

# Xu Du

## CONTACT INFO

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*Address:* 393 Middle Huaxia Road, Shanghai 201210, China  
*Website:* <http://faculty.sist.shanghaitech.edu.cn/faculty/boris/michael.html>  
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## EDUCATION

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**University of Chinese Academy of Sciences**  
**ShanghaiTech University** Sep.2017-Sep.2022  
*Ph.D. in Electrical Engineering (Supervised by Professor Boris Houska)*

**Zhengzhou University** Sep.2013-June.2017  
*B.E, Computer Science, School of Information Engineering*

## RESEARCH INTERESTS

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- Optimal Experiment Design
- Distributed Optimization
- Power Systems
- Wireless Communication

## PUBLICATION

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†: equal contribution

- **Xu Du**, Alexander Engelmann, Timm Faulwasser, Boris Houska.  
Approximations for Optimal Experimental Design in Power System Parameter Estimation (invited session)  
*The 61th IEEE Conference on Decision and Control (CDC), Cancún, Mexico, 2022*  
(accepted)
- Shijie Zhu<sup>†</sup>, **Xu Du**<sup>†</sup>.  
Alternating Direction Based Sequential Boolean Quadratic Programming Method for Transmit Antenna Selection  
*The 61th IEEE Conference on Decision and Control (CDC), Cancún, Mexico, 2022*  
(accepted)
- Boyu Han, Xuwen Liang, Zhuochen Xie, **Xu Du**, Xiaohe He.  
Communication Enhancement Model of Intelligent Reflecting Surface Based on Cooperative Relationship  
*Laser & Optoelectronics Progress, 2021*
- **Xu Du**, Alexander Engelmann, Timm Faulwasser, Boris Houska.  
Online power system parameter estimation and optimal operation  
*In Proceedings of the 2021 American Control Conference (ACC), New Orleans, USA May, 2021*

- **Xu Du**, Alexander Engelmann, Yuning Jiang, Timm Faulwasser, Boris Houska. Optimal Experiment Design for AC Power Systems Admittance Estimation *In Proceedings of the 21st IFAC World Congress, Berlin, Germany, July, 2020*
- **Xu Du**, Alexander Engelmann, Yuning Jiang, Timm Faulwasser, Boris Houska. Distributed State Estimation for AC Power Systems using Gauss-Newton ALADIN *In Proceedings of the 58th IEEE Conference on Decision and Control (CDC), Nice, France, December, 2019.*

## PROFESSIONAL SERVICE

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Conference Session Chair/Co-chair

- Co-chair of the invited session for the 61st IEEE Conference on Decision and Control (CDC 2022) “Trends in Optimization for Power Systems”, Cancún, Mexico

Technical Meetings—Leadership Roles

- Co-organizer, International Workshop on Advanced Methods for Control and Estimation of Dynamic Systems (AMCEDS 2018), ShanghaiTech University, Shanghai, China, July 23, 2018

Technical Reviewer

- Selected journals: Optimal Control Applications & Methods
- Selected international conferences: CDC, ICCA

## PRESENTATION

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- Online power system parameter estimation and optimal operation *2021 American Control Conference (ACC), New Orleans, USA May, 2021 (online)*
- Optimal Experiment Design for AC Power Systems Admittance Estimation *21st IFAC World Congress, Berlin, Germany, July, 2020 (online)*
- Distributed State Estimation for AC Power Systems using Gauss-Newton ALADIN *58th IEEE Conference on Decision and Control (CDC), Nice, France, December, 2019.*

## HONORS AND AWARDS

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- Merit Student, ShanghaiTech University, 2019-2020
- SIST Outstanding Teaching Assistant Award, ShanghaiTech University, 2019-2020
- Outstanding Student Award, Zhengzhou University, 2014-2017
- YiSheng Scholarship, Zhengzhou University, 2015

## URL LINKS

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- Google Scholar: <https://scholar.google.com/citations?user=OnIuCR0AAAAJ>
- ResearchGate: <https://www.researchgate.net/profile/Xu-Du-9>

## TEACHING

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### ShanghaiTech

- Teaching Assistant, Introduction to Communication Systems (EE140), ShanghaiTech University, Fall 2021 (Instructor: Professor Lixiang Lian).
- Teaching Assistant, Signals and Systems Lab(EE150L), ShanghaiTech University, Spring 2021 (Instructor: Linyan Lu and Ping Wang).
- Teaching Assistant, Introduction to Control(EE160), ShanghaiTech University, Fall 2020  
<http://faculty.sist.shanghaitech.edu.cn/faculty/boris/EE160.html>  
(Instructor: Professor Boris Houska and Professor Yang Wang).
- Teaching Assistant, Introduction to Control Project(EE160P), ShanghaiTech University, Fall 2020  
(Instructor: Professor Boris Houska and Professor Yang Wang).
- Teaching Assistant, Signals and Systems(EE150), ShanghaiTech University, Spring 2020  
(Instructor: Professor Yong Zhou, Professor Ziping Zhao, Professor Xin Lou and Professor Lin Xu).
- Teaching Assistant, Numerical Analysis(SI211), ShanghaiTech University, Fall 2019  
<http://faculty.sist.shanghaitech.edu.cn/faculty/boris/SI211.html>  
(Instructor: Professor Boris Houska).
- Teaching Assistant, Design Thinking, ShanghaiTech University, Fall 2018 and Spring 2019.  
(Instructor: Professor Ding Lu, Professor Xiyi Yang and Professor Xue Chen)
- Teaching Assistant, Signals and Systems(EE150), ShanghaiTech University, Spring 2018 (Instructor: Professor Yanlin Geng)