JOB REF: 029276

CLOSING DATE: 06 September 2020

Additive Manufacturing Materials Scientist (KTP Associate)
For a Knowledge Transfer Partnership between the:
UNIVERSITY of HERTFORDSHIRE and C4 CARBIDES

SCHOOL: School of Physics, Engineering and Computer Science
LOCATION: University of Hertfordshire, Hatfield, and C4 Carbides, Newmarket

RESPONSIBLE TO: Academic Supervisor – School of Physics, Engineering and Computer Science
CONTRACT: Fixed term for 28 months

SPOT SALARY: £31,000 – £33,000pa

OVERALL PURPOSE OF THE ROLE:
Create a new carbide composition for metal additive manufacturing processes and technologies for linear-edge saw blades.

BACKGROUND:
C4 Carbides is a UK manufacturer of power tool accessories and industrial band saw blades. They recently moved into a state-of-the-art factory at Newmarket and currently employ 50 staff. C4 is at the forefront of brazing technology and offers an extensive portfolio of innovative diamond and tungsten carbide power tool accessories including hole saws, jigsaw blades, reciprocating saw blades and industrial band saw blades. In collaboration with the University of Hertfordshire, C4 have developed additive manufacturing processes for the production of power tools. The KTP project aims to develop new carbide compositions for additive manufacturing of linear-edge saw blades.

SUMMARY OF ASSOCIATE ACTIVITIES AND MAIN OBJECTIVES:
The KTP Associate will be responsible for delivering the KTP work plan, described below:

Stage 1: Familiarisation with the company structure, project aims and objectives and the product.

Stage 2: Problem evaluation; evaluate the current process and the product and identify improvements.

Stage 3: Solution development; develop a working powder composition and process parameters for in-situ laser metal deposition (LMD) and powder bed fusion. Formulate and improve powders for tooling applications.

Stage 4: Implementing and embedding the solution; develop standard operating procedures (SOPs) and embed into the company procedures for repeatable, robust processes.

REPORTING AND MANAGEMENT:
The Associate will be employed by the University of Hertfordshire on a 28-month contract but will carry out duties at the University of Hertfordshire at Hatfield and at C4 Carbides Ltd at Newmarket, depending on which aspect of the project is being worked on at the time.

The Associate will be managed by a University Academic Supervisor, a Company Supervisor at C4 Carbides will provide direction of commercial activities and some day-to-day duties. Project meetings will be held on a monthly basis and chaired by the Associate, where both the Academic Supervisor (Line Manager) and the Company Supervisor will attend. High-level programme review ‘Local Management Committee’ (LMC) meetings will be held every 4 months where the Associate will provide a formal presentation on progress. Further expert supervision will be provided by the School of Physics, Engineering and Computer Science as required.
**Hours of work at C4 Carbides:**
Mon-Thu: 8:00 – 16:30
Fri: 8:30 – 14:30
Lunch break 30 min
Total hours per week: 37.5

**Holiday:** 25 days per year from 1 Jan till 31 Dec (this will be pro rata in the first year according to start date). This includes a compulsory Christmas shutdown period (3-5 days).

The Associate will be allocated 10% of their time supported by a £5,000 budget for the purpose of technical, professional and personal development.

**Informal Contact Details:** Helen Podmore, Tel: 01707 286406, email: ktp@herts.ac.uk

This Document outlines the main duties required for the post entitled Additive Manufacturing Materials Scientist (KTP Associate) to indicate the level of responsibility. It is not intended to be a comprehensive or inclusive list and duties may vary, though they will not change the character of the job or the level of responsibility entailed.

**ADDITIONAL INFORMATION**

Closing Date: 06 September 2020
Interview date: To be advised; interviews will be conducted remotely
Quote reference: 029276