

Fișa de verificare a îndeplinirii standardelor minimale necesare și obligatorii
pentru abilitare în domeniul fundamental:
INGINERIE MECANICĂ

Domeniul: INGINERIE MECANICA, MECATRONICA SI ROBOTICA

conform Anexei nr.17 a OMEN nr.6560/2012

Crit.	Profesor universitar	Indicator realizat de candidat
CDI	Minim 10 puncte, din care minim 6 puncte CDI-ART	Realizat 35,21 numai din puncte CDI-ART - criteriu indeplinit
DID	Minim 10 puncte, din care minim 6 puncte din DID- MSC	Realizat 16,12 numai din puncte DID- MSC- criteriu indeplinit
RIA	Minim 10 puncte	Realizat 13,581 - criteriu indeplinit

Indicator CDI:

1. Articol ISI- unic autor: **Electric vehicles, primary energy sources and CO2 emissions: Romanian case study-Energy, Volume 49, 1 January 2013, Pages 61-70 Bogdan Ovidiu Varga**, <http://dx.doi.org/10.1016/j.energy.2012.10.036>, factor de impact: 3,651;

-articolul este citat in 17 publicatii din care 9 jurnale sunt cu factor de impact din care 4 sunt in aceeasi revista cu factor de impact 3,651, 3 sunt in jurnal cu factor de impact 2, 64, o citare intr-un jurnal cu factor de impact 5,510, o citare o citare intr-un jurnal cu factor de impact 1,50. (conform anexei);

2. Articol ISI- co-autor: **Possibilities to improve the cold start process of tractor engines fuelled with biodiesel- Florin Mariasiu * and Bogdan Varga-Journal of Food, Agriculture & Environment Vol.8 (3&4): 1120-1122. 2010**, factor de impact: 0,42;

- articolul este citat in 4 publicatii din care 1 jurnal este cu factor de impact 0,89;

Calcul indicator CDI:

coeficient articol 1 : $3,651 + 0,1 + (4 \times 3,651 + 3 \times 2,64 + 5,510 + 1,50) = 33,38$;

coeficient articol 2: $0,42 + 0,1 + 0,89 = 1,83$;

Indicatori DID :

1. Curs didactic: **Electric and Plug-In Hybrid Vehicles- Advanced Simulation Methodologies, ISBN: 978-3-319-18638-2, Autor principal Bogdan Ovidiu VARGA © Springer International Publishing Switzerland 2015, 524 pagini; DOI 10.1007/978-3-319-18639-9**

2. Curs didactic: **Metode de diagnosticare, control si calibrare a transmisiilor automate, ISBN:978-973-53-1115-5, Autor unic, Bogdan Ovidiu VARGA, Editura Risoprint, Cluj-Napoca, 2013, 283 pagini**

Calcul indicator DID:

coeficient 1: $1 \text{ punct} / 50 \text{ pagini} * 524 \text{ pagini} = 10,48$;

coeficient 2: $1 \text{ punct} / 50 \text{ pagini} * 282 \text{ pagini} = 5,64$;

Indicatori RIA

1. Director de contract: Test de anduranta pentru doua tipuri de carburant (benzina Euro 95 si benzina cu aditiv metalic), contract nr:17/26.02.2013- valoarea 31.000 Euro cu TVA.

Calcul indicator RIA:

coeficient 1: $4,381 * 31.000 / 10.000 = 13,581$;

