

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6700804

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ROLANDO BURGOS	11/09/2020
YULIANG CAO	09/26/2020
MINH NGO	09/26/2020
NING YAN	09/23/2020
DONG DONG	11/09/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
<b>Street Address:</b>	301 BURRUSS HALL
<b>City:</b>	BLACKSBURG
<b>State/Country:</b>	VIRGINIA
<b>Postal Code:</b>	24061
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17008893
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(770)951-0933
<i>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.</i>	
<b>Phone:</b>	7709339500
<b>Email:</b>	k.morris@thip.law
<b>Correspondent Name:</b>	THOMAS HORSTEMEYER, LLP.
<b>Address Line 1:</b>	3200 WINDY HILL ROAD SE
<b>Address Line 2:</b>	SUITE 1600E
<b>Address Line 4:</b>	ATLANTA, GEORGIA 30339
<b>ATTORNEY DOCKET NUMBER:</b>	222204-1540
<b>NAME OF SUBMITTER:</b>	JASON M. PERILLA
<b>SIGNATURE:</b>	/Jason M. Perilla/
<b>DATE SIGNED:</b>	05/10/2021
<b>Total Attachments: 6</b>	

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**PATENT**

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## ASSIGNMENT

**WHEREAS**, I/we, the below-named inventor(s) (hereinafter referred to as ASSIGNORS) whose residence address is stated below, have invented certain new and useful improvements in an invention entitled:

### **Bidirectional Architectures with Partial Energy Processing for DC/DC Converters**

for which an application for United States Letters Patent Serial No. 17/008,893 has been filed on 9/1/2020; and

**WHEREAS**, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNEE), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at 301 Burruss Hall, Blacksburg, Virginia, 24061, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries.

**NOW, THEREFORE**, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest, including right to priority claim, and including the right to sue for past infringement, to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries and any non-provisional applications claiming the benefit of and to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

**ASSIGNORS** hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

**ASSIGNORS** further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation



**ASSIGNORS** further covenant that **ASSIGNEE** will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to **ASSIGNORS** and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to **ASSIGNEE** or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

Full Name of Inventor: Rolando Burgos  
Residence: 605 Jefferson Street, Blacksburg, VA 24060

Signature:

Date:

Full Name of Inventor: Yuliang Cao  
Residence: 2000 Foxhunt Lane Apt. H, Blacksburg, VA 24060

Signature:

Yuliang Cao

Date:

9/26/2020

Full Name of Inventor: Minh Ngo  
Residence: 955 Coalwood Way, Blacksburg, VA 24060

Signature:

Date:

Full Name of Inventor: Ning Yan  
Residence: 1730 Liberty Lane, Blacksburg, VA 24060

Signature:

Date:

VTIP 20-051  
Serial Number: 17/008,893

or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

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Full Name of Inventor: Ning Yan  
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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Full Name of Inventor: Dong Dong  
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Signature: Ning Yan Date: 01/23/2020

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Full Name of Inventor: Dong Dong  
Residence: 1185 Perry Street, Blacksburg, VA 24060

Signature:  \_\_\_\_\_ Date: 11/9/2020