New Masters for 2014

MSc in Electrical Transportation Systems and Infrastructure

Delivered between the Universities of Birmingham and Nottingham, this new Masters programme will bring the benefits of two world-class UK institutions into one MSc programme.

Studies focus on practical electrical engineering aspects of transportation systems, with a particular focus on automotive and rail vehicles and on power system infrastructure. Graduates of this programme will have a clear understanding of what is needed to design, build and operate these electrical transport systems.

Why this subject?
With increasing costs, limited future supplies of oil, energy security issues and efficiency demands, the transport sector as a whole wishes to reduce its Carbon Footprint. This means there is already a demand for highly skilled graduate engineers able to apply new technologies, cost-effectively, into transportation systems and the infrastructure which provides their power.

About the course
Study will encompass: electrical engineering of powertrain systems; electric vehicle charging; grid and economies of connection; traction systems in a variety of transport modes; energy storage systems; and power systems and technologies for a variety of transport modes (including hydrogen-powered transport).

The autumn term will be spent at Birmingham and the spring term at Nottingham, giving students the opportunity to experience student life at two major UK universities. Students will then return to, or stay at, whichever university they have registered to study for the research project during the summer. Modules have been designed to give the flexibility needed for part-time study and accreditation will be sought via the Institute of Engineering and Technology for accreditation as Further Learning for the purposes of Chartered Engineer status.

Modules

Birmingham semester 1 modules
- Maths, Physics and Electrical Principles
- Study Skills
- Kinematics of Transportation
- Railway Traction Systems
- Energy Conversion Systems

Nottingham semester 2 modules
- Advanced Power Conversion
- Advanced AC Drives
- Power Systems for Aerospace
- Technologies for the Hydrogen Transport Economy
- Advanced Electrical Machines

Find out more
For more information please contact:
Dr Stuart Hillmansen,
University of Birmingham,
on s.hillmansen@bham.ac.uk,
+44 (0)121 414 4289

Dr Arthur Williams,
University of Nottingham,
on arthur.williams@nottingham.ac.uk,
+44 (0)115 846 8884.