ANEXE



Bogdan Ovidiu Varga

Technical University of Cluj-Napoca
Automotive

Google Scholar

Citation indices	All	Since 2010
Citations	26	26
h-index	2	2
i10-index	1	1

Title	1–16	Cited by	Year
Electric vehicles, primary energy sources and CO 2 emissions: Romanian case study BO Varga Energy 49, 61-70		17	2013
Possibilities to improve the cold start process of tractor engines fuelled with biodiesel F Mariasiu, B Varga Journal of Food, Agriculture & Environment 8 (3&4), 1121		4	2010
Possibilities to improve the cold start process of tractor engines fuelled with biodiesel F Mariasiu, B Varga Journal of Food, Agriculture & Environment 8 (3&4), 1121		4	2010
Simulation of the combustion chamber geometric shape with the liquid length phase penetration of biofuel jet spray. F Mariaşiu, B Varga Actual Tasks on Agricultural Engineering. Proceedings of the 37 ...		2	2009
Energy management of electric and hybrid vehicles dependent on powertrain configuration B Varga Open Engineering 2 (2), 253-263		1	2012
The influences of ultrasonic irradiation process on bioethanol-gasoline blended fuels on SI engine functional parameters F Mariasiu, B Varga, T Deac, N Cordos Research Journal of Agricultural Science 43 (1), 334-339		1	2011
Considerations about fuel quality used in motor vehicles N Burnete, F Mariasiu, B Varga, D Moldovanu, C Iclodean, H Martin University of Pitesti Scientific Bulletin—Automotive Series 21 (2), 37-41		1	2011
AMMA 2013—3 International congress automotive, motor, mobility, ambient B Varga Central European Journal of Engineering 2 (4), 100-100			2014
THE INFLUENCES OF AIR TEMPERATURE ON THE INTAKE PROCESS BY NUMERICAL SIMULATION D Moldovanu, F Mariasiu, B Varga Annals of the Faculty of Engineering Hunedoara-International Journal of ...			2013

IMPROVEMENT THE COLD START PROCESS OF IC ENGINES FUELED WITH BIODIESEL

F Mariaşiu, B Varga

Research Journal of Agricultural Science 42 (1), 630-635

2010

Improvement the cold start process of IC engines fueled with biodiesel.

F Mariaşiu, B Varga

Research Journal of Agricultural Science 42 (1), 632-637

2010

CONSIDERATIONS ABOUT THE BIOFUEL FED AGRICULTURAL TRACTORS MAINTENANCE

F Mariaşiu, N Burnete, B Varga

Research Journal of Agricultural Science 40 (2), 466-472

2008

Considerations about the reliability's study of the agricultural systems using Bayes theorems.

F Mariaşiu, B Varga, D Baldean

Aktualni zadaci mehanizacije poljoprivrede. Zbornik radova, 35. međunarodnog ...

2008

CONSIDERATIONS ABOUT THE BIOFUEL FED AGRICULTURAL TRACTORS MAINTENANCE CONSIDERAȚII PRIVIND MENTENANȚA TRACTOARELOR AGRICOLE ALIMENTATE CU BIOCOMBUSTIBILI

F MARIAȘIU, N BURNETE, B VARGA

SIMULATION OF POLLUANT EMISSION FOR COMPRESSION IGNITION ENGINE FUELED WITH BIOFUELS USING COMPUTER SIMULATION WITH TWO COMBUSTION MODELS

C Iclodean, N Burnete, B Varga

DEZVOLTAREA DURABILĂ PRIN UTILIZAREA RESURSELOR REGENERA

M BEJAN, IB VĂSA, I BĂLAN, FG CĂTUNEANU, I BARABÁS, ...

Dates and citation counts are estimated and are determined automatically by a computer program.

[A data-driven adaptive state of charge and power capability joint estimator of lithium-ion polymer battery used in electric vehicles](#)

[R Xiong, F Sun, H He, TD Nguyen](#) - *Energy*, 2013 - Elsevier

Abstract An accurate SoC (state of charge) and SoP (state of power capability) joint estimator is the most significant techniques for electric vehicles. This paper makes two contributions to the existing literature.(1) A data-driven parameter identification method ...

Cited by 27 [Related articles](#) [All 11 versions](#) [Web of Science: 17](#) [Cite](#) [Save](#)

[Online peak power prediction based on a parameter and state estimator for lithium-ion batteries in electric vehicles](#)

[L Pei, C Zhu, T Wang, R Lu, CC Chan](#) - *Energy*, 2014 - Elsevier

Abstract The goal of this study is to realize real-time predictions of the peak power/state of power (SOP) for lithium-ion batteries in electric vehicles (EVs). To allow the proposed method to be applicable to different temperature and aging conditions, a training-free ...

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[Sustainable passenger road transport scenarios to reduce fuel consumption, air pollutants and GHG \(greenhouse gas\) emissions in the Mexico City Metropolitan Area](#)

[C Chavez-Baeza, C Sheinbaum-Pardo](#) - *Energy*, 2014 - Elsevier

Abstract This paper presents passenger road transport scenarios that may assist the MCMA (Mexico City Metropolitan Area) in achieving lower emissions in both criteria air pollutants (CO, NO_x, NMVOC (non-methane volatile organic compounds), and PM₁₀) and GHG (...

