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Kata Pengantar

Preface

Salam otomotif,

Volume 2 Nomor 1 jurnal Automotive Experiences ini mempublikasikan 5 artikel yang terdiri dari 1 artikel review, 3 artikel hasil penelitian dan 1 artikel studi kasus. Executive summary dari kelima artikel tersebut disajikan sebagai berikut.

**Artikel pertama** membahas konsumsi energi sektor transportasi darat telah meningkat pesat. Salah satu terobosan Pemerintah melalui Peraturan Presiden No. 22/2017 tentang Rencana Umum Energi Nasional (RUEN) adalah penggunaan kendaraan berbasis listrik untuk mengurangi konsumsi bahan bakar dan mencapai keamanan energi. Pembuatan kebijakan yang berhasil untuk industri yang sedang berkembang tergantung pada dua faktor utama: adopsi perspektif ilmiah dan akurasi untuk memprediksi dampak. Oleh karena itu, review ini bertujuan untuk melakukan studi tentang metodologi simulasi kebijakan yang terkait dengan penggunaan kendaraan listrik di Indonesia. Juga, identifikasi kesenjangan dan keterbatasan penelitian sebelumnya dilakukan dan merekomendasikan agenda untuk penelitian lebih lanjut.

**Artikel kedua** menyajikan hasil penelitian tentang Evaluasi penerapan K3 di Politeknik Negeri Subang. Data pengamatan yang diperoleh dianalisis dengan metode deskriptif - kuantitatif. Hasil penelitian menunjukkan bahwa fasilitas dan implementasi K3 di Laboratorium Politeknik Negeri Subang mendapat skor 67,20 sehingga masuk dalam kategori layak.

Greetings,

Vol. 2 No. 1 of the Automotive Experiences published 5 articles consisting of 1 review paper, 3 research articles, and 1 case study article. The executive summary of the five articles is presented as follows.

**The first article** discussing the energy consumption of the land transportation sector has increased considerably. One of the breakthroughs by the Government through Presidential Regulation No. 22/2017 concerning General Plan for National Energy (RUEN) is the use of electricity-based vehicles to reduce fuel consumption and achieve energy security. Successful policy making for emerging industries depends on two main factors: the adoption of scientific perspectives and accuracy to predict impacts. Therefore, this review aims to conduct a study of policy simulation methodologies related to the use of electric vehicles in Indonesia. Also, identification of the gaps and limitations of previous research is carried out and recommending an agenda for further research.

**The second article** presents the results of research on evaluating the application of OSH at the Subang State Polytechnic. Observation data obtained were analyzed by descriptively-quantitatively methods. The results showed that the facilities and application of OSH at the Subang State Polytechnic laboratory received a score of 67.20 so that it was in the feasible category.
The third article discusses the use of energy contained in used tires into liquid fuels. A real experimental method with pyrolysis temperature as an independent variable and viscosity, density, and flash point as the dependent variable. Meanwhile, the condenser temperature and pressure are used as control variables. Data shows the influence of temperature on the results obtained, the higher the temperature, the more oil is obtained. Raw materials also greatly affect the amount and quality of liquid fuels produced. Finally, the use of catalysts in the pyrolysis process of used tires reduces the liquid fraction but improves product quality.

The fourth article presents a paper on the use of LPG for motorbikes. Liquefied Petroleum Gas (LPG) is an alternative fuel that has all key properties for the Spark Ignition (SI) engine. However, because of its properties, ignition timing on an LPG SI engine needs to be advanced from the reference angle to get the optimum performance. Therefore, this article presents the torque and power characteristics of a single piston LPG engine on variations of ignition timing. Evaluation of engine performance is carried out at the ignition timing of 15°, 17°, and 19° BTDC. The results showed the highest torque for LPG fuel was 10.64 Nm which was achieved at 3500 rpm with ignition timing of 19° BTDC, while the highest power for LPG fuel was 6.9 hp which was achieved at 5936 rpm with ignition timing of 19° BTDC.

The fifth article presents the effect of a modified cam and the application of roller rocker arm to torque, power and exhaust emissions on the Yamaha 5D9. Torque and power testing are performed...
Rextor Pro Dyno and emission testing is carried out with the Heshbon HG-510 gas analyzer engine. The results show that the use of a modified cam and roller rocker arm has an effect on increasing torque by 0.04 Nm and power of 3.4 kW but potential to increased CO and HC.

We hope Vol. 2 No. 1 Automotive Experiences presents several new insights in the automotive field, and is an inspiration to conduct further research. We are happy to accommodate and respond to any comments and questions you might have about the direction and contents of the Automotive Experiences journal.

Magelang, April 2019

Dr. Muji Setiyo, ST., MT.
Principal Editor

Dr. Budi Waluyo, ST., MT.
Vice Editor
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