UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT and BMW OF NORTH AMERICA, LLC, Petitioners
V.
PAICE LLC & THE ABELL FOUNDATION Patent Owner
Case IPR2020-01299

DECLARATION OF MAHDI SHAHBAKHTI PH.D. IN SUPPORT OF THE PATENT OWNER'S RESPONSE

Patent 8,630,761



## **TABLE OF CONTENTS**

I.	INTE	RODU	CTION	5
II.	QUA	LIFIC	CATIONS AND EXPERIENCE	6
III.	LEGAL UNDERSTANDING			14
IV.	DEFINITION OF A PERSON OF SKILL IN THE ART			16
V.	THE	'761 I	PATENT	17
VI.	CLA	IM CO	ONSTRUCTIONS	26
VII.	ANA	LYSIS	S AND OPINIONS	27
	A.	Ground 1: The proposed combination of Severinsky and Quigley does not render obvious claims 1-12		27
		1.	Neither Severinsky nor Quigley "derive[] a predicted near-term pattern of operation of said hybrid vehicle"	27
		2.	Neither Severinsky nor Quigley disclose "wherein said derived predicted pattern of operation comprises at least one repetitive pattern of operation of said hybrid vehicle." (Claims 2 and 8)	32
		3.	Neither Severinsky nor Quigley disclose "wherein said controller monitors variation in road load experienced by said hybrid vehicle and compares patterns of variation in road load experienced from day to day in order to identify said repetitive patterns of operation of said hybrid vehicle." (Claims 4 and 10)	33
		4.	A person of skill in the art would not combine Severinsky and Quigley	40
	B.		and 2: The proposed combination of Severinsky and loes not render obvious claims 1-12	50



1.	Neither Severinsky nor Nii "derive[] a predicted near-term pattern of operation of said hybrid vehicle"	50
2.	Neither Severinsky nor Nii disclose "wherein said derived predicted pattern of operation comprises at least one repetitive pattern of operation of said hybrid vehicle." (Claims 2 and 8)	55
3.	Neither Severinsky nor Nii disclose "wherein said controller monitors variation in road load experienced by said hybrid vehicle and compares patterns of variation in road load experienced from day to day in order to identify said repetitive patterns of operation of said hybrid vehicle." (Claims 4 and 10)	56
4.	Severinsky's parallel hybrid architecture vs. Nii's series hybrid architecture	59
5.	Nii's use of vehicle patterns has no applicability to Severinsky's parallel hybrid control system	69



## **DECLARATION EXHIBITS**

<b>Exhibit Number</b>	Exhibit Name	
Ex. 2017	Curriculum Vitae of Mahdi Shahbakhti, Ph.D.	
Ex. 2018	Reserved	
Ex. 2019	Reserved	
Ex. 2020	Selected Pages From Merhdad Ehsani et al, Modern	
EX. 2020	Electric, Hybrid Electric, and Fuel Cell Vehicles	
Ex. 2021	Reserved	
Ex. 2022	Reserved	
Ex. 2023	Reserved	
Ex. 2024	Reserved	
Ex. 2025	Reserved	
Ex. 2026	Reserved	
Ex. 2027	Reserved	
Ex. 2028	Reserved	
Ex. 2029	Oxford Dictionary	
Ex. 2030	The Illustrated Dictionary of Electronics	
Ex. 2031	Encarta World English Dictionary	
Ex. 2032	Selected Pages From Handbook of Air Pollution From	
Ex. 2032	Internal Combustion Engines	
Ex. 2033	Selected Pages From Guzzella et al., Vehicle	
LA. 2033	Propulsion Systems	



I, Mahdi Shahbakhti, hereby declare the following:

### I. INTRODUCTION

- 1. I have been retained by counsel for Paice LLC and the Abell Foundation (collectively, "Paice" or "Patent Owner") to investigate and analyze certain issues relating to the validity of claims of U.S. Patent No. 8,630,761 ("the '761 patent").
- 2. For purposes of this declaration, I have been asked to analyze the arguments made by Bayerische Motoren Werke Aktiengesellschaft and BMW of North America, LLC ("BMW" or "Petitioners") related to Grounds 1 and 2 in the matter of the *Inter Partes* Review of the '761 patent, Case No. IPR2020-01299, as shown in the table below.

Ground 1	Severinsky/Quigley	Claims 1-12
Ground 2	Severinsky/Nii	Claims 1-12

In addition to the grounds and noted claims above, I have also reviewed the petition as well as the declaration of BMW's expert, Dr. Davis (and the documents cited therein) pertaining to these grounds. I have also reviewed the Patent Trial and Appeal Board's ("the Board") decision to institute regarding these grounds, as well as the Board's claim constructions. My analysis is based on the Board's claim constructions, unless I specifically note otherwise.

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