

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5206502

|                                                                                                                                                                                                 |                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                                                                     |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                                                                         |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                                                                                    |
| <b>Name</b>                                                                                                                                                                                     | <b>Execution Date</b>                                                              |
| STEPHEN DALEY ARTHUR                                                                                                                                                                            | 09/27/2018                                                                         |
| ALEXANDER VIKTOROVICH BOLOTNIKOV                                                                                                                                                                | 10/17/2018                                                                         |
| REZA GHANDI                                                                                                                                                                                     | 10/17/2018                                                                         |
| DAVID ALAN LILIENFELD                                                                                                                                                                           | 10/18/2018                                                                         |
| PETER ALMERN LOSEE                                                                                                                                                                              | 10/24/2018                                                                         |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                                                                    |
| <b>Name:</b>                                                                                                                                                                                    | General Electric Company                                                           |
| <b>Street Address:</b>                                                                                                                                                                          | 1 River Road                                                                       |
| <b>City:</b>                                                                                                                                                                                    | Schenectady                                                                        |
| <b>State/Country:</b>                                                                                                                                                                           | NEW YORK                                                                           |
| <b>Postal Code:</b>                                                                                                                                                                             | 12345                                                                              |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                                                                    |
| <b>Property Type</b>                                                                                                                                                                            | <b>Number</b>                                                                      |
| <b>Application Number:</b>                                                                                                                                                                      | 16147210                                                                           |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                                                                    |
| <b>Fax Number:</b>                                                                                                                                                                              | (203)944-6712                                                                      |
| <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>                                                                                                                                                                                   | 5183877724                                                                         |
| <b>Email:</b>                                                                                                                                                                                   | gpodckt.mail@ge.com, rariden@fyiplaw.com, robinson@fyiplaw.com, docket@fyiplaw.com |
| <b>Correspondent Name:</b>                                                                                                                                                                      | GENERAL ELECTRIC COMPANY GLOBAL RESEARCH                                           |
| <b>Address Line 1:</b>                                                                                                                                                                          | ONE RESEARCH CIRCLE                                                                |
| <b>Address Line 2:</b>                                                                                                                                                                          | BUILDING K1-3A59                                                                   |
| <b>Address Line 4:</b>                                                                                                                                                                          | NISKAYUNA, NEW YORK 12309                                                          |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 326531-1 (GERD:1527)                                                               |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | JOHN M. RARIDEN                                                                    |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /John Rariden/                                                                     |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 10/25/2018                                                                         |
| This document serves as an Oath/Declaration (37 CFR 1.63).                                                                                                                                      |                                                                                    |

**Total Attachments: 7**

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**COMBINED DECLARATION AND GLOBAL ASSIGNMENT  
FOR UTILITY OR DESIGN PATENT APPLICATION**

As the below named inventor(s), I/we hereby declare that:

This declaration and assignment are directed to:

**SYSTEMS AND METHODS FOR UNIPOLAR  
CHARGE BALANCED SEMICONDUCTOR POWER DEVICES**

- ☐ the specification of which is attached hereto OR
- ☒ United States application or PCT international application number  
16/147,210 filed on September 28, 2018, as  
 amended on [date] (if applicable).  
 (We hereby authorize and request the Company or its delegated attorneys or agents to  
 insert above the application number and filing date of the application when known.)

The above-identified application was made or authorized to be made by us.

We believe that we are original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC § 1001 by fine or imprisonment of not more than five (5) years, or both.

We acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR § 1.56, including, for continuation-in-part applications, material information which became available between the filing date of the prior application and the filing date of the continuation-in-part application.

In accordance with our obligation(s) under an Employee Innovation and Proprietary Information Agreement or (as applicable) arising out of other agreements (such as, but not limited to, the Services Agreement between General Electric Company, a New York corporation, and our employers), and/or for other good and valuable consideration of which we acknowledge receipt, we,

| Inventor<br>First Name | Inventor<br>Middle<br>Name | Inventor Last<br>Name |    | Residence<br>Town | Residence<br>State | Residence<br>Country |
|------------------------|----------------------------|-----------------------|----|-------------------|--------------------|----------------------|
| Stephen                | Daley                      | Arthur                | of | Glenville         | NY                 | US                   |
| Alexander              | Viktorovich                | Bolotnikov            | of | Niskayuna         | NY                 | US                   |
| Reza                   |                            | Ghandi                | of | Niskayuna         | NY                 | US                   |
| David                  | Alan                       | Lilienfeld            | of | Niskayuna         | NY                 | US                   |
| Peter                  | Almern                     | Losee                 | of | Clifton Park      | NY                 | US                   |

hereby sell and assign to:

|                  |                                                      |
|------------------|------------------------------------------------------|
| Name of Company: | <i>General Electric Company</i>                      |
| Entity Type:     | <i>New York corporation</i>                          |
| Address:         | <i>1 River Road, Schenectady, New York 12345 USA</i> |

herein referred to as "Company", its successors and assigns our entire respective rights, titles and interests in and to the invention and improvements made and conceived by us described in the application(s) listed above and in the following table:

| Country of Filing | Type of Filing | Application Number | Filing Date | Title |
|-------------------|----------------|--------------------|-------------|-------|
|                   |                |                    |             |       |
|                   |                |                    |             |       |

(We hereby authorize and request the Company or its delegated attorneys or agents to insert above the application number and filing date of the application(s) when known.)

