506505493 02/15/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6552268

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHANG-HENG WANG	02/10/2021
SEYHAN UCAR	02/09/2021
TAKAMASA HIGUCHI	02/10/2021
ONUR ALTINTAS	02/09/2021

RECEIVING PARTY DATA

Name:	TOYOTA MOTOR ENGINEERING & MANUFACTURING NORTH AMERICA, INC.
Street Address:	6565 HEADQUARTERS DRIVE W1-3C
City:	PLANO
State/Country:	TEXAS
Postal Code:	75024

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17174338

CORRESPONDENCE DATA

Fax Number:

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.

Email: paralegal@burbagelaw.com

Correspondent Name: BURBAGE LAW, P.C.

Address Line 1: P.O. BOX 3607

Address Line 4: PAWLEYS ISLAND, SOUTH CAROLINA 29585

ATTORNEY DOCKET NUMBER:	T1834.10320US01
NAME OF SUBMITTER:	KATHERINE D. GARDNER
SIGNATURE:	/Katherine D. Gardner/
DATE SIGNED:	02/15/2021

Total Attachments: 4

source=IPA5035_183410320US01_Declaration_Assignment_Altintas_signed#page1.tif source=IPA5035_183410320US01_Declaration_Assignment_Higuchi_signed#page1.tif source=IPA5035_183410320US01_Declaration_Assignment_Ucar_signed#page1.tif

PATENT 506505493 REEL: 055262 FRAME: 0029

source=IPA5035_183410320US01_Declaration_Assignment_Wang_signed#page1.tif

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Inventor Name	Onur Altintas
		In consideration of my ongoing employment and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to
	Name of Assignee	Toyota Motor Engineering & Manufacturing North America, Inc.
	Address of Assignee	6565 Headquarters Drive W1-3C, Plano, TX 75024
		(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as
Identification such as Title, Case Number, o		RESOLVING VEHICLE APPLICATION VERSION DIFFERENCES
	Foreign Application Number	(Attorney Docket No. T1834.10320US01), filed on even date herewith or as
		(Attorney Docket No. 11034.103200301), filed oil even date netewith of as
	Alternative	U.S. Application Number 17/174,338
	Identification for	
	filed applications	filed February 11, 2021
and goin claims of reexamin resulting entire in this assign	concerning any application of g forward with such interfere 3) Each undersigned agrees reprovisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unite 5) Each undersigned author from said application(s) to the test herein assigned, and the gament is binding on Assigne 6) Each undersigned hereby necessary or desirable in order it.	to execute all papers necessary in connection with any interference or post-grant proceeding which may be or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence nee or post-grant proceeding. to execute all papers and documents and perform any act which may be necessary in connection with hal Convention for Protection of Industrial Property or similar agreements. to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or ad States patent to the Assignee. izes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents have said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the at he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that or and Assignor's heirs, successors, assigns and legal representatives. Yegrants the firm of BURBAGE LAW PC the power to insert on this assignment any further identification that it to comply with the rules of the United States Patent and Trademark Office for recordation of this
	Declaration	
	ove named inventor, I hereby I believe I am the original invents declaration is being submitted	entor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for
	The application was made or a	uthorized to be made by me.
Office al		d the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the e material to patentability as defined in 37 CFR §1.56.
imprison	I hereby acknowledge that a ment of not more than five (5	ny willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or 5) years, or both.
	In witness whereof, execut	ed by the undersigned on the date(s) opposite the undersigned name(s).
Date	Feb. 9, 2021	Inventor Signature _/Onur Altintas/

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Inventor Name	Takamasa Higuchi
		In consideration of my ongoing employment and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to
	Name of Assignee	Toyota Motor Engineering & Manufacturing North America, Inc.
	Address of Assignee	6565 Headquarters Drive W1-3C, Plano, TX 75024
		(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as
	Identification such as Title, Case Number, or	RESOLVING VEHICLE APPLICATION VERSION DIFFERENCES
	Foreign Application Number	
	rumber	(Attorney Docket NoT1834.10320US01), filed on even date herewith or as
	Alternative	U.S. Application Number 17/174,338
	Identification for	
	filed applications	filed February 11, 2021
to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary. 2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding. 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements. 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee. 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives. 6) Each undersigned hereby grants the firm of Burbage Law PC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.		
	Declaration	
As an above named inventor, I hereby declare that: I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.		
	The application was made or a	thorized to be made by me.
I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.		
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.		
	In witness whereof, execute	d by the undersigned on the date(s) opposite the undersigned name(s).
Date	2/10/2021	Inventor Signature /Takamasa Higuchi/

