503235113 03/25/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3281731

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ROHIT HIPPALGAONKAR	03/20/2015
ERIC HONGTEI TSENG	03/12/2015
YUJI FUJII	03/21/2015
GREGORY MICHAEL PIETRON	03/19/2015
JAMES WILLIAM LOCH MCCALLUM	03/23/2015
JASON MEYER	03/16/2015
MICHAEL JOHN LEADS	03/10/2015
JOSEPH F. KUCHARSKI	03/10/2015

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14668062

CORRESPONDENCE DATA

Fax Number: (313)322-7162

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.

using a lax number, if provided, if that is unsuccessful, it will be sent via 05 mail.

Phone: 248-358-4400

Email: dhays@brookskushman.com
Correspondent Name: BROOKS KUSHMAN P.C.
Address Line 1: 1000 TOWN CENTER

Address Line 2: 22ND FLOOR

Address Line 4: SOUTHFIELD, MICHIGAN 48075

ATTORNEY DOCKET NUMBER:	83488755
NAME OF SUBMITTER:	REID A. BALDWIN

PAIENI

503235113 REEL: 035253 FRAME: 0098

SIGNATURE:	/Reid A. Baldwin/
DATE SIGNED:	03/25/2015
Total Attachments: 8 source=Assingment#page1.tif source=Assingment#page2.tif source=Assingment#page3.tif source=Assingment#page4.tif source=Assingment#page5.tif source=Assingment#page6.tif source=Assingment#page7.tif source=Assingment#page8.tif	

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ASSIGNMENT AND DECLARATION (37 C.F.R. L63) FOR UTILITY, PROVISIONAL OR DESIGN APPER ATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

Time of Invento	TRANSMISSION AVOIDANCE	COMPONENT	FAILURE	DETECTION	AND
Dead Section	date tel to				
à	The attached application, or United States application or PCT	international application filed on	ı number		
	ied application was made or auth				
I hereby state the including the clau	I I have reviewed and understans.	nd the contents of the s	pecification in th	ne above-identified my	plication,
I believe that I am	the original inventor or an origin	nal joint inventor of a cla	imed invention in	the application.	
mantinguiles last	duty to disclose information what applications, material infortentional or PCT international fi	nation which became I	Manable between	it file titith ame at	luding for the prior
FORD GLOBAL of the State of D hereinafter referred interest, domestic of the ASSIGNES for the inventions name or names, o insert the serial/14/668,062 ASSIGNEE, its applications, in articulding all apprecaminations are	mployment agreement heretofor TECHNOLOGIES, LLC, a Ford claware, having its principal placed to as the ASSIGNEE, its successors, assigns or other and discoveries in any and all or in my name, at its or their electron application number and filing place. Filing Date Mar successors, assigns or other limits to the inventions and discoveries in the inventions and discovering the discovering applications claiming benefit of the dreissue applications.	ace of business at Deart cessors, assigns or other tions and discoveries in the regal representatives to countries, entities and interest of the application (and I hereby authorities of the application (25, 2015) and regal representatives, all ries in any and all countries in any any any any any any any any any an	riegal representa- tice above-identification make application or application or application or application of the ASSIGN of the receive Legal and I hereby rights of prior des, entities and continuations, continuation	Wayne, and State of atives, the entire righted invention includir ans and to receive Let organizations, in its of IEE or ASSIGNEE's ters Patent herein: sell, assign and set rity, including any intergovernmental organizations-in-part,	Michigan, t, title and og the right iters Patent r their own attorney to Serial No. over to the provisional ganizations divisionals,
including applicat	ce for myself, my heirs, success tions for Letters Patent of any a to perform any and all acts whary to secure thereto the rights he	ind all kinds and in any inch the ASSIGNEE, its	successors, assig	3. LIMILIDE WILL INSTALL	C T MAR SAUGHANIAN CO.
And I hereby repr	esent and warrant that I have not	granted any rights incom	sistent with the	rights granted herein.	
or imprisonment of	edge that any willful false stater of not more than five (5) years or	nent made in this declar both,	ation is punishab	ole under 18 U.S.C. I	001 by fine
LEGAL NAME C	F INVENTOR		D-451	3/10/2	OK
Inventor: Ro	hit Hippalgaonkar		Date: _		-1-3
Signature:	Heer		***************************************		
Note: An Applicati Use an additional de	on Data Sheet (PTO/SB/14 or equiclaration form for each additional i	ivalent), including naming nventor.	the entire inventi-	ve entity, must accomp	any this form.

PATENT

REEL: 035253 FRAME: 0100

Please direct all correspondence to: 28395

Attorney Docket Number 8	83488755

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	AVOIDANCE			
This declaration is directed to:				
	ne attached application, or nited 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 including the claims.	have reviewed and understand the contents of the specification in the above-identified application,			
I believe that I am the	e original inventor or an original joint inventor of a claimed invention in the application.			
continuation-in-part	ity 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 ational 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. 14/668,062				
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 365			
Inventor: <u>Eric I</u>	Hongtei Tseng Date: 7201			
Signature:				
Note: An Application	Data Sheet (PTO/SB/14 of equivalent), including naming the entire inventive entity, must accompany this form.			
Use an additional declaration form for each additional inventor.				

