### 505701636 10/01/2019

## PATENT ASSIGNMENT COVER SHEET

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

### **CONVEYING PARTY DATA**

| Name                          | Execution Date |
|-------------------------------|----------------|
| AFSHIN HAGHIGHAT              | 01/03/2019     |
| OGHENEKOME OTERI              | 06/28/2018     |
| ALPHAN SAHIN                  | 06/15/2018     |
| SHAHROKH NAYEB NAZAR          | 06/27/2018     |
| MOON-IL LEE                   | 06/13/2018     |
| PRASANNA HERATH MUDIYANSELAGE | 07/18/2018     |

### **RECEIVING PARTY DATA**

| Name:             | IDAC HOLDINGS, INC.  |
|-------------------|----------------------|
| Street Address:   | 200 BELLEVUE PARKWAY |
| Internal Address: | SUITE 300            |
| City:             | WILMINGTON           |
| State/Country:    | DELAWARE             |
| Postal Code:      | 19809                |

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

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 16477087 |

### **CORRESPONDENCE DATA**

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| ATTORNEY DOCKET NUMBER: | 13488US02       |
|-------------------------|-----------------|
| NAME OF SUBMITTER:      | JULIAN SANTOS   |
| SIGNATURE:              | /JulianFSantos/ |
| DATE SIGNED:            | 10/01/2019      |

PATENT 505701636 REEL: 050588 FRAME: 0634

# Total Attachments: 8 source=13488WO01\_Exec\_Assignment#page1.tif source=13488WO01\_Exec\_Assignment#page2.tif source=13488WO01\_Exec\_Assignment#page3.tif source=13488WO01\_Exec\_Assignment#page4.tif source=13488WO01\_Exec\_Assignment#page5.tif source=13488WO01\_Exec\_Assignment#page6.tif source=13488WO01\_Exec\_Assignment#page7.tif source=13488WO01\_Exec\_Assignment#page8.tif

PATENT REEL: 050588 FRAME: 0635 Docket No.: 13488WO01

### PATENT ASSIGNMENT

### WHEREAS, I/We,

- 1. Afshin Haghighat Montreal, Quebec Canada
- 3. Alphan Sahin Melville, NY United States of America
- 5. Moon-il Lee Melville, NY United States of America

- 2. Oghenekome Oteri San Diego, CA United States of America
- 4. Shahrokh Nayeb Nazar San Diego, CA United States of America
- Prasanna Herath Mudiyanselage Montreal, QC Canada

(hereinafter "Assignor(s)"), are sole/joint inventor(s) of certain inventions or improvements set forth in International Patent Application No. PCT/US18/13685, filed January 13, 2018 entitled:

# METHODS, APPARATUSES AND SYSTEMS DIRECTED TO PHASE-CONTINUOUS FREQUENCY SELECTIVE PRECODING

("Patent Application"); and

WHEREAS, IDAC Holdings, Inc., a Delaware corporation having a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809 (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in, to and under the Patent Application; the inventions, discoveries and improvements disclosed or claimed therein ("Inventions"); and any and all patents, certificates of invention, utility models and other forms of protection which may be granted thereon or as a result thereof in any and all countries ("Patents").

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, I/we, the undersigned Assignor(s), hereby agree to sell, assign, transfer and convey, and by these presents do sell, assign, transfer and convey to Assignee, our entire right, title and interest in and to any and all of the following:

- i. the Patent Application, the Inventions and the Patents, for the United States, its possessions and territories and all foreign countries and territories;
- ii. the rights of priority created by the Patent Application and the Patents under any treaty relating thereto, including the rights to apply for Patents covering the Inventions in any and all countries;
- iii. any and all patent applications and Patents resulting from the Patent Application or covering the Inventions in any and all countries, including provisionals, non-provisionals, divisionals, continuations, continuations-in-part, renewals, substitutions, extensions, reissues and re-examinations thereof;

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all past, present and future causes of action and enforcement rights, whether currently pending, filed or otherwise, in connection with the Patent Application, the Inventions, the Patents, or the patents and patent applications resulting therefrom, including without limitation, all rights to sue for any past, present or future infringements thereof, including the rights to license and to collect and receive any damages, royalties, injunctive relief, and/or any other settlements or remedies for such infringements, and including any provisional rights having arisen from any publication of the Patent Application or any patent application resulting therefrom;

the same to be held and enjoyed by Assignee for its own use and enjoyment, and for the use and enjoyment of its successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor(s), if this Assignment and sale had not been made.

