### 504181062 01/17/2017

### **PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4228695

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JOSEPH NORMAN ULREY	01/03/2013
WILLIAM CHARLES RUONA	01/08/2013
THOMAS G. LEONE	01/02/2013
GOPICHANDRA SURNILLA	01/03/2013

#### **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:	15407787

#### **CORRESPONDENCE DATA**

**Fax Number:** (503)459-4142

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:** 503-459-4141 **Email:** parry@ahmrt.com

Correspondent Name: ALLEMAN HALL MCCOY RUSSELL & TUTTLE, LLP

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

ATTORNEY DOCKET NUMBER:	83775140
NAME OF SUBMITTER:	CAITLIN PARRY
SIGNATURE:	/CAITLIN PARRY/
DATE SIGNED:	01/17/2017

**Total Attachments: 4** 

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Attorney Docket Number   83333160		
	Attorney Docket Number	83333160

Title of Invention	METHOD AND SYSTEM FOR CATALYST TEMPERATURE CONTROL
This declaration is direct	ed to:
	States application, or States application or PCT international application number filed on
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 all or PCT international filing date of the continuation-in-part application.
FORD GLOBAL TECHI of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its su for the inventions and dir name or names, or in my insert the serial/applicat 13/743,247 ASSIGNEE, its success 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 to 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 reign, in and to the inventions and discoveries in the above-identified invention including the right occessors, assigns or other legal representatives to make applications and to receive Letters Patent beoveries 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 per	nyself, my heirs, successors, assigns or other legal representatives to execute any and all papers, r Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental form any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives cure thereto the rights herein sold, assigned and set over.
And I hereby represent ar	d warrant that I have not granted any rights inconsistent with the rights granted herein.
or imprisonment of not m	at 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	ENTOR rman Ulrey Date: 3 - AN - 2013
Signature:	Ar Use
	Sheet (PTO/\$6/14 or equivalent), including naming the entire inventive entity, must accompany this form, a form for each additional inventor.

Trans.	
Attornor Danten Manuel	00000100
Attorney Docket Number	83333160
	10000100

Title of Invent	tion METHOD AND SYSTEM FOR CATALYST TEMPERATURE CONTRO
This declaration	is directed to:
	The attached application, or United States application or PCT international application number filed on
The above-identi	ified application was made or authorized to be made by me.
I hereby state th including the clai	nat I have reviewed and understand the contents of the specification in the above-identified applications.
I believe that I an	m the original inventor or an original joint inventor of a claimed invention in the application.
A CHILLIAM MATERIAL STATE DE	e duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including to part applications, material information which became available between the filing date of the prine he national or PCT international filing date of the continuation-in-part application.
of the State of D hereinafter referre interest, domestic of the ASSIGNET for the inventions name or names, o insert the serial/a	employment agreement heretofore made or by contractual obligation, I do sell, assign and set over un TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the law Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michiga and to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title at and foreign, in and to the inventions and discoveries in the above-identified invention including the right, its successors, assigns or other legal representatives to make applications and to receive Letters Pate and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney application number and filing date of the application to receive Letters Patent herein: Serial New January 16, 2013, and I hereby sell, assign and set over to the successors, assigns or other legal representatives, all rights of priority, including any provision and to the inventions and discoveries in any and all countries, entities and intergovernmental organization oblications claiming benefit of the filing date hereof, continuations, continuations-in-part, divisional and reissue applications.
organizations, and	ee for myself, my heirs, successors, assigns or other legal representatives to execute any and all paperstions 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 representative ary to secure thereto the rights herein sold, assigned and set over.
And I hereby repre	esent and warrant that I have not granted any rights inconsistent with the rights granted herein.
or amprinomittens of	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by find finot more than five (5) years or both.
LEGAL NAME OF Inventor: Wil	유통 이 보고 있는 것이다. 그는 사람들은 사람들은 사람들은 사람들은 사람들은 사람들이 가지 않는데 보고 있다면 보다 보다 되었다. 그 사람들은 사람들은 사람들은 사람들은 사람들이 되었다. 그 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은
Signature:	Date: 1/8/20/3
Note: An Applicatio Use an additional dec	on Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form claration form for each additional inventor.

***************************************	······
Attorney Docket Number	83333160

Title of Invention	METHOD AND SYSTEM FOR CATALYST TEMPERATURE CONTROL	
This declaration is direc	ted to:	
Unite	ttached application, or  f States application or PCT international application number  filed on	
The above-identified app	olication was made or authorized to be made by me.	
I hereby state that I ha including the claims.	ve 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.	
continuation-in-part app	o disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for olications, material information which became available between the filing date of the prior mal 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. 13/743,247 , Filing Date January 16, 2013 ), 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	
Inventor: Thomas	G. Leone Date: 2015-01-02	
Signature: 10	n Joan	
Mater An Ameliantica De	ta Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.	
	on form for each additional inventor.	

	***************************************
Attorney Docket Number	83333160

Title of Invention	METHOD AND SYSTEM FOR CATALYST TEMPERATURE CONTROL
This declaration is directed to:	
United	ached application, or 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, 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. 13/743,247 , Filing Date January 16, 2013 , 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	
Inventor: <u>Gopichan</u>	dra Surnilla Date: 01/03/60/3
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: 040988 FRAME: 0767

**RECORDED: 01/17/2017**