Attorney Docket Number	83488755

Title of Invention	TRANSMISSION AVOIDANCE	COMPONENT	FAILURE	DETECTION	AND
This declaration is directed to:					
☐ United	tached application, or I States application or PCT			•	
The above-identified app	plication was made or autho	rized to be made by me.			
I hereby state that I have including the claims.	ve reviewed and understan	d the contents of the s	pecification in th	e above-identified ap	plication,
I believe that I am the or	iginal inventor or an origina	al joint inventor of a clai	med invention in	the application.	
continuation-in-part app	o disclose information which oblications, material inform nal or PCT international file.	ation which became a	vailable between	the filing date of	
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. 14/668, 062, Filing Date					
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			_ ~	11.5 NY	
Inventor: Yuji Fuj	<u>ii</u>		Date:	1-2018	
Signature:	The state of the s		ekymyraninyyyyy agyaya i yyyyyy yona ana madysiny in indininininy		
Note: An Application Data	Sheet (PTO/SB/14 or equiva	alent), including naming th	e entire inventive o	entity, must accompany	this form.

Attorney Docke	t Number	83488755	
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Title of Invention		TRANSMISSION AVOIDANCE	COMPONENT	FAILURE	DETECTION	AND
This declaration is	direct		,	<u></u>		
X		ached application, or States application or PCT			·	
The above-identif	ied app	lication was made or autho	rized to be made by me			
I hereby state the including the claim		e reviewed and understan	d the contents of the s	pecification in th	e above-identified ap	oplication,
I believe that I am	the ori	ginal inventor or an origina	al joint inventor of a cla	imed invention in	the application.	
continuation-in-pa	irt app	o disclose information which lications, material inform nal or PCT international fil	ation which became a	wailable between	the filing date of	luding for the prior
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. 14/668,062						
including applicat organizations, and	ions fo I to per	nyself, my heirs, successo r Letters Patent of any an form any and all acts whice ecure thereto the rights her	d all kinds and in any a th the ASSIGNEE, its	and all countries, successors, assign	entities and intergov	ernmental
And I hereby repr	esent ai	nd warrant that I have not g	granted any rights incon-	sistent with the rig	ghts 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				7	0150319	
Inventor: Gr	egory N	Michael Pietron		Date: <u></u>	-177711	
Signature:						
Note: An Applicat Use an additional de	ion Data claratio	i Sheet (PTO/SB/14 or equiv n form for each additional inv	alent), including naming t entor.	he entire inventive	entity, must accompany	/ this form.

Please direct all correspondence to: 28395

Attorney Docket Number	83488755

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 Inven	ition	TRANSMISSION AVOIDANCE	COMPONENT	FAILURE	DETECTION	AND
This declaration	n is direc					
x	Unite	attached application, or d States application or PCT i			·	
The above-iden	tified ap	plication was made or author	rized to be made by me.	,		
I hereby state to including the cla	that I ha aims.	ve reviewed and understand	i the contents of the sp	pecification in the	above-identified ap	plication,
I believe that I a	am the or	riginal inventor or an origina	l joint inventor of a clai	med invention in	the application.	
continuation-in-	-part app	to disclose information which plications, material informational or PCT international filit	ation which became a	vailable between	the filing date of t	uding for the prior
of the State of hereinafter refer interest, domestion of the ASSIGNI for the invention name or names, insert the seria 14/668,062 ASSIGNEE, its applications, in a	L TECH Delawar rred to a ic and fo EE, its si ns and di or in my il/applica s success and to th pplication	ment agreement heretofore in INOLOGIES, LLC, a Ford Mee, having its principal place is the ASSIGNEE, its succes oreign, in and to the invention successors, assigns or other less overies in any and all coury name, at its or their election number and filing dates in the invention of the less ores, assigns or other legal to the inventions and discoveries in claiming benefit of the ue applications.	Motor Company subsidiate of business at Dearborssors, assigns or other ones and discoveries in the egal representatives to untries, entities and interpretation (and I hereby authoritate of the application 1 25, 2015 all representatives, all is in any and all countries.	ary, organized and orn, County of W legal representations above-identified make applications receive Lette ASSIGNET to receive Lette), and I hereby so rights of priority es, entities and interest and interest or the county of	d existing by virtue of dayne, and State of Mives, the entire right, d invention including and to receive Letter ganizations, in its or the E or ASSIGNEE's atters Patent herein: Seell, assign and set over, including any protegrovernmental organizations.	Ithe laws Michigan, title and the right rs Patent heir own torney to erial No. er to the ovisional
organizations, ar	ations fo nd to per	myself, my heirs, successors or Letters Patent of any and form any and all acts which ecure thereto the rights herei	all kinds and in any ar the ASSIGNEE, its su	nd all countries, e	entities and intergover	rnmental
And I hereby rep	oresent ar	nd warrant that I have not gra	anted any rights inconsi	stent with the righ	its granted herein.	
or imprisonment	of not m	at any willful false statemen nore than five (5) years or bo	t made in this declarati	on is punishable (under 18 U.S.C. 1001	by fine
LEGAL NAME				22		
Inventor: <u>Ja</u>	ames Wi	lliam Loch McCallum		Date: <u>~</u> S	Mer 2015	
Signature: 🚅	- E	W.L. ACI				
Fr-in An Amelina	D-4-	A . AND AND (1.6				
Note: An Applica	ilion Data	Sheet (PTO/SB/14 or equivalent form for each additional invest	ent), including naming the	entire inventive en	itity, must accompany the	his form.

