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COGNIMEM™ Technologies, Inc.

A Novel Approach to Modern Computing.....

THE COGNIMEM COMMUNIQUE`

Highlights

- Award to CTI
- SC-2012

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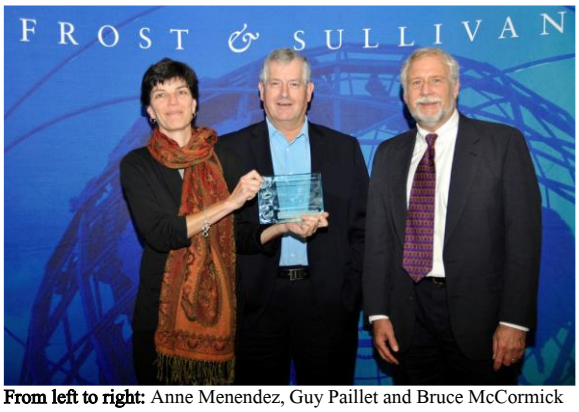
Cognimem Technologies receives another prestigious award on Technology and Innovation.

The biggest issues with contemporary computing models are memory bottleneck and scaling, CTI's parallel pattern recognition engine provides a single solution to both problems. Frost and Sullivan, a global independent research group which monitors more than 300 industries and 2500 companies believes that CTI's technology is innovative and revolutionary. In an award ceremony held at San Antonio on November 8, 2012, Frost and Sullivan group awarded CTI with "New Product Innovation Award" for its innovative technology in the field of cognitive computing processors for pattern recognition.



From left to right: Anne Menendez, Guy Paillet and Bruce McCormick after receiving the New Product Innovations Award

Frost and Sullivan have scrutinized various technologies for this prestigious award. The award was based on excellence in Innovative Element of product, Leverage of leading-edge Technologies in product, Value added features/ benefits, Increased Customer ROI (Return on Investment) and Customer Acquisition/penetration potential. There were two other contenders who caught committee's attention.

Competitor 1(name not mentioned) was specialized in programmable image cognition processors. Competitor 2's (name not mentioned) technology used an integration of FPGA and DSP for post processing. CTI proved itself to be the top contestant for this award and left its competitors far behind in overall evaluation. Following chart provides a glimpse of the results on different criteria for all the top three contenders. The entire analysis report is available for download from CogniMem's website.

Measurement of 1–10 (1 = lowest; 10 = highest)	Award Criteria					
	Innovative Element of the Product	Leverage of Leading-Edge Technologies in Product	Value Added Features/Benefits	Increased Customer ROI	Customer Acquisition/Penetration Potential	Weighted Rating
Relative Weight (%)	**20%**	**20%**	**20%**	**20%**	**20%**	**100%**
CogniMem Technologies Inc.	**9.5**	**9.5**	**9.0**	**8.0**	**9.0**	**9.0**
Competitor 1	8.0	8.5	7.5	7.0	7.5	7.7
Competitor 2	7.5	8.0	8.0	7.0	7.0	7.5

Decision Support Matrix for New Product Innovation Award

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CTI makes a strong Impact at Super Computing conference 2012

"…This conference had provided a platform for best and brightest minds in Supercomputing to get together and showcase their ideas, technologies and innovative work."

Over the past decade, Supercomputing Conference (SC/HPC) has been acclaimed as one of the biggest conferences in the world for Supercomputing and High-speed Parallel Computing. This conference provides a platform for the best and brightest minds in Supercomputing to get together and showcase their ideas, technologies and innovative work.

This year, the conference started on November 10th and closed on November 15, with 4 dedicated days for technologists and industrialists to showcase their latest scientific contribution in the field of Supercomputing.

CTI was one of the technology exhibitors and displayed demos of a 40K neuron system with the capability to expand more without decreasing the performance of the system. The current system is made up of 10 CogniBlox stacked vertically. Each CogniBlox has 4 CM1K chips, with 1024 neurons in each chip. In addition to providing massive pattern recognition capability, this system also provides a great deal of configuration flexibility.

In a vendor forum presentation, Bruce McCormick (CEO-CogniMem technologies) brought out the problems involved with serial architecture based computing models. According to him, the computing industry is transitioning towards the parallel processing for achieving improved performance. He said "... scaling of the transistors no longer results in significant performance/watt improvement for single CPUs." and stated that a truly parallel architecture is key to developing future computing.

Mr. McCormick also announced CogniMem technologies next milestone to be a system with 1 million cognitive neurons, which will provide 130 teraops (tera operations per second) of pattern matching performance in approximately 200 watts.

This event was covered by various news and technology forums. A full coverage of this event can be read at EEtimes and Embedded.com. Click the icon to get to EEtimes article.

Webinar: Machine Learning Demystified

In this technological era, learning is not a luxury but a necessity. Sometimes, learning a new technology can be a tricky and painstaking experience. Therefore, team CTI is dedicated to providing all the possible resources to the users for a better understanding of the technology. Recently, CTI published their first Educast: A video tutorial on the CM1K technology. This video consists of a technology overview along with some application examples. Hundreds of people took benefit of this outstanding resource. However, viewers and users wanted to know more about CTI's technology. Consequently, CTI team will present the first in a series of webinars "Machine Learning Demystified" will be hosted on three different times on January 16th 2013. First hosting will be at 6:00 am, second hosting at 11 am and third hosting at 4 pm (all mentioned times are in PST- Pacific Standard Time).

