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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3693727

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ALIREZA KHALIGH	01/07/2016
YICHAO TANG	01/11/2016

RECEIVING PARTY DATA

Name:	UNIVERSITY OF MARYLAND, COLLEGE PARK
Street Address:	2130 MITCHELL BUILDING, 7999 REGENTS DR
Internal Address:	OFFICE OF TECHNOLOGY COMMERCIALIZATION
City:	COLLEGE PARK
State/Country:	MARYLAND
Postal Code:	20742

PROPERTY NUMBERS Total: 3

Property Type	Number
Application Number:	14872768
Application Number:	62235055
Application Number:	62058203

CORRESPONDENCE DATA

Fax Number: (301)314-9502

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: 3014057753

Email: patents@umd.edu, dwalker5@umd.edu

Correspondent Name: UNIVERSITY OF MARYLAND

Address Line 1: 2130 MITCHELL BUILDING, 7999 REGENTS DR

Address Line 2: DENISE WALKER, OTC

Address Line 4: COLLEGE PARK, MARYLAND 20742

ATTORNEY DOCKET NUMBER:	PS-2013-051
NAME OF SUBMITTER:	FELICIA METZ, REG. NO. 57401
SIGNATURE:	/Felicia Metz/
DATE SIGNED:	01/13/2016

Total Attachments: 2

PATENT REEL: 037477 FRAME: 0374

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PATENT REEL: 037477 FRAME: 0375

INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

THIS AGREEMENT by and between:

Alireza Khaligh

an individual having a principal residence at

1301 N. Troy St. #710

Arlington

VA 22201 (hereinafter referred to as "Assignor"), and the University of Maryland, College

Park (hereinafter referred to as "Assignee").

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. PS-2013-051 entitled

Bridgeless AC/DC Converter

as further described in U.S. Provisional Patent Application numbers 62/058,203 filed October 1, 2014 entitled Multi-input Bridgeless AC-DC Converter; 62/235,055 fled September 30, 2015 entitled Multi-input Bridgeless Resonant AC-DC Converter for Electromagnetic Energy Harvesting; and US Patent Application No. 14/872,768 filed October 1, 2015 entitled "BRIDGELESS RESONANT AC-DC CONVERTERS AND SYSTEMS AND CONTROL SYSTEMS THEREFOR" for any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assigner, the receipt and sufficiency of which are hereby acknowledged, Assigner and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

Assignment of the Works.

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

Section 2. University of Maryland Policy on Intellectual Property.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royalty income shall be allocated as set forth in this policy.

Section 3. Warranty.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction,

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America.

ASSIGNOR	ASSIGNEE (University of Maryland) Acknowledged and Agreed to by:
Agreed to by: Alireza Khaligh	ave.
Printed Name: <u>Alireza Khaligh</u> Inventor	Printed Name: <u>Gavatri Varma</u> Title: Executive Director
Date: Jan. 07, 2016	Date:

PATENT REEL: 037477 FRAME: 0376

INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

THIS AGREEMENT by and between:

Yichao Tang

an individual having a principal residence at

4706 Cherokee Street, \$201 College Park Park (hereinafter referred to as "Assignee").

MD 20740 (hereinafter referred to as "Assignor"), and the University of Maryland, College

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. PS-2013-851 entitled

Bridgeless AC/DC Converter

as further described in U.S. Provisional Patent Application numbers \$2/058,283 filed October 1, 2814 entitled Multi-Input Bridgeless AC-DC Converter; \$3/235,056 filed September 30, 2015 entitled Multi-Input Bridgeless Resonant AC-DC Converter for Electromagnetic Energy Harvesting; and US Patent Application No. 14/872,768 filed October 1, 2015 entitled "BRIDGELESS RESONANT AC-DC CONVERTERS AND SYSTEMS AND CONTROL SYSTEMS THEREFOR" for any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foragoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

Section 1. Assignment of the Works.

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

Section 2. University of Maryland Policy on Intellectual Property.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royally income shall be allocated as set forth in this policy.

Section 3. Warranty.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, little or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction.

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America.

ASSIGNOR

Agreed to by: Printed Name-Yichao Tang

Dale

11 2016

ASSIGNEE (University of Maryland)
Acknowledged and Agreed to by:

Printed Name: Gavain Varma
Title: Executive Director

Dale: January 13,2016

PATENT REEL: 037477 FRAME: 0377

RECORDED: 01/13/2016