

# Chenyu Yan

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## Education Background

I received BS degree with Electrical Engineering and Automation (GPA: 3.7, 5%) and MS degree with Electrical Engineering (GPA: 3.7, 5%) from [Northwestern Polytechnical University\(NPU\)](#), People Republic of China(PRC), in June 2016 and [Xi'an Jiaotong University\(XJTU\)](#), PRC in June 2019, respectively. At present, I'm enrolled in Master of Science in Computer Science Degree provided by [Georgia Institute of Technology \(Gatech, USA\)](#).

My research focused on **electrical devices, dielectric material, charge transport computational calculation and machine learning**. In past 3 years, I have a relatively good understanding of material research, solid physics and computational skills and I gradually formulated ability to deal with scholar research and got a deeper insight towards my study. Not only keeping outstanding performance on course study, **I have obtained international/national awards for 8 times and got scholarship for 10 times**. In addition, **I was involved in 4 national projects and had 16 papers published**.

## Scholarship

1. National Scholarship 2018.11 & 2017.11
2. First class scholarship 2018.11 & 2017.11
3. Scholarship for excellent freshman 2016.09
4. Provincial special scholarship 2015.09
5. First class scholarship 2015.09 & 2014.09 & 2013.09
6. E+H special scholarship 2014.09

# Awards

1. Outstanding graduated student 2019.06
2. Merit master student award 2018.11 & 2017.11
3. National Mathematical Contest in Modeling for Graduated students, Honorable mention 2017.11
4. Outstanding graduated student 2016.06
5. The 5th session of MathorCup Mathematical Contest in Modeling, Outstanding award 2015.06
6. College Students' Innovative Entrepreneurial Training Plan Program, three projects in 2015 and 2014
7. International Mathematical Contest in Modeling (MCM), Honorable mention 2015.03
8. National Mathematical Contest in Modeling, Outstanding award 2014.11
9. Best debater of undergraduate student debate contest in China 2014.10
10. Excellent world teenager in Japan, Korea and China forum 2014.09
11. Outstanding undergraduate student award 2015.11 & 2014.11 & 2013.11

# Publications

 [My Research Gate](#)

1. Min DM, **Yan CY**, Huang Y, et.al. Dielectric and carrier transport properties of silicone rubber degraded by gamma irradiation[J]. Polymers, 2016, 9(10): 1-15
2. Min DM, **Yan CY**, Mi R, et.al. Carrier Transport and Molecular Displacement Modulated dc Electrical Breakdown of Polypropylene Nanocomposites[J]. Polymers, 2018, 10(11): 1-20
3. Min DM, Li YW, **Yan CY**, et.al. Thickness Dependent dc Electrical Breakdown of Polyimide Modulated by Charge Transport and Molecular Displacement[J], 2018, Polymers, 10(9): 1-18
4. Min DM, **Yan CY**, Wang WW, et al. Electrical breakdown of polymer nanocomposites modulated by space charges[C]. IEEE 17th International Conference on Nanotechnology, 2017: 267-269
5. Xie DR, **Yan CY**, Huang Y, et al. Study on short-term dc breakdown and corona resistance mechanism of polyimide. Proceedings of 2017 International Symposium on Electrical Insulating Materials, 2017: 437-441
6. Kang WB, **Yan CY**, Li ST, et al. Trap and carrier transport of pristine and aged silicone rubber by surface potential measurements[C]. Proceedings of 2017 International Symposium on Electrical Insulating Materials, 2017: 207-210
7. Li SJ, Yan W, **Yan CY**, et al. Surface trap and carrier transport of aged and pristine oil-paper under harmonic voltage by surface potential decay[C]. IEEE Conference on Electrical Insulation and Dielectric Phenomenon, 2017: 94-97
8. Cheng L, Chi XH, **Yan CY**, et al. Polypropylene nanocomposite for power equipment: a review[J]. IET Nanodielectrics, 2018, 1(2): 92-103
9. Min DM, **Yan CY**, Huang Y, et.al. Influence of filler content on conductivity of epoxy resin nanocomposites[C]. The 20th International Symposium on High Voltage Engineering, 2017: 1-6

10. Min DM, **Yan CY**, Mi R, et al. Space-charge modulated electrical breakdown in polyethylene nanodielectrics[J]. IEEE Nanotechnology Magazine, 12(2): 15-22.
  11. Mi R, **Yan CY**, Wu QZ, Min DM, Li ST. Effect of deep traps and molecular motion on dc breakdown of polyethylene nanocomposites[C]. IEEE Conference on Electrical Insulation and Dielectric Phenomenon 2019
  12. Li YW, **Yan CY**, Min DM, Li ST. Numerical simulation on dc breakdown of polyimide based on charge transport and molecular chain displacement[C]. IEEE Conference on Electrical Insulation and Dielectric Phenomenon 2019
  13. Kang WB, Meng SX, Cui HZ, Li YW, Mi R, **Yan CY**, Min DM, Li ST. Space charge accumulation in silicone rubber influenced by Poole-Frenkel effect[C]. International Conference on novel functional materials, 2018: 1-5
  14. Cui HZ, Xing ZL, Wu QZ, **Yan CY**, Mi R, Min DM, and Li ST. Accumulation of space charges in epoxy resin nanodielectrics influenced by Poole-Frenkel effect, International Conference on novel functional materials 2019
  15. Kang WB, Meng SX, Cui HZ, **Yan CY**, Min DM, Li ST. Trap and dielectric property evolution of silicone rubber insulation under power frequency voltage superimposed harmonic [J]. High voltage
- **Min DM is my professor during graduated study and gave lots of assistance to my research, in all these work, I was responsible for experiment design, operation, analysis and paper writing.**

## Project Experience

1. Influence of molecular chain motion property in interfacial regions on dc breakdown property of polyethylene nanocomposites (National Natural Science Foundation of China)
2. Insulating property and its regularity of dielectrics in current transfer and energy dissipation (National Key Basic Research Program (973) sub-project)
3. Charge transport property in silicone rubber under harmonic aging (Project of China Electric Power Research Institute)
4. Design for battery management system in electrical vehicles (College Students' Innovative Entrepreneurial Training Plan Program)

## Work Experience

**State Grid Corporation of China Department of Information and Internet 2019.08 - 2020.09**

My work focused on grid data collection and processing to propose practical suggestions for the development of corporation. The most impressive project was grid load forecast program, in which I was responsible for machine learning modeling, algorithm and data processing. We built up architecture based on RNN and LSTM model to forecast the electric demand for following days. By comparing with realistic values, it was proved that model had a relatively high precision, with MAPE around 2.4%. Also, we built a central platform, collaborating with Alibaba, to collect all data from power grid system to help

making decision regarding equipment maintenance, power distribution and redistribution, dispatching and monitoring.