#### 503821131 05/11/2016

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3867780

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SAIRAJ DHOPLE	04/21/2016
GEORGIOS GIANNAKIS	04/22/2016

#### **RECEIVING PARTY DATA**

Name:	REGENTS OF THE UNIVERSITY OF MINNESOTA
Street Address:	200 OAK STREET SE
Internal Address:	600 MCNAMARA ALUMNI CENTER
City:	MINNEAPOLIS
State/Country:	MINNESOTA
Postal Code:	55455

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

Property Type	Number
Application Number:	15061515

#### CORRESPONDENCE DATA

Fax Number: (651)735-1102

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: 6517351100

Email: pairdocketing@ssiplaw.com **Correspondent Name:** SHUMAKER & SIEFFERT

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Address Line 2: SUITE 300

Address Line 4: WOODBURY, MINNESOTA 55125

ATTORNEY DOCKET NUMBER:	1008-139US01/20150142
NAME OF SUBMITTER:	ALIYA R. KHAZON
SIGNATURE:	/Aliya R. Khazon/
DATE SIGNED:	05/11/2016

#### **Total Attachments: 6**

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> **PATENT** REEL: 038545 FRAME: 0364 503821131

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> PATENT REEL: 038545 FRAME: 0365



## University of Minnesota ASSIGNMENT

WHEREAS, I, Sairaj Dhople, have invented certain new and useful improvements in DECENTRALIZED OPTIMAL DISPATCH OF PHOTOVOLTAIC INVERTERS IN POWER DISTRIBUTION SYSTEMS, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: Utility application no. 15/061,515 on March 4, 2016 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

Attorney Docket Number 1008-139US01 UM Case No. 20150142

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Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF, I have hereunto set my hand on this2 \ \frac{1}{2} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
<u>APRIL</u> , 2016.
Sudoph
Sairaj Dhople
STATE OF MINNESOTA ) COUNTY OF HENNEPIN )
COUNTY OF HENNEPIN )
On this 2 st day of April, 2016, before me personally appeared Sairaj Dhople, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of

DIANE M KRAWCZYNSKI NOTARY PUBLIC - MINNESOTA My Commission Expires Jan. 31, 2020

my office, the day and year above written.

Diane M. Grawzynski Notary Public

Attorney Docket Number 1008-139US01 UM Case No. 20150142

IN WITNESS WHEREOF, I have hereunto saccepting this assignment.	set my hand on this day of Regents of the University of Minnesota
REGENTS O	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_070027
STATE OF MINNESOTA  COUNTY OF HENNEPIN  On this 2 day of 2 Paul B. Savereide, to me known to be the person instrument and acknowledged that s/he executed the	
IN WITNESS WHEREOF, I have hereunto my office, the day and year above written.	affixed my official signature with the seal of  Motary Public



# University of Minnesota ASSIGNMENT

WHEREAS, I, Georgios Giannakis, have invented certain new and useful improvements in DECENTRALIZED OPTIMAL DISPATCH OF PHOTOVOLTAIC INVERTERS IN POWER DISTRIBUTION SYSTEMS, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: Utility application no. 15/061,515 on March 4, 2016 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

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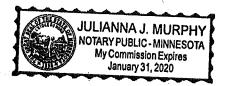
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Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF, I	have hereunto	set my hand on this 22nd day of
, 2016.		Georgios Giannakis
STATE OFMinneapolis  COUNTY OFMinneapolis	) ) )	
On this _22nd day of Georgios Giannakis, to me known t instrument and acknowledged that s/		, 2016, before me personally appeared n described in and who executed the foregoing e same as his/her free act and deed.

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.



Notal Public

Attorney Docket Number 1008-139US01 UM Case No. 20150142

IN WITNESS WHEREOF, I have hereunt 2016 on behalf of Assign accepting this assignment.	o set my hand on this day of ee Regents of the University of Minnesota
REGENTS	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_070027
STATE OF MINNESOTA )	
COUNTY OF HENNEPIN )	
On this 5h day of May Paul B. Savereide, to me known to be the perso instrument and acknowledged that s/he executed the	
IN WITNESS WHEREOF, I have hereun my office, the day and year above written.	nto affixed my official signature with the seal of
SARAH M. SHAFTMAN  Notary Public-Minnesota  My Commission Expires Jan 31, 2021	Notary Public

Attorney Docket Number 1008-139US01 UM Case No. 20150142