505341211 02/22/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5387993

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HONGTAN SUN	02/21/2019
MUHAMMED FATIH BULUT	02/20/2019
PRITPAL S. ARORA	02/22/2019
KLAUS KOENIG	02/20/2019
MAJA VUKOVIC	02/21/2019
NAGA A. AYACHITULA	02/21/2019

RECEIVING PARTY DATA

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Street Address:	New Orchard Road	
City:	Armonk	
State/Country:	NEW YORK	
Postal Code:	10504	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16282565	

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ATTORNEY DOCKET NUMBER:	P201805659US01
NAME OF SUBMITTER: ROCHELLE LIEBERMAN	
SIGNATURE: /Rochelle Lieberman/	
DATE SIGNED: 02/22/2019	
This document serves as an Oath/Declaration (37 CFR 1.63	

PATENT 505341211 REEL: 048405 FRAME: 0880

Total Attachments: 7 source=P201805659US01_AssignmentDeclaration#page1.tif source=P201805659US01_AssignmentDeclaration#page2.tif source=P201805659US01_AssignmentDeclaration#page3.tif source=P201805659US01_AssignmentDeclaration#page4.tif source=P201805659US01_AssignmentDeclaration#page5.tif source=P201805659US01_AssignmentDeclaration#page6.tif source=P201805659US01_AssignmentDeclaration#page7.tif

PATENT REEL: 048405 FRAME: 0881

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

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Root Cause Identification and Analysis

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As a below named inventor, I hereby declare that:
This declaration is directed to the attached application, or (if following box is checked):
[] United States application or PCT international application numberfiled on
The above-identified application was made or authorized to be made by me.
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
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, the undersigned inventor(s) has/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 each undersigned inventor desires to grant to IBM, the 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, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the 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, each undersigned inventor hereby authorizes and requests 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, the 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 the undersigned had this Assignment not been made; and each undersigned inventor agrees 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

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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) Leg	al Name of Inventor: Hongtan Sun	
Signatur	e. A	
(2) Leg	al Name of Inventor: Muhammed Fatih Bulut	
Signatur	e:	Date:
(3) Leg	al Name of Inventor: Pritpal S. Arora	
Signatur	e:	Date:
(4) Leg	al Name of Inventor: Klaus Koenig	
Signatur	e:	Date:

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(1)	Legal Name of Inventor: Hongtan Sun	
S	ignature:	Date:
(2) S	Legal Name of Inventor: Muhammed Fatih Bulut	Date:2_/2_0/2:
(3)	Legal Name of Inventor: Pritpal S. Arora	
s	ìgnature:	Date:
(4)	Legal Name of Inventor: Klaus Koenig	
S	ignature:	Date:

Page 2 of 3

IBM DOCKET NUMBER: P201805659US01

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Legal Marne of Inventor: Hongton Sun

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(3) Legal Name of Inventor: Protestal S. Arana

Signature

Date, 222

PATENT REEL: 048405 FRAME: 0885 IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

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(3)	Legal Name of Inventor: Pritpal S. Arora	
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(4)	Legal Name of Inventor: Klaus Koenig	
Si	ignature:	Date: <i>02/20/2019</i>

(5) Legal Name	of Inventor: Maja Vukovic	
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(6) Legal Name	of Inventor: Naga A. Ayachitula	
Signature:		Date:

IBM DOCKET NUMBER: P201805659US01

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Signature: 1 Al AQNA C	02/21/2019

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