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Inventor Name	Seyhan Ucar	
		In consideration of my ongoing employment and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to	
	Name of Assignee	Toyota Motor Engineering & Manufacturing North America, Inc.	
	Address of Assignee	6565 Headquarters Drive W1-3C, Plano, TX 75024	
		(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as	
	Identification such as Title, Case Number, or	RESOLVING VEHICLE APPLICATION VERSION DIFFERENCES	
	Foreign Application Number	(A) D. L. M. THOMA ISOSOTICOL C. L. M.	
		(Attorney Docket No. T1834.10320US01), filed on even date herewith or as	
	Alternative	U.S. Application Number 17/174,338	
	Identification for		
	filed applications	filed February 11, 2021	
to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary. 2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding. 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements. 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee. 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives. 6) Each undersigned hereby grants the firm of Burbage Law PC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.			
	Declaration		
As an ab	ove named inventor, I hereby	declare that:	
	I believe I am the original invest declaration is being submitted	ntor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for d.	
	The application was made or a	uthorized to be made by me.	
	I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the fice all information known to me to be material to patentability as defined in 37 CFR §1.56.		
imprison	I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or isonment of not more than five (5) years, or both.		
	In witness whereof, execute	ed by the undersigned on the date(s) opposite the undersigned name(s).	
Date	02/09/2021	Inventor Signature	

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Inventor Name	Chang-Heng Wang	
		In consideration of my ongoing employment and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to	
	Name of Assignee	Toyota Motor Engineering & Manufacturing North America, Inc.	
	Address of Assignee	6565 Headquarters Drive W1-3C, Plano, TX 75024	
		(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as	
Identification such as Title, Case Number, or Foreign Application RESOLVING VEHICLE APPLICATION VERSION DIFFERENCES			
	Number	(Attorney Docket No. T1834.10320US01), filed on even date herewith or as	
	Alternative	U.S. Application Number 17/174,338	
	Identification for	C.S. Application Number	
	filed applications	filed February 11, 2021	
declared and going claims or reexamin resulting entire intention this assig may be not document.	2) Each undersigned agrees concerning any application of forward with such interferer 3) Each undersigned agrees provisions of the Internation 4) Each undersigned agrees ation a grant of a valid Unite 5) Each undersigned authorifrom said application(s) to the test herein assigned, and than ment is binding on Assignor 6) Each undersigned hereby eccessary or desirable in order to	mection with such applications and patents as the Assignee may deem necessary. to execute all papers necessary in connection with any interference or post-grant proceeding which may be repatent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence nece or post-grant proceeding. The execute all papers and documents and perform any act which may be necessary in connection with all Convention for Protection of Industrial Property or similar agreements. To perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or destates patent to the Assignee. The example of the U.S. Patent and Trademark Office to issue any and all patents are said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the theor she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that and Assignor's heirs, successors, assigns and legal representatives. The grants the firm of Burbage Law PC the power to insert on this assignment any further identification that to comply with the rules of the United States Patent and Trademark Office for recordation of this	
	Declaration		
	ove named inventor, I hereby I believe I am the original inver- s declaration is being submitted	ntor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for	
	The application was made or a		
	I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the ffice all information known to me to be material to patentability as defined in 37 CFR §1.56.		
	I hereby acknowledge that arment of not more than five (5	by willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or) years, or both.	
	In witness whereof, execute	ed by the undersigned on the date(s) opposite the undersigned name(s).	
Date	2/10/2021	Inventor Signature /Chang-Heng Wang/	

RECORDED: 02/15/2021