PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5393909

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ALEXANDER J. SMITH	11/21/2018
YADUNANDANA YELLAMBALASE	11/28/2017
STEPHEN C. HOLLAND	02/25/2019
MIAOSEN SHEN	12/28/2018
XIAODONG LIU	01/02/2019

RECEIVING PARTY DATA

Name:	NIO USA, INC.
Street Address:	3200 NORTH FIRST STREET
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95134

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15797506

CORRESPONDENCE DATA

Fax Number: (303)863-0223

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: 303-863-9700

Email: aduarte@sheridanross.com
Correspondent Name: SHERIDAN ROSS P.C.
Address Line 1: 1560 BROADWAY

Address Line 2: SUITE 1200

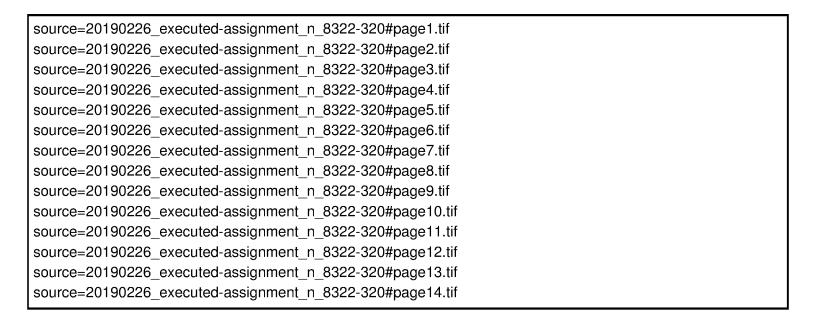
Address Line 4: DENVER, COLORADO 80202

ATTORNEY DOCKET NUMBER:	8322-320
NAME OF SUBMITTER:	DOUGLAS W. SWARTZ
SIGNATURE:	/Douglas W. Swartz/
DATE SIGNED:	02/26/2019

Total Attachments: 14

PATENT REEL: 048444 FRAME: 0001

505347126



PATENT REEL: 048444 FRAME: 0002

Worldwide Assignment

WHEREAS, I, **Alexander J. Smith** of 17880 Los Alamos Drive, Saratoga, California 95070, have invented certain new and useful inventions ("Inventions") described in whole or part in the United States Non-Provisional Applications identified in Exhibit "A" (hereinafter "Applications"); and

WHEREAS, **NIO USA, Inc.** ("ASSIGNEE"), a corporation duly registered in the State of California, whose postal address is 3200 North First Street, San Jose, California 95134, desires to acquire the entire right, title, and interest in and to the Inventions, the United States, international, and foreign applications filed or to be filed directed to the Inventions and any Letters Patents to be granted for the Inventions in the United States and in all foreign countries;

NOW, THEREFORE, be it known for consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the Inventions for all territories in the world and any improvements and modifications thereto, the Applications, all applications claiming benefit of the Applications, including, but not limited to, all divisional, continuation, and continuation-in-part applications, and reissue and reexaminations thereof; all Letters Patent, Invention Registrations, Utility Models, Extension and other patent rights, that may be granted thereon in the United States or any other country; together with the right to claim priority under the International Convention in all member countries (collectively "Related Applications"); and all causes of action arising therefrom including the right to enforce and sue for past, present, and future infringements and to collect all proceeds thereof (including, but not limited to, all license royalties). I authorize and request the United States Patent and Trademark Office or foreign equivalent to issue all Letters Patent or similar legal protection for the Inventions to ASSIGNEE, its successors, legal representatives, and assigns in accordance with the terms of this Assignment;

For, and in consideration of, the certain good and valuable consideration, I do further sell, assign, transfer, and set over to ASSIGNEE, the right to claim priority to the Applications for all Related Applications, including without limitation all applications pursuant to the Patent Cooperation Treaty and national and regional applications filed therefrom, all applications for the territory of the United States of America, and all continuation, divisional, continuation-in-part and reissue applications thereof, and all patent applications in foreign countries and the right to be granted a patent for any of the foregoing applications;

AND I covenant and agree that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any assignment or other instrument in conflict with this Assignment;

AND I further covenant and agree that upon request by ASSIGNEE, its successors, legal representatives, and/or assigns, and without further consideration, I will do all lawful acts that may be necessary or desirable to assist ASSIGNEE, its successors, legal representatives, and/or assigns to obtain and enforce patent protection for the Inventions in the United States and in all foreign countries, it being understood that any expense incident to the rendering of such assistance will be borne by ASSIGNEE, its successors, legal representatives, and/or assigns.

Date: 1//21/2018

ASSIGNEE:

NIO USA, INC.

By: Signature

Julian Ong
Printed Name

VP, General Counsel
Title

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date indicated

hereunder.

