#### 504861870 04/10/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4908609

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
CHRISTOPHER SEMANSON	07/21/2014
JEREMY L. RUSSELL	07/22/2014
CATHLEEN TISTLE	07/22/2014
JEFF RAYMOND MOHR	07/22/2014
MARK EIFERT	07/22/2014

#### 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:	15831242

### **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

JAMES P. MURAFF **Correspondent Name:** 

Address Line 1: TWO NORTH LASALLE STREET, SUITE 1700

ATTN: PATENT ADMINISTRATOR Address Line 2:

Address Line 4: CHICAGO, ILLINOIS 60602

ATTORNEY DOCKET NUMBER:	83454037 (026780.8997)
NAME OF SUBMITTER:	JAMES P. MURAFF
SIGNATURE:	/JAMES P. MURAFF/
DATE SIGNED:	04/10/2018

**Total Attachments: 5** 

source=026780\_8997\_OATHDEC#page1.tif
source=026780\_8997\_OATHDEC#page2.tif
source=026780\_8997\_OATHDEC#page3.tif
source=026780\_8997\_OATHDEC#page4.tif
source=026780\_8997\_OATHDEC#page5.tif

Title of Invention		Status Detection	By Tracking A	Temperature
RESERVE S.	Gradient	nevellanaannonnaarnnaannaarnaarnaarnaarnaarnaa	MANAGANAN MANAGAN MANA	***************************************
This declaration is direct	ea to:			operation.
United	ached application, or States application or PCT in			
The above-identified app	lication was made or authori	ized to be made by me.		
I hereby state that I have including the claims.	re reviewed and understand	the contents of the spec	ification in the above-ide	ntified application,
I believe that I am the or	ginal inventor or an original	I joint inventor of a claime	ed invention in the applicat	ion.
continuation-in-part app	o disclose information which lications, material informat nul or PCT international filin	tion which became avail	lable between the filing	1.56, including for date of the prior
FORD GLOBAL TECH of the State of Delawar hereinafter referred to a interest, domestic and fo of the ASSIGNEE, its si for the inventions and di name or names, or in my insert the serial/applica  ASSIGNEE, its succes applications, in and to ti including all applicatio reexaminations and reiss		Motor Company subsidiary e of business at Dearbon essors, assigns or other le ens and discoveries in the egal representatives to m entries, entities and interg on (and I hereby authorize ate of the application to	y, organized and existing by a, County of Wayne, and gal representatives, the enabove-identified invention ake applications and to recovernmental organizations the ASSIGNEE or ASSIGNET receive Letters Patent and I hereby sell, assign ghts of priority, including entities and intergovernmentations, continuations-i	y virtue of the laws State of Michigan, tire right, title and including the right eive Lefters Patent in its or their own INEE's attorney to herein: Serial No. and set over to the g any provisional hental organizations n-part, divisionals,
including applications for organizations, and to pe	myself, my heirs, successors or Letters Patent of any and from any and all acts which ecure thereto the rights here	I all kinds and in any and h the ASSIGNEE, its suc	I all countries, entities and cessors, assigns or other le	l intergovernmental
And I hereby represent a	nd warrant that I have not gr	ranted any rights inconsis	tent with the rights granted	herein.
or imprisonment of not a	nat any willful false statemen nore than five (5) years or bo		n is punishable under 18 t	J.S.C. 1001 by fine
LEGAL NAME OF INV			Date: July 2	2 2014
movement. Mark E	7.5	A STATE OF THE STA	saw. Series	anti-trage at the destination of
Signature:			AND THE RESERVE OF THE PARTY OF	W-V-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
	a Sheet (PTO/SB/14 or equiva		entire inventive entity, must	accompany this form.
	on form for each additional inve		***************************************	CHRISTAN HAR BESTERON CONTRACTOR OF THE STATE OF THE STAT
		***************************************		

Attorney Docket Number 83454037

Title of Invention Vehicle Battery Status Detection By Tracking A Temperature Gradient
This declaration is directed to:
The attached application, or United States application or PCT international application number filed on
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 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.
On the Control of the
Inventor: Cathleen Tistle Date: July 22 2014
Signature: Catalle Wille
The state of the s
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.

