PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6233986

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GYE TAE GIL	08/03/2020
JU YONG LEE	08/03/2020
DONG HO CHO	08/03/2020

RECEIVING PARTY DATA

Name: KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	
Street Address:	291, DAEHAK-RO, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34141

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16984702

CORRESPONDENCE DATA

Fax Number:

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: 571-313-7556
Email: mail@paratus.law

Correspondent Name: PARATUS LAW GROUP, PLLC

Address Line 1: 1765 GREENSBORO STATION PLACE

Address Line 2: SUITE 320

Address Line 4: TYSONS CORNER, VIRGINIA 22102

ATTORNEY DOCKET NUMBER:	432-0211
NAME OF SUBMITTER:	HANNAH HAN
SIGNATURE:	/Hannah Han/
DATE SIGNED:	08/04/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 6

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PATENT 506187247 REEL: 053397 FRAME: 0230

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PATENT REEL: 053397 FRAME: 0231 DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	ORBITAL ANGULAR MOMEMTUM-BASED TRANSMITTER, RECEIVER, AND COMMUNICATION METHOD		
As the below name	As the below named inventor, I hereby declare that:		
This declaration is directed to:	The attached application, or		
	United States application or PCT international Application number filed on		
The above-identifie	d application was made or authorized to be made by me.		
I believe that I am application.	the original inventor or an original joint inventor of a claimed invention in the		
WHEREAS, <u>KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY</u> with an office at <u>291</u> , <u>Daehak-ro</u> , <u>Yuseong-gu</u> , <u>Daejeon</u> , <u>34141</u> , <u>Republic of Korea</u> (hereinafter referred to as ASSIGNEE), is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;			
NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;			

Paratus Law Group, PLLC
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Tel: (571) 313-7556 [Fax: (703) 935-8473

PATENT REEL: 053397 FRAME: 0232

PTO/AIA/01 (06-12) (MODIFIED) Attorney Docket No.: 432-0211 Client Ref. No.: PO20-017-US

2 page / 2 pages

And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

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.

LEGAL NAME OF INVENTOR	

Inventor: GIL, Gye Tae Date: August 3, 2020

Signature:

Paratus Law Group, PLLC

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

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This declaration is directed to:	The attached application, or		
	United States application or PCT international Application number filed on		
The above-identifie	ed application was made or authorized to be made by me.		
I believe that I am application.	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
WHEREAS, KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY with an office at 291, Daehak-ro, Yuseong-gu, Daejeon, 34141, Republic of Korea (hereinafter referred to as ASSIGNEE), is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;			
NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;			

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And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

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.

Ŧ	TOTAL	NY A NATE	OF INVENTOR	
1	HITAI	JIN A IVIE	OKINVENTOR	

Inventor: LEE, Ju Yong

Date: August 3, 2020

Signature:

Paratus Law Group, PLLC
1765 Greensboro Station Pl., Suite 320
Throng Corpor VA 22102

1765 Greensboro Station Pl., Suite 320 Tysons Corner, VA 22102 Tel: (571) 313-7556 | Fax: (703) 935-8473 DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	ORBITAL ANGULAR MOMEMTUM-BASED TRANSMITTER, RECEIVER, AND COMMUNICATION METHOD	
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This declaration is directed to:	The attached application, or	
	United States application or PCT international Application number filed on	
The above-identifie	ed 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.		
WHEREAS, KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY with an office at 291, Daehak-ro, Yuseong-gu, Daejeon, 34141, Republic of Korea (hereinafter referred to as ASSIGNEE), is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;		
NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I by these presents do hereby assign, sell and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;		

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And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as said ASSIGNEE thereof shall hereafter require and prepare at its own expense;

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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.

LEGAL NAME OF INVENTOR

Inventor: CHO, Dong Ho Date: August 3, 2020

Signature:

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PATENT REEL: 053397 FRAME: 0237