

FOREWORD

This issue of the quarterly „Elektryka” contains twelve papers, whose authors are employees of Polish scientific centers.

Author of first paper Lesław Lacroix describes the construction and the plans for the construction of power units based on carbon fuel - coal and lignite and the gaseous fuel.

In next article by Paweł Kubek discussed analysis methods of overhead electrical conductors in terms of thermal and mechanical criterias

Tomasz Rusek in next paper presented some aspects related to the management of SF₆ in electrical engineering installations.

Paper by Kamil Barczak concerns issues of light depolarizer for optical fiber current sensor with external transformation.

Authors Sabina Drewniak, Tadeusz Pustelny, Włodzimierz Strupiński, Iwona Pasternak and Zbigniew Opilski in paper they presented the results of characterization the thin film resistance sensor (characterization of grapheme - sensitive layer).

In the next paper by Aneta Olszewska they were discussed results of the location of partial discharge (PD) sources in selected power oil transformer.

Two load matching circuits of Class D inverter for induction heating applications: serial resonant $L-C$ and series-parallel $L-LC$ are presented in the paper by Marcin Kasprzak, Piotr Legutko and Kamil Kierepka.

Next paper by authors Adam Piłśniak, Lesław Topór-Kaminski, Piotr Holajn, Janusz Guzik, Aleksander Kumor concerns the influence of crest factor on errors of the rms-dc converter.

The paper presents problem of accelerated insulation aging in electrical machine cooperating with power electronics converter.

Problem of accelerated insulation aging in electrical machine cooperating with power electronics converter presents in paper by Andrzej Sikora and Barbara Kulesz.

Conception of brushless motor with hybrid excitation has been presented in the paper by Romuald Grzenik.

Next article by Damian Bijak and Grzegorz Kłapyta, about inverted pendulum, this summarize the engineering project realised in the Chair of Mechatronics at SUT Gliwice.

The subject of the last article by Grzegorz Szerszeń concerns investigations and conceptional works realized by scientific workers from Department of Optoelectronics Silesian University of Technology aimed at design and construct a low noise preamplifier assigned for collaboration with computer measuring system 8EA-PD which serves for detection and location of partial discharges by means of acoustic method within power transformers.

All papers included in this quarterly “Elektryka” received positive reviews in accordance with the accepted principle of double-blind review process.

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