

THE COGNIMEM CONNECTION

A Novel Approach to Modern Computing

CogniMem's CEO presents at Sandia Labs Neuro-Inspired Computational Elements Workshop

Highlights:

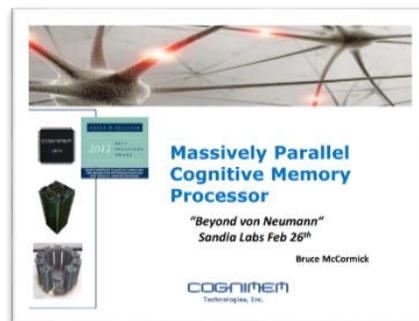
Sandia Labs
Conference

CogniMem
Recognized
by Gartner

New CBLX SDK

A.F.R.L. uses
CogniMem
Technology

Sandia Labs hosted a three day workshop, featuring key pioneers in the field of Neuroscience and Computing. Our very own CEO, Bruce McCormick spoke to the audience and detailed the growing trend in the computational world of "Parallel Processing and Machine Learning". This trend will improve current computing systems by an unprecedented factor and thus avoid Dennard Scaling issues. Previously serial based computing processors double in performance every 18 months.



Title slide of the presentation given at the N.I.C.E. Workshop ([full presentation...](#))

Our CEO, Bruce McCormick, proposed an alternative to this current methodology. CogniMem's CM1K architecture, which is naturally parallel, in which the processing and memory become one element "a Neuron". Our technology is architected much like the human brain, composed of neurons and synapses. CogniMem's Technology utilizes cognitive memory which yields orders of magnitude performance improvement, less power consumption, true scalability and higher throughput than today's computing systems to solve current and future world problems.

Presently, the effects of Dennard Scaling limitations and Moore's law can be seen in the micro-processor industry as clock speeds approach their limits and as the number of parallel processing cores increase. The problem that arises is the performance of the microprocessor does not scale linearly, the more cores added will increase the performance only minimally with today's Von Neumann Architecture.

CogniMem Technology Inc. has developed demonstrations to show the improvement for Gaze Tracking, Gesture Recognition, Biometric Identification and many others. To see some of the various applications CogniMem Technologies has demonstrated visit the [CogniMem YouTube Channel...](#)

Read more about [N.I.C.E. Workshop](#)

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CogniMem Technologies Recognized by Gartner

Gartner is a company that is known as the world's leading information technology research and advisory company, and they have just recognized CogniMem as a 2013 Cool Vendor in Semiconductors after being reviewed for its Self-trainable parallel neural network chip for high-speed pattern recognition. CogniMem Technologies is listed in the "Cool Vendors in Semiconductors", 2013 Published: 30 April 2013 by James F. Hines. More information on our Cool Features analyzed by James F. Hines can be found on [Gartner's website](#)



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Introducing the CogniBlox Express SDK

Due to the growing demand to evaluate the CogniBlox system, CogniMem has announced its CogniBlox Express SDK. This new SDK also comes bundled with a CogniBlox board at a reduced total price of just \$1500. The CogniBlox board features four CM1K chips, two 18-pin spring loaded spinal connectors for vertical stack-ability of up to 12 CogniBlox modules. This package is perfect for evaluating the CogniBlox system and allows access to upgrade to the full SDK if desired. See why Cognitive memory processing is the future with this upgradable evaluation system. [CBLX SDK homepage...](#)

Phillips Scholars Program Features the CogniMem Chip

Part of preparing students for the future of Science is learning where the future is headed. AFRL (Air Force Research Laboratories) sponsors a summer internship for engineering students with hands on projects evaluating cutting edge technology. This year Students of the Phillips Scholars Program will be working with AFRL and the CogniMem Chip, CM1K. The task set for them is to train the chip to perform several pattern recognition tasks that leverage classification algorithms run by the chip, and benchmark the results against the same pattern recognition tasks running on software platforms. Each Scholar is given a CogniMem CogniBlox Starter Kit to work with as they learn the benefits of Cognitive memory processing.

Upon completion of the evaluation and the summer internship, scholars will document their research in a technical report and will present their work to the Directorate Leadership, Mentors, and fellow Scholars at the AFRL Scholar Poster Session.

Real-Time American Sign Language Interpreter

A recent video uploaded to the CogniMem YouTube homepage displays their newest pattern recognition application for American Sign Language Recognition. It is a real time video demonstrating the power and versatility of the CogniMem chip. In the demo, the CM1K uses its powerful pattern recognition capabilities on a high resolution RGB image to distinguish between the 26 characters taught to the system.

[CogniMem YouTube Channel...](#)

"...Phillips Scholars gain hands-on experience while working with Air Force Research Laboratory scientists and engineers on cutting-edge research and technology"