This webinar will be hosted by experienced engineers to provide a greater insight on the technology, applications and a lot more.

All the participants should look forward to an email with WebEx link and instructions to how to join a webinar through WebEx.

For more information or any further questions contact Cognimem Technologies Inc. at info@cognimem.com.

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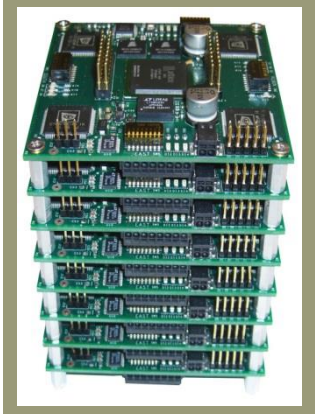


CogniBlox Stack: 40k Neurons system

DigiKey is an official business partner!!!

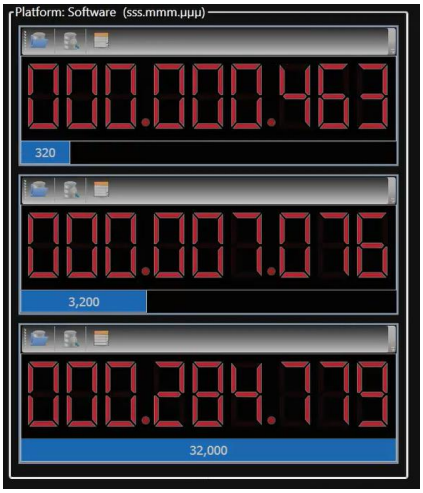
DigiKey is another worldwide distributor of CTI's lines of products Now CogniMem users can get support from DigiKey and well as CogniMem technologies. Currently, the products available at DigiKey are a CM1K chip, CM1K-PGA69 module, V1KU and CogniBlox. Click to go the product page at Digikey.

Fingerprint recognition application

CTI has successful built a system with 40K neurons, which has caused quite a stire in the Supercomputing world. Bill Nagel (Vice President of Software solutions) demonstrated a fingerprint recognition application at SC-12, which compares the performance of this system with the latest high speed processors for pattern matching and recognition. The results show that 40K system is far superior to any contemporary processors for recognition.

This application was tested for different data base sizes. First data base searched had 320 finger prints. Second data base had 3200 figure prints and the third data base had 32000 finger prints.

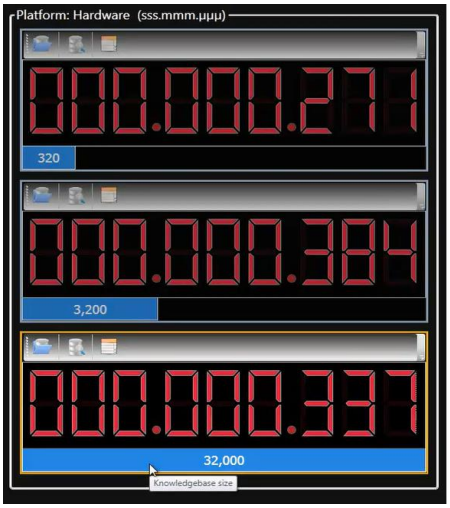
First the recognition was performed in simulation mode and then was performed through the 40k neuron system.



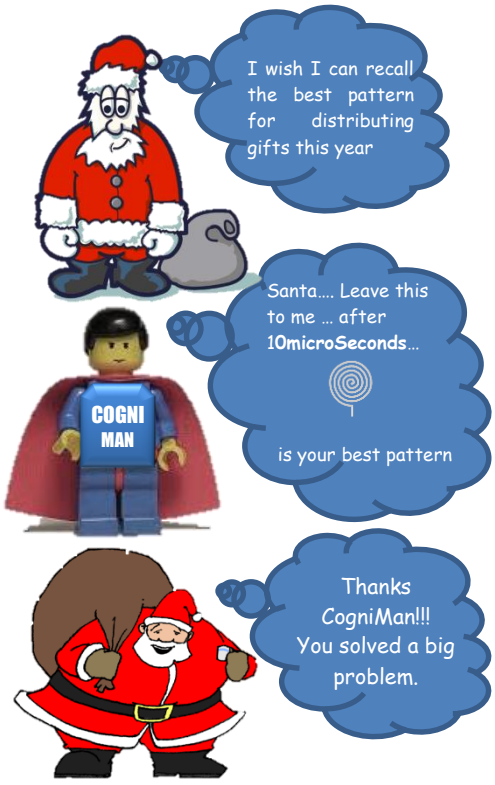
Above figure is a screen shoot for the result of finger print recognition in simulation mode.

As, can be observed data base 1, 2 and 3 took 0.46, 7.07 and 284.7 milliseconds for recognition in Simulation mode.

On the other hand, the CogniBlox system took 0.27, 0.38 and 0.337 milliseconds for each data base. Following figure is a screen shoot for the fingerprint recognition done through 40k neuron system.



Laugh is a must: Traveling sales man problem solved!!!



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