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[Performance of an all-electric vehicle under UN ECE R101 test conditions: A feasibility study for the city of Kaunas, Lithuania](#)

[L Raslavičius, M Starevičius, A Keršys, K Pilkauskas...](#) - *Energy*, 2013 - Elsevier

Transport activity has been a key facilitator and driver of economic prosperity in Lithuanian (hereinafter LIT) and it is likely to continue to grow. It can produce both positive and negative effects on the quality of life and the environment depending on country-specific ...

Cited by 5 [Related articles](#) [All 11 versions](#) [Web of Science: 4](#) [Cite](#) [Save](#)

[Thermal performance of oil spray cooling system for in-wheel motor in electric vehicles](#)

[DH Lim, SC Kim](#) - *Applied Thermal Engineering*, 2014 - Elsevier

Abstract The cooling of the motor in an in-wheel system is critical to its performance and durability. In the present study, the shape of the channel in the hollow shaft for the oil spray cooling of a high-capacity 35 kW in-wheel motor was optimized, and the thermal ...

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[Electric vehicles challenges and opportunities: Lithuanian review](#)

[L Raslavičius, B Azzopardi, A Keršys...](#) - ... and *Sustainable Energy ...*, 2015 - Elsevier

Abstract Electric vehicles (EVs) are reviewed in the context of policy and technical aspects taking into consideration the Lithuanian national picture over the global and European Union developments within this field. The paper presents also the best practices for ...

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[Adaptive three-phase power-flow solutions for smart grids with plug-in hybrid electric vehicles](#)

[NC Yang, WC Tseng](#) - *International Journal of Electrical Power & Energy ...*, 2015 - Elsevier

Abstract This paper introduces an adaptive three-phase power flow method for smart grids with plug-in hybrid electric vehicles (PHEVs). The proposed method is developed based on the loop frame of reference. The operations of smart grids are inherently unbalanced ...

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[Simulation of a distance estimator for battery electric vehicle](#)

[CK Wai, YY Rong, S Morris](#) - *Alexandria Engineering Journal*, 2015 - Elsevier

Abstract Battery Electric Vehicle (BEV) is a promising candidate in reducing air pollution and fossil fuel dependencies. It is a growing market for the automobile manufacturers. Although there are many advantages of driving a BEV, it is still not widely accepted in the market ...

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Assessing the socio-technical barriers of the Citroën c-zero and the role of ethical concerns that hamper the adoption in Dutch business fleets

SWI Marell - 2014 - alexandria.tue.nl

The interest in sustainability and transportation issues was aroused since I started with the master innovation sciences. The intention to find a suitable and interesting topic and to convert this into concrete ideas goes beyond the official graduation phase. During this ...

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Comparison benefit of e-transmission for NEV

I Sohn, B Kim - *International Journal of Precision Engineering and ...*, 2014 - Springer

Abstract Generally, the merits of pure electric vehicle (EV) are a low level of environmental pollution, noise, high efficiency, availability of multiple energy resources, and ability of energy feedback, while the driving performance is bad from the viewpoint of acceleration, ...

[Related articles](#) [All 2 versions](#) [Cite](#) [Save](#)

Sustainable Development and Technological Impact on CO2 Reducing Conditions in Romania

LI Cioca, L Ivascu, EC Rada, V Torretta, G Ionescu - Sustainability, 2015 - mdpi.com

Abstract: Climate change is a reality all over the world, and its complexity is increasing. Therefore, sustainability has become a national and international concern, ingrained in many organizational processes. The ability of organizations to respond to sustainability ...

[Related articles](#) [All 9 versions](#) [Cite](#) [Save](#) [More](#)

A novel Gaussian model based battery state estimation approach: State-of-Energy

HW He, YZ Zhang, R Xiong, C Wang - Applied Energy, 2015 - Elsevier

Abstract State-of-energy (SoE) is a very important index for battery management system (BMS) used in electric vehicles (EVs), it is indispensable for ensuring safety and reliable operation of batteries. For achieving battery SoE accurately, the main work can be ...

