The 2012 Autocar-Courland Next Generation Award winner, Roberto Pace, is now more than halfway through his five-month work experience placement programme at some of Britain's key car makers. After spending a month each at Toyota and McLaren Automotive, the 25-year-old engineering graduate from Kingston University moved up to the Midlands to work with Jaguar Land Rover: So how is it going?

**ROBERTO'S VIEW**

'Sometimes work in the auto industry doesn't feel like work'

The venue for Pace's third NextGen work placement is not a Jaguar Land Rover (JLR) car assembly plant, but a university — specifically, the battery testing laboratory at Warwick University's International Automotive Research Centre.

"I've been working in JLR's hybrids department, measuring the effects of temperature on batteries," says Pace, 25-year-old. "But my schedule here has been really busy. I've been in 10 different teams, learning about whole vehicle development. I've had to understand what each team does, and how their business links in with the rest of the company."

JLR uses computer-aided engineering (CAE) to make computer models as an alternative to physical testing for software and component development. That allows more scenarios to be tested in a shorter time.

"CAE engineers need a really broad technical expertise across mechanics, thermodynamics and electronics, so a new starter will be exposed to a different range of technologies without narrowing their technical knowledge."

"There's a really open-minded approach at JLR. Some of the facilities, tools and machines the engineers use here, I didn't even know they existed. They have a 'cave' where computer-aided-design models are visualised in 3D, just like in Iron Man. It's amazing."

Other highlights of Pace's time at JLR? "I tested a hybrid Range Rover on the off-road track and had a passenger ride in a V8 F-type. Sometimes work in the auto industry doesn't really feel like work."

**JAGUAR LAND ROVER'S VIEW**

'We want the best of the best here'

As the company's technical specialist in hybrid modelling and simulation, Pace's JLR mentor, Peter Burchill, is responsible for developing CAE methods for hybrid technology — a timely topic, with JLR's first hybrid due to be released later this year on the Range Rover platform.

"In terms of performance, hybrid is a win-win for our customers, because it's additive," says Burchill. "A V6 plus hybrid gives you V8 performance. The thing that differentiates us on hybrid is our 'no compromise' stance. Our customers demand all-terrain capability, performance, boot space, refinement and so on, and we're not giving up any of that."

"But hybrid is just one of a number of technologies we're looking at. We're continually reappraising what we're doing, which is why we've so devoted to getting fresh blood into the company. It's not just about bringing in new people with fresh ideas. It's also about reinvigorating the people who have been with us for a while. Accommodating people like Roberto brings the best out of our own people."

Burchill's own career began with a degree in mechanical engineering from UMIST in Manchester. He joined Jaguar as an engineer in the era of the S-type, but only after working in medical research at the National Hospital for Neurology in London.

"I think it's important to embrace the idea of different industries having common scientific approaches, or at least learning from other approaches," he says. "Creatively questioning the norm is working for us. The ability to say 'why not?' is what interests us about Roberto. I've asked him to present the braking idea that won him the NextGen award to our engineering management team."

"It's a really exciting time at JLR. You can feel the momentum, the atmosphere of encouragement that's aimed at building not just great cars but a better business. We want placement students like Roberto to really feel that passion."

"We want graduates to think about the great, exciting challenges on offer in automotive engineering — and we want the best of the best here at JLR."

Roberto has been working on JLR battery tech
A LIFETIME

For his latest work experience placement, our Autocar-Courland Next Generation Award winner is at Jaguar Land Rover, where he has been researching future tech.

HOW TO ENTER

This year’s winner will get work experience with each of our partners – Jaguar Land Rover, McLaren, Peugeot, Skoda and Toyota – as well as £7500 in cash. To find out more, visit autocar.co.uk/nextgenerationaward.