

## Advanced Electric Machines Research Ltd: Engineer - Electromagnetic Systems

<b>Reports to</b>	Lead Engineer – Electromagnetic Systems		
<b>Department</b>	Design	<b>Date</b>	Feb 2018

The Engineer - Electromagnetic Systems will support the design and development of a series of electric drive systems across a wide range of sectors including passenger car, aerospace, commercial vehicle, off-highway and agricultural vehicles. This will include leading aspects of the design and simulation of new motor topologies and power electronics integration and supporting: collaborative project definition; design for manufacture review of new and existing designs; and prototype and production build programmes with both drawing issue and Engineering Change Requests as required. The role requires strong relationships with key stakeholders in the Design and Manufacturing Engineering team and Academic and Commercial partner organisations.

### RESPONSIBILITIES

- Deliver motor design and simulation data for:
  - Permanent Magnet (PM) Machines
  - Switched Reluctance (SR) Machines
  - Hybrid PM and SR Machines
  - Integrated motor and power electronics 'drive' systems
- Support the definition & delivery of drive system development programme timing, delivery and cost plans for:
  - Commercial contracts
  - Collaborative research programmes
- Represent AEMR at Conferences & Exhibitions supporting stand activities and partner meetings as appropriate

## **DESIRED SKILLS and EXPERIENCE**

- Post graduate qualification in electric machine and drive simulation and design
- Strong ideas development skills with the ability to develop and propose ideas and get engagement from both industry and academia
- Strong presentation and communication skills with experience of presentation to small working level groups

## **ATTRIBUTES**

- Strong analytical skills with an eye for detail
- Focused, diligent and accurate in specification definition and reporting
- Able to work in cross-business teams and build a rapport with individuals from a variety of backgrounds.
- Adaptable style
- Capable of working in partnership with other academic and commercial organisations
- Excellent written and verbal communication skills
- Able to work to tight deadlines in a high-pressure environment

## **About this company**

Advanced Electric Machines Research (AEMR) was formed in November 2016 as a spin out from the internationally recognised University of Newcastle Centre for Advanced Electric Drives. AEMR aims to deliver world class motor and drivetrain designs with a focus on cost effective high performance and minimal environmental impact. Proudly based in the North East, AEMR is focused on putting Britain ahead in the global race for the development of new low carbon propulsion technologies aiming to use a UK manufacturing base to export products all over the world. AEMR is also a keen supporter of UK Government and Industry Agencies such as Innovate UK, the Advanced Propulsion Centre and the Automotive Council and will expect members of its team to support these initiatives as required. As a design consultancy AEMR will be operating in a high-pressure cost and deadline focused arena and you will need to be comfortable operating in

this environment. As a start-up the atmosphere is dynamic and ever changing with multiple areas of focus at any one time. If you're interested in getting involved in building a business from the beginning then AEMR will offer you the opportunity to thrive.

If you are interested in understanding more about this role, or would like to apply, then please contact, or send your CV and a covering letter to, [mike.woodcock@advancedelectricmachines.com](mailto:mike.woodcock@advancedelectricmachines.com) and we will get back to you very shortly