

# Lingjie Jin

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## RESEARCH INTERESTS

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I'm a graduate student majoring in Power Engineering and Engineering Thermophysics at Shandong University. My research interests are configuration simulation of thermal system and optimal design of thermal system with iteration and interpolation. The goal of my research is to promote the development of energy conservation technology and distributed energy.

## EDUCATION BACKGROUND

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### Shandong University

*Sep 2018 – Expected Mar 2021*

Master in Power Engineering and Engineering Thermophysics, School of Energy and Power Engineering

- **GPA:** 84.8/100
- **Awards:** Academic Scholarship (2019)
- **Major Courses:** Advanced engineering thermodynamics, Numerical Fluid Flow, Mathematics

### North China Electric Power University

*Sep 2014 – Jun 2018*

Bachelor in Energy and Power Engineering, School of Energy and Power Engineering

- **GPA:** 80/100
- **Awards:** Huamin Charity Foundation Scholarship (2018)
- **Major Courses:** Calculus, Probability Theory, Linear Algebra, Fluid Mechanics, Heat Transfer

## RESEARCH EXPERIENCES

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### A Simulation Model of Fast Cut Back of a Power Plant based on MATLAB *May 2020 – Present*

- A simulation model was built for the steam heat balance of boiler superheater and high-pressure bypass based on MATLAB to studied the main steam pressure and temperature characteristics. It can provide reference for the design of PCV valve and safety valve. (completed)
- I will build some simulation models for thermal performance prediction of reheater, deaerator, condenser, small turbine under FCB condition.

### Zero Discharge of Desulfurization Wastewater in Laiwu Power Plant

*Jul 2019 – Jun 2020*

- Assisted my professor to build the pilot test platform in Shandong Laiwu power plant.
- Studied the determination of ion content by Atomic Absorption Spectrophotometer.
- Tested the corrosion resistance of different metal materials to desulfurization wastewater.

### Development of Power Plant Simulation Software

*Dec 2018 – Dec 2019*

- Developed the simulation software called CALING by configuration design.
- Built the thermal balance model of the thermal equipment of the power plant by C# language based on the iterative calculation and interpolation calculation.
- Developed a real-time calculation function, and calculated the real-time thermal economy indicators to point out the optimal operating conditions.

### Numerical Simulation and Flow Field Optimization of Spray Tower for Wet Desulfurization

*Sep 2017 – Mar 2018*

- Built the spray tower model by gambit.
- The influence of the angle and shape of baffle in spray tower on desulfurization efficiency by FLUENT.
- Analyzed the influence of flue gas inlet angle on desulfurization efficiency.

## PUBLICATIONS

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- Xundong Hu, **Lingjie Jin**, Xudong Gao, Tao Luan, Yan Gao. "A Boiler Side Simulation and Economic Prediction of A Power Plant". Under Submission.

- Quanyou Man, Yan Gao, Yixue Zhang, **Lingjie Jin**, Tao Luan. “Comparison of the Effects of Several Typical Preparation Methods and Materials on Properties of Metal Organic Frameworks”. Under Submission.
- **Software Copyright:** “Power Plant System Evaluation Software called iSDEPCI. Under Submission”.
- **Patent application:** No.202010579843.7. “A Flat Loop Heat Pipe Evaporator with Carbon Fiber Capillary Wick in Comb Structure”. Under Submission.

## SKILLS

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- **Software:** CAD, PROE, ICEM, Fluent, Photoshop, MATLAB
- **Programming Languages:** C++, C#