

Senior Scientist 2 – Device Technology

Role Purpose:

To provide technical expertise, capability, and input in order to contribute to the delivery of projects, acting as technical lead in medium / large scale projects, and projects of increasing complexity in line with Device Technology team and HealthTech business unit requirements. Draws upon a broad range of technical know-how to provide carefully thought-through advice and expertise to a range of stakeholders across the organisation. The Senior (2) is viewed as an authority in their area of discipline, offering innovative solutions at business-unit level, contributing extensively to development and improvement activities.

Key Responsibilities:

- To maintain consistent and documented compliance with all relevant Safety, Health and Environmental (SHE), quality and best practice requirements.
- To identify new technical developments and trends, translate these into building blocks for opportunities within the business unit, initiating the creation of (new) technological innovations/applications.
- To utilise own expert knowledge to assist in translating business unit strategy into practice through the delivery of plans to achieve business unit objectives.
- To build, maintain and exploit a network of relevant external stakeholders, customers, partners, research organisations and authorities, to represent the business unit and self as a credible expert, identifying opportunity for future projects and developments.
- To actively contribute to a culture of continuous capability development through coaching, mentoring and/or developing colleagues across the business unit and organisation, providing insights into areas of specialism. This may include coaching and developing colleagues (both technically and behaviourally) to help them reach their potential and acting as a mentor to colleagues across the organisation, providing an expert-level perspective.
- To keep self up to date with external developments in areas of specialism, and/or legislative and SHE related changes, ensuring application of new best practice and/or knowledge
- To work collaboratively with Business Development, Bid Proposal and technical colleagues to contribute to proposal / project development and direct customer engagement. Seek out and engage in business development opportunities where appropriate.
- To formulate and present possible solutions, providing advice upon request or at own initiative, building an internal reputation as a reliable and credible authority.
- To actively engage in hazard studies / SRA studies and discussions, as appropriate to role level.
- To set up, plan and execute experimental / pilot scale runs and analyse, interpret and report the results of these, translating obtained findings and knowledge.
- To be responsible for providing clearly documented records of technical data, decisions, methodologies, calculations, and software use in an agreed format.
- To take ownership in agreeing weekly workplans with line manager, project manager(s) and other relevant stakeholders, and delivering plan to agreed schedule.

Responsibilities specific to role:

- To conduct state of the art research, develop new processes, fabricate sensor devices for a

Senior Scientist 2 – Device Technology

variety of biological applications using functional coating techniques, perform materials characterisation and electrochemical device testing and validation.

- To design sensor architecture, materials selection, sensor design (could include modelling, substrate selection), sensor layout. The role covers all different types of sensors used for wearables including physical parameters such as strain or pressure, bio-physical such as heart rate, blood pressure, blood oxygen and the like and also bio-medical sensors such as glucose, lactate etc.

Direct reports: No direct reports

Person specification

Education / Qualifications:

Essential:	Desirable:
<p>Educated to degree level (or equivalent) in Engineering or relevant scientific discipline with considerable industrial experience in a related field.</p> <p>Or</p> <p>Educated to PhD level (or equivalent) in a Scientific/Engineering discipline plus some industrial experience.</p>	<p>Educated to postgraduate level in Engineering or Physics (or equivalent).</p>

Competencies and behaviours	
<p>Leadership (Influencing)</p> <ul style="list-style-type: none"> • Promotes commitment to CPI's strategy, vision, values, and direction. • Motivates, inspires, and build resilience in others by making the vision shareable by everyone. • Rewards and celebrates success with colleagues and teams. • Future proofs work practices. • Trusts others' judgment and demonstrates a willingness to try new things, even at the risk of failure. 	<p>Decision Making (Influencing)</p> <ul style="list-style-type: none"> • Confidently draws reliable conclusions from diverse and sometimes incomplete data. • Proactively sources and refers to how others have tackled similar problems previously. • Considers risks, and consequences, and takes accountability for, the impact the decision has on the business including costs/ benefits.
<p>Communication (Influencing)</p> <ul style="list-style-type: none"> • Employs comfortably a wide range of communication styles and approaches to suit different situations and audiences 	<p>Developing self and others (Enabling)</p> <ul style="list-style-type: none"> • Supports others in their development. • Is personally committed to, and actively seeks, opportunities to improve continuously.

Senior Scientist 2 – Device Technology

<p>(external and internal stakeholders) in diverse situations.</p> <ul style="list-style-type: none"> Builds effective two-way communication channels within the business area and across departments whilst maintaining credibility and securing commitment. 	<ul style="list-style-type: none"> Provides honest helpful feedback to others on their performance. Insightful about self, strengths, and limitations, and how to maximise contribution.
<p>Collaboration (Guiding)</p> <ul style="list-style-type: none"> Displays a collaborative style in day-to-day working whilst motivating others to achieve optimal performance and results. Develops relationships which facilitate the resolution of complex tasks and can apply different techniques to effectively mitigate any conflict. Can negotiate skilfully in tough situations with all stakeholders. 	<p>Delivery (Influencing)</p> <ul style="list-style-type: none"> Prepares and maintain schedules for activities and events for projects. Delegates responsibilities for tasks and decisions to the appropriate staff; sets SMART objectives and monitors progress. Researches capabilities and constraints, in advance of a project, which could affect its approach and outcomes. Holds people accountable for achieving results.

Knowledge and Experience:

Essential:	Desirable:
<p>Has a good knowledge, experience and understanding of the principals and practice of sensor system design, materials selection, sensor functional design, sensor fabrication (by techniques such as printing or thin film deposition and patterning) and sensor test and validation.</p> <p>Knowledge or experience of Bio-sensor fabrication.</p> <p>Knowledge or experience of printing methods for sensor fabrication.</p> <p>Will possess significant technical expertise in device technology as well as compelling evidence of complex technical problem solving.</p> <p>Will exhibit professional mastery of principles and practices in device technology</p>	<p>Electronics device operation and fabrication.</p> <p>Medical device ISO standards including ISO9001, ISO13485, ISO 14971 and IEC 60601-1.</p> <p>The development of sensors relevant to HealthTech applications e.g., glucose, blood oxygen, ECG, EEG, strain, pressure or similar.</p>

Senior Scientist 2 – Device Technology

gained through career to date in area of expertise.

Can demonstrate evidence of building knowledge sharing and network building practice across teams and organisations to achieve desired results.

Actively demonstrates in-depth technical and theoretical knowledge in device technology and can participate at high level in more than one area. Is viewed as an authority in at least one area by peers and managers.

Is able to take responsibility for diverse or complex technical activities where it is necessary to use own initiative and judgement, implementing innovative solutions in complex situations.