505896809 02/03/2020

EPAS ID: PAT5943510

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the INCORRECT SPELLING OF INVENTOR MIRKO VOSONTAI'S NAME TO MIRKÓ VISONTAI previously recorded on Reel 047335 Frame 0902. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
Samuel Bengio	12/20/2016
MIRKÓ VISONTAI	12/21/2016
CHRISTOPHER WALTER GEORGE THORNTON	12/20/2016
Michiel A.U. Bacchiani	12/20/2016
Tara N. Sainath	12/20/2016
Ehsan Variani	12/20/2016
Izhak Shafran	12/20/2016

RECEIVING PARTY DATA

Name:	GOOGLE INC.
Street Address:	1600 AMPHITHEATRE PARKWAY
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94043

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16171629

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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: (202) 626-6404

Email: apsi@fr.com, lswanson@fr.com

Correspondent Name: SAM L. WILLIAMS

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Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	16113-8087002
NAME OF SUBMITTER:	LISA SWANSON

PAIENI REEL: 051782 FRAME: 0314 505896809

SIGNATURE:	/Lisa Swanson/
DATE SIGNED:	02/03/2020
Total Attachments: 4	
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source=16113-8087002 Corrective Assignment#page4.tif	

PATENT REEL: 051782 FRAME: 0315

505163150 10/29/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5209917

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Samuel Bengio	12/20/2016
Mirko Visontai	12/21/2016
CHRISTOPHER WALTER GEORGE THORNTON	12/20/2016
Michiel A.U. Bacchiani	12/20/2016
Tara N. Sainath	12/20/2016
Ehsan Variani	12/20/2016
Izhak Shafran	12/20/2016

RECEIVING PARTY DATA

Name:	GOOGLE INC.
Street Address:	1600 AMPHITHEATRE PARKWAY
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94043

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16171629

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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.

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 (202) 626-6404

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ATTORNEY DOCKET NUMBER:	16113-8087002
NAME OF SUBMITTER:	CHRISTINE M. TOMLINSON
SIGNATURE:	/Christine M. Tomlinson/
DATE SIGNED:	10/29/2018

PATENT REEL: 051782 FRAME: 0316

Attorney's Docket No.: 16113-8087001

Page 1 of 3

ASSIGNMENT and CONFIRMATION 1 1/24/2019

We, Samuel Bengio, Mirko Visontai, Christopher Walter George Thomton, Michiel A.U. Bacchiani, Tara N. Sainath, Ehsan Variani and Izhak Shafran, each hereby confirm the assignment and transfer to Google Inc., a Delaware corporation having a place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043, and its successors and assigns (collectively, "ASSIGNEE") of all of our individual and joint right, title and interest throughout the world in and to any and all inventions and improvements that are the subject or subjects of a patent application entitled

COMPLEX LINEAR PROJECTION FOR ACOUSTIC MODELING

that names us as inventors, and was filed in <u>United States</u> on <u>October 26, 2018</u>, as application no. <u>16/171,629</u>. We authorize and request the attorneys filing the application to complete this assignment by inserting the filing date and serial number of the application when known. The foregoing assignment and transfer occurred by operation of one or more agreements relating to our employment by Google Inc. or an affiliate of Google Inc. Should any of us have any remaining interest, we each hereby assign and transfer any right, title or interest we may have in the above-mentioned inventions and improvements anywhere in the world to ASSIGNEE.

This assignment and confirmation includes the foregoing patent application or patent; all legal equivalents thereof in any country and all patents issuing therefrom; all patents, utility models, and design registrations granted for any of said inventions and improvements throughout the world; and the right to claim priority based on the filing date of the foregoing patent application or patent 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. We authorize ASSIGNEE to apply in all countries in our names or in the name of ASSIGNEE for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for the assigned inventions and improvements.

PATENT REEL: 04733**8 A RENIE**: 0904 REEL: 051782 FRAME: 0317

Attomey's Docket No.: 16113-8087001

Page 2 of 3

The foregoing assignments have been made for good and valuable consideration, the receipt of which is hereby acknowledged, and in accordance with the employment-related agreements existing at the time the above-mentioned inventions and improvements were made.

We hereby represent and covenant that no assignment, agreement or encumbrance has been or will be made or entered into by us that would conflict with the abovementioned assignment of the inventions and improvements to ASSIGNEE.

We further covenant for ourselves and our respective heirs, legal representatives and assigns to provide to ASSIGNEE promptly upon the request of ASSIGNEE all pertinent facts and documents relating to any of the above-mentioned inventions and improvements, patent applications, patents and legal equivalents, as may be known and accessible to us; to testify as to the same in any interference, litigation, or proceeding relating thereto; and promptly to execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce any of the above-mentioned applications, inventions and improvements, patents and equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

-DocuBigned by:

Dated: 12/20/2016	Sambongus
	Samuel Bengio
Dated: 12/21/2016	Docusigned by:
	Mirko Visontai VM 7/24/2019
Dated: 12/20/2016	Ch HA
	Christopher Walter George Thornton

Dated: 12/20/2016	Michiel A.U. Bacchiani	Page 3 of
Dated: 12/20/2016	Tara N. Sainath	
Dated: 12/20/2016	Decusioned by: The Ensan Variani	
Dated: 12/20/2016	Docusigned by: Sharpersonger: Izhak Shafran	

PATEMATENT REERE647:305177821178-2016: 0319

Attorney's Docket No.: 16113-8087001

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