PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Gopichandra Surnilla	08/19/2013
Daniel A. Makled	08/15/2013
Richard E. Soltis	08/19/2013
Stephen B. Smith	08/22/2013

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:	14032109

CORRESPONDENCE DATA

Fax Number: 5034594142

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 503-459-4141
Email: fulton@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:	83384703	
NAME OF SUBMITTER:	Maxfield Fulton	
Signature:	/Maxfield Fulton/	DATENT

502503433 REEL: 031249 FRAME: 0270

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Date:	09/20/2013
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Attorney Docket Number	83384703

Title of Inventi-	methods and systems for an intake oxygen sensor	
This declaration is	directed to:	
	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 that including the clair	it I have reviewed and understand the contents of the specification in the above-identified application, us.	
I believe that I am	the original inventor or an original joint inventor of a claimed invention in the application.	
continuation-in-pa	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. $14/032,109$, Filing DateSeptember 19, 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 repr	esent 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 C		
Inventor: Go	ppichandra Surnilla Date: 0 / 1 () 5	
Signature:	file cord	
	ion Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, eclaration form for each additional inventor.	

Attorney Docket Number	83384703

Title of Invention	METHODS AND SYSTEMS FOR AN INTAKE OXYGEN SENSOR
This declaration is direct	ted to:
	tached application, or I 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 had 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 oblications, material information which became available between the filing date of the prior onal or PCT international filing date of the continuation-in-part application.
FORD GLOBAL TECH of the State of Delawar hereinafter referred to a interest, domestic and for the ASSIGNEE, its s for the inventions and d name or names, or in minsert the serial/applications, its successapplications, in and to the state of the state of the serial successapplications, in and to the state of the stat	ment 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 re, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and oreign, in and to the inventions and discoveries in the above-identified invention including the right uccessors, assigns or other legal representatives to make applications and to receive Letters Patent iscoveries in any and all countries, entities and intergovernmental organizations, in its or their own y name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to ution number and filing date of the application to receive Letters Patent herein: Serial No. ———————————————————————————————————
including applications for organizations, and to pe	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	and warrant that I have not granted any rights inconsistent with the rights granted herein.
	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	/ENTOR
Inventor: Daniel A	Makled Date: 0/15/2015
Signature: Laz	al Much
Note: An Application Da	ta Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.
	on form for each additional inventor.

	at the state of th
Attorney Docket Number	83384703

Title of Invention	METHODS AND SYSTEMS FOR AN INTAKE OXYGEN SENSOR	
This declaration is directed to:		
United	tached application, or I 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 had 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 discations, 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 Delawar hereinafter referred to a interest, domestic and for of the ASSIGNEE, its s for the inventions and diname or names, or in minsert the serial/applications. It including all application reexaminations and reiss.	ment 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 e, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, is the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and breign, in and to the inventions and discoveries in the above-identified invention including the right successors, assigns or other legal representatives to make applications and to receive Letters Patent iscoveries in any and all countries, entities and intergovernmental organizations, in its or their own yname, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to tion number and filing date of the application to receive Letters Patent herein: Serial No. Filing Date September 19, 2013), and I hereby sell, assign and set over to the sors, assigns or other legal representatives, all rights of priority, including any provisional the inventions and discoveries in any and all countries, entities and intergovernmental organizations are claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, we applications. In the sort of the filing date hereof, continuations, continuations-in-part, divisionals, we applications.	
organizations, and to pe	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.	
	nat 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	ENTOR E. Soltis Date: 19 Aug 20/3	
Inventor: Richard I		
Signature:	ad & Saltis	
	a Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.	

Attorney Docket Number	83384703

Title of Invention	METHODS AND SYSTEMS FOR AN INTAKE OXYGEN SENSOR
This declaration is directed to:	
	tached application, or I States application or PCT international application numbertiled on
The above-identified app	olication was made or authorized to be made by me.
I hereby state that I has 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.
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. 14/032,109 ———————————————————————————————————	
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 a	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: Stephen	B. Smith Date: 0-22-2013
Signature: 4-1.45-200	
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: 031249 FRAME: 0275

RECORDED: 09/20/2013