PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5623419

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WON-JU LEE	04/11/2019
SE-HO SHIN	04/11/2019
DONG-WOOK LEE	04/11/2019
DAE-HYUN JI	06/28/2019

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City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16514661

CORRESPONDENCE DATA

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SUGHRUE MION, PLLC **Correspondent Name:**

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ATTORNEY DOCKET NUMBER:	Q245664
NAME OF SUBMITTER:	CHRISTOPHER ANNES
SIGNATURE:	/Christopher Annes/ TEAMS Dept.
DATE SIGNED:	07/17/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).
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Total Attachments: 4

PATENT REEL: 049782 FRAME: 0072

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PATENT REEL: 049782 FRAME: 0073

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹

The undersigned acknowledges that this document is being used both as an assignment of						
the invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.						
WHEREAS,	the undersigned, hereinafter refer	red to collectively as Assigr	or, has invented:			
	RAINING DATA GENERATING METH		IG, IMAGE			
	PROCESSING METHOD, AND DEVICE:	S THEREOF				
for which a	Assignor is about to make or has ma	ide United States or Interna	ational application			
for patent.						
WHEREAS,	. as a below named inventor(s), I/(w	e) hereby declare that:				
Section I	Declaration					
Section 1.	Deciaration					
This declar	ration is directed to:					
\boxtimes	The attached U.S. non-provisional patent application, or					
	U.S. non-provisional patent app		, filed			
	on,	or				
	PCT international patent applic	ation number	, filed on			
The above	-identified application was made or	authorized to be made by	me (us).			
	eve that I am (we are) the original ir					
	in the above-identified application.	iventor (original joint inven	itors) or a claimed			
¹ This form	This form requires the use of an Application Data Sheet.					
SEC Ref No	. RN-201804-005-1-US0	Attorney Ref No.	Q245664			

PATENT REEL: 049782 FRAME: 0074 I (we) 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.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

Section II. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

SEC Ref No.	RN-201804-005-1-US0	Attorney Ref No.	Q245664
SEC RELINO.	KN-201004-003-1-050	Attorney Rei No.	Q243004

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment, and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of Sughrue Mion, PLLC the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF FIRST INVENTOR/ASSIGNOR	Family Name	First Given Name Won-ju	Second Given Name
SIGNATURE		DATE	(4,04,1)

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SEC Ref No. RN-201804-005-1-US0		
	Attorney Ref No. Q245664	

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name	
INVENTOR/ASSIGNOR	SHIN	Se-ho		
		DATE	in die	
SIGNATURE		 	12:4:4	

LEGAL NAME OF	Family Name	First Given Name	Second Given Name	
THIRD INVENTOR/ASSIGNOR	en e	Dong-wook		
)		
SIGNATURE	4/22	DATE.		

LEGAL NAME OF Family Name First Given Name Second Given Name FOURTH
INVENTOR/ASSIGNOR JI Dae-hyun

SIGNATURE ALCOLOGIC (9.6.28

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RECORDED: 07/17/2019