503860296 06/07/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3906945

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHIMENG YU	08/18/2015
YU CAO	08/18/2015
JAE-SUN SEO	08/18/2015
SARMA VRUDHULA	05/26/2016
JIEPING YE	08/18/2015

RECEIVING PARTY DATA

Name:	ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIVERSITY	
Street Address:	1475 NORTH SCOTTSDALE ROAD	
Internal Address:	SKYSONG - SUITE 200	
City:	SCOTTSDALE	
State/Country:	ARIZONA	
Postal Code:	85257	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14824782	

CORRESPONDENCE DATA

Fax Number: (877)812-1249

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: 919-238-2300

Email: aedwards@wt-ip.com

Correspondent Name: WITHROW & TERRANOVA, P.L.L.C.

Address Line 1: 106 PINEDALE SPRINGS WAY

Address Line 4: CARY, NORTH CAROLINA 27511

ATTORNEY DOCKET NUMBER:	1135-059	
NAME OF SUBMITTER:	ASHLEY HANSON	
SIGNATURE:	/Ashley Hanson/	
DATE SIGNED:	06/07/2016	
This document serves as an Oath/Declaration (37 CFR 1.63).		

PATENT 503860296 REEL: 038836 FRAME: 0688

Total Attachments: 10	
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Title of

RESISTIVE CROSS-POINT ARCHITECTURE FOR ROBUST DATA

invention KEF	RESENTATION WITH ARBITRARY PRECISION	
As the below named inventor, I hereby declare that:		
This declaration is directed	ed to: The attached application; or United States application or PCT international application number 14/824,782, filed on August 12, 2015.	
The above-identified application is 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 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.		
WHEREAS, Arizona Board of Regents on behalf of Arizona State University, having a place of business at 1475 North Scottsdale Road, SkySong - Suite 200, Scottsdale, Arizona 85257 (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title, and interest in and to said		

NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over unto the said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the above-mentioned application and invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said ASSIGNEE, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

invention as described in the specification executed by me concurrently herewith, and any and all

Letters Patent which shall be granted therefor.

I, the said assignor, transfer and set over unto the said ASSIGNEE the rights to the priority application, namely U.S. provisional application 62/036.396 filed on August 12, 2014.

And for the consideration aforesaid, I hereby covenant and agree to and with the said ASSIGNEE, its successors and assigns, that at the time of the execution and delivery of these presents I am a joint and lawful owner of the entire right, title and interest in and to the invention, application and Letters Patent above-mentioned and that the same are unencumbered, and that I have good right and lawful authority to sell and convey the same in the manner herein set forth.

And for the consideration aforesaid, I hereby covenant and agree to and with the said ASSIGNEE, its successors and assigns, that I will, whenever its counsel or the counsel of its successors and assigns, learned in the law, shall advise that an amendment, division, continuation, continuation-in-part, or

I hereby request the Commissioner for Patents to issue the Letters Patent in accordance with this instrument.

For the consideration aforesaid, I have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, assigns or nominee, the entire right, title and interest in and to any and all Letters Patent for said invention which may be granted in countries foreign to the United States and in and to any applications for Letters Patent which may be filed for said invention in countries foreign to the United States and in and to the invention described in said application; and I hereby authorize and empower the said ASSIGNEE, its successors, assigns or nominees to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successor, assignee, or nominee, in any and all countries where it may desire to file such application and where said application may be filed by another than the inventor; and I hereby covenant and agree to sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for procurement of Letters Patent, or other form of protection, for said invention or inventions in countries foreign to the United States, and for further investing or confirming the right and title therein to the ASSIGNEE, its successors, assignee, or nominee, without charge to the said ASSIGNEE, its successor, assignee or nominee, but at its or their expense.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR	
Inventor: Shimeng Yu	Date:8/18/15
Stry	
Signature:	

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Title of

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Invention	REPRESENTATION WITH ARBITRARY PRECISION		
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IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR	
Inventor: Yu Cao	Date:8/18/2015
Signature: V. Cuo	

	Title of	RESISTIVE CROSS-POINT ARCHITECTURE FOR ROBUST DATA	
	Invention	REPRESENTATION WITH ARBITRARY PRECISION	
	As the below named inventor, I hereby declare that:		
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	The above-identified application is 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 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.		
	WHEREAS, Arizona Board of Regents on behalf of Arizona State University, having a place of business at 1475 North Scottsdale Road, SkySong - Suite 200, Scottsdale, Arizona 85257 (hereinafter		

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IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR

Inventor: Jae-sun Seo	Date:	08/18/2015

Signature:

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Invention	REPRESENTATION WITH ARBITRARY PRECISION			
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LEGAL NAME OF INVENTOR

Inventor: Sarma Vrudhula Date: May 26, 2016

Signature: Jame Vandhala

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Title of

riuc or	MESISTAL CROSS-FORM ARCHITECTURE FOR ROBUST DATA			
Invention	REPRESENTATION WITH ARBITRARY PRECISION			
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IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR					
Inventor: <u>Jieping Ye</u>	Date:	8/18/15			
Signature:					