PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MOHAMMAD AMIN ARBABIAN	12/07/2016
MARCUS J. WEBER	12/07/2016
JAYANT CHARTHAD	12/07/2016

RECEIVING PARTY DATA

Name:	THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY	
Street Address:	3000 EL CAMINO REAL, BUILDING FIVE, THIRD FLOOR	
City:	PALO ALTO	
State/Country:	CALIFORNIA	
Postal Code:	94306	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15371648

CORRESPONDENCE DATA

Fax Number: (650)424-0141

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: 650-331-8416 Email: jim@lumen.com JAMES E. PARRIS **Correspondent Name:** 438 CAMBRIDGE AVE. Address Line 1:

Address Line 2: SUITE 225

Address Line 4: PALO ALTO, CALIFORNIA 94306

ATTORNEY DOCKET NUMBER:	S13-173/CIP
NAME OF SUBMITTER:	JAMES E. PARRIS
SIGNATURE:	/James E. Parris/
DATE SIGNED:	04/27/2018

Total Attachments: 3

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PATENT REEL: 045656 FRAME: 0377 504889421

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PATENT REEL: 045656 FRAME: 0378

ASSIGNMENT OF INVENTION AND PATENT

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **December 7**, **2016**, by and between **Mohammad Amin Arbabian**, an individual residing in **San Francisco**, **CA**, **US**, (the "Assignor") and **The Board of Trustees of the Leland Stanford Junior University**, an entity whose address is **3000 El Camino Real**, **Building Five**, **Third Floor**, **Palo Alto**, **CA 94306**, **USA** (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/371648 filed 12/7/2016 entitled SINGLE TRANSDUCER FOR DATA AND POWER IN WIRELESSLY POWERED DEVICES (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
- 2) Assignor hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into by Assignor which would conflict with this Assignment. Assignor represents and warrants to Assignee that at the time of the execution and delivery of this Assignment, Assignor solely owns (or jointly owns, if the invention(s) were jointly made) the entire right, title and interest in and to said invention(s).
- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of December 7, 2016.

Signature: ______Amin Arbabian

Lumen Ref.: S13-173/CIP PID: 22295 IID: 4963

ASSIGNMENT OF INVENTION AND PATENT

This Assignment of Invention and Patent (the "Assignment") is made and effective as of December 7, 2016, by and between Marcus J. Weber, an individual residing in Palo Alto, CA, US, (the "Assignor") and The Board of Trustees of the Leland Stanford Junior University, an entity whose address is 3000 El Camino Real, Building Five, Third Floor, Palo Alto, CA 94306, USA (the "Assignee").

- For good and valuable consideration, the receipt of which is hereby acknowledged; Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/371648 filed 12/7/2016 entitled SINGLE TRANSDUCER FOR DATA AND POWER IN WIRELESSLY POWERED DEVICES (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
- 2) Assignor hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into by Assignar which would conflict with this Assignment. Assignor represents and warrants to Assignee that at the time of the execution and delivery of this Assignment, Assignor solely owns (or jointly owns, if the invention(s) were jointly made) the entire right, title and interest in and to said invention(s).
- Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of December 7, 2016.

Signature:

Lumen Ref., \$13, 173/CIP PID 22295, IID: 5508

REEL: 045656 FRAME: 0380

ASSIGNMENT OF INVENTION AND PATENT

This Assignment of Invention and Patent (the "Assignment") is made and effective as of December 7, 2016, by and between Jayant Charthad, an individual residing in Stanford, CA, US, (the "Assignor") and The Board of Trustees of the Leland Stanford Junior University, an entity whose address is 3000 El Camino Real, Building Five, Third Floor, Palo Alto, CA 94306, USA (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/371648 filed 12/7/2016 entitled SINGLE TRANSDUCER FOR DATA AND POWER IN WIRELESSLY POWERED DEVICES (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
- 2) Assignor hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into by Assignor which would conflict with this Assignment. Assignor represents and warrants to Assignee that at the time of the execution and delivery of this Assignment, Assignor solely owns (or jointly owns, if the invention(s) were jointly made) the entire right, title and interest in and to said invention(s).
- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of December 7, 2016.

Signature: John Marthad
Assignor: Jayant Charthad

Lumen Ref.: S13-173/CIP

PID: 22295 IID: 5472

PATENT REEL: 045656 FRAME: 0381

RECORDED: 04/27/2018