

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4181614

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HUIYUE YI	12/08/2016
JING XU	12/08/2016
YANG YANG	12/08/2016
HONGLIN HU	12/08/2016
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<b>State/Country:</b>	CHINA
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15376686
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	5704/54
<b>NAME OF SUBMITTER:</b>	DANIEL SCHATZ
<b>SIGNATURE:</b>	/DANIEL SCHATZ/
<b>DATE SIGNED:</b>	12/13/2016
This document serves as an Oath/Declaration (37 CFR 1.63).	

**Total Attachments: 5**

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**ASSIGNMENT AND  
DECLARATION FOR UTILITY OR  
DESIGN PATENT APPLICATION**

☒ Declaration  
Submitted  
With Initial  
Filing

OR

☐ Declaration  
Submitted after initial  
Filing (surcharge  
(37 CFR 1.16(f)  
required)

Attorney Docket Number

First Named Inventor

YI, Huiyue

COMPLETE IF KNOWN

Application Number

Filing Date

Art Unit

Examiner Name

**UPLINK PILOT SEQUENCE ALLOCATION METHOD IN MASSIVE MIMO SYSTEM  
AND BASE STATION THEREOF**

*(Title of the Invention)*

As a below named inventor, I hereby declare that:

This assignment and declaration is directed to:

☒ The attached application

OR

☐ United States Application Number or PCT International application number \_\_\_\_\_  
filed on \_\_\_\_\_ (MM/DD/YYYY)

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 application.

I hereby acknowledge that any wilful 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 specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

As a below named inventor, I hereby sell, assign and transfer unto to SHANGHAI RESEARCH CENTER FOR WIRELESS COMMUNICATIONS, a corporation of China, herein referred to as "Assignee", whose mailing address is 4/F, Building 8, No. 100, Haik Road, Pudong New Area, Shanghai City 201210 P. R. China, the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I hereby authorize and request the Commissioner of Patents and Trademarks to issue said United States Patent, the entire right, title, and interest in and to the same, for the Assignee's sole use and benefit; and for the use and benefit of the Assignee's legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

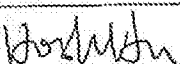
**ASSIGNMENT AND DECLARATION  
For Utility or Design Patent Application**

<b>LEGAL NAME OF SOLE OR FIRST INVENTOR:</b>			
Given Name (first and middle [if any]) Huiyue		Family Name or Surname YI	
Inventor's Signature <i>Huiyue Yi</i>		Date (Optional) December 8, 2016	
Residence: City Shanghai	State Shanghai	Country China	
Mailing Address 4/F, Building 8, No.100 Haik Road, Pudong New Area, Shanghai City 201210 China			
City Shanghai	State Shanghai	Zip 201210	Country China
<b>LEGAL NAME OF SECOND INVENTOR:</b>			
Given Name (first and middle [if any]) Jing		Family Name or Surname XU	
Inventor's Signature <i>Jing XU</i>		Date (Optional) December 8, 2016	
Residence: City Shanghai	State Shanghai	Country China	
Mailing Address 4/F, Building 8, No.100 Haik Road, Pudong New Area, Shanghai City 201210 China			
City Shanghai	State Shanghai	Zip 201210	Country China
<b>LEGAL NAME OF THIRD INVENTOR:</b>			
Given Name (first and middle [if any]) Yang		Family Name or Surname YANG	
Inventor's Signature <i>Yang Yang</i>		Date (Optional) December 8, 2016	
Residence: City Shanghai	State Shanghai	Country China	
Mailing Address 4/F, Building 8, No.100 Haik Road, Pudong New Area, Shanghai City 201210 China			
City Shanghai	State Shanghai	Zip 201210	Country China
<input checked="" type="checkbox"/> Additional inventors are being named on the <u>1</u> supplemental sheet(s) attached hereto.			

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# ASSIGNMENT AND DECLARATION

ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
Page 1 of 1

LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY:			
Given Name (first and middle [if any]) Honglin		Family Name or Surname HU	
Inventor's Signature 		Date (Optional) December 8, 2016	
Residence: City Shanghai	State Shanghai	Country China	
Mailing Address 4/F, Building 8, No.100 Haik Road, Pudong New Area, Shanghai City 201210 China			
City Shanghai	State Shanghai	Zip 201210	Country China
LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY:			
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date (Optional)	
Residence: City	State	Country	
Mailing Address			
City	State	Zip	Country
LEGAL NAME OF ADDITIONAL JOINT INVENTOR, IF ANY:			
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date (Optional)	
Residence: City	State	Country	
Mailing Address			
City	State	Zip	Country

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**STATEMENT UNDER 37 CFR 3.73(c)**Applicant/Patent Owner: SHANGHAI RESEARCH CENTER FOR WIRELESS COMMUNICATIONS

Application No./Patent No.: \_\_\_\_\_ Filed/Issue Date: \_\_\_\_\_

Titled: UPLINK PILOT SEQUENCE ALLOCATION METHOD IN MASSIVE MIMO SYSTEM AND BASE STATION THEREOFSHANGHAI RESEARCH CENTER FOR WIRELESS COMMUNICATIONS, a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose one of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is \_\_\_\_\_. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose one of options A or B below):

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at

Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at

Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

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This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(c)**

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

4. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

5. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
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6. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet(s).☐ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/DANIEL SCHATZ/

2016-12-13

Signature

Date

DANIEL SCHATZ

59537

Printed or Typed Name

Title or Registration Number

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