#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4905987

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

#### **CONVEYING PARTY DATA**

| Name            | Execution Date |
|-----------------|----------------|
| SIRAJ SIDDIQUI  | 04/03/2018     |
| HANK KWONG      | 04/04/2018     |
| ERIC RADEMACHER | 04/05/2018     |
| AHMED AWADI     | 04/03/2018     |

#### **RECEIVING PARTY DATA**

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

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

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 15948313 |

#### **CORRESPONDENCE DATA**

Fax Number: (971)271-8021

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.

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Email: Tapia@mccrus.com **Correspondent Name:** MCCOY RUSSELL LLP

Address Line 1: 806 S.W. BROADWAY, SUITE 600 PORTLAND, OREGON 97205 Address Line 4:

| ATTORNEY DOCKET NUMBER: | 84003806          |
|-------------------------|-------------------|
| NAME OF SUBMITTER:      | ASHLEY R. TAPIA   |
| SIGNATURE:              | /Ashley R. Tapia/ |
| DATE SIGNED:            | 04/09/2018        |

**Total Attachments: 4** 

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**PATENT REEL: 045480 FRAME: 0326** 

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| Attorney Docket Number | 84003806 |
|------------------------|----------|

| Title of Invention   | METHODS AND SYSTEMS FOR ENABLING ENGINE START/STOP FUNCTION   |  |
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| This declaration is direct   |   |  |
| 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 app   | lication 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 app   | disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for lications, material information which became available between the filing date of the prior nal 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. 15/948,313 , Filing Date April 9, 2018 ), and I hereby sell, assign and set over to the ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority, including any provisional 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.   |   |  |
|  | at any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine nore than five (5) years or both.  |  |
| LEGAL NAME OF INV Inventor: Siraj Sidd   |   |  |
| Signature:   | Date: 51) KIZ 2010  |  |
|  |   |  |
| Note: An Application Data<br>Use an additional declaratio  | a Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. In form for each additional inventor.  |  |

| Attorney Docket Number | 84003806 |  |
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| Title of Invention   | METHODS AND SYSTEMS FOR ENABLING ENGINE START/STOP<br>FUNCTION   |  |
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| 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 app   | lication was made or authorized to be made by me.  |  |
| I hereby state that I hav 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.                  |  |
| 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. 15/948,313 , Filing Date April 9, 2018 , and I hereby sell, assign and set over to the ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority, including any provisional 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 INVI   | 11 11 1 2 2 11 1   |  |
| Inventor: Hank Kwo   | Date: $\frac{4/4/20/8}{2}$   |  |
| Signature: 747 J. Communication of the second of the secon |  |  |
|  | Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. |  |

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| Attorney Docket Number   84003806 |  |

| Title of Invention   | METHODS AND SYSTEMS FOR ENABLING ENGINE START/STOP<br>FUNCTION                                    |  |
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| 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. 15/948,313 , Filing Date April 9, 2018 ), and I hereby sell, assign and set over to the ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority, including any provisional 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 INV  | ENTOR U151H   |  |
| Inventor. Ette Rademacher  |   |  |
| 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.  |   |  |

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| Attorney Docket Number    | 84003806   |
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| of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its surfor the inventions and dis name or names, or in my insert the serial/applications 15/948,313  ASSIGNEE, its successor applications, in and to the   | nent agreement heretofore made or by contractual obligation, I do sell, assign and set over unto NOLOGIES, 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.  —, Filing Date April 9, 2018), and I hereby sell, assign and set over to the ors, assigns or other legal representatives, all rights of priority, including any provisional inventions and discoveries in any and all countries, entities and intergovernmental organizations claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, the applications. |
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| And I hereby represent and   | d 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 INVE   | 1216113   |
| Inventor: Ahmed Av   |   |
| Signature: Charles Charles   |   |
| 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: 045480 FRAME: 0331

**RECORDED: 04/09/2018**