505130707 10/08/2018

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5177469

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CAROL ESPY-WILSON	08/23/2011
SRIKANTH VISHNUBHOTLA	09/01/2011

RECEIVING PARTY DATA

Name:	UNIVERSITY OF MARYLAND, COLLEGE PARK	
Street Address:	0133 COLE STUDENT ACTIVITIES BUILDING	
City:	COLLEGE PARK	
State/Country:	MARYLAND	
Postal Code:	20742	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15584648

CORRESPONDENCE DATA

Correspondent Name:

Fax Number: (202)842-7899

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

COOLEY LLP

703-456-8000 Phone: Email: vtevalt@cooley.com

Address Line 1: 1299 PENNSYLVANIA AVENUE

Address Line 2: SUITE 700, ATTN: PATENT GROUP Address Line 4: WASHINGTON, D.C. 20004-2400

ATTORNEY DOCKET NUMBER: OMNS-001/05US 313904-2017 NAME OF SUBMITTER: **BROOKE M. MATNEY** SIGNATURE: /Brooke M. Matney/ **DATE SIGNED:** 10/08/2018

Total Attachments: 4

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PATENT REEL: 047093 FRAME: 0052

ASSIGNMENT

Carol ESPY-WILSON, residing at 7573 Alaska Avenue NW, Washington, DC 20012 and Srikanth VISHNUBHOTLA, residing at 5101 Boarshead Road, Apt. 125, Minnetonka, MN 55345 (each referred to as "Assignor") have made an invention(s) (the "Invention(s)") set forth in an application for patent of the United States, entitled SYSTEMS AND METHODS FOR MULTIPLE PITCH TRACKING, and which is a:

(1)	provision provision	al application		
	(a)	to be filed herewith; or		
	(b)	bearing Application No.	, and filed on	; or
(2)	🛛 non-prov	isional application		
	(a)	to be filed herewith; or		
	(b)	bearing Application No.	12/889,298, and fi	led on
		September 23, 2010.		

WHEREAS, University of Maryland, College Park, a corporation duly organized under and pursuant to the laws of Maryland, and having its principal place of business at 0133 Cole Student Activities Bldg., College Park, MD 20742 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Invention; the application for patent identified in paragraph (1) or (2); the right to file applications for patent of the United States or other countries on the Invention; any application for patent of the United States or other countries claiming priority to these application; any provisional or other right to recover damages, including royalties, for prior infringements of these applications; and any patent of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

- (a) the Invention(s);
- (b) the application for patent identified in paragraph (1) or (2);
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;

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- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to the application for patent identified in paragraph (1) or (2) or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part;
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b) (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignor, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby authorizes and requests the attorneys of COOLEY LLP to insert in the spaces provided above the filing date, the application number, and the attorney docket number of the application identified in paragraph (1) or (2) when known.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

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Date: 8/23/2011 By: Carol Espy-Wilson
State of Mary I and sss. County of Irince George S On August 23, 2011, before me, Alexis m. Lenkins, Notary Public, personally appeared Carol Espy-Wilson, personally known to me or proved to me on the basis of satisfactory evidence, to be the
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of
by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
WITNESS my hand and official seal. COMMISSION EXPIRES 1/26/2013 Region Official seal.
My Commission Expires: Anuary 26, 2013 Place Notary Seal Above

Date: Oi SEPTEMBER 2011	By:
	Srikanth Vishnubhotla
State of MINNESUTA	
County of NARVER) ss.	73
On 0901201 , before n	Notary Notary Notary Notary Notary Notary Notary
Public, personally appeared Sykunth	VISLANDANTAL , personally known
to me or proved to me on the basis of satisfac	tory evidence, to be the person(s) whose name(s)
is/are subscribed to the within instrument and a	acknowledged to me that he/she/they executed the
same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the
instrument the person(s), or the entity upon b	ehalf of which the person(s) acted, executed the
instrument.	
WITNESS my hand and official seal.	SNEZANA SPASOJEVIC Notary Patric, Mirrosocia My Commission Expires Jan. 31, 2012
- TWWW (S)	
Signature of Notary Public	Place Notary Seal Above
My Commission Expires: 0\\3\\2013	

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RECORDED: 10/08/2018

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