# UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD

### BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT & BMW OF NORTH AMERICA, LLC,

Petitioners

v.

#### PAICE LLC & THE ABELL FOUNDATION, INC.

**Patent Owners** 

\_\_\_\_

Inter Partes Review No.: To Be Assigned

U.S. Patent No. 8,630,761 K2

\_\_\_\_\_

DECLARATION OF DR. GREGORY W. DAVIS



#### **Table of Contents**

I.	QUALIFICATIONS AND PROFESSIONAL EXPERIENCE 9			
II.	REL	RELEVANT LEGAL STANDARDS		
III.	QUA	QUALIFICATIONS OF ONE OF ORDINARY SKILL IN THE ART .19		
IV.	STA	TE OF THE ART	20	
	A.	"Series" Hybrid Vehicle	24	
	B.	"Parallel" Hybrid Vehicle	27	
	C.	Hybrid Vehicle "Control Strategies"	33	
	D.	Severinsky - U.S. Patent No. 5,343,970	45	
	E.	Utilizing Patterns in Motor Vehicle Control	47	
V.	The '	761 Patent	54	
	A.	Effective Filing Date of the '761 Patent	54	
	B.	Specification of the '761 Patent	55	
	C.	Prosecution History of the '761 Patent	59	
VI.		CHALLENGED CLAIMS OF THE '761 PATENT AND PROPOSED CLAIM CONSTRUCTIONS62		
VII.		OUND 1 – CLAIMS 1-12 ARE OBVIOUS OVER SEVERINSKY IEW OF QUIGLEY		
	A.	Claim 1	64	
	B.	Claim 2	84	
	C.	Claim 3	86	
	D.	Claim 4	86	
	E.	Claim 5	92	
	F.	Claim 6	108	
	G.	Claim 7	111	



	H.	Claim 8	114
	I.	Claim 9	114
	J.	Claim 10	114
	K.	Claim 11	114
	L.	Claim 12	114
VIII.	GROUND 2 – CLAIMS 1-12 ARE OBVIOUS OVER SEVERINSKY IN VIEW OF NII		
	A.	Claim 1	115
	B.	Claim 2	123
	C.	Claim 3	124
	D.	Claim 4	125
	E.	Claim 5	126
	F.	Claim 6	130
	G.	Claim 7	132
	H.	Claim 8	135
	I.	Claim 9	135
	J.	Claim 10	135
	K.	Claim 11	135
	L.	Claim 12	135
IX.		OUND 3 – CLAIMS 1-2, 5-8, 11-12 ARE OBVIOUS OVER ERINSKY IN VIEW OF GRAF	13 <i>6</i>
	A.	Claim 1	136
	B.	Claim 2	145
	C.	Claim 5	146
	D.	Claim 6	150
	E	Claim 7	152



	F.	Claim 8	154
	G.	Claim 9	154
	H.	Claim 10	154
	I.	Claim 11	155
	J.	Claim 12	155
X.	OBJ	ECTIVE EVIDENCE OF NONOBVIOUSNESS	155
ΧI	CONCLUSION 1		156



#### LIST OF EXHIBITS

Exhibit No.	Description of Exhibit
BMW1001	U.S. Patent No. 8,630,761
BMW1002	USPTO Assignments on the Web for U.S. Patent No. 7,104,347 K2
BMW1003	Ford Motor Co. v. Paice LLC, IPR2014-00571, Paper 44, Final Written Decision (P.T.A.B. Sep. 28, 2015)
BMW1004	Ford Motor Co. v. Paice LLC, IPR2014-00579, Paper 45, Final Written Decision (P.T.A.B. Sep. 28, 2015)
BMW1005	Paice LLC v. Ford Motor Co., Appeal Nos. 2016-1412, - 1415, -1745, Doc. 46-2, Opinion (Fed. Cir. Mar. 7, 2017)
BMW1006	Ford Motor Co. v. Paice LLC, IPR2015-00794, Paper 31, Final Written Decision (P.T.A.B. Nov. 1, 2016)
BMW1007	Paice LLC v. Ford Motor Co., Appeal Nos. 2017-1442, - 1443, Doc. 59-2, Opinion (Fed. Cir. Feb. 1, 2018)
BMW1008	Declaration of Dr. Gregory W. Davis in Support of <i>Inter Partes</i> Review of U.S. Patent No. 8,630,761
BMW1009	Curriculum Vitae of Dr. Gregory W. Davis, Ph.D., P.E.
BMW1010	Ford Motor Co. v. Paice LLC, IPR2015-00795, Paper 31, Final Written Decision (P.T.A.B. Nov. 1, 2016)
BMW1011	Ford Motor Co. v. Paice LLC, IPR2014-00884, Paper 38, Final Written Decision (P.T.A.B. Dec. 10, 2015)
BMW1012	RESERVED
BMW1013	U.S. Patent No. 5,343,970 ("Severinsky")
BMW1014- BMW1019	RESERVED
BMW1020	U.S. Patent No. 6,188,945 ("Graf")
BMW1021	RESERVED
BMW1022	U.S. Patent No. 5,650,931 ("Nii")
BMW1023	Innovations in Design: 1993 Ford Hybrid Electric Vehicle Challenge, Society of Automotive Engineers, SAE/SP-



## DOCKET

## Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

#### **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

#### **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

#### **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

#### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

