

# Job Description – Algorithm Developer

22<sup>nd</sup> January 2019

## Reports to

Head of R & D

## Location

Newbury

## The Role

PassivSystems is one of the UK's leading cleantech companies, based in Newbury, focused on delivering innovative software solutions within the heating and renewable energy sector.

We are looking for an exceptional algorithm developer to join our small, highly motivated software team producing world-leading solutions for low carbon technologies. Our products optimise the operation of heating systems such as heat pumps and district heating across many properties simultaneously, improving their efficiency, enabling renewable energy to be capitalised when it is available, and making energy grids stable and affordable.

The role will involve developing the core of our new generation of smart home software, as well as data analysis, modelling and simulation, covering a wide variety of applications. There will be involvement in the whole R&D life-cycle, from early stage research projects in collaboration with universities and other organisations, all the way through to developing software that is deployed in final commercial solutions.

The applicant is expected to have very strong mathematical skills, good programming experience, and come from an academic background in maths, physics or engineering.

## Key Responsibilities

- Developing and extending PassivSystems' smart home control algorithms, using rigorous software engineering principles to maintain the reliability of complex mathematical software solutions
- Modelling and simulation of low-carbon technologies, including both economic and physical aspects
- Specifying and running field trials, and analysing monitoring data to produce informative results
- Delivering intelligence from analysis of datasets, and automating manual processes

## Candidate Profile

The right candidate will be a highly-motivated self-starter with a passion for energy-saving clean technology, who has a proven track record in delivering high quality solutions to problems.

## Essential Skills and Experience

- Excellent undergraduate degree in physics, mathematics, engineering, or a related discipline
- Strong mathematical skills, and fluency with applying them to solve problems
- Experience of computer programming, with a rigorous engineering attitude and a commitment to quality
- High level of expertise in MATLAB

## Desirable Skills and Experience

- A postgraduate qualification in a relevant discipline
- Experience in the following areas: modelling and simulation, control systems, heating technologies/building physics, electricity grid/markets, electric vehicles, data visualisation, techno-economic analysis, machine learning
- Familiarity with C/C++