AND for the aforesaid consideration Assignor(s) hereby covenant, agree and undertake to execute and deliver to Assignee, its successors, assigns, nominees, or legal representatives, whenever requested and without undue delay, all patent applications, assignments, oaths and any other papers which Assignee may deem necessary or desirable for securing to or maintaining for the Assignee the Patent Application, the Patents and the Inventions hereby assigned, and each of the undersigned Assignor(s) agrees to communicate to Assignee or to its nominee all known facts respecting the Patent Application, the Patents and the Inventions, to testify in any legal or administrative proceeding related thereto, and generally to cooperate with and do everything possible to aid Assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for their own benefit proper patent protection for the Inventions in any and all countries, all without further compensation to the undersigned Assignor(s).

AND Assignor(s) hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to Assignee, as Assignee of the entire right, title and interest, any and all Patents for the Inventions that may be issued and granted on or as a result of the Patent Application, in accordance with the terms of this assignment.

AND Assignor(s) hereby authorize Assignee or Assignee's representative to insert the application number and/or filing date of the Patent Application if they are unknown at the time of execution of this Assignment.

AND Assignor(s) hereby covenant that Assignor(s) have full right to convey the entire interest herein assigned, and that Assignor(s) have not executed and will not execute any agreement in conflict herewith.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, we/I hereby authorize Assignee or Assignee's representative to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

IN WITNESS WHEREOF, we/I have hereunto set our hands and seals.

PATENT ASSIGNMENT Docket No.: 13488WO01

| January 3, 2019<br>Date   | Afshin Haghighat John Ka   |
|---|--|
| Signed at(City and Country)   | ionteel, a Canada  |
| STATEMENT OF WITNESS: I, whose full address is:   | Name of Witness 1000 Sherbrooks St. West, 1985 Files Mitt., GO. Cessada husa 336 |
| William Isla Book and Isla  | Address of Witness   |
| was personally present and did see Afshin Haghighat execute this Assignment on the day of 20 and such Assignor is personally known to me to be the person described herein. |  |
|   | Signature of Witness   |

PATENT ASSIGNMENT Docket No.: 13488WO01

| 06/28/2018               | Loud-  |
|--------------------------|--|
| Date                     | Oghenekome Oteri   |
| Signed at                | 9276 Scranton Road, #300<br>San Diego, CA 92121, USA                       |
| (City and Country)       |  |
| STATEMENT OF WITNESS: I, | Name of Witness  |
| whose full address is:   | 9276 Scranton Road, #300<br>San Dlego, CA 92121, USA<br>Address of Witness |
|                          | Oghenekome Oteri execute this Assignment on the                            |
|                          | Signature of Witness   |

Docket No.: 13488WO01 MELVILLE, NEW YORK UPA Signed at \_\_\_\_ (City and Country) 4TH FLOOR/SOUTH WING MELVILLE, NY 11747 USA whose full address is: Address of Witness person described herein.

PATENT ASSIGNMENT

PATENT ASSIGNMENT Docket No.: 13488WO01

| 6,27,2018<br>Date  | Shahrokh Nayeb Nazar   |
|--|--|
| Signed at(City and Country)  | 9276 Scranton Road, #300<br>San Dlego, CA 92121, USA                 |
| · · · · · · · · · · · · · · · · · · ·  |  |
| STATEMENT OF WITNESS: I,   | Name of Witness  |
| whose full address is:   | 9276 Scranton Road, #300 San Diego, CA 92121, USA Address of Witness |
| was personally present and did-see day of  | Shahrokh Nayeb Nazar execute this Assignment on the ZI               |
| The second secon | Signature of Witness   |

Date

MELVILLE, NEW YORK USA

(City and Country)

STATEMENT OF WITNESS: I,

Name of Witness

2 HUNTINGTON QUADRANGES
4TH FLOOR/SOUTH WING
MELVILLE, NY 11747 USA

Address of Witness

was personally present and did see Moon-il Lee execute this Assignment on the day of person described herein.

PATENT ASSIGNMENT

Signature of Witness

PATENT ASSIGNMENT