

## Job Description

Staffordshire University Services Ltd

### General Details

Job title:	Post-Doctoral Research Fellow (PDRF) in OPV Technology (DTA20-01)
School/Service:	School of Digital, Technologies and Arts
Normal Workbase:	Stoke Campus
Tenure:	Fixed Term for 2 years
Hours/FTE:	Full Time, working 37 hours per week / 1.0fte
Grade/Salary:	Grade 6
Date Prepared:	May 2020

### Job Purpose

- The main focus of this project is to design and fabricate large scale flexible polymeric solar cell with consideration for lifecycle economics.
- This project is funded by Newton institutional link with Alexandria University in Egypt. Therefore, collaboration with Alexandria University in Egypt and collaborative industrial partners in Egypt and UK must be maintained and nurtured for future development for other similar projects.
- The post holder will be responsible for design and fabrication of large scale polymeric solar cell with power conversion efficiencies in excess of 15%. The Work packages are designed synchronised to correspond with partners WP to expedite and ensure the completion of the project within the time scale given.

### Relationships

Reporting to:	Professor
Responsible for:	None

### Main Activities

- A critical review of the Organic/Polymeric material for photovoltaic applications.
- A critical review of the Chemical solvent for preparation of solution processed material.
- Fabrication and characterisation of laboratory scale OPV devices.
- Electrical/Optical/structural characterisation of thin film devices for post/pre-fabrication process.
- A critical review of the current technology for medium and large scale OPV devices.
- Redesigning the Roll to Roll fabrication technics to include pre/post fabrication process. This is to

enhance device power conversion efficiency.

- Fabrication and characterisation of medium/large scale OPV devices.
- Critical review of the medium and large-scale device encapsulation and analysis of lifecycle economics.
- Collaboration with Egyptian partners ensuring project is progressing in accordance to the allocated time.
- Providing monthly report to investigating team.
- Travelling to the partner country Egypt if and when required.
- Attending the meetings with stakeholders to evaluate the progress and success of the programme.
- To disseminate results through presentation at International conferences and publish in high impact factor international journals.
- The role holder is required to minimise environmental impact in the performance of their role and to actively contribute to the delivery of the University's Environmental Sustainability Policy
- To undertake other such responsibilities as may reasonably be required.

### Special Conditions

The role holder will be required to travel to the partners' places from time to time to attend technical and review meetings or for collaborate works about the project in a cost-effective manner.

### Variation to Job Description

The employer reserves the right to vary the duties and responsibilities of its employees within the general conditions of the Scheme of pay and conditions and employment related matters. Thus it must be appreciated that the duties and responsibilities outlined above may be altered as the changing needs of the service may require.

### Conditions of Service

If you are successful in being appointed to a professional support role at Grades 1-6, you will be employed by Staffordshire University Services Limited (SUS Ltd).

Staffordshire University Services Limited (SUS Ltd) is a wholly owned subsidiary company of Staffordshire University which provides professional support staff to undertake various roles and responsibilities associated with grades 1 to 6 on the Staffordshire University pay scale. You'll work alongside, and under the direction of colleagues, within the University's Schools and Services in the delivery of our University Plan and supporting KPIs. You will be subject to Staffordshire University's policies and procedures and will be eligible to participate in the Staffordshire University Services Limited (SUS Ltd) Pension Scheme

### Informal Discussion

Should you wish to discuss this vacancy informally before making an application please contact:

Professor Torfeh Sadat-Shafai by email to [t.sadat-shafai@staffs.ac.uk](mailto:t.sadat-shafai@staffs.ac.uk) or phone +44 (0) 1785 35 3475.

## Application Procedure

We encourage you to apply on-line at our website <http://jobs.staffs.ac.uk> as the system is user friendly and simple to complete.

We would ask all applicants to ensure that they have provided comprehensive information under each criteria in the Supporting Statements section of the application form and, if necessary, add any relevant additional information in the Additional Information Section.