

Systems and Landing Gears



MARY F.
Head of Fuel Control and Gauging Department

“Within Fuel Systems, Landing Gear Systems and other general Systems activities here in the UK, there is a huge variety of roles for young engineers. The Systems Centre of Competency at Airbus includes many different aspects of design and development, and is a critical part of any new aircraft program. This is an exciting area in which to work and is very dynamic. We are keen to have new graduates who want interesting technical challenges, as well as wanting to develop leadership skills.

Our new graduates are the lifeblood of future developments, and there are plenty of opportunities, whether it be in the design of new system architectures, working with suppliers to develop new equipment, resolving in-service problems, working on cutting-edge research ideas or working with colleagues in other parts of Airbus to define the best aircraft level solution. Over time, our new graduates have the opportunity to develop their skills and grow both as engineers and team leaders. We encourage our young engineers to develop their full potential, and take on challenging roles.”

Entry requirements

Suitable degrees include an accredited MEng or equivalent in:

Aeronautical Engineering, Aerospace Engineering, Systems Engineering, Mechanical Engineering, Avionics, Electronics, Design Engineering, Computer Systems Engineering, Control Systems Engineering, Software Engineering and Safety & Human Factors.

Alternatively, we accept candidates with a degree in Maths and/or Physics with a relevant MSc. Applicants should demonstrate a keen interest in the aerospace industry and profession.

About Systems

The Fuel Systems domain is a dynamic organisation that is recognised worldwide as a technical leader in commercial fuel systems, with key involvement in all major Airbus aircraft programmes, including A350 and A400M. As part of the team responsible for providing complete fuel systems, from concept through to customer support for all Airbus aircraft, you will be at the forefront of these developments

The UK part of Systems Engineering is made up of the following technical domains:

- Fuel - Key activities include: fuel tank modelling and simulation, fuel measurement, management and interface, ground and flight transfer, jettison, inerting, electromagnetic hazard protection.
- Information Management/Architecture & Integration - Flight management, instruments, communication, navigation, maintenance, information systems, electrical generation and distribution.
- Environmental Control Systems - Air generation, distribution and conditioning, bleed, ice protection and detection, test rigs.

· Systems General - is a transverse organisation for all Airbus programs which is responsible for the deployment of activities into Systems CoC, Landing Gear CoC and supports Wing activities. Key activities include: product and process assurance, requirements based engineering, verification and validation, aircraft level modeling and simulation, safety and reliability, support for layout of integrated systems and configuration management.



Case Study – Mark G.
Fuel Systems Engineer A350 XWB
MEng in Aerospace Engineering, Manchester University (2007)

"I decided to join the Fuel Systems dept as a DEG after completing a summer internship within the Flight Physics department at Airbus.

During my placements I have worked on the development of fuel systems of in-service single aisle aircraft, which is important to ensure our aircraft are always improving and remain competitive; in the MAP office in Toulouse, which supports the A380 final assembly line resolving problems that can occur during aircraft manufacture and, also in research and test on strategic technologies, which are important for our next generation aircraft. I was also lucky enough to be based in San Francisco with one of our customers for one placement and focused on structural repair work of metallics and composites.

I am currently involved in design activities for the new A350XWB aircraft, which is at a very interesting stage of its development. I'm responsible for the fuel measurement system installation, which gives me the opportunity to interact with a wide range of people and departments to ensure we make decisions at system level that will benefit the whole aircraft. "

Landing Gear



Neil S.
Head of Landing Gear Centre of Competence and Engineering
Senior Site Representative

"Landing Gear Engineering has all of the challenges of an aircraft rolled into one, including high strength structures, hydro-mechanical systems, avionics, complex software algorithms, high energy absorbing devices, and mathematical modelling and simulations. Everything, in fact, to

stimulate even the brightest aeronautical engineer!

In the ever-demanding world of Airbus engineering, one of our biggest challenges is working with the, so-called, extended enterprise and ensuring that the engineering solutions that we evolve with our suppliers are robust, high performing and provide the optimum integrated answer for the aircraft. One such critical area is that of Landing Gear Engineering - a real challenge in integrating the largest piece of equipment into an airframe."

About Landing Gear

The Landing Gear community within Airbus is experiencing a time of significant challenges and great opportunity. Our industry continues to expand rapidly with new and innovative products delivered at ever-higher ramp-up and production rates.

Landing Gear presents many technical and business challenges that we must understand and manage. The product is strongly influenced by operational requirements, including

considerations of runway loading, turning circle, braking distances, and the ability to operate from a range of surface conditions. It operates in a very hostile environment at extremes of temperature and humidity, with the added challenges from ground debris. It also contributes significantly to the aircraft primary structure and to systems integrity. Given these challenges, it is not surprising that Landing Gear is a significant factor in aircraft weight, cost and reliability.

Landing Gear Centre of Competence (CoC) is predominantly situated in the UK and is responsible for the architecture, design, aircraft integration, certification and in-service support of all aspects of landing gears and landing gear systems. This includes braking and steering control systems, extension and retraction system, brakes and tyres, wheels, landing gear structural analysis and design for all Airbus aircraft.



Case Study - Preeti K.
Model Developer (Landing Gear Avionic Systems)
MEng in Aerospace Systems Engineering, Queen Mary University of London (2007).

“The Direct Entry Graduate programme has been a great development curve, offering a variety of training and exposure to various aspects of the business resulting in my personal and professional development.

I have had a number of structured 3-6 month placements, including Landing Gear software test platforms development, fuel process assurance, landing gear safety and reliability, flight dynamics simulation in Toulouse and as technical assistant to the head of the landing gear centre of competence. I was also fortunate enough to be able to work in the technical centre of one of our customers based in Singapore. Every placement had new skill sets to offer and involved working with teams of people often transnationally.

I have four months left on the programme and look forward to working with the Landing Gear Simulation and Modelling team to develop models and platforms. The skills I have gained from my placements will provide invaluable understanding of all the factors involved in my role in product (model) development.”