IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:	Ammar Al-Ali	
U.S. Patent No.:	10,687,745	Attorney Docket No.: 50095-0045IP3
Issue Date:	June 23, 2020	
Appl. Serial No.:	16/835,772	
Filing Date:	March 31, 2020	
Title:	PHYSIOLOGICAL MONITORING DEVICES, SYSTEMS, AND METHODS	

DECLARATION OF DR. BRIAN W. ANTHONY, Ph.D.

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

TABLE OF CONTENTS

I. Background 11
II. Level of Ordinary Skill in the Art 13
III. Interpretations of the '745 Patent Claims at Issue 13
IV. Overview of the Prior Art 14
A. Iwamiya 14
B. Sarantos 15
C. Venkatraman 16
D. Shie 17
E. Savant 18
V. The Iwamiya-Sarantos Combination 19
A. Analysis 19
1. Claim 1 19
2. Claim 2 32
3. Claim 3 33
4. Claim 5 33
5. Claim 6 34
6. Claim 8 35
7. Claim 10 35
8. Claim 11 36
9. Claim 12 37
10. Claim 14 38
VI. The Iwamiya-Sarantos-Venkatraman Combination 39
A. Analysis 39
1. Claim 4 39
2. Claim 15 40
3. Claim 17 46
4. Claim 19 47

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

5. Claim 20 47
6. Claim 21 48
7. Claim 22 50
8. Claim 23 52
9. Claim 24 54
10. Claim 25 54
11. Claim 26 56
VII. The Sarantos-Shie Combination 56
A. Analysis 56
1. Claim 1 56
2. Claim 2 62
3. Claim 5 63
4. Claim 6 65
5. Claim 8 66
6. Claim 10 67
7. Claim 11 68
8. Claim 13 70
9. Claim 14 72
10. Claim 15 72
11. Claim 17 76
12. Claim 19 76
VIII. The Sarantos-Shie-Venkatraman Combination 77
A. Analysis 77
1. Claim 3 77
2. Claim 4 79
3. Claim 15 80
4. Claim 17 82
5. Claim 19 83
6. Claim 20 83

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

7. Claim 21 85
8. Claim 22 86
9. Claim 23 88
10. Claim 24 89
11. Claim 25 90
12. Claim 26 92
IX. The Sarantos-Shie-Savant 93
A. Analysis 93
1. Claim 12 93
X. Legal Principles 95
A. Anticipation 95
B. Obviousness 96

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

I, Brian W. Anthony, of Cambridge, MA, declare that:

1. My name is Dr. Brian W. Anthony. I am an Associate Principal Research Scientist at the Institute of Medical Engineering & Science at Massachusetts Institute of Technology (MIT). I am also a Principal Research Scientist at MIT's Mechanical Engineering department, Director of the Master of Engineering in Advanced Manufacturing and Design Program at MIT, Director of Health Technology at the MIT Center for Clinical and Translational Research, a Co-Director of the Medical Electronic Device Realization Center of the Institute of Medical Engineering & Science, and Associate Director of MIT.nano. My current *curriculum vitae* is attached and some highlights follow.

2. I earned my B.S. in Engineering (1994) from Carnegie Mellon University. I earned my M.S. (1998) and Ph.D. (2006) in Engineering from MIT. My research focused on high-performance computation, signal processing, and electro-mechanical system design.

3. In 1997, I co-founded Xcitex Inc., a company that specialized in video-acquisition and motion-analysis software. I served as the Chief Technology Officer and directed and managed product development until 2006. Our first demo product was an optical ring for human motion measurement used to capture user hand motion in order to control the user's interaction with a computer. Many of the structural elements of our optical ring addressed the same system issues as

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

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.