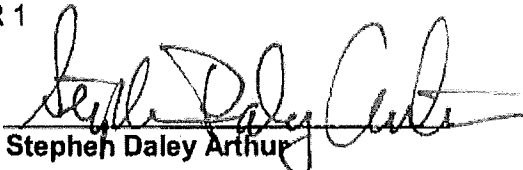
and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of the application(s), and authorize and request any official whose duty it is to issue patents, to issue any patent on the inventions and improvements resulting therefrom to the Company, or its successors or assigns and agree that on request and without further consideration, we will communicate to the Company or its representatives or nominees any facts known to us respecting the inventions and improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid the Company, its successors, assigns, and nominees to obtain and enforce proper patent protection for the invention and its improvements in all countries.

Remuneration claims of the inventor(s)/assignor(s) potentially arising from German Law on Employee Inventions, or any other respective country law, remain unaffected by this assignment.

GE Docket No. 326531-1

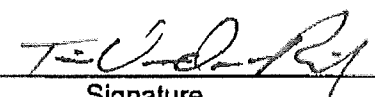
Systems and Methods for Unipolar Charge Balanced Semiconductor Power Devices

INVENTOR 1

Signature:  Date: 9/27/2018  
Stephen Daley Arthur

Witnessed by:  Date: 9/27/2018  
Signature

MATTHEW M. EDMONDS  
Printed Name of Witness

Witnessed by:  Date: 9/27/2018  
Signature

TIM VANDENBRIEL  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Stephen Daley Arthur Date: \_\_\_\_\_

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, 2018 before me personally came the above-named **Stephen Daley Arthur**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

GE Docket No. 326531-1  
Systems and Methods for Unipolar Charge Balanced Semiconductor Power Devices

INVENTOR 2

Signature:   
Alexander Viktorovich Bolotnikov

Date: 10/17/2018

Witnessed by:   
Signature

Date: 10/17/2018

David Richard Ester  
Printed Name of Witness

Witnessed by:   
Signature

Date: 10/17/2018

Liangchun Yu  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Alexander Viktorovich Bolotnikov

Date: \_\_\_\_\_

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, 2018 before me personally came the above-named **Alexander Viktorovich Bolotnikov**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

INVENTOR 3

Signature: \_\_\_\_\_

**Reza Ghandi**

Date: 10/17/18

Witnessed by: \_\_\_\_\_

Signature

Date: 10/17/18

Christopher Collazo-Davila

Printed Name of Witness

Witnessed by: \_\_\_\_\_

Signature

Date: 10/17/18

Kourosh Khosravi

Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
**Reza Ghandi**

Date: \_\_\_\_\_

STATE OF

ss.

COUNTY OF

This \_\_\_\_\_ day of \_\_\_\_\_, 2018 before me personally came the above-named **Reza Ghandi**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

GE Docket No. 326531-1

Systems and Methods for Unipolar Charge Balanced Semiconductor Power Devices

INVENTOR 4

Signature: \_\_\_\_\_  
David Alan Lillienfeld

Date: \_\_\_\_\_

Witnessed by: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Witness

Witnessed by: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

David A. Lillienfeld  
David Alan Lillienfeld

Date: 10/18/2018

STATE OF New York

COUNTY OF Schenectady ss.

This 18th day of October, 2018 before me personally came the above-named **David Alan Lillienfeld**, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal  
CHILRYL L. SCHNEITER  
Notary Public, State of New York  
No. 01SC6214984  
Qualified in Schenectady County  
Commission Expires 12/21/ 2021

Cheryl L. Schneiter  
(Notary Public)

INVENTOR 5

Signature: \_\_\_\_\_

Peter Almern Losee

Date: \_\_\_\_\_

10/24/2018

Witnessed by: \_\_\_\_\_

Signature

Date: \_\_\_\_\_

24 Oct. 2018

William Simon

Printed Name of Witness

Witnessed by: \_\_\_\_\_

Signature

Date: \_\_\_\_\_

10/24/2018

LEONID FURSIW

Printed Name of Witness

**SECTION BELOW IS FOR USE ONLY IF SIGNING IN PRESENCE OF A NOTARY**

\_\_\_\_\_  
Peter Almern Losee

Date: \_\_\_\_\_

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

ss. \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_, 2018 before me personally came the above-named Peter Almern Losee, to me personally known as the individual who executed the foregoing assignment, who acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Seal

\_\_\_\_\_  
(Notary Public)

PATENT