504150053 12/21/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DONG KUN SHIN	12/12/2016
YOUNG HUN KIM	12/12/2016
JIN YOUNG YANG	12/16/2016

RECEIVING PARTY DATA

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Street Address:	(GUSEONG-DONG), 312-HO, KAIST KIM BEONG-HO ITC BLDG., 291, DAEHAK-RO, YUSEONG-GU, 34141
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State/Country:	KOREA, REPUBLIC OF

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15387232	

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	042088.0071
NAME OF SUBMITTER:	S. MAHMOOD AHMAD
SIGNATURE:	/S. Mahmood Ahmad/
DATE SIGNED:	12/21/2016

PATENT 504150053 REEL: 041156 FRAME: 0252

Total Attachments: 4

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PATENT REEL: 041156 FRAME: 0253

	DECLARATION
to United States Applic	entor, I hereby declare that this declaration is directed to the application altached hereto, of ation Number or PCT International Application Number(if applicable), entitled:
APPARATUS AN	ID METHOD FOR FILE RECORDING BASED ON NON-VOLATILE MEMORY
The above-identified ap	optication was made or authorized to be made by me.
I believe I am the originapplication.	nal inventor or an original joint inventor of a claimed invention in the above-identified
	that any willful false statement made in this declaration is punishable under 18 USC 1001 to find more than five (5) years, or both.
I have reviewed and un	derstand the contents of the above-identified application, including the claims.
to be material to patent information that became	to disclose to the United States Patent and Trademark Office all information known to me ability as defined in 37 CFR 1.56, including for continuation-in-part applications, material e available between the filing date of the prior application and the national or PCT of the continuation-in-part application.
	ASSIGNMENT
For valuable consideral	tion, I, as a below-named assignor, hereby assign to:
(Cheoncheon-c	BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY fong), c/o Sungkyunkwan Univ., 2066, Seobu-ro, Jangan-gu, onggi-do 16419 rea

CENTER FOR INTEGRATED SMART SENSORS FOUNDATION (Guseong-dong), 312-ho, KAIST Kim Beong-Ho ITC Bidg., 291, Daehak-ro, Yuseong-gu, Daejeon 34141

and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements that are the subject of the application identified in the above declaration, which is United States Application Number or PCT International Application Number

15/387,232 filed on December 21, 2016

Republic of Korea

I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.

This Assignment includes the above-identified application, any and all United States and foreign patents, utility models, and design registrations granted for any of the inventions and improvements that are the subject of the above-identified application, and the right to claim priority based on the filing date of the above-identified application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and I authorize the Assignee to

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apply in all countries in my name or in its own name for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

In witness whereof, I, as a below-named inventor and assignor, intending to be legally bound, have hereunto affixed my signature on the date indicated below next to my signature.

Inventor's Legal Name	Dong Kun SHIN	***********	
Inventor's Signature	Dongkun Shin	Date	20/12/2016
Residence (City, Country)	Secul, Republic of Korea	•	·
Mailing Address	(Degok-dong, Degok Rexle Apt.), 103-705, 221, Seelleung-re, Gangnam-gu, Seeul 06276, Republic of Korea		

Inventor's Legal Name	Young Hun KiM		
Inventor's Signature	Younghun Kom	Cate	20/12/2016
Residence (City, Country)	Suwon-si, Republic of Korea	***************************************	
Mailing Address	g Address (Yuljeon-dong, Mirae House), A-201, 26-10, Seobu-ro 2105beon-gil, Jangan-gu, Suwon-si, Gyeonggi-do 16362, Republic of Korea		

Inventor's Legal Name	Jin Young YANG		
Inventor's Signature		Date	
Residence (City, Country)	Seoul, Republic of Korea		
Maliing Address	(Gwangjang-dong, Gwangjang 11-cha Hyundai Hometown), 1104-201, 29, Achasan-ro 69- gil, Gwangjin-gu, Seoul 04984, Republic of Korea		

DECLARATION

As a below-named inventor, I hereby declare that this declaration is directed to the application attached hereto, or
to United States Application Number or PCT International Application Number
filed on (if applicable), entitled:
APPARATUS AND METHOD FOR FILE RECORDING BASED ON NON-VOLATILE MEMORY
The above-identified application was made or authorized to be made by me.
I believe I am the original inventor or an original joint inventor of a claimed invention in the above-identified application.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.
I have reviewed and understand the contents of the above-identified 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 1.56, including for continuation-in-part applications, material information that became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.
ASSIGNMENT
For valuable consideration, I, as a below-named assignor, hereby assign to:
RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY (Cheoncheon-dong), c/o Sungkyunkwan Univ., 2066, Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 16419 Republic of Korea
CENTER FOR INTEGRATED SMART SENSORS FOUNDATION (Guseong-dong), 312-ho, KAIST Kim Beong-Ho ITC Bldg., 291, Daehak-ro, Yuseong-gu, Daejeon 34141 Republic of Korea
and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest
throughout the world in the inventions and improvements that are the subject of the application identified in the
above declaration, which is United States Application Number or PCT International Application Number 15/387,232 filed on December 21, 2016
I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.

This Assignment includes the above-identified application, any and all United States and foreign patents, utility models, and design registrations granted for any of the inventions and improvements that are the subject of the above-identified application, and the right to claim priority based on the filling date of the above-identified application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignee to

apply in all countries in my name or in its own name for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

in witness whereof, i, as a below-named inventor and assignor, intending to be legally bound, have hereunto affixed my signature on the date indicated below next to my signature.

Inventor's Legal Name	Dong Kun SHIN		
Inventor's Signature		Date	
Residence (City, Country)	Secul, Republic of Korea	•••••••••••••••••••••••••••••••••••••••	
Mailing Address	(Dogak-dang, Dagak Rexle Apt.), 103-705, 221, Seofleung-ro, Gangnam-gu, Seoul 06276, Republic of Korea		
Inventor's Legal Name	Young Hun KIM		
Inventor's Signature		Date	
Residence (City, Country)	Suwori-ai, Republic of Korea		
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Inventor's Legal Name	Jin Young YANG		
Inventor's Signature	044 an j	Date	December, 16, 2016
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