

Special Session VII

Special Session Basic Information:

专栏题目 Session Title	中文：配电系统的韧性与灵活性 英文：Resilience and Flexibility of Power Distribution Systems
专栏介绍和征稿主题 Introduction and topics	
中文：近年来，自然灾害、网络攻击等极端事件频发，对配电系统构成了严峻挑战。为有效抵御这些威胁，亟需发展具备韧性的配电网。这些网络不仅应能预见并承受此类事件，更需能快速恢复、适应新条件，并从中汲取经验，以最大限度地减少甚至避免供电中断。与此同时，以可再生能源为基础的新型电力系统演进，促使海量灵活性资源接入配电网。这些资源可提供负荷恢复等灵活服务，从而为增强配电网的韧性做出重要贡献。因此，本次专题致力于探讨配电网的韧性与灵活性。重点关注领域包括韧性与灵活性的建模与度量、韧性提升策略、灵活性资源的规划与运行等。此外，专题也鼓励并欢迎其他与配电网韧性和灵活性相关的研究成果投稿。 英文：In recent years, the frequency of extreme events such as natural disasters and cyber attacks has been escalated, posing significant challenges to power distribution networks. To effectively defend against these threats, there is a critical need to develop resilient power distribution networks. These networks should be capable of not only anticipating and withstanding such events but also rapidly recovering from them, adapting to new conditions, and learning from these experiences to minimize or even prevent power outages. The evolution of the new electric power system, which is based on renewable energy sources, has brought about the integration of a vast array of flexibility resources into power distribution networks. These resources offer the potential for flexible services such as restoration of loads, which can significantly contribute to enhancing the resilience of these networks. Therefore, this session is dedicated to exploring the resilience and flexibility of power distribution networks. The focus areas include the modeling and metrics of resilience and flexibility, strategies for enhancing resilience, and the planning and operation of flexibility resources. Additionally, the session encourages and welcomes other research endeavors related to the resilience and flexibility of power distribution networks.	

Special Session Chair(s):

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	Organizer's Brief Biography	

中文：董政呈博士已发表 40 余篇同行评审学术论文，授权 10 余项专利。主持了 10 项科研项目，包括国家自然科学基金项目和中国博士后科学基金特别资助项目；获得了 6 项奖项，包括广西壮族自治区科学技术进步二等奖和 IEEE ICPS 2023 最佳论文入围奖。此外，他还担任多家期刊/国际学术会议的客座编辑/专题会议组织者/技术委员会成员/主席，并为 30 余本同行评审期刊担任审稿人。

英文：Dr. Dong has published more than 40 peer-reviewed academic papers and authorized more than 10 patents. He has hosted 10 research projects, including projects supported by the National Natural Science Foundation of China and the China Postdoctoral Science Special Foundation, and received 6 awards, including the Second-class prize of Scientific and Technological Progress of Guangxi Province and the best paper finalist of IEEE ICPS 2023. He also served as guest editor/special session organizer/technical committee member/chair of several journals/international academic conferences, and serves as a reviewer for over 30 peer-reviewed journals.

	姓名 Name	Meng Tian
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Organizer's Brief Biography	
中文：田猛博士主持了两项国家自然科学基金项目及一项湖北省重点研发计划项目。发表了 60 余篇同行评审学术论文，授权了 20 项发明专利。曾获得中国南方电网公司专利奖三等奖一项，以及湖北省科学技术进步奖三等奖一项。 英文：Dr. Tian hosted two research projects supported by the National Natural Science Foundation of China and one research project supported by Key R&D Program of Hubei Province. He also published over 60 peer-reviewed academic papers and authorized 20 invention patents. He won one third prize of patent award of China Southern Power Grid Corporation and third prize of Hubei Provincial Science and Technology Progress Award.	