1 Advertisement

Post Title: Research Technician
School/department: Mathematical and Physical Sciences / MPS
Hours: Full time or part time hours considered up to a maximum of 36.5 hours per week
Requests for flexible working options will be considered (subject to business need).
Contract: fixed term for 3 years
Reference: 6456
Salary: starting at £30,046 to £33,797 per annum, pro rata if part time
Placed on: 3 August 2021
Closing date: 23 August 2021. Applications must be received by midnight of the closing date.
Expected start date: September 2021 or as soon as possible.

Applications are invited for a Research Technician to join the Materials Physics group led by Prof. Alan Dalton. The role is part of a major industrially-funded project which aims to develop liquid-processed 2D materials for a range of real-world applications.

The candidate will support a portfolio of projects based on processing of nanomaterials into inks, printed structures and composites for functional coatings and devices, through operation and maintenance of production and characterisation equipment.

In addition, the candidate will contribute to the wider research environment of the group, supporting laboratory management through purchasing, waste disposal, health & safety assessments, lab inductions, equipment training and assisting with experiments.

Please contact Prof. Alan Dalton (a.b.dalton@sussex.ac.uk) for informal enquiries.

The University is committed to equality and valuing diversity, and applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex.

Please note that this position may be subject to ATAS clearance if you require visa sponsorship.

For full details and how to apply see our vacancies page

The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds.

2. The School / Division

Please find further information regarding the school/division at http://www.sussex.ac.uk/mps/
3. Job Description

Job Description for the post of: Research Technician

Department: Physics & Astronomy
Section/Unit/School: Mathematical & Physical Sciences
Location: Brighton, UK
Grade: 6
Responsible to: Prof. Alan Dalton

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Key Responsibilities:

General technical duties:

1. Provide technical assistance and advice to staff and students on the preparation of resources, materials, setting-up of specialist equipment, instruments and use of specialised techniques for recognised researchers and research groups within the institution.
2. Carry out experiments as needed for timely advancement of research projects. Prepare, collate and interpret results. Liaise with supervisor or Principle Investigator on regular basis to discuss results and project progression/direction.
3. Ensure the implementation of a safe working environment using good working practices, in line with relevant local and legal requirements. Undertaking standard risk, or other safety, assessments, and producing standard operating procedures when necessary, under the supervision of the Principle Investigator or supervisor.
4. Decide when to order non-routine apparatus and materials, to maintain adequate stock levels, within agreed local budgets. Carry out budgeting exercises and cost control measures under the supervision of, and within the limits, the Principle Investigator or supervisor.
5. Planning and organisation of resources for the running of research / general laboratories. Responsible for ensuring that the tidiness and the provision of the laboratory/laboratories are maintained at all times.
6. Use initiative and standard procedures to develop, design, modify, construct and set up of apparatus and/or research experiments to meet the needs of the lab.
7. Ensure that all project equipment is functional at all times. Carrying out regular, first line maintenance tasks, investigating and identifying faults and then carrying out minor repairs. Ensuring all records are maintained.

8. Prepare and maintain adequate laboratory records of methods, sample details and results in a timely fashion within specific research project(s).

9. Attend laboratory meetings and communicate with other departmental or University staff on laboratory issues.

10. Instruct, train and guide technical staff and students in techniques and operation of particular equipment / apparatus as directed by a supervisor or member of academic staff.

11. Participate in specialist networks and undertake development activities where necessary in order to keep knowledge and skills up to date and relevant for subject specialism. Apply working knowledge of theory and practice, sharing this knowledge with others as appropriate.

12. Supervision of other technical staff may be required within own area of responsibility as directed by a supervisor or member of academic staff.

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or the level of responsibility entailed.

Role-specific duties

1. Operation and maintenance of equipment for production of nanomaterials, specifically liquid-phase exfoliation by high-pressure homogenisation and size selection by centrifugation. Production of nanomaterials dispersions to support research projects and process engineering experiments to optimise materials for research and development. Disassembly, cleaning and reassembly of high-pressure homogenisation equipment to allow changeover between different materials as required by research projects.

2. Operation of processing, deposition and characterisation equipment to support research staff and student projects aligned with industrially-funded research objectives. This may include shear-based ink preparation and formulation, printing of test and prototype structures and quality-control characterisation using microscopic, spectroscopic, electrical, mechanical or thermal techniques.

3. Supporting laboratory management by existing research staff including purchasing, waste disposal, health & safety assessments, lab inductions, equipment training and assisting with experiments.

4. Person Specification

ESSENTIAL CRITERIA

1. Experience in technical support of experimental research activities.

2. Strong working knowledge of experimental research laboratory practices including health & safety considerations, inductions, training and standard
operating procedures for equipment, and design of experimental setups.

3. Excellent communication skills to liaise with research staff in large project to ensure efficient collaboration on materials processing, characterisation and iteration.

4. Excellent organisation skills to effectively plan and deliver materials production or characterisation outcomes within frequent reporting windows to continuous technical support for research and development outcomes.

5. Excellent IT skills.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. Experience in research activities employing liquid or chemical processing of materials.

2. Experience in operation and maintenance of equipment for chemical and/or materials processing, including high-pressure, vacuum or gas-controlled systems.

3. Experience in characterisation of materials or chemicals.

DESIRABLE ROLE-SPECIFIC CRITERIA

1. Experience in nanomaterials processing and characterisation, including deposition or printing of functional materials.

2. Experience in process engineering and prototype production for pilot-scale materials development.

3. Experience in experimental setup and functional materials characterisation and data analysis to support research and development activities.