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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
DONG JUN SHIN	05/24/2019
JAE YUN SHIM	05/24/2019

RECEIVING PARTY DATA

Name:	HYUNDAI MOTOR COMPANY	
Street Address: 12, HEOLLEUNG-RO, SEOCHO-GU		
City:	SEOUL	
State/Country:	KOREA, REPUBLIC OF	
Postal Code: 06797		
Name: KIA MOTORS CORPORATION		
Street Address: 12, HEOLLEUNG-RO, SEOCHO-GU		
City: SEOUL		
State/Country: KOREA, REPUBLIC OF		
Postal Code: 06797		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16572132

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	HOSANG LEE
SIGNATURE:	/Hosang Lee/
DATE SIGNED:	09/17/2019

PATENT REEL: 050395 FRAME: 0596

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Total Attachments: 2

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PATENT REEL: 050395 FRAME: 0597

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Attorney	Docket	No.	

ASSIGNMENT (Joint Inventors)

WHEREAS, the undersigned, (1) SHIN, Dong Jun, resident of 349-1006, 171. Dongtanjungang-ro, Hwascong-si, Gyeonggi-do, 18438 Republic of Korea, and (2) SHIM, Jae Yun, resident of 225-1102, 42, Dongtanjiseong-ro, Hwaseong-si, Gyeonggi-do, 18446 Republic of Korea (hereinafter termed "Inventors"), respectively, have invented certain new and useful improvements in METHOD FOR DETERMINING HEATING LOAD OF HYBRID ELECTRIC VEHICLE and executed therefore an application for Letters Patent of the United States and

having an oath or declaration executed on even date herewith.	
bearing U.S. Patent Application No and filed on	

WHEREAS, Hyundai Motor Company, a corporation of the Republic of Korea, having a place of business at 12, Heolleung-ro, Seocho-gu, Seoul, 06797, Republic of Korea, Kia Motors Corporation, a corporation of the Republic of Korea, having a place of business at 12, Heolleung-ro, Seocho-gu, Seoul, 06797, Republic of Korea, (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest of said Inventors in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

- 1. Said Inventors do hereby sell, assign, transfer and convey unto said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.
- 2. Said Inventors do hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute,

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divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.
- 4. Said Inventors do hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Inventors have executed and delivered this instrument to said Assignee as follows:

		(1)	SHIN, Dong Jun
Date:	May 24, 2019	Ву:	L.
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		(2)	SHIM, Jae Yun
Date:	May 24, 2019	Ву:	Krigh