505179128 11/07/2018

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5225896

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YOUNGSUNG KIM	10/11/2018
YOUNGJUN KWAK	10/11/2018
BYUNG IN YOO	10/11/2018
SEOHYUNG LEE	10/11/2018

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
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City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16182861

CORRESPONDENCE DATA

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Correspondent Name: NSIP LAW

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ATTORNEY DOCKET NUMBER:	012052.1657
NAME OF SUBMITTER:	WALE T. GODO
SIGNATURE:	/Wale T. Godo/
DATE SIGNED:	11/07/2018

Total Attachments: 4

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PATENT 505179128 REEL: 047435 FRAME: 0174

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PATENT REEL: 047435 FRAME: 0175

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

DECLARATION

As a below-named inventor, I hereby declare that the	is declaration is directed to the application attached hereto
or to United States Application Number or PCT Inter	national Application Number
filed on	(if applicable), entitled:

METHOD AND APPARATUS WITH EMOTION RECOGNITION

The above-identified application was made or authorized to be made by me.

believe 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:

Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do 16677 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 16/182,861 filed on November 7, 2018

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 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.

Page 1

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

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	Youngsung KIM	*****	
Inventor's Signature	-1 MM	Date	October 11, 2018
Residence (City, Country)	Suwon-si, Republic of Korea		1
Mailing Address	Samsung Advanced Institute of Technology, 13 Gyeonggi-do 16678, Republic of Korea	30, Sams	iung-ro, Yaungtang-gu, Suwon-si,

Inventor's Legal Name	Youngjun KWAK	***************************************	
Inventor's Signature	of som	Date	October 11, 2018
Residence (City, Country)	Seoul, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Techno Gyeonggi-do 16678, Republic of Korea	logy, 130, Sams	ung-ro, Younglong-gu, Suwon-si,

Inventor's Legal Name	Byung In YOO		
Inventor's Signature	Date		
Residence (City, Country)	Seoul, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130, Samsung-ro, Youngtong-gu, Suwon-si, Gyeonggi-do 16678, Republic of Korea		

Inventor's Legal Name	Seohyung	LEE	***************************************		
Inventor's Signature	0	M	r/	Date	October 11, 2018
Residence (City, Country)	Seoul, Republi	c of Korea			
Mailing Address	Samsung Adva Gyeonggi-do 1	anced Institute 6678, Republ	of Technology ic of Korea	, 130, Samsi	ung-ro, Youngtong-gu, Suwon-si,

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

DECLARATION

As a below-named inventor, I hereby declare that the	is declaration is directed to the application attached hereto
or to United States Application Number or PCT Inter	national Application Number
filed on	(if applicable), entitled:

METHOD AND APPARATUS WITH EMOTION RECOGNITION

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:

Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do 16677 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 16/182,861	filed on November 7, 2018

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 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.

PATENT REEL: 047435 FRAME: 0178

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.83(e)

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	Youngsa ng KiM	
Inventor's Signature		Cale
Residence (City, Country)	Suwon-si, Republic of Korea	
Mailing Address	Samsung Advanced incitiute of Technology, 130, Samsung-ro, Youngtong-gu, Suwan-si, Gyaonggi-do 16678, Republic of Korea	

inventor's Legal Name	Youngjun KWAK	
Inventor's Signature		Date
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Inventor's Legal Name	Byung In YOO	
inventor's Signature		Carlo 2-0/§ . /0.//
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Inventor's Legal Name	Seobyung LEE		
inversor's Signature		Dete	
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