**Job Title:** Research Associate in Satellite Radar Remote Sensing

**Present Grade:** 6P

**Department/College:** LEC

**Directly responsible to:** Malcolm McMillan and Amber Leeson

**Supervisory responsibility for:** Some supervision of postgraduate students

**Other contacts**

**Internal:**
Academic and teaching staff, post-doctoral researchers and postgraduate students within LEC, CEEDS and DSI; university central administration.

**External:**
UK Centre for Polar Observation & Modelling (CPOM) staff, Centre for Ecology and Hydrology (CEH) staff, ESA technical staff.

**Major Duties:**

This position will focus on 2 principal tasks, (1) developing and analysing radar altimetry timeseries of ice sheet change, and (2) analysing Synthetic Aperture Radar (SAR) imagery to study ice sheet hydrology. The successful candidate will work as a radar expert within the UK Centre for Polar Observation & Modelling, and more broadly as part of an international team on several European Space Agency (ESA) projects. Specific duties will include:

1. To develop and implement new dedicated ice sheet altimetry processing algorithms, including software design and implementation within the CPOM system.

2. To undertake scientific analysis of the new datasets, and to publish the results in leading international journals.

3. To work with CPOM colleagues, both in Lancaster and nationally, to develop and implement methodological advances in satellite altimetry.

4. To analyse measurements from new satellite altimeter missions, including Sentinel-3 and ICESat-2.

5. To develop and test methods that utilise Synthetic Aperture Radar imagery to map ice sheet surface hydrology.

6. To generate and pursue independent research objectives, including contributing to proposals as appropriate.

7. To present at national and international conferences.

8. To write documentation and take responsibility for project deliverables.

9. To supervise less experienced colleagues and postgraduate students as appropriate.