

Research Engineer – Automated Composite Manufacturing Processes

Description

Fantastic challenges. Amazing opportunities.

GKN Aerospace is reimagining air travel: going further, faster and greener! Fuelled by great people whose expertise and creativity sets the standards in our industry, we're inspired by the opportunities to innovate and break boundaries. We're proud to play a part in protecting the world's democracies. And we're committed to putting sustainability at the centre of everything we do, opening up and protecting our planet. With over 16,000 employees across 33 manufacturing sites in 12 countries we serve over 90% of the world's aircraft and engine manufacturers and achieved sales of £3.35 bn.in 2023. There are no limits to where you can take your career.

Hiring organization

Candidate-1st

Employment Type

Full-time

Beginning of employment

asap

Job Location

Bristol, GB

Working Hours

40

Base Salary

euro GBP 93K - 192K *

Date posted

June 9, 2024

Job Summary

Situated within our £32m state of the art Global Technology Centre (GTC) in Filton, Bristol and as a direct result of internal movement and promotion within the existing team, an opportunity has arisen for a Research Engineer with a background in advanced automated composite manufacturing process development to join us in helping shape the future of flight. You will be an integral member of the GTC technology team working on developing advanced composite manufacturing processes for current and future aircraft wing applications.

As a Research Engineer you will draw on your broad general knowledge of engineering and the product lifecycle to work on a variety of research tasks in the TRL3-6 range. You will execute tasks according to plan, exhibiting a logical and methodical approach to problem solving. Your proactive nature will enable you to understand and adapt to new technology areas quickly. Your good communication skills shall enable you to confidently engage with a wide variety of internal stakeholders.

The Programme

ASCEND is a cross-sector composite Technology and Supply-Chain development programme, joining the Aerospace & Automotive supply chains and led by GKN Aerospace, alongside support with a further 15 Partners.

ASCEND is focused on developing composite and adjacent technologies that will

allow the UK aerospace & automotive industries to meet the future high-rate production manufacture needs of the growing civil aircraft & future mobility markets through:

- Automation
- Design for Manufacture
- Skills Development

All whilst sustainably reducing the Cost of Manufacture and Carbon Footprint

This is an exciting time to join the programme which is in its final stages concluding with its launch in March 2025; the outputs to achieve:

- TRL5 – High rate thermoset press forming – Rib structure
- TRL6 – Automated preforming, deposition and RTM – Wingtip

Job Responsibilities

- You will seek to understand the strategic direction of the target products in your project(s).
- You may be responsible for a Work Package budget or small Work Stream budgets.
- You will contribute to multi-year planning and internal/external funding proposals as required.
- You will contribute to Technology Development Plans and Technology Business Cases within your project(s).
- You will ensure all planning documentation that are your responsibility are regularly updated, accurate, and delivery is on track.
- You will support or lead any necessary 'hands on' development test work and development trials that are required to meet your Work Package/Work Stream delivery objectives
- You will be responsible for accurately capturing and recording data and results from test work and development trials.
- You will be responsible for raising and issuing high quality and detailed technical documentation.
- You will suggest and explore exploitation routes, aligned with the guidance of the Work Stream Lead.
- You may support project stakeholder management with internal/external customers, and you may lead management of supply chain partners in some cases.
- You will ensure adherence to EH&S policies and procedures for your activities, and you will contribute to a proactive EH&S culture in the wider team.

Job Qualifications

In order to be successful in this role you will bring the following experience and attributes:

Essential

- Degree-qualified in Engineering (or equivalent i.e. Aerospace/Mechanical/ HND equivalent or Degree Apprenticeship
- Knowledge and/or experience of automated composite material handling and processing including Programming of composite equipment i.e. ply profile, autoclaves etc. Out of Autoclave processing; RTM or Infusion. Handling of aerospace resin systems. AFP/ATL operation and/or programming, Material cutting & kitting, Hand layup of a variety of CF textile material options, Bagging & preparation of composite components for cure and Tool preparation & cleaning.
- You will have a good general awareness of the product lifecycle including design, materials, manufacturing and end of life.
- You will have a general awareness of budget and schedule management.

Desirable:

- Experience of programming of ovens / autoclaves, including thermocouple set-up and monitoring.
- Experience with CAD design tools e.g. Catia V5
- Operation of resin mixing and injection equipment and of ply cutter / preform cutting tools.
- Experience with laser ply projection equipment (set-up and use) and automated composite processing; AFP, ATL, Pick and Place.
- Experience in the post-processing of cured composite structures; machining, hand finishing, drilling etc.
- Knowledge of standard metrology and part verification techniques and previous experience with manual NDT techniques.
- Familiarity with composite component / tooling design and manufacture processes.
- Experience of RTM, resin infusion and traditional prepreg techniques.
- Aerospace background preferred but relevant experience from other industries is welcomed.

What We'll Offer

Once you're on board you'll get the following perks and benefits:

- Competitive [salary](#)
- Industry Leading Pension Scheme = we'll match your contributions up to 8% on a 1 : 1.5 basis
- Life Assurance 8 x salary
- 25 days holiday + bank holidays
- Income protection
- Shopping discounts
- Cycle To Work Scheme

- Employee Assistance Programme
- A collaborative, dynamic working environment

As well as a competitive package we'll offer you a world of opportunity. We want to see your career fly! We'll support your career progression by providing you with learning and development opportunities. That's the beauty of being part of a global business, once you're on board you never know where your career journey may take you!

We'll offer you fantastic challenges and amazing opportunities. This is your chance to be part of an organisation that has proven itself to be at the cutting edge of our industry; and is committed to pushing the boundaries even further. And with some of the best training on offer in the industry, who knows how far you can go?

A Great Place to work needs a Great Way of Working

Everyone is welcome to apply to GKN. We believe that we can only achieve our ambitions through a coming together of diverse minds who enjoy collaborating in an inspirational environment. Through our commitment to diversity, inclusion and belonging and by living our five powerful principles we've created a culture where everyone feels welcome to contribute. It's a culture that won us 'The Best Workplace Culture Award'. By embracing and celebrating what makes us unique we encourage everyone to bring their full self to work.

We're also committed to providing an accessible recruitment process, so if you require reasonable adjustments at any stage during our recruitment process please get in touch and let us know.

We are the place where human dreams, plus human endeavour, shape the future of aerospace innovation and technology.

How the process will look like

Your teammates will gather all requirements within our organization. Then, once priority has been discussed, you will decide as a team on the best solutions and architecture to meet these needs. In continuous increments and continuous communication between the team and stakeholders, you're part of making data play an even more important (and understood) part withing Brand New Day.

Job Benefits

GBP 93K – 192K *