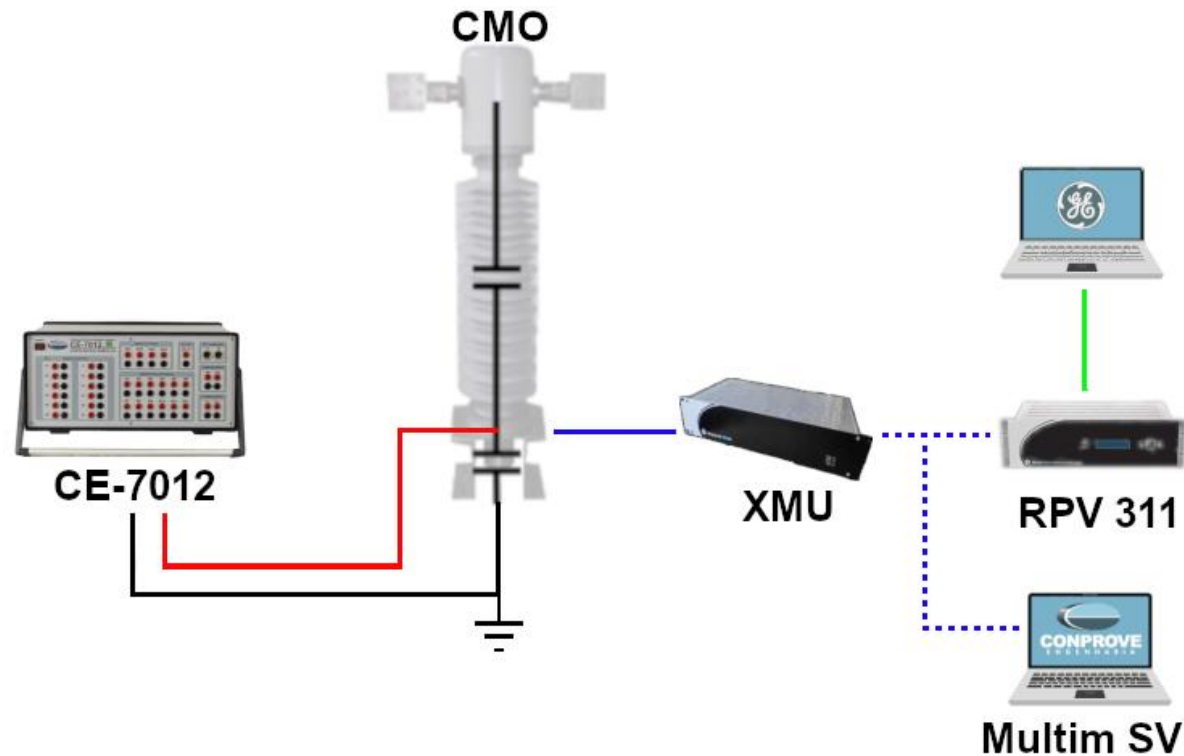
B5 – PS2 - Question 2.11 - What are the main challenges in testing related to the application of LPIT in the different stages of implementation and maintenance?

Paulo Junior – Brazil

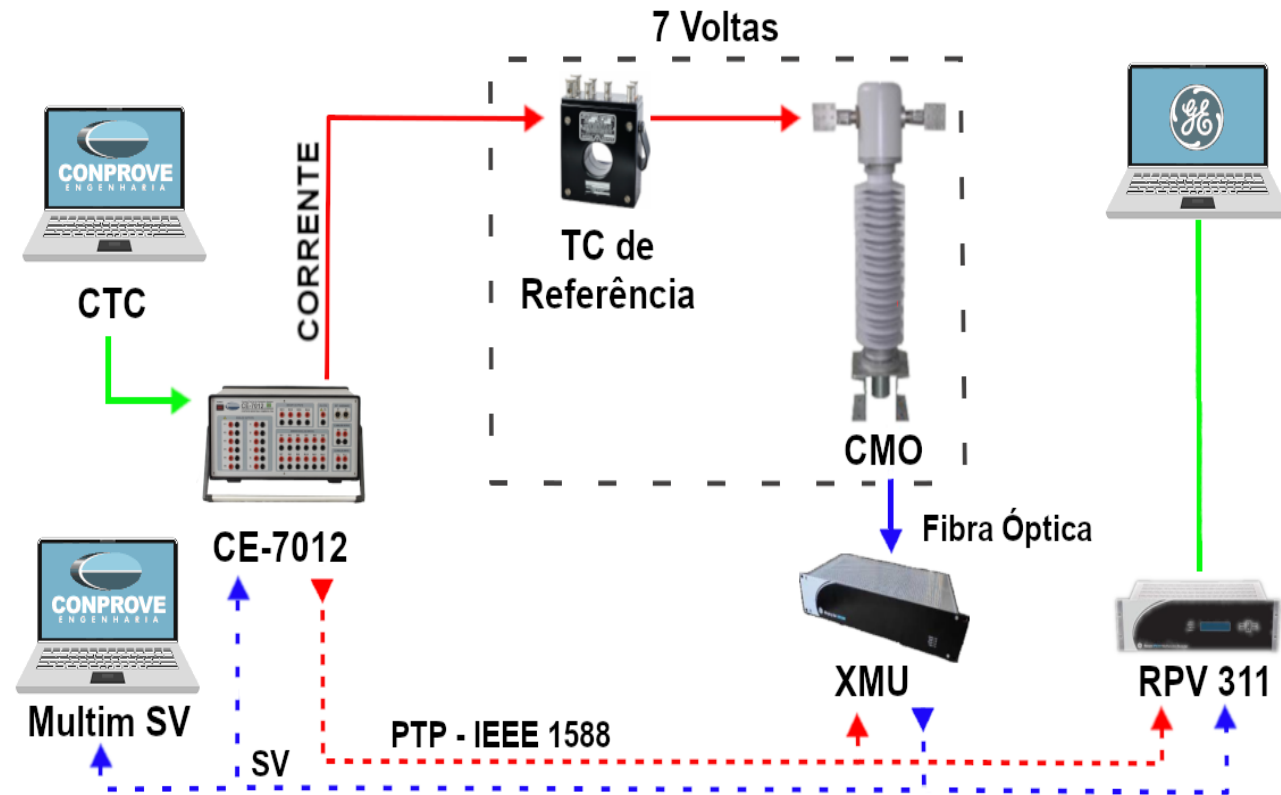


- **Challenges:**
 - **High Power and communication** in the same device;
 - **Implementation -> Deep Tests;**
 - **Maintenance -> General View (Already Energized).**
- **Primary Tests (sensors):**
 - **Linearity;**
 - **Frequency response;**
 - **Sensor response for synchrophasor applications.**
- **Secondary Tests (PTP synchronized MU):**
 - **SV frame format;**
 - **CT and VT transformation ratio;**
 - **Sampling rate;**
 - **Network errors: corrupted frames, duplicated frames, out-of-order frames, frame loss.**

- Some **testing experiences** with LPITs in **Brazil**.
- **Frequency response test in VT:**
 - Considering the **secondary** of the VT;
 - **Measurement** by the **IED oscillography** and by the **MultimSV** software from **CONPROVE**.



- **Frequency response in CT:**
 - Considering the **primary** of CT;
 - **Measurement** by the **IED oscillography** and by the **MultimSV** software from **CONPROVE**;
 - **PTP** synchronization.





THANK YOU !

