UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
SAMSUNG ELECTRONICS CO., LTD.; and SAMSUNG ELECTRONICS AMERICA, INC. Petitioners
v.
IMAGE PROCESSING TECHNOLOGIES, LLC Patent Owner
Patent No. 6.717.518

DECLARATION OF DR. JOHN C. HART IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,717,518



Declaration of Dr. John C. Hart *Inter Partes* Review of U.S. Patent No. 6,717,518

TABLE OF CONTENTS

I.	INTRO	INTRODUCTION1						
II.	BACKGROUND AND EXPERIENCE							
	A.	Qualifications						
	B.	Previous Testimony						
III.	TECH	NOLO	DLOGICAL BACKGROUND5					
IV.	THE,	518 PA	PATENT					
V.	SUMN	MARY	OF OPINIONS					
VI.	LEVE	L OF C	L OF ORDINARY SKILL IN THE ART 18					
VII.	CLAII	M CON	ISTRUCTION19					
VIII.	THE PRIOR ART TEACHES OR SUGGESTS EACH LIMITATION OF CLAIM 39 OF THE '518 PATENT							
	A.	. Overview Of The Prior Art References						
		1.	Martin Eriksson et al., Eye Tracking For Detection Of Driver Fatigue, IEEE Conference on Intelligent Transportation Systems (Nov. 1997) ("Eriksson") (Ex. 1005)	20				
		2.	Luigi Stringa, Eyes Detection For Face Recognition, Applied Artificial Intelligence (1993) ("Stringa") (Ex. 1006)	23				
		3.	U.S. Patent No. 5,805,720, Facial Image Processing System (Filed Mar. 11, 1996) ("Suenaga") (Ex. 1007)	26				
		4.	U.S. Patent No. 5,008,946, System For Recognizing Image (Filed Sept. 9, 1988) ("Ando") (Ex. 1009)	30				
	B.	Ground 1: Eriksson In View Of Stringa Teaches or Suggests Every Limitation of Claim 39						
		1.	Reasons To Combine Eriksson And Stringa	35				
		2.	Claim 39	37				
	C. Ground 2: Ando In View Of Suenaga Teaches or Suggests Every Limitation of Claim 39			48				



Declaration of Dr. John C. Hart *Inter Partes* Review of U.S. Patent No. 6,717,518

		1.	Reasons To Combine Ando And Suenaga	48	
		2.	Claim 39	51	
	D.	Grou Lim	Ground 3: Ando In View Of Stringa Teaches or Suggests Every Limitation of Claim 39		
		1.	Reasons To Combine Ando And Stringa	62	
		2.	Claim 39	64	
IX	CON	ICLUS	ION	75	



1. I, John C. Hart, declare as follows:

I. INTRODUCTION

- 2. I have been retained by Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, "Petitioner") as an independent expert consultant in this proceeding before the United States Patent and Trademark Office ("PTO").
- 3. I have been asked to consider whether certain references disclose, teach, or suggest the limitations recited in Claim 39 (the "Challenged Claim") of U.S. Patent No. 6,717,518 ("the '518 Patent") (Ex. 1001), which I understand is allegedly owned by Image Processing Technologies, LLC ("Patent Owner"). My opinions and the bases for my opinions are set forth below.
- 4. I am being compensated at my ordinary and customary consulting rate for my work.
- 5. 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.

II. BACKGROUND AND EXPERIENCE

A. Qualifications

6. I have more than 25 years of experience in computer graphics and image processing technologies. In particular, I have devoted much of my career to



researching and designing graphics hardware and systems for a wide range of applications.

- 7. My research has resulted in the publication of more than 80 peer-reviewed scientific articles, and more than 50 invited papers, and talks in the area of computer graphics and image processing.
- 8. I have authored or co-authored several publications that are directly related to target identification and tracking in image processing systems. Some recent publications include:
 - P.R. Khorrami, V.V. Le, J.C. Hart, T.S. Huang. A System for
 Monitoring the Engagement of Remote Online Students using Eye
 Gaze Estimation. Proc. IEEE ICME Workshop on Emerging
 Multimedia Systems and Applications, July 2014.
 - V. Lu, I. Endres, M. Stroila and J.C. Hart. Accelerating Arrays of Linear Classifiers Using Approximate Range Queries. Proc. Winter Conference on Applications of Computer Vision, Mar. 2014.
 - M. Kamali, E. Ofek, F. Iandola, I. Omer, J.C. Hart Linear Clutter
 Removal from Urban Panoramas. Proc. International Symposium on
 Visual Computing. Sep. 2011.
- 9. From 2008–2012, as a Co-PI of the \$18M Intel/Microsoft Universal Parallelism Computing Research Center at the University of Illinois, I led the



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

