

Quantiam Technologies Inc. operates in “TOUGH TECH” solving some of the world’s greatest materials-related challenges. It undertakes Research and Commercialization of disruptive new products in the fields of Advanced Materials, Advanced Manufacturing, Coatings, Surfaces and Catalysis serving the Petrochemical-Chemical, Energy and CleanTech sectors. **We are looking for a motivated, hard-working and energetic Mechanical Engineer with a great attitude and a strong work ethic to join our team.**

Position Title: **Research Professional I, R&D**
(Jr. Mechanical Engineer in our Research & Technology group)

Competition# 7000-20

Compensation Range: **\$60,000 – \$70,000/year** (*depending on position and experience*); with a 0-to-24% Performance Bonus; 40-hour work week; highly comprehensive competitive Benefits package; Group RRSP with matching Deferred Profit-Sharing Plan (DPSP)

Experience: 1 – 3 years of direct hands-on industrial experience.

Closing Deadline: Until filled

Education: University Bachelor Degree in **Mechanical Engineering**.

Brief Job Description:

Responsibilities (with training) include assisting in the following:

- Assist with all aspects of machine design including mechanical design, engineering simulation, prototyping, and manufacturing.
- Assist with the development of PLC-based control systems for automation of industrial manufacturing equipment and microcontroller-based control systems for prototype laboratory equipment.
- Develop measurement and automation hardware paired with data acquisition and processing software.
- Support and optimize additive manufacturing processes and materials (3D printing).
- Assist in the development and characterization of novel advanced materials, surfaces, coatings and catalysts aimed at exploiting the properties of the micro and nano structured materials, for use under extreme operating conditions such as high temperatures.
- Collect and record experimental data.
- Metallographic preparation of materials, coatings and surfaces for optical microscopy and electron microscopy.
- Develop proficiency with Electron Microscopy (inclusive of Field Emission) and Energy Dispersive Spectroscopy (SEM/EDS), X-ray Diffraction (XRD) and other advanced materials characterization analytical tools.
- Operation of vacuum-based high-temperature furnaces for materials processing and performance testing.
- Operation of a range of ASTM standardised tribological instrumentation and mechanical testing.
- Operation of a broad-based vacuum and heat treatment equipment for processing of materials.
- Safe handling and storage of materials, some repetitive tasks. Reading and understanding Safety Data Sheets.

Experience/Specific Skills/Background Required:

- High level of proficiency and excellent mechanical aptitude to operate complex research equipment and demonstrated technical knowledge and ability to work with materials, chemicals and instrumentation.
- Must have strong analytical, reporting and problem-solving skills.
- Experience with CAD Software such as SolidWorks/Fusion 360 design and simulation of mechanical components and creation of engineering drawings for manufacturing would be a definite asset.
- Experience with industrial control systems and programming including PLC ladder logic and ability to use test, measurement and control software (LabView and Matlab).
- Adhere to the highest standards of quality, reliability and safety. Proper use of protective personal equipment, chemical safety and laboratory skills appropriate for an electron microscopy with sample preparation facilities.
- Well-developed interpersonal skills to collaborate with co-workers and must have strong understanding of and adherence to written and verbal instructions concerning general procedures.
- Self-starter, highly motivated and able to work efficiently and independently as well as in a team environment.
- Strong attention to detail and a flexible approach to work responsibilities.
- Fluent in English. Experience with writing Standard Operating procedures (SOPs) would be an asset.
- Must have a positive ‘**can-do**’ attitude.
- Able to prioritize, accommodate multiple tasks, changing priorities and advance projects under accelerated timetables.
- Strong work ethic with demonstrated accountability and reliable punctuality and work attendance.

The position will involve a **minimum 1-year training period** supporting the Research & Technology and Trial Manufacturing groups.

We thank all applicants in advance for their interest; however only those individuals selected for an interview will be contacted.

Please forward your resume and cover letter in one word or PDF document including competition number to careers@quantiam.com