



**Innvotek Limited**

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[www.innvotek.com](http://www.innvotek.com)

Innvotek is a leader in the business of Innovation. We collaborate with organisations to drive business growth, while creating value throughout innovation. Driven by a desire to solve complex challenges, we help develop products that accelerate advances in technology and science. We invest both our technical expertise and funding 'know-how' to fuel the commercialisation of inventions and patent portfolios.

Our mission is to energize and streamline a knowledge based economy that will drive innovation.

**Position: Computational Fluid Dynamics Engineer @ Innvotek Ltd**

**Location:** Solihull, UK

We are currently recruiting an enthusiastic and motivated individual from a Mechanical Engineering or equivalent background, with past experience in computational fluid dynamics modelling and mechanical design, to join Innvotek's multidisciplinary team in the role of Computational Fluid Dynamics Engineer.

You will be working with Innvotek's management and technical team and with project partners, engaging in the design and development of research, technology and innovation projects with the aim of developing turbine-based energy harvesting system to power deployable non-destructive testing robotic systems.

**Main duties and responsibilities:**

- Collect system design requirements and power specifications from project partners
- Develop the geometric model of an energy harvesting turbine system using standard CFD software packages, such as Autodesk CFD or SOLIDWORKS Flow Simulation.
- Optimise model geometry to maximise energy harvesting and minimise system vibrations and drag.
- Test the optimised model geometry and validate the system properties when compared to the product requirements.
- Work with hardware development team to understand system limitations and iteratively adjust the simulated system design accordingly. Validate the analysis and control system both offline, using retrospective data, and online, after system integration.
- Produce CAD models for system manufacturing
- Document product requirement specifications, technical performance profiles, testing mechanism and quality control systems.
- Join project partners brain-storming, integration and system design sessions for system development and validation, and carry out due diligence and techno-economic feasibility of resulting ideas
- Communicate effectively with suitable technical staff, academic partners and industrial clients to gather system requirements and performance targets.
- Contribute towards the preparation, brainstorming and design of new engineering solutions to the required standard and deadlines.
- Complete in a timely and collaborative manner assigned tasks required to fulfil the objectives of the project as stated in the project description.

- Attend regular project meetings and prepare and present full and regular accounts of progress to the client and line managers.
- Actively contribute to the overall activities of the project team
- Work with the Innovation Director, Chief Executive and team colleagues as required, and contribute to a wide range of areas, from different client accounts to internal Innvotek projects.

**Person Specification:**

- Essential: Class 2 honours degree (or higher) in Mechanical Engineering, Physics or related subject
- Desirable: Postgraduate degree (PhD, or equivalent), or equivalent industrial experience, in computational fluid dynamics and mechanical system design.
- Specialised in at least two of the following areas:
  - Flow/pressure distribution analysis using CFD
  - Turbine design and optimisation
  - Energy harvesting systems
  - CAD mechanical simulations
- High level of proficiency in CFD software.
- Ability to work effectively within a collaborative systems development environment and with a multidisciplinary team of engineers
- Excellent written and spoken communication skills in English.
- Strong problem-solving abilities
- Knowledge of product development lifecycles, prototyping and testing
- Practical experience in CFD-based turbine geometry optimisation.
- Practical experience in CFD-based optimisation of system drag/vibration profiles.
- Demonstrable experience in prototype and product development, preferably within a team.

**What we look for:**

We are looking for people who are smart, curious and pro-active. We value each individual and want you to be the best version of your professional self: continuously improving on your role and always thinking *synergy* (how the pieces of the puzzle fit together and what you can do about it).

**What we offer:**

We are a highly dynamic and international team and we offer a competitive salary based on experience, a level of flexibility which allows you to manage your own time and work spot, and both an open environment and informal culture.

To apply please send your CV highlighting “Signal and Image Processing Engineer” in the subject line to [recruitment@innvotek.com](mailto:recruitment@innvotek.com)

Please include your notice period or availability to start, current location and anything else you would like us to know about you.