SR File No.	Title	Serial No.	Filing Date
8322-177	Power Systems and Methods for Electric Vehicles	15/712,532	9/22/2017
8322-315	Open Line Detection During Pre-Charge	15/830,783	12/4/2017
8322-317	Fusible Link in Battery Module Voltage Sensing Circuit	15/843,566	12/15/2017
8322-320	Resilient High-Voltage Interlock Loop	15/797,506	10/30/2017
8322-347	Ultra-Fast Charge Profile for an Electric Vehicle	15/847,168	12/19/2017
8322-350	Uniform Current Density Tapered Busbar	15/900,079	2/20/2018
8322-351	Single Side Cell-To-Cell Battery Module Interconnection	15/928,707	3/22/2018
8322-352	Battery Cell Cover Including Terminal Short Isolation Feature	15/928,738	3/22/2018
8322-356	Staggered Battery Cell Array with Two- Dimensional Inline Terminal Edges	15/878,312	1/23/2018
8322-357	Multiple-Zone Thermocouple Battery Module Temperature Monitoring System	15/928,780	3/22/2018
8322-363	Unified Battery Module with Integrated Battery Cell Structural Support	15/922,455	3/15/2018
8322-417	Methods and Devices for Thermal Control During Charging of Electric Vehicles	15/940,638	3/29/2018
8322-437	Abuse Tolerance in Battery Modules	15/994,570	5/31/2018
8322-443	Two-Phase Semi-Immersion Thermal System for Energy Storage and Other Electrical/Electronic Devices	16/165,401	10/19/2018
8322-466	Supplemental Battery System	16/141,768	9/25/2018

ASSIGNMENT

WHEREAS, I, Yadunandana Yellambalase of 50 E. Middlefield Road, Apt. 4, Mountain View, California 94043, have invented certain new and useful inventions ("Inventions") described in whole or part in the United States non-provisional applications identified in Exhibit "A" (hereinafter "Applications"); and

WHEREAS, **NIO USA**, **Inc.** ("ASSIGNEE"), a corporation duly registered in the State of California, whose postal address is 3200 North First Street, San Jose, California 95134, desires to acquire the entire right, title, and interest in and to the Inventions, the United States, international, and foreign applications filed or to be filed directed to the Inventions and any Letters Patents to be granted for the Inventions in the United States and in all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the Inventions for all territories in the world and any improvements and modifications thereto, the Applications, all applications claiming benefit of the Applications, including, but not limited to, all divisional, continuation, and continuation-in-part applications, and reissue and reexaminations thereof; all Letters Patent, Invention Registrations, Utility Models, Extension and other patent rights, that may be granted thereon in the United States or any other country; together with the right to claim priority under the International Convention in all member countries (collectively "Related Applications"); and all causes of action arising therefrom including the right to enforce and sue for past, present, and future infringements and to collect all proceeds thereof (including, but not limited to, all license royalties). I authorize and request the United States Patent and Trademark Office or foreign equivalent to issue all Letters Patent or similar legal protection for the Inventions to ASSIGNEE, its successors, legal representatives, and assigns in accordance with the terms of this Assignment;

For, and in consideration of, the certain good and valuable consideration, I do further sell, assign, transfer, and set over to ASSIGNEE, the right to claim priority to the Applications for all Related Applications, including without limitation all applications pursuant to the Patent Cooperation Treaty and national and regional applications filed therefrom, all applications for the territory of the United States of America, and all continuation, divisional, continuation-in-part and reissue applications thereof, and all patent applications in foreign countries and the right to be granted a patent for any of the foregoing applications;

AND I covenant and agree that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any assignment or other instrument in conflict with this Assignment;

AND I further covenant and agree that upon request by ASSIGNEE, its successors, legal representatives, and/or assigns, and without further consideration, I will do all lawful acts that may be necessary or desirable to assist ASSIGNEE, its successors, legal representatives, and/or assigns to obtain and enforce patent protection for the Inventions in the United States and in all foreign countries, it being understood that any expense incident to the rendering of such assistance will be borne by ASSIGNEE, its successors, legal representatives, and/or assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date indicated hereunder.

