

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	INTERNATIONAL BUSINESS MACHINES CORPORATION	03/02/2020
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	INTERNATIONAL BUSINESS MACHINES CORPORATION	
<b>Street Address:</b>	NEW ORCHARD ROAD	
<b>City:</b>	ARMONK	
<b>State/Country:</b>	NEW YORK	
<b>Postal Code:</b>	10504	
<b>Name:</b>	TOYOTA TECHNOLOGICAL INSTITUTE AT CHICAGO	
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<b>City:</b>	CHICAGO	
<b>State/Country:</b>	ILLINOIS	
<b>Postal Code:</b>	60637	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	16267489
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(703)761-2375	
<i>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.</i>		
<b>Phone:</b>	703-761-4100	
<b>Email:</b>	gburris@mcginniplaw.com	
<b>Correspondent Name:</b>	MCGINN IP LAW GROUP PLLC	
<b>Address Line 1:</b>	8321 OLD COURTHOUSE ROAD	
<b>Address Line 4:</b>	VIENNA, VIRGINIA 22182-3817	
<b>ATTORNEY DOCKET NUMBER:</b>	P201807646US01	
<b>NAME OF SUBMITTER:</b>	SEAN M. MCGINN	
<b>SIGNATURE:</b>	/Sean M. McGinn/	
<b>DATE SIGNED:</b>	03/05/2020	
<b>Total Attachments: 4</b>		

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**ASSIGNMENT OF APPLICATION  
FOR UNITED STATES PATENT**

**WHEREAS:**

**NAME AND  
ADDRESS OF  
ASSIGNOR:**

International Business Machines Corporation  
New Orchard Road  
Armonk, NY 10504

(hereinafter referred to as ASSIGNOR), owns a certain new and  
useful invention entitled:

**TITLE OF  
INVENTION:**

RECOGNITION OF OUT-OF-VOCABULARY IN DIRECT  
ACOUSTICS-TO-WORD SPEECH RECOGNITION USING  
ACOUSTIC WORD EMBEDDING  
(U.S. Application No. 16/267,489)

**AND WHEREAS:**

**FULL NAME  
AND ADDRESS  
OF ASSIGNEES**

International Business Machines Corporation  
New Orchard Road  
Armonk, NY 10504

AND

Toyota Technological Institute at Chicago  
6045 S. Kenwood Ave  
Chicago, IL 60637

(hereinafter referred to collectively as ASSIGNEES), are  
desirous of acquiring the entire right, title, and interest in, to  
and under said invention and the United States Letters  
Patent to be obtained therefor.

*NOW THEREFORE, TO ALL WHOM IT MAY CONCERN:* Be  
it known that in consideration of the payment of ASSIGNEES  
to ASSIGNOR of good and valuable consideration, the receipt  
of which is hereby acknowledged, ASSIGNOR, by these  
presents, hereby sells, assigns and transfers to ASSIGNEES  
the entire and exclusive right, title and interest to said  
invention and all Letters Patent of the United States to be  
obtained therefor on said application or any continuation,  
division, renewal, substitute or reissue thereof for the full  
term or terms for which the same may be granted.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States Patent obtained therefor on said application or any continuation, division, renewal, substitute or reissue thereof for the full term or terms to said ASSIGNEES, of the entire right, title, and interest in and to the same, for their sole use and behoof, and for the use and behoof of their legal representatives, to the full end of the term or terms for which said Letters Patent obtained therefor on said application or any continuation, division, renewal, substitute or reissue thereof for may be granted, as full and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale; and

ASSIGNOR further covenants that ASSIGNEES will, upon their request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEES or their legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain and enforce said application, said invention and said Letters Patent which may be necessary or desirable to carry out the purposes hereof.

DATE OF SIGNING:

IN WITNESS WHEREOF, Assignor has executed this Assignment by proper person below duly authorized this 2<sup>nd</sup> day of March, 2020.

ASSIGNOR SIGNATURE:

By:

Lisa M. Regan

Lisa M. Regan

Title: Vice President Operation & Finance  
Research & Intellectual Property

WITNESSES:

Maria Weyrauch  
Maurice Kesterson

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)**Applicant/Patent Owner: International Business Machines CorporationApplication No./Patent No.: 16/267,489 Filed/Issue Date: February 5, 2019Titled: RECOGNITION OF OUT-OF-VOCABULARY IN DIRECT ACOUSTICS-TO-WORD SPEECH RECOGNITION USING ACOUSTIC WORD EMBEDDING

International Business Machines Corporation, 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 049949, Frame 0695, 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.

[Page 1 of 2]

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.

**PATENT**  
**REEL: 052031 FRAME: 0116**

**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  
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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.

Signature

Sean M. McGinn, Esq.

Printed or Typed Name

Date

3/5/2020

34,386

Title or Registration Number