

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re Reexamination of:** )  
U.S. Patent No. 6,201,839 ) **Examiner:** Nguyen, Linh M.  
)  
**Inventors:** Aleksandar Kavcic et al. ) **Art Unit:** 3992  
)  
**Reexamination Control No.:** 90/013,125 ) **Atty. Docket No.** 97168REX  
)  
**Reexamination Filing Date:** January 21, 2014 )

**Title:** METHOD AND APPARATUS FOR CORRELATION-SENSITIVE ADAPTIVE SEQUENCE DETECTION

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**WRITTEN STATEMENT OF INTERVIEW**

Pursuant to 37 C.F.R. § 1.560(b) and MPEP § 2281, patent owner Carnegie Mellon University (CMU) hereby submits this written statement summarizing the interview held between the patent examiners and CMU's representatives in the above-referenced ex parte reexamination of U.S. Patent 6, 201,839 ("the '839 patent").

The interview was conducted from 9:00 am to 10:00 am on Friday, August 22, 2014 by audio conference with a simultaneous WebEx web conference. The participating examiners were Linh Nguyen, James Menefee and Woo Choi. The participants for CMU were:

- Prof. Aleksandar Kavcic, inventor and professor at University of Hawaii;
- Prof. José Moura, inventor and professor at Carnegie Mellon University;
- Prof. Steven W. McLaughlin, Chair of School of Electrical and Computer Engineering at The Georgia Institute of Technology (Georgia Tech);
- Dr. Christopher Bajorek, former manager of IBM's HDD business unit and Komag's HDD disk business;
- Patrick McElhinny (Reg. No. 46320) and Mark Knedeisen (Reg. No. 42747), attorneys with K&L Gates of record in this reexamination and counsel for CMU in concurrent litigation (*CMU v. Marvell*); and
- Douglas Greenswag, attorney with K&L Gates for CMU in the *CMU v. Marvell* case.

During the interview, CMU presented the PowerPoint presentation that is attached hereto as Exhibit A (without animations). As Exhibit A reflects, the topics discussed during the interview included:

- A roadmap of CMU’s forthcoming response to the Office Action (see slide 4 of Exhibit A);
- Background of the invention of claim 4 (see slides 5-12);
- A description of the invention of claim 4 (see slides 13-18);
- A description of Zeng’s thesis, including how neither Sections 4.4 nor 5.2 disclose any, let alone a “set,” of signal-dependent branch metric functions, and how these branch metric functions are neither polarity dependent nor sensitive to neighborhood effects (see slides 19-37 and 39-41);
- A description of the contradictions between the declaration of Dr. Inkyu Lee, the Requester’s expert declarant, and both a peer-reviewed paper that Dr. Lee wrote in 1992 and his 1995 Ph.D. thesis on the central issue of whether Zeng’s “random jitter” term ( $\Delta_k$ ), which Zeng uses in one branch metric function described in each of Sections 4.4 nor 5.2, is signal-dependent (see slide 38);
- The statement by Prof. Jaekyun Moon, Dr. Zeng’s Ph.D. thesis advisor at the University of Minnesota, in a peer-reviewed 2001 paper that in “signal dependent medium noise channels, where the noise characteristics depend highly on the local bit patterns”, the signal-dependent detector was “first derived” by the inventors of the ‘839 patent, not his former Ph.D. student (see slide 42);
- A description of the numerous flaws in sections 4.4 and 5.2 of Zeng’s Ph.D. thesis and CMU’s contention that those flaws render the reference non-enabling (see slides 43-46); and
- A description of the ongoing litigation involving the ‘839 patent, i.e., the *CMU v. Marvell* case, including:
  - The evidence that the defendants in that litigation (Marvell) requested this reexamination (see slides 48-50);
  - The facts that Zeng is an employee of Marvell and Marvell asserted early in the litigation that Sections 4.4 and 5.2 of Zeng’s Thesis anticipated claim 4, but (i) Marvell never called Zeng as a witness, (ii) Marvell’s technical expert, Prof. John Proakis reviewed Zeng’s Thesis but did not opine that it invalidates claim 4, and (iii) Marvell never raised Zeng’s Thesis as a defense at trial even though it had every incentive to do so since it faced (and ultimately lost) a judgment exceeding one billion dollars (see slides 51-52); and
  - The evidence of secondary considerations that shows that claim 4 is not obvious, including that Marvell copied the invention of claim 4 (see slides 53-54); that Marvell experienced commercial success attributable to its copying of claim 4 (see slides 55-56); that Marvell praised Prof. Kavcic

for the invention and even named its first infringing product after him (see slide 57); that claim 4 satisfied a long-felt need in the HDD industry (see slide 58); and how prior to copying claim 4 in around 2001, Marvell's attempts to make better performing detectors failed (see slide 59).

A certificate of service is submitted herewith showing proof of service of this written statement of the interview on the Requester at the address set forth below in accordance with 37 C.F.R. §§ 1.248 and 1.550(f).

J. Steven Baughman  
Ropes & Gray LLP  
Prudential Tower.  
Patent Department  
800 Boylston Street  
Boston, MA 02199-3600

The examiners and representatives of the Central Reexamination Unit are invited to contact the undersigned with any questions about the interview and/or these proceedings.

Respectfully submitted,

Date: September 3, 2014

/Mark G. Knedeisen/

Mark G. Knedeisen

Reg. No. 42,747

K&L GATES LLP  
K&L Gates Center  
210 Sixth Ave.  
Pittsburgh, Pennsylvania 15222

Ph. (412) 355-6342

Fax (412) 355-6501

email: mark.knedeisen@klgates.com