附件1

**iSPEC2020征文主题**

The conference organizing committee invites contributions in all areas related to power and energy technologies, including (but not limited to) the following:

1. High renewable energy penetration

* Uncertainty analysis, modeling, and forecasting for renewables and demands;
* Planning and operation of power systems with renewables;
* Stability, reliability, and resilience of power systems with high renewables and power electronics penetration;
* Electricity market and business models,
* Evolution roadmap of power networks towards high renewables;

1. Multiple energy systems (MES) integration

* Power-heat-gas systems integration;
* Power-transportation system integration;
* Energy-water-environment nexus;
* Advanced methods for MES modeling, planning, and operation;
* Integrated Energy System oriented advanced and customized services;

1. Cyber-physic-society coupling

* Information and Communication Technologies (ICT)
* Cyber-physical security
* Software defined power and energy systems
* Social behavior analysis for power system participators

1. Flexible resources and end-user demand

* Distributed generation
* Distributed energy storage
* Demand response and electric vehicle charging/discharging
* Micro-grids and nano-grids
* Distributed energy market

1. Emerging technologies applications

* Machine learning and big data analytics;
* Blockchain for distributed applications;
* 5G network and communication;
* Cloud computing and edge computing;