505776114 11/15/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5822933

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT	
	Corrective Assignment to correct the ASSIGNEE NAME previously recorded on Reel 045029 Frame 0213. Assignor(s) hereby confirms the TO INTEL IP CORPORATION.	

CONVEYING PARTY DATA

Name	Execution Date
SUBHAS BALAPPANAVAR	01/03/2018
SREENIVAS KASTURI	01/03/2018

RECEIVING PARTY DATA

Name:	INTEL IP CORPORATION	
Street Address:	2200 MISSION COLLEGE BOULEVARD	
City:	SANTA CLARA	
State/Country:	CALIFORNIA	
Postal Code:	95054	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15857736

CORRESPONDENCE DATA

Fax Number:

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.

Phone: 2026839317

Email: admin@jordaniplaw.com
Correspondent Name: JORDAN IP LAW LLC

Address Line 1: 12501 PROSPERITY DRIVE

Address Line 2: SUITE 401

Address Line 4: SILVER SPRING, MARYLAND 20904

ATTORNEY DOCKET NUMBER:	AA4324-US
NAME OF SUBMITTER:	B. DELANO JORDAN
SIGNATURE:	/B.Delano Jordan/
DATE SIGNED:	11/15/2019

Total Attachments: 6

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PATENT REEL: 051024 FRAME: 0489

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PATENT REEL: 051024 FRAME: 0490



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 26, 2018

PTAS

JORDAN IP LAW, LLC 12501 PROSPERITY DRIVE SUITE 401 SILVER SPRING, MD 20904 504721025

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 01/09/2018 REEL/FRAME: 045029/0213

NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: AA4324-US

ASSIGNOR:

BALAPPANAVAR, SUBHAS DOC DATE: 01/03/2018

ASSIGNOR:

KASTURI, SREENIVAS DOC DATE: 01/03/2018

ASSIGNEE:

INTEL CORPORATION

2200 MISSION COLLEGE BOULEVARD SANTA CLARA, CALIFORNIA 95052

APPLICATION NUMBER: 15857736 FILING DATE: 12/29/2017

PATENT NUMBER: ISSUE DATE:

TITLE: LOCATION AND NAVIGATION PATH-ASSISTED BEAM MANAGEMENT

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4767748

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUBHAS BALAPPANAVAR	01/03/2018
SREENIVAS KASTURI	01/03/2018

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15857736

CORRESPONDENCE DATA

Fax Number:

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.

Email: admin2@jordaniplaw.com
Correspondent Name: JORDAN IP LAW, LLC

Address Line 1: 12501 PROSPERITY DRIVE

Address Line 2: SUITE 401

Address Line 4: SILVER SPRING, MARYLAND 20904

ATTORNEY DOCKET NUMBER:	AA4324-US
NAME OF SUBMITTER:	B. DELANO JORDAN
SIGNATURE:	/B. Delano Jordan/
DATE SIGNED:	01/09/2018

Total Attachments: 4

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> PATENT REEL: 051024 FRAME: 0492

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Subhas Balappanavar; Sreenivas Kasturi

hereby sell, assign, and transfer to:

Intel IP Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

LOCATION AND NAVIGATION PATH-ASSISTED BEAM MANAGEMENT

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on December 29	, 2017	as	
US	Application Number	15/ 857,736	and
COUNTRY or International Office			

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and

Page 1 of 2

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the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and properly herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

	1/3/2018
Subhas Balappanavar	Date signed
Sreenivas Kasturi	Date signed

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

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LOCATION AND NAVIGATION PATH-ASSISTED BEAM MANAGEMENT

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on <u>December 29</u> ,	2017	as	
US	Application Number	15/ 857,736	and
COUNTRY or International Office	* *		

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and

Page 1 of 2

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Subhas Balappanavar Date signed

Ol. 05: 2018

Sreenivas Kasturi Date signed

Page 2 of 2