PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT6031780

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------|----------------|
| XUAN LIN | 12/11/2019 |
| NAIYAN WANG | 12/11/2019 |

RECEIVING PARTY DATA

| Name: | SHANGHAI TUSEN WEILAI ARTIFICIAL INTELLIGENCE TECHNOLOGY CO., LTD. |
|-----------------|--|
| Street Address: | BUILDING C, NO. 888, HAUNHU WEST 2ND ROAD |
| City: | SHANGHAI |
| State/Country: | CHINA |
| Postal Code: | 510800 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16711231 |

CORRESPONDENCE DATA

Fax Number: (858)720-5799

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: 8587205700

patentprocurement@perkinscoie.com, aserrano@perkinscoie.com Email:

PERKINS COIE LLP, VINAY SATHE **Correspondent Name:**

Address Line 1: P.O. BOX 1247

Address Line 4: SEATTLE, WASHINGTON 98111

| ATTORNEY DOCKET NUMBER: | 135680-8007.US00 |
|-------------------------|--|
| NAME OF SUBMITTER: | ADRIANA SERRANO |
| SIGNATURE: | /Adriana Serrano/ |
| DATE SIGNED: | 03/25/2020 |
| | This document serves as an Oath/Declaration (37 CFR 1.63). |

Total Attachments: 6

source=Combined-Declaration-Assignment-All-Inventors-135680-8007US00#page1.tif source=Combined-Declaration-Assignment-All-Inventors-135680-8007US00#page2.tif source=Combined-Declaration-Assignment-All-Inventors-135680-8007US00#page3.tif

source=Combined-Declaration-Assignment-All-Inventors-135680-8007US00#page4.tif source=Combined-Declaration-Assignment-All-Inventors-135680-8007US00#page5.tif source=Combined-Declaration-Assignment-All-Inventors-135680-8007US00#page6.tif

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): SHANGHAI TUSEN WEILAI

ARTIFICIAL INTELLIGENCE TECHNOLOGY CO.,

LTD.

Inventor(s): Xuan LIN, et al.

Application No.: 16/711,231

Confirmation No.: 5764

Filing Date: December 11, 2019

Title: METHOD FOR CREATING OCCUPANCY GRID MAP AND PROCESSING APPARATUS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Xuan LIN, of Beijing, China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

METHOD FOR CREATING OCCUPANCY GRID MAP AND PROCESSING APPARATUS

which was filed on December 11, 2019, as Application No. 16/711,231, and which claims the benefit of priority of Chinese Patent Application No. 201811511157.5, filed on December 11, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Naiyan WANG, of Beijing, China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

146608324.1

Inventor : Xuan I.IN, et al. Appl. No. : 16/711,231

Filed : December 11, 2019

Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to <u>SHANGHAI TUSEN WEILAI ARTIFICIAL INTELLIGENCE</u>
<u>TECHNOLOGY CO., LTD.</u>, a corporation of Shanghai, China, having a place of business at Building C, No. 888, Haunhu West 2nd Road, Shanghai, China, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent, entitled *METHOD FOR CREATING OCCUPANCY GRID MAP AND PROCESSING APPARATUS*, filed on December 11, 2019, and assigned U.S. Application Number 16/711,231, and which claims the benefit of priority of Chinese Application .

201811511157.5, filed on December 11, 2018.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

146608324.1

Inventor : Xuan I.IN, et al. Appl. No. : 16/711,231

Filed : December 11, 2019

Page : 3 of 3

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

| Full name of inv | entor: Xuan | LIN | | |
|-------------------|--------------------|------------|--|--|
| Inventor's signat | .ure: <u>Xilah</u> | <u>lin</u> | | |
| Date: 2019. 1 | 2. | | | |

The Assignee hereby acknowledges the assignment. The undersigned is authorized to act on behalf of the Assignee.

Assignee: SHANGHAI TUSEN WEILAI ARTIFICIAL INTELLIGENCE TECHNOLOGY CO., LTD.

Authorized officer's legal name: Han-fang Lei

Authorized officer's title: Patent Manager

Authorized officer's signature: CMM

Decriping 12/19/19

Perkins Coie LLP P.O. Box 1247

Seattle, Washington 98111-1247

Telephone: (858) 720-5700 Facsimile: (206) 359-7198

146608324.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): SHANGHAI TUSEN WEILAI

ARTIFICIAL INTELLIGENCE TECHNOLOGY CO.,

LTD.

Inventor(s): Xuan LIN, et al.

Application No.: 16/711,231

Confirmation No.: 5764

Filing Date: December 11, 2019

Title: METHOD FOR CREATING OCCUPANCY GRID MAP AND PROCESSING APPARATUS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Naiyan WANG, of Beijing, China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

METHOD FOR CREATING OCCUPANCY GRID MAP AND PROCESSING APPARATUS

which was filed on December 11, 2019, as Application No. 16/711,231, and which claims the benefit of priority of Chinese Patent Application No. 201811511157.5, filed on December 11, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Xuan LIN, of Beijing, China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

1466088903

Inventor: Xuan LIN, et al. Appl. No.: 16/711,231

Filed: December 11, 2019

Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to SHANGHAI TUSEN WEILAI ARTIFICIAL INTELLIGENCE
TECHNOLOGY CO., LTD., a corporation of Shanghai, China, having a place of business at
Building C, No. 888, Haunhu West 2nd Road, Shanghai, China, and its successors and assigns
(collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the
world in any and all inventions and improvements which are described in an application for
United States Patent, entitled METHOD FOR CREATING OCCUPANCY GRID MAP AND
PROCESSING APPARATUS, filed on December 11, 2019, and assigned U.S. Application
Number 16/711,231, and which claims the benefit of priority of Chinese Application .
201811511157.5, filed on December 11, 2018.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

146608890.1

Inventor : Xuan LIN, et al. Appl. No. : 16/711,231

Filed : December 11, 2019

: 3 of 3 Page

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor: Naiyan WANG

Inventor's signature: Vamue Wa

| alf of the Assignee. | | | 4 |
|--------------------------------|-------------|--------------|-------------------|
| Assignce: SHANGHAI TUS | EN WEILAI A | RTIFICIAL IN | TELLIGENCE |
| TECHNOLOGY CO., LTD | | | |
| Authorized officer's legal nan | ne: Hanfi | ang Lei | |
| Authorized officer's title: | Patent | Manager | |
| Authorized officer's signature | : Q | MAA | |
| Date: 12/19/19 | | | |

146608890.1

PATENT REEL: 052228 FRAME: 0519

RECORDED: 03/25/2020

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