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Dear Readers,

The new issue of Transformers Magazine is in front of you. Again a great deal of work has been done by our authors, technical and language editors, designers, people from marketing, and many others. I hope that the result of our work will be enough for you to find something interesting and that it will provide a pleasurable reading experience.

Nevertheless, we know that we can do better. We want to do better and you are the ones who know how we can achieve this. Therefore, please continue to guide us with your suggestions and constructive comments.

This time we bring you two interviews and several technical articles.

In the interview, Dr. Beatrix Natter, Head of Business Unit Transformers at Siemens, shares her views on the global transformer market and the position of Siemens technology and innovations for smart grid and eco efficiency applications.

In the second interview we bring you a summary of what Eng. Hassan Abdawani, Chief Executive Officer of Voltamp, said us about the strengths and value of his company and their position in the MENA market.

Both interviewees show how modern business leaders communicate with the market.

Simon Guicheteau provides fundamentals on different simulation possibilities using the Finite Element Method to design various aspects of a power transformer, from the electromagnetic to thermal and mechanical behaviour.

Pieter Jan Jordaens and his co-authors write about tests for transformers intended to operate under extreme environmental conditions, such as in remote wind turbine

farms. The extreme cold environment puts stress on all wind turbine components, including transformers. Therefore, they put the transformer in a large climatic test chamber to validate its performance at extreme cold temperatures.

Dr Stan Zurek brings forward a description of rotational magnetisation as a phenomenon that occurs locally in the magnetic cores of three-limb transformers, focusing on introduction, definition and discussion of the phenomena of rotational magnetisation and losses in transformer cores.

Lance Lewand discusses the application of passivators and how they work in transformer systems. Presently, passivators are being used to control issues with corrosive sulfur, but they have also been used to control oxidation stability of the oil and static electrification. This paper focuses mainly on the use of passivators to control corrosive sulphur.

Dr. Bruce Pahlavanpour and Dr. Per Wiklund discuss results of their study of inhibited and uninhibited oils conducted on samples taken from transformers in service. They analysed samples for acidity, interfacial tension, dielectric loss factor and peroxide content. The inhibited samples were also analysed for inhibitor content.

Finally, Javier Jiménez Cervera and Begoña Remartínez Zato describe the development and validation of an analytical model based on ultraviolet-visible (UV-VIS) absorption spectrophotometry for evaluating the content of 2-furfuraldehyde (2-FAL) dissolved in dielectric oil.

Have a pleasant reading.

Mladen Banovic, Editor-in-Chief