### 504681504 12/11/2017

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4728226

| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

#### **CONVEYING PARTY DATA**

| Name                  | Execution Date |
|-----------------------|----------------|
| JOHN STURZA           | 11/03/2017     |
| MASAHIRO KIMOTO       | 11/03/2017     |
| TSUNG-HAN TSAI        | 11/03/2017     |
| DAVID ANTHONY SYMANOW | 11/03/2017     |
| RAY . C SICIAK        | 11/03/2017     |

#### **RECEIVING PARTY DATA**

| Name:           | FORD GLOBAL TECHNOLOGIES, LLC    |
|-----------------|----------------------------------|
| Street Address: | SUITE 800, 330 TOWN CENTER DRIVE |
| City:           | DEARBORN                         |
| State/Country:  | MICHIGAN                         |
| Postal Code:    | 48126                            |

### **PROPERTY NUMBERS Total: 1**

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 15804727 |

### **CORRESPONDENCE DATA**

**Fax Number:** (312)980-0728

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:** 312-269-8000

**Email:** marden@ngelaw.com, patents@ngelaw.com

Correspondent Name: JAMES P. MURAFF

Address Line 1: TWO NORTH LASALLE STREET, SUITE 1700

Address Line 2: ATTN: PATENT ADMINISTRATOR

Address Line 4: CHICAGO, ILLINOIS 60602

| ATTORNEY DOCKET NUMBER: | 83880146 (026780-8920) |
|-------------------------|------------------------|
| NAME OF SUBMITTER:      | JAMES P. MURAFF        |
| SIGNATURE:              | /JAMES P. MURAFF/      |
| DATE SIGNED:            | 12/11/2017             |
|                         | •                      |

**Total Attachments: 5** 

source=Kimoto\_signed\_Declaration\_8920#page1.tif source=Siciak\_signed\_Declaration\_8920#page1.tif source=Sturza\_signed\_Declaration\_8920#page1.tif source=Symanow\_signed\_Declaration\_8920#page1.tif source=Tsai\_signed\_Declaration\_8920#page1.tif

| Attorney Do | ocket Number |
|-------------|--------------|
|-------------|--------------|

83880146 (026780-8920)

# ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY, PROVISIONAL OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Invention REDUNDANT VEHICLE POWER SUPPLY CONTROL SYSTEMS AND METHODS  |
|--|
| This declaration is directed to:   |
| The attached application, or United States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and number into this form when they become known.)  |
| The above-identified application was made or authorized to be made by me.  |
| I hereby state that I have reviewed and understand the contents of the specification in the above-identified application including the claims.   |
| I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.   |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.   |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the righ of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Paten for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No principal pate the serial patent herein applications, in and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations including all applications claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals reexaminations and reissue applications.  And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over.  And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein. |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine  |
| or imprisonment of not more than five (5) years or both.   |
| LEGAL NAME OF INVENTOR Inventor: Masahiro Kimoto Date: 11/03/2017  |
| Signature.   |
|  |

Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.

Use an additional declaration form for each additional inventor.

**REEL: 044356 FRAME: 0360** 

| Attorney      | Docket | Number            |
|---------------|--------|-------------------|
| u seeserrare. |        | T I COLL THE SAME |

83880146 (026780-8920)

# ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY, PROVISIONAL OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Invention  | REDUNDANT VEHICLE POWER SUPPLY CONTROL SYSTEMS AND METHODS   |
|---|--|
| This declaration is directed  | d to:  |
| United  | sched application, or States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and number into me known.)  |
| The above-identified appl   | ication was made or authorized to be made by me.   |
| I hereby state that I have including the claims.  | e reviewed and understand the contents of the specification in the above-identified application,   |
| I believe that I am the ori   | ginal inventor or an original joint inventor of a claimed invention in the application.  |
| continuation-in-part appl   | disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for ications, material information which became available between the filing date of the prior al or PCT international filing date of the continuation-in-part application.  |
| FORD GLOBAL TECHN of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its su for the inventions and disname or names, or in my insert the serial/applicat.  ASSIGNEE, its success applications, in and to the | deep agreement heretofore made or by contractual obligation, I do sell, assign and set over unto IOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and eign, in and to the inventions and discoveries in the above-identified invention including the right coessors, assigns or other legal representatives to make applications and to receive Letters Patent coveries in any and all countries, entities and intergovernmental organizations, in its or their own name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to ion number and filing date of the application to receive Letters Patent herein: Serial No.  ——————————————————————————————————— |
| including applications for organizations, and to perf   | hyself, my heirs, successors, assigns or other legal representatives to execute any and all papers,<br>Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental<br>form any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives<br>cure thereto the rights herein sold, assigned and set over.   |
| And I hereby represent an   | d warrant that I have not granted any rights inconsistent with the rights granted herein.  |
|   | t any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine ore than five (5) years or both.   |
| LEGAL NAME OF INVI  |  |
| Signature:  | ay Sirial  |
| Note: An Application Data<br>Use an additional declaration  | Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. form for each additional inventor.  |
|   | PATENT   |

