#### 04/12/2019 505426034

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5472825

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TZU-CHENG LEE	03/28/2019
JIAN ZHOU	04/02/2019
ZHOU YU	04/01/2019

#### **RECEIVING PARTY DATA**

Name:	CANON MEDICAL SYSTEMS CORPORATION
Street Address:	1385, SHIMOISHIGAMI, OTAWARA-SHI
City:	TOCHIGI
State/Country:	JAPAN
Postal Code:	324-0036

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16372206

#### CORRESPONDENCE DATA

Fax Number: (703)413-2220

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: (703) 413-3000 Email: bcarrillo@oblon.com **Correspondent Name:** OBLON, ET AL. Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	519704US
NAME OF SUBMITTER:	BRYANT CARRILLO
SIGNATURE:	/Bryant Carrillo/
DATE SIGNED:	04/12/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

#### **Total Attachments: 3**

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> **PATENT** REEL: 048874 FRAME: 0844 505426034

Attorney Docket Number: 519704US

## 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	APPARATUS AND METHOD FOR SINOGRAM RESTORATION IN COMPUTED TOMOGRAPHY (CT) USING ADAPTIVE FILTERING WITH
	DEEP LEARNING (DL)
As the below name	d inventor, I hereby declare that:
This declaration 🗵	The attached application, or
is directed to:	United States application or PCT international application number filed on
The above-identified 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.	
**************	NON MEDICAL SYSTEMS CORPORATION
324-8550 Japan, is	d to as "ASSIGNEE") having places of business at: 1385 Shimoishigami, Otawara-shi, Tochigi desirous of acquiring the entire right, title and interest in and to said invention and in and to any may be granted therefore in the United States and its territorial possessions and in any and all
acknowledged, and said ASSIGNEE, the and in all foreign controlled other relevant Inter- interest in and to a	FORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto be full and exclusive right to the said invention in the United States and its territorial possessions countries (including the right to claim priority under the terms of the International Convention and mational Treaties and Arrangements from the aforesaid application) and the entire right, title and any and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters 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.	
Further, I agree that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.	
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: Tzu-Ch	eng LEE Date: 2019. Max 28
Signature: 2h-Um Lee	

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 048874 FRAME: 0845

Attorney Docket Number: 519704US

# 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	A NO A D A TO VO. A VYY A COURT OF THE COURT
invention	APPARATUS AND METHOD FOR SINOGRAM RESTORATION IN
138 V C 13 L 1 (138	COMPUTED TOMOGRAPHY (CT) USING ADAPTIVE FILTERING WITH
	DEEP LEARNING (DL)
As the below name	d inventor, I hereby declare that:
This declaration 🛚	The attached application, or
is directed to:	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 t	he original inventor or an original joint inventor of a claimed invention in the application.
WHEREAS, <u>CAN</u> (hereinafter referred 324-8550 Japan, is	NON MEDICAL SYSTEMS CORPORATION  I to as "ASSIGNEE") having places of business at: 1385 Shimoishigami, Otawara-shi, Tochigi desirous of acquiring the entire right, title and interest in and to said invention and in and to any may be granted therefore in the United States and its territorial possessions and in any and all
said ASSIGNEE, the and in all foreign coother relevant Interninterest in and to an	ORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto be full and exclusive right to the said invention in the United States and its territorial possessions ountries (including the right to claim priority under the terms of the International Convention and national Treaties and Arrangements from the aforesaid application) and the entire right, title and my and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
assignee of my entire (his) successors and	the and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its assigns, to the full end of the term for which said Letters Patent may be granted, as fully and would have been held by me had this Assignment and sale not been made.
Further, I agree that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.	
I hereby acknowle by fine or imprisonm	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 lent of not more than five (5) years, or both.
LEGAL NAME OF	INVENTOR
Inventor: Jian ZHC	Date: 4/2/2019
Signature:	

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW

1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 048874 FRAME: 0846

Attorney Docket Number: 519704US

## 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	APPARATUS AND METHOD FOR SINOGRAM RESTORATION IN
Invention	COMPUTED TOMOGRAPHY (CT) USING ADAPTIVE FILTERING WITH
As the helow name	DEEP LEARNING (DL) ed inventor, I hereby declare that:
	The attached application, or
is directed to:	United States application or PCT international application numberfiled on
The above-identific	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, CANON MEDICAL SYSTEMS CORPORATION  (hereinafter referred to as "ASSIGNEE") having places of business at: 1385 Shimoishigami, Otawara-shi, Tochigi 324-8550 Japan, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;	
NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.	
I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters 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.	
Further, I agree that I will communicate to said ASSIGNEE or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.	
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: Zhou Y	<u>'U</u> Date: <u>4/11/5</u>
Cianatura	

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 048874 FRAME: 0847

**RECORDED: 04/12/2019**