

# Annual Conference of the IEEE Industrial Electronics Society (IECON 2022)

**Special Session on**

**“Advanced Custom Power Devices for Power Quality Improvement”**

**Organized by**

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## **Call for Papers**

### **Theme:**

The modern electrical devices are increasingly used in industrial and commercial applications. Computer power supplies, domestic appliances, fluorescent lamps, adjustable speed drives are some examples of these devices. These devices behave like non-linear loads which draw non-sinusoidal currents from ac mains and lead to undesired harmonics. These harmonics cause electrical power quality problems in power systems and in consumer products. Various custom power devices for power quality improvement were introduced with the aim of compensating these harmonics and achieving unity power factor. Much efforts are continuously deployed on the converter topology and control side to achieve optimized cost-effective solutions.

**Topics of interest include, but are not limited to:**

1	Shunt active power filters, Distribution static compensator (D-STATCOM)
2	Series active power filters (Dynamic voltage restorers)
3	Hybrid power filters, Unified power quality conditioners
4	Realization of active power filters using different multilevel inverter topologies
5	Power factor correction (PFC) and PFC converters
6	Power quality analysis
7	Parallel operation and distributed control of custom power devices
8	Integration/placement of custom power devices in grid-connected network
9	Case study of PQ impacts from emerging power electronic systems, e.g. PV, EV, LED lighting
10	Power-HIL real time simulations for evaluating PQ impacts with power electronics apparatus

Sponsoring IES Technical Committee:

IEEE IES Technical Committee on Power Electronics <https://petc.ieee-ies.org/>

**Submissions Procedure:**

All the instructions for paper submission are included in the conference website: <https://iecon2022.org/>

**Deadlines:**

Full paper submission:	April 15, 2022
Paper acceptance notification:	June 17, 2022
Camera-ready paper submission:	July 29, 2022