Date: 11/28/17

By: Yadunandana Yeliambalase

ASSIGNEE:	NIO USA, INC.
Date: 11/28/2	By:
	Signature
	Julian Ong
	Printed Name
	VP. General Counsel
	Title

SR File No.	Title	Serial No.	Filing Date
8322-378	Control of Complex Parking Maneuvers and Autonomous Fuel Replenishment of Driverless Vehicles	15/650,761	7/14/2017
8322-379	Programming Complex Parking Maneuvers for Driverless Vehicles	15/650,763	7/14/2017
8322-380	Control and Coordination of Driverless Fuel Replenishment for Autonomous Vehicles	15/650,766	7/14/2017
8322-320	Resilient High-Voltage Interlock Loop	15/797,506	10/30/2017

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Page 3 of 3

Worldwide Assignment

WHEREAS, I, Stephen C. Holland of 7532 Aaron Place, San Jose, California 95139, have invented certain new and useful inventions ("Inventions") described in whole or part in the United States Non-Provisional Applications identified in Exhibit "A" (hereinafter "Applications"); and

WHEREAS, NIO USA, Inc. ("ASSIGNEE"), a corporation duly registered in the State of California, whose postal address is 3200 North First Street, San Jose, California 95134, desires to acquire the entire right, title, and interest in and to the Inventions, the United States, international, and foreign applications filed or to be filed directed to the Inventions and any Letters Patents to be granted for the Inventions in the United States and in all foreign countries;

NOW, THEREFORE, be it known for consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the Inventions for all territories in the world and any improvements and modifications thereto, the Applications, all applications claiming benefit of the Applications, including, but not limited to, all divisional, continuation, and continuation-in-part applications, and reissue and reexaminations thereof; all Letters Patent, Invention Registrations, Utility Models, Extension and other patent rights, that may be granted thereon in the United States or any other country; together with the right to claim priority under the International Convention in all member countries (collectively "Related Applications"); and all causes of action arising therefrom including the right to enforce and sue for past, present, and future infringements and to collect all proceeds thereof (including, but not limited to, all license royalties). I authorize and request the United States Patent and Trademark Office or foreign equivalent to issue all Letters Patent or similar legal protection for the Inventions to ASSIGNEE, its successors, legal representatives, and assigns in accordance with the terms of this Assignment;

For, and in consideration of, the certain good and valuable consideration, I do further sell, assign, transfer, and set over to ASSIGNEE, the right to claim priority to the Applications for all Related Applications, including without limitation all applications pursuant to the Patent Cooperation Treaty and national and regional applications filed therefrom, all applications for the territory of the United States of America, and all continuation, divisional, continuation-in-part and reissue applications thereof, and all patent applications in foreign countries and the right to be granted a patent for any of the foregoing applications;

AND I covenant and agree that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any assignment or other instrument in conflict with this Assignment;

AND I further covenant and agree that upon request by ASSIGNEE, its successors, legal representatives, and/or assigns, and without further consideration, I will do all lawful acts that may be necessary or desirable to assist ASSIGNEE, its successors, legal representatives, and/or assigns to obtain and enforce patent protection for the Inventions in the United States and in all foreign countries, it being understood that any expense incident to the rendering of such assistance will be borne by ASSIGNEE, its successors, legal representatives, and/or assigns.

Date: 02/25/19	By: Stephen C. Holland
ASSIGNEE:	NIO USA, INC.
2/26/2019 Date:	By: Signature
	Julian Ong Printed Name
	VP, General Counsel

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date indicated

hereunder.

SR File No.	Title	Serial No.	Filing Date
8322-317	Fusible Link in Battery Module Voltage Sensing Circuit	15/843,566	12/15/2017
8322-320	Resilient High-Voltage Interlock Loop	15/797,506	10/30/2017

Worldwide Assignment

WHEREAS, I, Miaosen Shen of 4608 Celia Court, Fremont, California 94555, have invented certain new and useful inventions ("Inventions") described in whole or part in the United States Non-Provisional Applications identified in Exhibit "A" (hereinafter "Applications"); and

WHEREAS, NIO USA, Inc. ("ASSIGNEE"), a corporation duly registered in the State of California, whose postal address is 3200 North First Street, San Jose, California 95134, desires to acquire the entire right, title, and interest in and to the Inventions, the United States, international, and foreign applications filed or to be filed directed to the Inventions and any Letters Patents to be granted for the Inventions in the United States and in all foreign countries;

NOW, THEREFORE, be it known for consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the Inventions for all territories in the world and any improvements and modifications thereto, the Applications, all applications claiming benefit of the Applications, including, but not limited to, all divisional, continuation, and continuation-in-part applications, and reissue and reexaminations thereof; all Letters Patent, Invention Registrations, Utility Models, Extension and other patent rights, that may be granted thereon in the United States or any other country; together with the right to claim priority under the International Convention in all member countries (collectively "Related Applications"); and all causes of action arising therefrom including the right to enforce and sue for past, present, and future infringements and to collect all proceeds thereof (including, but not limited to, all license royalties). I authorize and request the United States Patent and Trademark Office or foreign equivalent to issue all Letters Patent or similar legal protection for the Inventions to ASSIGNEE, its successors, legal representatives, and assigns in accordance with the terms of this Assignment;

