

Mingzhe WANG

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Home: Shantou, Guangdong, China

EDUCATION BACKGROUND

Beijing Institute of Technology, Zhuhai (BITZ)

10/2020-Present

- Major: Measuring and Control Technology and Instrumentations
- Average Score: 86.7% (1/33)
- National Scholarships (Only the top 1% of students in China)

PUBLICATIONS

M.Z.Wang, J.Y.Zou, G.C.Zhang, T.C.Lin, *etc*, Sound source recognition and three-dimensional spatial real-time localization based on GCC algorithm, Journal of Internet of Things Technologies, vol. 13, no. 10, pp. 42-44+48, 2023. (in Chinese)

M.Z.Wang, J.Y.Zou, S.Y.Zeng, *etc*, Monitoring of pulse signals with flexible paper-based graphene sensor, 2023. 3rd International Conference on Signal Image Processing and Communications (IC SIPC2023)

RESEARCH EXPERIENCE

2023 BITZ National Student Innovation and Entrepreneurship Training Programme Project

"Simulation design and application research of graphene flexible sensing" 06/2023-Present

- The seepage threshold of paper-based graphene was obtained, and the sensor was prepared.
- To obtain its performance ($GF=2.27 \text{ kPa}^{-1}$), response time (1.389ms)
- Achievements: Funding of RMB 20,000 was approved to publish one EI paper as the first author

2022 BITZ University Student Innovation and Entrepreneurship Training Program Project

Research on the Specific sound source recognition and three-dimensional spatial localization based on GCC algorithm and deep learning 06/2022-04/2023

- Technically responsible for designing and developing sound source localization programs based on the LabVIEW system
- Designed three-dimensional spatial sound source location models with 95 percent accuracy using existing theoretical knowledge
- Achievements: Approved funding of RMB 3,000 to publish one paper as first author

2022 BITZ University Student Innovation and Entrepreneurship Training Program Project

Research on intelligent monitoring device based on paper-based graphene flexible sensor and machine learning to accurately identify human physiological movement 06/2022-04/2023

- Paper-based graphene flexible sensors were prepared pulse signal measurements were performed, and deep learning was used to analyze and classify pulse signals (Cun, Guan, Chi, and Sport)

- Achievements: Funding of RMB 3,000 was approved for the successful preparation of paper-based graphene sensors

2023 American Collegiate Mathematical Modeling Competition

Predict and analyze the difficulty of various aspects of Wordle games

02/2023

- Responsible for task allocation, establishment and analysis of mathematical models, writing and typesetting of papers
- Grade: Honorable Mention

EXTRACURRICULAR ACTIVITY

Intelligent Detection and Control Association

Minister of Technology

05/2021-05/2022

- Responsible for the teaching of LabVIEW software and the arrangement of courses
- Led the club members to win the first prize in the physics experiment competition at the school level twice, at the national level once, and at the provincial level once.

Department of Aeronautical and Aviation Engineering, The Hong Kong Polytechnic University

Access students

08/2023-09/2023

- Learn the preparation process of the sensor and operate the experiment independently
- Learn the basic principles and operation of experimental equipment such as mixers, vacuum dryers, and digital multimeters
- Read related articles on seepage thresholds, and tunneling effects, and apply them in connection with experiments

HONOUR AND CERTIFICATE

- Second Prize of the 24th Guangdong University Students' Physics Experiment Design Competition at Provincial Level 11/2023
- Provincial Third Prize of the 7th China (International) Sensor Innovation and Entrepreneurship Competition, 2023 10/2023
- National Scholarships 2022-2023 09/2023
- Second Prize of the 1st Honorary Chancellor's Scholarship 04/2023
- Second Prize in the Mathematical Modeling Competition for American Collegiate Students 02/2023
- Third Prize of the 8th National Collegiate Physics Experiment Competition 10/2022
- Second Prize in the 1st intelligent measurement and control innovative design competition of BITZ 06/2022
- Grand Prize Scholarship of BITZ (Three times) 10/2021 & 04/2022 & 10/2022
- First-class Scholarship of BITZ (Twice) 04/2021 & 04/2023

SKILLS

- Languages: Chinese (native); English (fluent)
- Programming: familiar with Matlab, Python, LabVIEW and Microcontroller technology