PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3165887

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ASSIGNOR previously recorded on Reel 034583 Frame 0266. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
DIPANJAN CHAKRABORTY	12/10/2014
SUMIT MITTAL	12/10/2014
PARIKSHIT SHARMA	12/11/2014

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14582352

CORRESPONDENCE DATA

Fax Number: (203)255-6570

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.

2032556560 Phone: Email: car@rml-law.com

Correspondent Name: CAROLINA RODRIGUEZ

Address Line 1: 1175 POST ROAD EAST - SECOND FLOOR

Address Line 2: RYAN, MASON & LEWIS, LLP

Address Line 4: WESTPORT, CONNECTICUT 06880

ATTORNEY DOCKET NUMBER:	IN920140149US1
NAME OF SUBMITTER: MICHAEL J. COOPER	
SIGNATURE:	/Michael J. Cooper/
DATE SIGNED:	12/30/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 9

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PATENT REEL: 034719 FRAME: 0020

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PATENT REEL: 034719 FRAME: 0021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3161996

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DIPANJAN CHAKRABORTY	12/10/2014
SUMIT MITTAL	12/10/2014
Particishit Sharma.	12 HU20M

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION	
Street Address:	NEW ORCHARD ROAD	
City:	ARMONK	
State/Country:	NEW YORK	
Postal Code:	10504	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14582352

CORRESPONDENCE DATA

Fax Number:

(203)255-6570

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.

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ATTORNEY DOCKET NUMBER:	IN920140149US1
NAME OF SUBMITTER:	MICHAEL J. COOPER
SIGNATURE:	/Michael J. Cooper/
DATE SIGNED:	12/24/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

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> PATENT REEL: 034719 FRAME: 0022

IBM DOCKET NUMBER: IN920140149US1

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention:	CROWD-ASSISTED MICRO-NAVIGATION
As a below named and	undersigned inventor, I hereby declare that:
This declaration is dire	cted to the attached application, or (if following box is checked):
	cation or PCT international application number
The above-identified ap	oplication was made or authorized to be made by me.
I believe that I am the capplication.	original inventor or an original joint inventor of a claimed invention in the

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1,56.

Whereas, I have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and I desire to grant to IBM, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I ("ASSIGNOR") hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this

Page 1 of 2

IBM DOCKET NUMBER: IN920140149US1

Assignment to IBM and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor: Dipanjan Chakrabo	orty	
Signature: De chaladely	·	Date: December 10, 2014
(2) Legal Name of Inventor: Sumit Mittal	e' .	
Signature:	in the second section of the section of the second section of the second section of the second section of the section of the second section of the section	Date:
(3) Legal Name of Inventor: Parikshit Sharma		
Signature:	· · · · · · · · · · · · · · · · · · ·	Date:

IBM DOCKETNIMBER, IN920140149USI

A Suggraph of IBM and am unaware of any reason why i may not have the full and unerdomnies of right in set execute, and transfer by plights hereby sold, assigned, and transferred, and place not executed and will represent on a suggest of the full and transferred, and place of the executed and will represent only do unterior that tunners in conflict here with I also here by grant IBMs its successors, legated intraction, patent. Application Mumber) which may be necessary or desirable for recordation of this assignment. This Assignment is governed by the substantive laws of the state of New York, and any disputes will be resolved in a New York state court on federal court stied in New York.

Chereby at knowledge that any, waith in false statement made in this declaration is punishable under the Sign FOOL by fine or imprisonment of not more than five (5) years, or both.

Gr Legal Name of Inventor: Dipanjan Chakraborty

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IBM DOCKET NUMBER: IN920140149US1

Assignment to IBM and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature:	nventor: Dipanjan Chak			
Signature:			Date:	
(2) Legal Name of It	oventor: Sumit Mittal			
Signature:			Date:	
(3) Legal Name of In	ventor: Parikshit Sharm	ia)		
Signature:	Shake		Date: 11	

Page 2 of 2

PATENT

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