PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Ruxi Wang	08/20/2009
Fred Wang	09/11/2009
Dushan Boroyevich	08/20/2009
Rolondo Burgos	08/26/2009

RECEIVING PARTY DATA

Name:	Virginia Polytechnic Institute and State University
Street Address:	301 Burruss Hall
City:	Blacksburg
State/Country:	VIRGINIA
Postal Code:	24061

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12511859

CORRESPONDENCE DATA

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Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Address Line 1: 2200 Kraft Drive, Suite 1050
Address Line 4: Blacksburg, VIRGINIA 24060

ATTORNEY DOCKET NUMBER: VTIP 10-003

NAME OF SUBMITTER: Mark S. Coburn

Total Attachments: 5

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PATENT REEL: 023485 FRAME: 0412 OP \$40,00 12511859

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Serial Number: 12/511,859

Serial Number: PCT/US2009/052153

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:

Electrical Power System With High-Density Pulse Width Modulated (PWM) Rectifier

for which an application for United States Letters Patent Serial No. <u>12/511,859</u> has been filed on <u>July 29, 2009</u> and an application for PCT International Serial No. <u>PCT/US2009/052153</u> has been filed on <u>July 29, 2009</u>; 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 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 said application 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 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.

nature: <u>Rux Wo</u>	ing	Date: Ary 20th. 2009
County of WONT State of The foregoing instrument	GoMBKリ ル・A was acknowledged before me this _	20 th day of AUGUS 70
by <u> </u>	Notary Public Notary Registration Numb My Commission Expires:	7063175 9/30/2010
name of inventor: Fred Vidence: 302 Seminole Dr	Wang ive, Blacksburg, Virginia 2406	0
	-	0 _ Date:
idence: 302 Seminole Dr	ive, Blacksburg, Virginia 2406	_

Serial Number: 12/511,859

Serial Number: PCT/US2009/052153

Serial Number: 12/511,859

Serial Number: PCT/US2009/052153

Full name of inventor: Ruxi Wang

Residence: 1201 Snyder Lane, Apt. 900D, Blacksburg, Virginia 24060

Signature:	Date;	
County ofState of		*
The foregoing instrument w	vas acknowledged before me this day of	, 2009
	Notary Public Notary Registration Number:	
	My Commission Expires:	

Full name of inventor: Fred Wang
Residence: 410 Ferris Hall, Knoxville, Tennessee 37996-2100
Signature:
County of Knoy State of TN
The foregoing instrument was acknowledged before me this day of September_, 2009 by Samentra= Fired Wang

Notary Registration Number: My Commission Expires:

Notary Public

	Boroyevich Blacksburg, Virginia 24060	0	
Signature: <u>Boooy</u>	vil 1	pate: Aug. 2	0, 200
V		V	,
County of MONTGO State of VIRGINIA	MERY		i.
The foregoing instrument was by DUSHAN E	acknowledged before me this 30	oth day of AUG	US 7, 2009
		elogher 20631)
	Notary Public Notary Registration Number: My Commission Expires:	70631	75
		//	
,			
Full name of inventor: Rolando E	Burgos ane, Cary, North Carolina 275	18	
Residence, 6257 Hydon Dawn E.			
·	D	ate:	
Signature:		ate:	
Signature: County of State of		ate:	
Signature: County of State of	acknowledged before me this		, 2009
County of State of The foregoing instrument was	acknowledged before me this		, 2009
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Serial Number: 12/511,859 Serial Number: PCT/US2009/052153

VTIP 10-003 Serial Number: 12/511,859 Serial Number: PCT/US2009/052153 Full name of inventor: Dushan Boroyevich Residence: 423 Seminole Drive, Blacksburg, Virginia 24060 Signature: __ County of ____ State of ____ The foregoing instrument was acknowledged before me this _____ day of _ ,2009 Notary Public Notary Registration Number: My Commission Expires: ___ Full name of inventor: Rolando Burgos Residence: 8237 Hydon Dawn Lane, Cary, North Carolina 27518 Date: 8/26/09

County of _ State of North Carolina

The foregoing instrument was acknowledged before me this $2b^{\frac{1}{4}}$ day of August, 2009 by Rolando Burgos

RECORDED: 11/08/2009

Signature: _

Notary Public Notary Registration Number: 20033370062
My Commission Expires: 40.8,3014