		1
The last Normalism	83454037	l
Attorney Docket Number	03434037	i
		•

Title of Inventi-	n	Vehicle Gradient		Status	Detection	By Trac	king A	Temperature
This declaration is	directe	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	, 	***************************************		WATER TO THE	***************************************	опроположения на им на им им им и им и и и и и и и и и и и и
	The att	ached applica States applic	ation or PCT	internation filed on	al application r	umber	·	
The above-identif	ied app	lication was r	nade or auth	orized to be	made by me.			COLL. TO SERVE BE AND THE SERVE BE AND T
I hereby state that including the claim		re reviewed a	md understa	nd the cont	ents of the spe	eification in t	he above-ide	entified application,
I believe that I am	the ori	ginal invento	r or an origi	nal joint inv	entor of a clain	ned invention i	n the applica	tion.
I am aware of the continuation-in-p application and th	art app	lications, ma	aterial inforr	nation whic	ch became av	allable betwee	en me mmg	. 1.56, including for date of the prior
FORD GLOBAL of the State of E hereinafter referr interest, domestic of the ASSIGNE for the inventious name or names, consert the serial ASSIGNEE, its applications, in a including all apreexaminations a	TECH belawared to a cand for in my application of to the plication of the plication of the test and the test	NOLOGIES, e, having its s the ASSIG reign, in and accessors, assisted in the y name, at its tion number, Filing sors, assigns ne inventions ns claiming nue applicatio	LLC, a Force principal plate to the invensigns or other any and all corrections or their electron and filing g Date or other land discove benefit of tens.	i Motor Cor ace of busin beessors, assistions and di relegal repre- countries, en- ction (and I date of the egal representes in any a the filing d	npany substitianess at Dearbooligns or other lescoveries in the esentatives to natities and interphereby authorize application entatives, all and all countries ate hereof, co	ry, organized a cn, County of legal represent e above-identif nake application governmental ze the ASSIGN to receive Lea, and I hereby rights of prices, entities and ntinuations, c	Wayne, and watives, the effed invention ons and to re organization. NEE or ASSI etters Patent sell, assign ority, including intergoverm ontinuations.	n and set over unto by virtue of the laws State of Michigan, ntire right, title and in including the right sceive Letters Patent s, in its or their own IGNEE's attorney to herein: Serial No. and set over to the ing any provisional mental organizations.
including applica	itions f d to pe	or Letters Par rform any an	tent of any a id all acts wh	md all kind hich the AS	s and in any at SIGNEE, its su	id all countrie iccessors, assi	s, enuues au	any and all papers, d intergovernmental legal representatives
And I hereby rep	resent a	ınd warrant th	nat I have no	t granted an	y rights inconsi	stent with the	rights grante	d herein.
I hereby acknow	ledge th	hat any willfi more than fiv	ıl false stater e (5) years o	ment made : r both.	in this declarat	ion is punishal	ble under 18	U.S.C. 1001 by fine
LEGAL NAME	OF INV	VENTOR				Date: _	7/22/	14
	1	Russell emm L	Permel	0		auer que brout a		g and grant and a state of the
Signature:	7	7	Connec	Χ			***************************************	
Note: An Applica Use an additional	ition Da declarati	ta Sheet (PTO	/SB/14 or equ ch additional	ivalent), incl	uding naming th	e entire inventiv	ve entity, mus	t accompany this form.
Cop on othersesses	***************************************		***************************************	**************************************	C CONTRACTOR CONTRACTO			A MARKAMAN AND THE PROPERTY OF A STREET OF THE PROPERTY OF THE PARK AND THE
					Attorney Do	ocket Number	83454037	***************************************

Diagon	Atmost	cs 83	correspondence to:	120903
7,103.5	CRES CUL	21.55	Citt I Cubinitamana	

Attorney Docket Number	83454037
	Стато

Title of Invention	Vehicle Battery Status Detection By Tracking A remperature
	Gradient
This declaration is direct	ed to:
T linited	States application or PCT international application number filed on
	dication 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 or	iginal inventor or an original joint inventor of a claimed invention in the application.
	o disclose information which is material to patentability as defined in 37 C.P.R. 1.56, including for oblications, material information which became available between the filing date of the prior nal or PCT international filing date of the continuation-in-part application.
FORD GLOBAL TECH of the State of Defawar hereinafter referred to a interest, domestic and fo of the ASSIGNEE, its sfor the inventions and doname or names, or in my insert the serial/applica ASSIGNEE, its success applications, in and to the including all application reexaminations and reiss	,
including applications for organizations, and to pe may deem necessary to s	myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, or Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental rform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives secure thereto the rights herein sold, assigned and set over.
And I hereby represent a	nd warrant that I have not granted any rights inconsistent with the rights granted herein.
I hereby acknowledge the	nat any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine more than five (5) years or both.
LEGAL NAME OF INV	YENTOR _ / 7 1/1U
Inventor: Christon	ner Semanson Date:
Signature:	the Line
Note: An Application Dat	a Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, for each additional inventor.

PATENT

REEL: 045496 FRAME: 0359

Please direct all correspondence to: 120903

		***************************************		
Attorney D	locket Num	ber   834	54037	

## 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)

THE OF REPUBLIES	Gradient Status Detection by tracking A reinperature
This declaration is	
	The attached application, or United States application or PCT international application numberfiled on
The above-identif	ied application was made or authorized to be made by me.
I hereby state the including the claim	It I have reviewed and understand the contents of the specification in the above-identified application, ns.
I believe that I am	the original inventor or an original joint inventor of a claimed invention in the application.
continuation-in-pa	duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for applications, material information which became available between the filing date of the prior enational or PCT international filing date of the continuation-in-part application.
FORD GLOBAL of the State of D hereinafter referrinterest, domestic of the ASSIGNEI for the inventions name or names, o insert the serial/ASSIGNEE, its applications, in ar including all appreexaminations an	mployment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws elaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, and to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and and foreign, in and to the inventions and discoveries in the above-identified invention including the right is, its successors, assigns or other legal representatives to make applications and to receive Letters Patent and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to application number and filing date of the application to receive Letters Patent herein: Serial No.  Filing Date
including applicat	ons for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives ry to secure thereto the rights herein sold, assigned and set over.
-	sent and warrant that I have not granted any rights inconsistent with the rights granted herein.
I hereby acknowle	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine not more than five (5) years or both.
OF IMPRISORMENT O	FINVENTOR
Income lati	Daymand Mohr
Signature: Q	of laymond Inch
Signature.	f
Note: An Application	on Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, claration form for each additional inventor.

PATENT

REEL: 045496 FRAME: 0360