**JOB DESCRIPTION**

Vacancy Ref: A3459

<table>
<thead>
<tr>
<th><strong>Job Title:</strong></th>
<th>KTP Associate – Project Development Scientist</th>
<th><strong>Present Grade:</strong></th>
<th>off-scale</th>
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<tbody>
<tr>
<td><strong>Department/College:</strong></td>
<td>Departments of Chemistry and Engineering</td>
<td><strong>Directly responsible to:</strong></td>
<td>Professor Joe Sweeney</td>
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<td><strong>Supervisory responsibility for:</strong></td>
<td>Undergraduate and postgraduate placement students</td>
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**Other contacts**

**Internal:**
*Lancaster University:* Staff and postgraduate students of the Chemistry and Engineering Departments, Research & Enterprise Services staff concerning KTP and relations between the University and ICT Reverse Ltd.

*ICT Reverse Ltd:* all staff and senior management team

**External:**
*ICT Reverse Ltd:* Key stakeholders, Innovate UK KTP Adviser

**Major Duties:**
The Associate for the Knowledge Transfer Partnership will drive and lead a project which aims to design and implement a sustainable and cost-effective "proof of concept" of pilot scale size bioleaching process for precious metal extraction from e-wastes.

You will work closely with and be supported by academics from the Departments of Chemistry and Engineering and the staff at ICT Reverse Ltd.

**Key Responsibilities**
Under the supervision of academics from the Departments of Chemistry and Engineering and the senior management team at ICT Reverse, the Associate will:

- Following familiarisation with the company and project scope, produce a detailed project strategy and action plan report.
- Complete technical reports, including a literature review, market and business opportunities report and feasibility study report
- Develop practical knowledge on operating the bioleaching process at laboratory scale
- Preform laboratory analysis using tools such as scanning electronic microscope (SEM), inductively coupled plasma (ICP), atomic absorption spectroscopy (AAS)
- Design and scaleup staggered bioreactor (20 L), including drawing and sizing and part orderings
- Build the staggered bioreactor, including the skirt and the piping & instrumentations (P&IDs)
- Scaleup the staggered bioreactor, including troubleshooting, health and safety, validation and testing, enabling the proof-of-concept to process semi-industrial scale volumes
- Produce technical reports on operations, HAZOP, Health & safety protocol, and regulations and policies compliance report on e-wastes
- Work with ICT staff for the creation of ‘Proof of Concept’ Demonstration Centre
- Carry out troubleshooting test and will ascertain that the design and operations of the bioleaching prototype are safe and meet the regulations.
- Present reports on the market, service and future development opportunities, intellectual property proposal and new business model for ICT Reverse
- Disseminate the key scientific and technical outcomes will be facilitated via attendance at a conference and the publication of papers in peer-reviewed journals.
• Manage the KTP project including maintenance of project plans, and organisation of project-related meetings.
• Actively manage a personal development plan and commit to any training required for the project.
• Become the company lead on university liaison for undergraduate and possibly postgraduate students.
• Liaise between ICT Reverse and the academic team.
• Occasionally at the request of supervisors, perform other duties which are not included above, but which will be consistent with the role.