

浙江大学网络传感与控制研究组

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學術報告

Impact of Causality on Performance of Phasor Measurement Unit Algorithms



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Biography: Dr. Meng is currently a Postdoctoral Fellow at the Department of Systems and Computer Engineering, Carleton University, Canada. He received the Ph.D degree in Control Science and Engineering from Zhejiang University, Hangzhou, China in 2015. Dr. Meng is currently an Associate Editor of IEEE Access and has served as a Guest Editor for several international journals. His current research interests include adaptive control, distributed control, renewable energy and smart grids.

In this talk, we investigate the impact of causality on performance of phasor measurement unit algorithms. Most existing phasor measurement units (PMUs) are non-causal PMUs and they compensate for the group delay in PMU applications by shifting time stamps, which may result in high latency that will impair performance of PMU applications. We present causal PMUs to reduce the group delay caused latency without shifting time stamps, and study the impact of causality on performance of PMU algorithms. It is found that causal PMUs normally reduce latency by the group delay while non-causal PMU will not.

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