504107450 11/22/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4154119

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DOUGLAS H. WERNER	01/14/2016
ZHIHAO JIANG	01/14/2016

RECEIVING PARTY DATA

Name:	THE PENN STATE RESEARCH FOUNDATION		
Street Address:	304 OLD MAIN		
City:	UNIVERSITY PARK		
State/Country:	PENNSYLVANIA		
Postal Code:	16802-1504		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15358577

CORRESPONDENCE DATA

Fax Number: (412)562-1041

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: 412-392-2121

Email: vicki.cremonese@bipc.com, deanna.durika@bipc.com

Correspondent Name: RALPH G. FISCHER

Address Line 1: 301 GRANT STREET, 20TH FLOOR

Address Line 2: ONE OXFORD CENTRE

Address Line 4: PITTSBURGH, PENNSYLVANIA 15219

ATTORNEY DOCKET NUMBER:	0073605-000296
NAME OF SUBMITTER:	RALPH G. FISCHER
SIGNATURE:	/Ralph G. Fischer/
DATE SIGNED:	11/22/2016

Total Attachments: 2

source=img-161122134814-0001#page1.tif source=img-161122134814-0001#page2.tif

PATENT 504107450 REEL: 040401 FRAME: 0861

MOTANIAL SEAL E K. Keshvani, Holory Plank

tate College Boro., Centré County v Commission Expires July 26, 2019

ASSIGNMENT

FOR VALUE RECEIVED, and pursuant to my obligations under my employment agreements/appointments with THE PENNSYLVANIA STATE UNIVERSITY ("University"), I, Douglas H. Werner, residing at 2365 Oak Leaf Drive, State College, Pennsylvania 16803, hereby sell, assign and transfer unto the University's designee, THE PENN STATE RESEARCH FOUNDATION, as assignee, and its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter invented by me and disclosed or claimed in an application for Letters Patent of the United States of America, entitled:

"ANTENNA APPARATUS AND COMMUNICATION SYSTEM"

signed by I on the date set forth below; and in and to any and all continuations, continuations-in-part, divisions, reissues, renewals, extensions, substitutions, additions or reexaminations of such application and any U.S. patents issuing thereon; and in and to any and all corresponding international and foreign applications for Letters Patent and any foreign patents issuing thereon; and all Convention and Treaty Rights of any kind, in all countries throughout the world, for all such subject matter; together with all claims for damages by reason of future, present and past infringement, with the right to sue for and collect the same for assignee's use and on behalf of assignee's successors, assigns and legal representative.

I request that any and all patents for said inventions be issued to said assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

I agree that, when requested; I will, without charge to said assignee but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing, maintaining and enforcing patents for said inventions in any and all countries and for vesting title thereto in said assignee, its successors, assigns and legal representatives or nominees.

I authorize and empower the said assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may benceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of said assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with said assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

Signed at University Park, Pennsylvania, this 14th	day of January, 2016.
Witness: Rosed D. Amore H	Signed: A. Werner
STATE OF PENNSYLVANIA :	Douglas H. Werner
COUNTY OF CENTRE : SS:	
	, 2016, before me, a Notary Public in and for the county and rsonally known to be the person whose name is subscribed to the ed said instrument as his free and voluntary act for the uses and
Witness my hand and seal the day and year last	above given. Diane K. Klahvoziu

Notary Public

Docket No. PSU: 2015-4372

ASSIGNMENT

FOR VALUE RECEIVED, and pursuant to my obligations under my employment agreements/appointments with THE PENNSYLVANIA STATE UNIVERSITY ("University"), I, Zhihao Jiang, residing at 743 Southgate Drive, State College, Pennsylvania 16801, hereby sell, assign and transfer unto the University's designee, THE PENN STATE RESEARCH FOUNDATION, as assignee, and its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter invented by me and disclosed or claimed in an application for Letters Patent of the United States of America. entitled:

"ANTENNA APPARATUS AND COMMUNICATION SYSTEM"

signed by I on the date set forth below; and in and to any and all continuations, continuations-in-part, divisions, reissues, renewals, extensions, substitutions, additions or reexaminations of such application and any U.S. patents issuing thereon; and in and to any and all corresponding international and foreign applications for Letters Patent and any foreign patents issuing thereon; and all Convention and Treaty Rights of any kind, in all countries throughout the world, for all such subject matter; together with all claims for damages by reason of future, present and past infringement, with the right to sue for and collect the same for assignee's use and on behalf of assignee's successors, assigns and legal representative.

I request that any and all patents for said inventions be issued to said assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

I agree that, when requested, I will, without charge to said assignee but at its expense, sign all papers, take all rightful oaths. and do all acts which may be necessary, desirable or convenient for securing, maintaining and enforcing patents for said inventions in any and all countries and for vesting title thereto in said assignee, its successors, assigns and legal representatives or nominees.

I authorize and empower the said assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of said assignce or nominee to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it

I covenant with said assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

Signed at University Park, Per	nsylvania, this <u>14</u>	day of January, 2016.	
Witness: <u>Grad</u>	The sage while	Signed: Zhihoso Jiang	··········
STATE OF PENNSYLVANIA	\ :		
	: SS:		
COUNTY OF CENTRE	:		
		2016, before me, a Notary Public in and for the hally known to be the person whose name is subscribed to instrument as his free and voluntary act for the uses and pure	
Witness my hand and	seal the day and year	last above given.	
COMMONWEALTH OF NOTARIAL S DANK K. KESHVARI, I	EAL .	Diane K. Klshvari Notary Public	

PATENT REEL: 040401 FRAME: 0863

RECORDED: 11/22/2016

COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL DIANE K. KESHVARI, Notary Public State College Boro., Centre County My Commission Expires July 26, 2019