

CMC Microsystems is seeking a **Photonics Support Engineer**

April to December 2017

(nine month contract with potential for renewal)

Are you an innovative and enthusiastic individual with a passion for technology? CMC is currently looking for a Photonics Support Engineer who possesses a solid understanding of optoelectronic and photonic component technologies. Reporting to the Staff Scientist, Optoelectronics Engineering, this position is responsible for supporting CMC's photonics design environment, as well as support to university clients who want to design, prototype and test novel photonic/optoelectronic devices and circuits. Located in Kingston Ontario, the Photonics Support Engineer will work closely with clients to understand their research needs and help them to translate these into a solution (specification, design, prototype fabrication, packaging and testing) that satisfies those needs while also making effective use of available resources. **Submit cover letter and résumé via email by March 1, 2017 to:** Sue Publicover, HR Coordinator publicover@cmc.ca

General Requirements

- Improve & update existing design kits for photonics microfabrication technologies.
- Develop design kits for new photonics microfabrication technologies and related integration & packaging services.
- Write supporting documentation such as user guides and application notes.
- Develop appropriate training materials for use by university clients.
- Organize training sessions for university clients.
- Answer support questions from clients who use CAD tools and design kits from CMC.
- Specify and purchase new CAD tools.
- Work with clients to establish design specifications that take into account foundry capabilities and cost-performance trade-offs.
- Help clients to develop effective strategies for testing their prototypes.
- Collect and evaluate test data from clients.
- Manage the flow of university designs into foundry-like services.
- Project scheduling and tracking.
- Design data qualification and submission.
- Evaluate fabrication data for CMC sign-off.
- Communicate client test results to foundry when appropriate.
- Manage paperwork required for financial approvals, project tracking and invoicing.
- Occasional travel to attend conferences, meet clients and/or make presentations about CMC and CMC services.
- Engage clients and prospective clients. Gather and assess intelligence about future technology directions.

Technical Skill Requirements

Strong technical skills, with expertise in several of the following areas:

- Photonic device and circuit design and modeling, including the use of simulation software (e.g., BPM, FDTD, laser simulation), and mask design, layout & verification
- Familiarity with photonic and/or microelectronic circuit design automation tools
- Photonic device & IC fabrication
- Photonic device & IC characterization
- Packaging and hybrid integration of photonics, optoelectronics and microelectronic devices and ICs.
- Compound semiconductor processing and process diagnostics
- Silicon-based process engineering
- Writing of software and related documentation
- Knowledge of Unix or Linux operating systems
- Programming skills in C, Matlab and Labview

Educational Requirements

- Background in physics, engineering physics, electrical engineering, materials science or equivalent (Ph.D. preferred), with emphasis on optoelectronic or photonic devices or circuits.
- At least 3 years of related work experience in a R&D or manufacturing environment.

Additional Skill Requirements

- Excellent communication and presentation skills (both verbal and written).
- Enthusiasm to work directly with clients.
- Excellent interpersonal skills.
- Ability to work with minimal supervision and manage multiple priorities.

With a 30 year history, CMC Microsystems enables and supports the creation and application of micro- and nano-systems knowledge and manufacturing capability by providing a national infrastructure for excellence in research through Canada's National Design Network and establishing and verifying a path to commercialization of related processes devices, components and systems. We build partnerships among government, industry and post-secondary institutions and to accelerate Canadian competitiveness through microsystems.

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