Attorney Docket Number	83488755

Title of Inventi-	on	TRANSMISSION AVOIDANCE	COMPONENT	FAILURE	DETECTION	AND
This declaration is	e direct					
X	The at	tached application, or I States application or PCT	international application filed on			
The above-identif	ied app	olication was made or author	rized to be made by me.			
I hereby state that including the claim		ve reviewed and understand	d the contents of the s	pecification in the	e above-identified ap	plication,
I believe that I am	the or	iginal inventor or an origina	l joint inventor of a clai	med invention in	the application.	
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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. 14/668,062 , Filing Date						
And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.						
or imprisonment of	of not n	at any willful false stateme nore than five (5) years or b		tion is punishable	under 18 U.S.C. 100	l by fine
LEGAL NAME C				ъ.	3-16-15	
Inventor: Jas	son M	eyer		Date:	3 16 15	
Signature:		7				
ششنة						
		a Sheet (PTO/SB/14 or equiva		ne entire inventive e	entity, must accompany	this form.

Attorney Docket Number	83488755	

Title of Invention	AVOIDANCE
This declaration is	
	The attached application, or Inited States application or PCT international application number filed on
The above-identifie	d application was made or authorized to be made by me.
I hereby state that including the claim	I have reviewed and understand the contents of the specification in the above-identified application, s.
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continuation-in-par	buty 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 national or PCT international filing date of the continuation-in-part application.
FORD GLOBAL T of the State of Del hereinafter referred interest, domestic a of the ASSIGNEE, for the inventions a name or names, or insert the serial/ap 14/668,062 ASSIGNEE, its stapplications, in and including all appli	ployment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto ECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws aware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and not 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 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 replication number and filing date of the application to receive Letters Patent herein: Serial No. ———————————————————————————————————
including application organizations, and t	for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, 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 y to secure thereto the rights herein sold, assigned and set over.
And I hereby repres	ent and warrant that I have not granted any rights inconsistent with the rights granted herein.
	ge 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.
LEGAL NAME OF	INVENTOR
Inventor: Mich	nael John Leads Date: Tipech in 2015
Signature:	uchael from Reads
	Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.
Use an additional decl	aration form for each additional inventor.

Please direct all correspondence to: 28395

Attorney Docket Number	83488755

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	TRANSMISSION AVOIDANCE	COMPONENT	FAILURE	DETECTION	AND	
This declaration is direct						
X The at	tached application, or I States application or PCT	international applicationfiled on	n number	·		
The above-identified app	olication was made or autho	orized to be made by me.				
I hereby state that I have including the claims.	ve reviewed and understan	d the contents of the s	pecification in the	e above-identified ap	plication,	
I believe that I am the or	iginal inventor or an origin	al joint inventor of a cla	imed invention in	the application.		
continuation-in-part app	o disclose information whic lications, material inform nal or PCT international fil	ation which became a	vailable between	the filing date of	luding for the prior	
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including applications for	myself, my heirs, successor or Letters Patent of any an rform any and all acts whi secure thereto the rights her	d all kinds and in any a	and all countries, successors, assign	entities and intergov	ernmental	
And I hereby represent a	and warrant that I have not	granted any rights incon-	sistent with the rig	ghts granted herein.		
I hereby acknowledge the	nat any willful false statem nore than five (5) years or l	ent made in this declara	tion is punishable	under 18 U.S.C. 100) by fine	
LEGAL NAME OF INV	ENTOR			3/10/15		
Inventor: Joseph F	. Kucharski	// / 	_ Date: <u>_</u>	71.713	**************************************	
Signature:	sex 4, leus	Mill 2 "				
	ta Sheet (PTO/SB/14 or equiv	mant) including naming t	ha antira invantiva	entity must accompany	this form	
Note: An Application Dat Use an additional declaration	ta Sheet (PTO/SB/14 or equivon form for each additional in	ventor.	ne chine inventive	entity, must accompany	ans ivini.	

PATENT REEL: 035253 FRAME: 0107

RECORDED: 03/25/2015