## CMC collaborates with Synopsys to bring leading ASIP Designer tool to Canadian universities

Aug. 13, 2018

Synopsys' ASIP Designer, the leading toolset for accelerating the design of specialized processors found in most modern Systems on Chip (SoCs), is now available to academic researchers in Canada, thanks to a collaboration between CMC Microsystems and Synopsys, a global leader in silicon-to-software solutions.

The [Synopsys ASIP Designer](#) tool enables the design of application-specific instruction-set processors (ASIPs), crucial hardware for meeting the vastly greater performance and energy-efficiency demands of emerging technologies such as artificial intelligence (AI) and machine learning. Tailoring processors to the performance demands of targeted workloads can provide a durable competitive advantage.

One of the key innovations of ASIP Designer is its ability to generate both the hardware (in synthesizable RTL) and a complete software development toolkit (SDK) based on a single description of the ASIP. The SDK even includes a C-compiler that enables software developers to easily tap into the unique features of the specialized processor architecture.

"Providing Synopsys' ASIP Designer tool to Canada's top academic researchers will enable them to create unique processor architectures that require a high degree of parallelism and specialized datapath elements," said John Koeter, Vice President of Marketing for IP at Synopsys. "We look forward to seeing the results of our collaboration with CMC as these solutions will enable the next-generation of custom processors and hardware accelerators for emerging applications such as deep learning and AI."

"The emergence of AI and machine learning demands customized processors and accelerators that are optimized for specific applications, and many of our researchers are doing leading-edge work in this area," says Gord Harling, President & CEO of CMC Microsystems. "The ASIP Designer suite of tools streamlines the process of creating the complex designs that lead to inspired hardware. We are excited to be partnering with Synopsys in offering this new capability to our network of innovators."

To mark the launch of the ASIP Designer toolset in Canada, CMC will host a training course for academic researchers Aug. 22-24 at Polytechnique Montréal. The session will include a half-day workshop to allow attendees to share their experiences, research ideas and plans, and to address challenges on processor designs.

More information on the course is available on the CMC website ([www.cmc.ca](http://www.cmc.ca)). Inquiries about industrial participation can be directed to Hugh Pollitt-Smith, Senior Engineer, Systems Design, [hugh@cmc.ca](mailto:hugh@cmc.ca)

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**About CMC Microsystems and Canada's National Design Network:**

CMC Microsystems works with researchers and industry across Canada's National Design Network, providing access to world-class tools, technologies, expertise and industrial capabilities for designing, prototyping and manufacturing innovations in microsystems and nanotechnologies. CMC reduces barriers to technology adoption by creating and sharing platform technologies.
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