

# Understanding of Electric Vehicles

## Course Outline

The topics covered in the course include:

- Introduction to electric vehicles
- Vehicle dynamics
- Power semiconductor devices
- Converters and inverters
- Electric propulsion
- Speed control of electric motors
- Energy sources
- Charging infrastructure
- In-vehicle communications
- Assessment (30 mins)
- Case study

## Trainer's Profile

Mr Zhu Taixiu holds a bachelor's degree, a master's degree and a PhD degree, all in Electrical Engineering. He has been a full-time lecturer with the Polytechnic since 1998. He is currently serving as a Senior Manager in the Power & Sustainable Cluster, School of Engineering. In terms of continuing education for adult learners, he specializes in electrical and power electronics courses. He also undertakes research projects and worked as a Principal Investigator in a Microgrid project funded by the Ministry of Education, from 2013 to 2016. He is a senior member of IEEE.