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Li-Ion Battery SOC Estimation Using Non-Linear Estimation Strategies Based On Equivalent Circuit Models

M Farag, M Fleckenstein, SR Habibi - 2014 - papers.sae.org

Abstract: Due to their high energy density, power density, and durability, lithium-ion (Li-ion) batteries are rapidly becoming the most popular energy storage method for electric vehicles. Difficulty arises in accurately estimating the amount of left capacity in the battery during ...

[Related articles](#) [Cite](#) [Save](#)

Evaluation of emissions of CO₂ and air pollutants from electric vehicles in Italian cities

T Donato, F Licci, A D'Elia, G Colangelo, D Laforgia... - Applied Energy, 2015 - Elsevier

Abstract The paper analyzes data about recharge of electric cars in Rome during 2013 as a part of a national research project (PRIME). The electric vehicles were recharged through the public Enel Distribuzione recharging infrastructure. For each recharge, the initial and ...

[Related articles](#) [Cite](#) [Save](#)

Automotive Wastes

SE Guigard, K Gee, L Zhang... - Water Environment ..., 2014 - ingentaconnect.com

A review of the literature from 2013 related to automotive wastes is presented. Topics include solid wastes from autobodies and tires, and vehicle emissions to soil and air as a result of the use of conventional and alternative fuels. Potential toxicological and health ...

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전자무역 분야 연구의 현황과 과제

양근우 - 경영경제, 2010 - dbpia.co.kr

e-Trade can be defined as "trade activities exchanging goods and services among countries in an electronic and information-integrated way using information technologies such as Internet." In other words, it is the automation of complex trade procedures requiring huge ...

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전기자동차용 유냉식 인휠 모터의 방열 특성 연구

임동현, 김성철 - 한국자동차공학회논문집, 2014 - dbpia.co.kr

Cooling the in-wheel motor in electric vehicles is critical to its performance and durability. In this study, thermal flow analysis was conducted by evaluating the thermal performance of two conventional cooling models for in-wheel motors under the continuous rating base ...

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EFFECTS OF 2-ETHYLHEXYL NITRATE ON AUTO-IGNITION AND COMBUSTION QUALITIES OF RAPESEED OIL.

N Cordoş, P Bere, O Nemeş - *Studia Universitatis Babes- ...*, 2012 - [search.ebscohost.com](#)

Abstract The main objective of the present work was to investigate the influence of additive 2-ethylhexyl-nitrate (2-EHN) on the characteristics of auto-ignition and combustion of rapeseed oil (used as biofuel in diesel engines). The biofuel for diesel engines must meet ...

Cited by 1 [Related articles](#) [Web of Science: 1](#) [Cite](#) [Save](#)

The Study of Auto-Ignition and Combustion Qualities of Rapeseed Oil and Diesel Fuel Mixtures

N Cordos, N Burnete - *Agricultura, agricultural practice and ...*, 2011 - [journals.usamvcluj.ro](#)

Abstract The fuel for diesel engines must meet several goals: to ensure a safe and fast engine start at any environmental temperature, to allow a safe operation of the engine with a yield as high as possible, to burn completely without producing harmful substances for ...

Cited by 1 [Related articles](#) [All 2 versions](#) [Cite](#) [Save](#)

CFD simulation of ultrasonic conditioning influences on biodiesel injection process

F Mariasiu, D Moldovanu, L Kocsis - *Research Journal of Agricultural ...*, 2011 - [rjas.ro](#)

Abstract: In case of using biodiesel to fuel compression ignition engines, there is a decrease in effective power of the engine by 5... 15%[2, 4], but with concomitant reduction in the amounts of polluting gases (CO, CO₂, HC). The currently researches and also the ...

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STUDY CONCERNING THE PHYSICO-CHEMICAL PROPERTIES OF RAPESEED OIL MIXED WITH DIESEL FUEL

N CORDOŞ, N BURNETE... - *ACTA TECHNICA ...*, 2011 - [atna-mam.utcluj.ro](#)

Abstract The purpose of this experimental research work was to determine the physico-chemical properties of fuels based on rapeseed oil (density, viscosity, coke residue, acid value, water content, numberofperoxidegroups and stability to oxidation). The fuels that ...

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