REEL: 044356 FRAME: 0361

Attorney Docket Number 83880146 (026780-8920)

## ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY, PROVISIONAL OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Invention   REDUNDANT VEHICLE POWER SUPPLY CONTROL SYSTEMS AND   METHODS   |
|---|
| This declaration is directed to:  |
| The attached application, or United States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and number into this form when they become known.)   |
| The above-identified application was made or authorized to be made by me.   |
| I hereby state that I have reviewed and understand the contents of the specification in the above-identified application, including the claims.   |
| I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.  |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.  |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No. |
| And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over.  |
| And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.  |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both.  |
| LEGAL NAME OF INVENTOR  |
| Inventor: John Sturza Date: 11/3/17   |
| Signature: 4h   |
| Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.  Use an additional declaration form for each additional inventor.  |

| Attorney Docket Number | 83880146 (026780-8920) |
|------------------------|------------------------|

# ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY, PROVISIONAL OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| This declaration is directed to:  The attached application, or United States application or PCT international application number filed on  |
|--|
|  |
| I hereby state that I have reviewed and understand the contents of the specification in the above-identified application,  |
| I hereby state that I have reviewed and understand the contents of the specification in the above-identified application, including the claims.  |
|  |
| I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.   |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.   |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No.  ——————————————————————————————————— |
| And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over.   |
| And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.   |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both.   |
| LEGAL NAME OF INVENTOR Inventor: David Anthony Symanow Date: 11 / 3 / 1 7  |
| NOO  |
| Signature:   |
| Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.   |
| Use an additional declaration form for each additional inventor.  PATENT   |

REEL: 044356 FRAME: 0363

**RECORDED: 12/11/2017** 

| Attorney Docket Number |  | 88 |  |  |  |  |  |
|------------------------|--|----|--|--|--|--|--|
|                        |  |    |  |  |  |  |  |
|                        |  |    |  |  |  |  |  |
|                        |  |    |  |  |  |  |  |
|                        |  |    |  |  |  |  |  |

## ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY, PROVISIONAL OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Invention REDUNDANT VEHICLE POWER SUPPLY CONTROL SYSTEMS AND  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| METHODS  |  |  |  |  |  |  |
| This declaration is directed to:   |  |  |  |  |  |  |
| The attached application, or United States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and number into this form when they become known.)  |  |  |  |  |  |  |
| The above-identified application was made or authorized to be made by me.  |  |  |  |  |  |  |
| I hereby state that I have reviewed and understand the contents of the specification in the above-identified application, including the claims.  |  |  |  |  |  |  |
| I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.   |  |  |  |  |  |  |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.   |  |  |  |  |  |  |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No.  ——————————————————————————————————— |  |  |  |  |  |  |
| may deem necessary to secure thereto the rights herein sold, assigned and set over.  And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both.   |  |  |  |  |  |  |
| LEGAL MAME OF INVENTOR   |  |  |  |  |  |  |
| Inventor: Tsung-Han Tsai Date: ///3/20/7   |  |  |  |  |  |  |
| Signature: \( \frac{1}{2\signature} - \frac{1}{4\alpha_n} \frac{7}{2\signature} \)   |  |  |  |  |  |  |
| Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.   |  |  |  |  |  |  |
| Use an additional declaration form for each additional inventor.   |  |  |  |  |  |  |