504535154 09/06/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4581861

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY D	ΑΤΑ		
		Name	Execution Date
HUNG A. PHAM			08/22/2017
KARTHIK JAYARAMAN	RAGHU	RAM	08/24/2017
HENGLIANG ZHANG			08/17/2017
EDITH MERLE ARNOLI	C		08/30/2017
RECEIVING PARTY DA	TA		
Name:	APPLE	INC.	
Street Address:	1 INFIN	NITE LOOP	
City:	CUPEF	RTINO	
State/Country:	CALIFO	ORNIA	
Postal Code:	95014-2094		
Property Type		Number	
			-
Property Type Application Number:		Number 15689113	
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WHEREAS, Hung A. PHAM, Karthik Jayaraman RAGHURAM, Hengliang ZHANG and Edith Merle ARNOLD made certain inventions or discoveries (or both) set forth in an Application for Letters Patent of the United States of America entitled

DETECTING UNMEASURABLE LOADS USING HEART RATE AND WORK RATE

issued as U.S Patent No. _____; XX filed herewith, or filed as serial no. _____; on _August 29, 2017

We hereby authorize our attorney to insert the application serial number and filing date of the application into this assignment when known.

WHEREAS, Apple Inc., a corporation of the State of California and whose address is 1 Infinite Loop, Cupertino, California 95014-2094 and who, together with its successors and assigns is hereinafter called "Assignee", is desirous of acquiring the entire right, title and interest together with the benefits and privileges hereinafter recited;

NOW, THEREFORE, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, effective as of the date signed, I hereby, without reservation;

1. Assign, transfer and convey to Assignee the entire right, title and interest together with the benefits and privileges in and to said inventions and discoveries, said Application for Letters Patent or similar forms of protection of the United States of America, and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation and convention applications based in whole or in part upon said inventions or discoveries, or upon said application, and any and all Letters Patent, reissues and extensions of Letters Patent or similar forms of protection granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications as fully and entirely as the same would have been held and enjoyed by me if this Agreement had not been made, including all claims for damages and/or injunction by reason of past and present infringement and including the collection and retention of such damages for the use and enjoyment of Assignee and its successors and assigns;

2. Authorize Assignee to file patent applications in any or all countries or groups of countries on any or all of said inventions and discoveries in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or any other relevant convention or treaty or otherwise;

3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein, or otherwise as Assignee may direct;

4. Warrant that I have not knowingly conveyed to others any rights in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance;

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5. Bind my heirs, legal representatives and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonable serving to assure that said inventions and discoveries, said patent applications and said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing any facts of my conceptions, disclosures, and reduction to practice of said inventions or discoveries.

Executed this

22 day of Aug. 2017

Executed this

_____day of _____, 2017

Executed this

_____day of _____, 2017

Executed this

_____day of ______. 2017

Signature of Inventor

terromaning streams

Hung A. PHAM

Signature of Inventor

Karthik Jayaraman RAGHURAM

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Signature of Inventor

Hengliang ZHANG

Signature of Inventor

Edith Merle ARNOLD

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WHEREAS, Hung A. PHAM, Karthik Jayaraman RAGHURAM, Hengliang ZHANG and Edith Merle ARNOLD made certain inventions or discoveries (or both) set forth in an Application for Letters Patent of the United States of America entitled

DETECTING UNMEASURABLE LOADS USING HEART RATE AND WORK RATE

 issued as U.S Patent No.
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 XX
 filed herewith, or filed as serial no.
 15/689,113
 on
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Executed this

_____day of _____, 2017

Executed this

day of August, 2017

Executed this

_____day of _____, 2017

Executed this

_____day of ______ 2017

Signature of Inventor

Hung A. PHAM

Signature of Inventor

Mark

Karthik Jayaraman RAGHURAM

.....

Signature of Inventor

Hengliang ZHANG

Signature of Inventor

Edith Merle ARNOLD

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DETECTING UNMEASURABLE LOADS USING HEART RATE AND WORK RATE

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_____day of _____, 2017

Executed this

_____day of ______, 2017

Executed this

<u>17th</u> day of August , 2017

Executed this

_____day of ______, 2017

Signature of Inventor

Hung A. PHAM

Signature of Inventor

Karthik Jayaraman RAGHURAM

Signature of Inventor

Henglow Zh Hengliang ZHANG

Signature of Inventor

Edith Merle ARNOLD

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Executed this

_____day of _____, 2017

Executed this

_____day of ______, 2017

Executed this

_____day of _____, 2017

Executed this

30 & day of Augure, 2017

Signature of Inventor

Hung A. PHAM

Signature of Inventor

Karthik Jayaraman RAGHURAM

Signature of Inventor

Hengliang ZHANG

Signature of Inventor

Edith Merle ARNOLD

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RECORDED: 09/06/2017