For, and in consideration of, the certain good and valuable consideration, I do further sell, assign, transfer, and set over to ASSIGNEE, the right to claim priority to the Applications for all Related Applications, including without limitation all applications pursuant to the Patent Cooperation Treaty and national and regional applications filed therefrom, all applications for the territory of the United States of America, and all continuation, divisional, continuation-in-part and reissue applications thereof, and all patent applications in foreign countries and the right to be granted a patent for any of the foregoing applications;

AND I covenant and agree that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any assignment or other instrument in conflict with this Assignment;

AND I further covenant and agree that upon request by ASSIGNEE, its successors, legal representatives, and/or assigns, and without further consideration, I will do all lawful acts that may be necessary or desirable to assist ASSIGNEE, its successors, legal representatives, and/or assigns to obtain and enforce patent protection for the Inventions in the United States and in all foreign countries, it being understood that any expense incident to the rendering of such assistance will be borne by ASSIGNEE, its successors, legal representatives, and/or assigns.

Date: 12/28/2018

By: Miaosen Shen

ASSIGNEE:

NIO USA, INC.

By: Signature

Julian Ong
Printed Name

VP. General Counsel
Title

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date indicated

hereunder.

SR File No.	Title	Serial No.	Filing Date
8322-263	Integrated Power Systems for Electric Vehicles	15/654,953	7/20/2017
8322-277	Charging Systems and Methods for Electric Vehicles	15/825,888	11/29/2017
8 322-292	Integrated Power Systems for Electric Vehicles	15/654,583	7/19/2017
8322-320	Resilient High-Voltage Interlock Loop	15/797,506	10/30/2017
8322-427	Systems and Methods for Regulating Charging of Electric Vehicles	16/005,808	6/12/2018

Atty. Docket No.: 8322-329

Worldwide Assignment

WHEREAS, I, Xiaodong Liu of 185 Estancia Drive, Unit 411, San Jose, California 95134, have invented a certain new and useful invention entitled "RESILIENT HIGH-VOLTAGE INTERLOCK LOOP" (hereinafter "Invention") for which an application for Letters Patent of the United States has been prepared and filed on October 30, 2017, receiving Serial No. 15/797,506, and further identified as Attorney File No. 8322-320 (hereinafter "Application"); and

WHEREAS, NIO USA, Inc. ("ASSIGNEE"), a corporation duly registered in the State of California, whose postal address is 3200 North First Street, San Jose, California 95134, desires to acquire the entire right, title, and interest in and to the Invention, the United States, international, and foreign applications filed or to be filed directed to the Invention and any Letters Patents to be granted for the Invention in the United States and in all foreign countries;

NOW, THEREFORE, be it known for consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the Invention for all territories in the world and any improvements and modifications thereto, the Application, all applications claiming benefit of the Application, including, but not limited to, all divisional, continuation, and continuation-in-part applications, and reissue and reexaminations thereof; all Letters Patent, Invention Registrations, Utility Models, Extension and other patent rights, that may be granted thereon in the United States or any other country; together with the right to claim priority under the International Convention in all member countries (collectively "Related Applications"); and all causes of action arising therefrom including the right to enforce and sue for past, present, and future infringements and to collect all proceeds thereof (including, but not limited to, all license royalties). I authorize and request the United States Patent and Trademark Office or foreign equivalent to issue all Letters Patent or similar legal protection for the Invention to ASSIGNEE, its successors, legal representatives, and assigns in accordance with the terms of this Assignment;

For, and in consideration of, the certain good and valuable consideration, I do further sell, assign, transfer, and set over to ASSIGNEE, the right to claim priority to the Application for all Related Applications, including without limitation all applications pursuant to the Patent Cooperation Treaty and national and regional applications filed therefrom, all applications for the territory of the United States of America, and all continuation, divisional, continuation-in-part and reissue applications thereof, and all patent applications in foreign countries and the right to be granted a patent for any of the foregoing applications;

AND I covenant and agree that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any assignment or other instrument in conflict with this Assignment;

AND I further covenant and agree that upon request by ASSIGNEE, its successors, legal representatives, and/or assigns, and without further consideration, I will do all lawful acts that may be necessary or desirable to assist ASSIGNEE, its successors, legal representatives, and/or assigns to obtain and enforce patent protection for the Invention in the United States and in all foreign countries, it being understood that any expense incident to the rendering of such assistance will be borne by ASSIGNEE, its successors, legal representatives, and/or assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date indicated hereunder.

Date: 1/2/2019

By: Xiaodong Liu

ASSIGNEE:

Date: 1/8/2-19

NIO USA, INC.

Signature

Julian Ong Printed Name

VP, General Counsel

Title