

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7271041

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
NING LU	03/02/2020
CATHERINE MCENTEE	02/27/2020
DAVID MULCAHY	07/06/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	NORTH CAROLINA STATE UNIVERSITY
<b>Street Address:</b>	1021 MAIN CAMPUS DRIVE
<b>Internal Address:</b>	2ND FLOOR
<b>City:</b>	RALEIGH
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27606
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16534972
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(208)975-6667
<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>	2088133921
<b>Email:</b>	steve@colbynipper.com
<b>Correspondent Name:</b>	STEPHEN M. NIPPER
<b>Address Line 1:</b>	291 E. SHORE DR.
<b>Address Line 2:</b>	SUITE 200
<b>Address Line 4:</b>	EAGLE, IDAHO 83616
<b>ATTORNEY DOCKET NUMBER:</b>	BA0005P
<b>NAME OF SUBMITTER:</b>	STEPHEN M. NIPPER
<b>SIGNATURE:</b>	/Stephen M. Nipper/
<b>DATE SIGNED:</b>	04/08/2022
<b>Total Attachments: 4</b>	
source=BA0005P_Assignment_Lu_McEntee_Mulcahy_NCSU#page1.tif	
source=BA0005P_Assignment_Lu_McEntee_Mulcahy_NCSU#page2.tif	

source=BA0005P\_Assignment\_Lu\_McEntee\_Mulcahy\_NCSU#page3.tif

source=BA0005P\_Assignment\_Lu\_McEntee\_Mulcahy\_NCSU#page4.tif

**PATENT**

**REEL: 059549 FRAME: 0766**

## ASSIGNMENT

**Inventors:** Ning Lu, Catherine McEntee, and David Mulcahy.

**Assignee:** North Carolina State University, a corporation of Raleigh, North Carolina, having a place of business at 1021 Main Campus Drive, 2<sup>nd</sup> Floor, Raleigh, North Carolina 27606.

Whereas, We, the above-identified Inventors, have invented certain new and useful improvements in: **Coordinated Voltage Control and Reactive Power Regulation Between Transmission and Distribution Systems** (hereinafter referred to as the "Invention") for which we are making/have made application for Letters Patent in the United States of America;

And, whereas we desire to assign a one-hundred percent (100%) undivided interest in said Invention, said application disclosing the Invention and any Letters Patent which may be granted therefor to the above-identified Assignee;

And whereas said Assignee is desirous of acquiring the entire right, title and interest in the same;

Now, this indenture witnesseth, that for good and valuable consideration, the receipt whereof is hereby acknowledged:

We hereby assign, sell and transfer a one-hundred percent (100%) undivided interest in said invention, said application, including any non-provisionals, divisions, continuations, and continuations-in-part thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said Invention, and in and to any and all priority rights, Convention rights, and other benefits accruing or to accrue to us with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, unto said Assignee;

We hereby authorize and request the Director of the United States Patent and Trademark Office to issue said United States Letters Patent to said Assignee, as assignee of the whole right, title and interest thereto; and


We further agree to execute all necessary and lawful future documents, including assignments in favor of Assignee, or its designees as Assignee or its Assignees may from time-to-time present to me in order to perfect title in said Invention, modifications, and improvements in said Invention, applications and Letters Patent of the United States and countries foreign thereto;

We further agree to sign and properly execute such necessary and lawful papers for application for foreign patents, for filing non-provisionals, divisions, continuations and continuations-in-part of said application for patent, and/or, for obtaining any reissue or reissues of any Letters Patent which may be granted for our aforesaid Invention, as the Assignee thereof shall hereafter require and prepare at its own expense; and

We hereby authorize and request that the attorney of Battelle Memorial Institute, Mr. Stephen M. Nipper, of Colby Nipper PLLC, 291 E Shore DR, Eagle, ID 83616, when recording this assignment with the USPTO for the above application for Letters Patent in the United States of America, to insert in parentheses below the filing date and application number of said application when known.

Application Number: filed herewith as (16/534,972)  
Filing Date: filed herewith on (August 7, 2019)

Signature:

  
Ning Lu

Executed this 2 day of March 2020.

STATE OF

North Carolina

County of

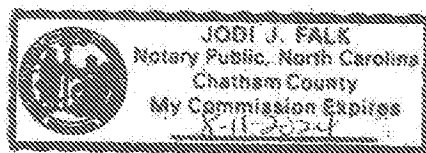
Duke

ss.

On this 2 day of March, 2020, before me, a Notary Public in and for said State, personally appeared Ning Lu, known or identified to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(seal)



  
Notary Public

Commission Expires: August 11, 2024

Signature:

*Catherine McEntee*

Executed this 27 day of Feb. 2020.

Catherine McEntee

STATE OF

North Carolina

ss.

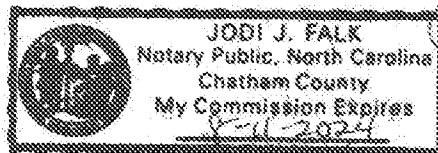
County of

Wake

On this 27th day of February, 2020, before me, a Notary Public in and for said State, personally appeared **Catherine McEntee**, known or identified to me to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(seal)



*Jodi J. Falk*  
Notary Public

Commission Expires: August 11, 2024

INVENTOR

David Mulcahy

Date:

July 6<sup>th</sup>, 2020

WITNESS 1:

Date:

6 Jul 20

Print Name:

PETER J. CRAWFORD

PATENT

RECORDED: 04/08/2022

REEL: 059549 FRAME: 0770