

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD.  
Petitioner

v.

CALIFORNIA INSTITUTE OF TECHNOLOGY  
Patent Owner

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Patent No. 7,421,032

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**DECLARATION OF MATTHEW C. VALENTI, PH.D., P.E.  
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 7,421,032**

## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	BACKGROUND AND QUALIFICATIONS .....	2
III.	MATERIALS REVIEWED .....	7
IV.	PERSON OF ORDINARY SKILL IN THE ART AND THE TIME OF THE ALLEGED INVENTION .....	9
V.	TECHNICAL BACKGROUND .....	10
A.	Error Control Coding .....	10
B.	Matrix Multiplication and Modulo-2 Arithmetic.....	12
VI.	THE '032 PATENT.....	15
VII.	CLAIM CONSTRUCTION .....	18
VIII.	OVERVIEW OF THE PRIOR ART .....	19
A.	<i>Kobayashi</i> (Ex. 1005).....	19
B.	<i>McEliece</i> (Ex. 1006).....	23
IX.	THE PRIOR ART DISCLOSES AND/OR SUGGESTS THE RECITED FEATURES OF CLAIMS 1-8 and 10-22 OF THE '032 PATENT .....	28
A.	<i>Kobayashi</i> Discloses the Features of Claims 1, 3-5, 7-8, 11-12, and 14-16.....	28
1.	Claim 1 .....	28
2.	Claim 3 .....	44
3.	Claim 4 .....	44
4.	Claim 5 .....	45
5.	Claim 7 .....	48
6.	Claim 8 .....	49

Declaration of Matthew C. Valenti, Ph.D., P.E.  
U.S. Patent No. 7,421,032

7.	Claim 11 .....	49
8.	Claim 12 .....	56
9.	Claim 14 .....	56
10.	Claim 15 .....	58
11.	Claim 16 .....	59
B.	<i>Kobayashi</i> Discloses and/or Suggests the Features of Claims 2, 6-7, 10, 13, and 17 .....	60
1.	Claim 2 .....	60
2.	Claim 6 .....	63
3.	Claim 7 .....	71
4.	Claim 10 .....	73
5.	Claim 13 .....	75
6.	Claim 17 .....	76
C.	<i>Kobayashi</i> in View of <i>McEliece</i> Discloses and/or Suggests the Features of Claims 6, 13, and 18-22 .....	79
1.	Claim 6 .....	79
2.	Claim 13 .....	91
3.	Claim 18 .....	92
4.	Claim 19 .....	100
5.	Claim 20 .....	101
6.	Claim 21 .....	101
7.	Claim 22 .....	104
X.	CONCLUSION.....	105

I, Matthew C. Valenti, Ph.D., P.E., declare as follows:

## I. INTRODUCTION

1. I have been retained by Samsung Electronics Co., Ltd. (“Petitioner”) as an independent expert consultant in this proceeding before the United States Patent and Trademark Office (“PTO”) against California Institute of Technology (“Patent Owner”) regarding U.S. Patent No. 7,421,032 (“the ’032 patent”) (Ex. 1001).<sup>1</sup> I have been asked to consider whether certain references disclose or suggest the features recited in claims 1-8 and 10-22 (“the challenged claims”) of the ’032 patent. My opinions are set forth below.

2. I am being compensated at a rate of \$525/hour for my work in this proceeding. My compensation is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other interest in this proceeding.

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<sup>1</sup> Where appropriate, I refer to exhibits that I understand are to be attached to the petition for *inter partes* review of the ’032 patent.

## II. BACKGROUND AND QUALIFICATIONS

3. I presently serve as a Professor in the Lane Department of Computer Science and Electrical Engineering at West Virginia University. All of my opinions stated in this declaration are based on my own personal knowledge and professional judgment. In forming my opinions, I have relied on my knowledge and experience in signal processing, communications, and coding referenced in this declaration.

4. I am over 18 years of age and, if I am called upon to do so, I would be competent to testify as to the matters set forth herein. I understand that a copy of my current curriculum vitae (CV), which details my education and professional and academic experience, is being submitted by Petitioner as Exhibit 1003. The following provides an overview of some of my experience that is relevant to the matters set forth in this declaration.

5. I received my Ph.D. in Electrical Engineering from Virginia Polytechnic Institute & State University (Virginia Tech) in 1999. I also received a MS in Electrical Engineering from Johns Hopkins University in 1995, and a BS in Electrical Engineering from Virginia Tech in 1992.

6. Since receiving my Ph.D., I have been teaching electrical engineering at West Virginia University. I was an Assistant Professor between August 1999 and 2005, an Associate Professor between 2005 and 2010, and a Professor from 2010 to

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