TRANSFORMERS MAGAZINE
ISSN 1849-3319 (Print) ISSN 1849-7268 (Digital)

EDITORIAL BOARD
Editor-in-Chief:
Mladen Banovic, PhD, Merit Services Int., Croatia
mladen.banovic@transformers-magazine.com

EXECUTIVE EDITORS
Michel Duval, PhD, Hydro Quebec, Canada
Jean Sanchez, PhD, Utility, France
Michael Krüger, PhD, OMICRON electronics, Austria
Jin Sim, Jin Sim & Associates, Inc., USA
Juliano Montanha, SIEMENS, Brazil
Craig Adams, TRAFOIX, Australia
Arne Petersen, Consulting engineer, Australia
Zhao Yongzhi, Shandong Electrical Engineering & Equipment Group Co., Ltd, China
Barry M. Mirzaei, LargePowerTransformers Inc., Canada

ASSISTANT EDITOR
Pedro Henrique Aquino Barra, MSc, EECS/USP – University of São Paulo, Brazil
Art Director: Momir Blazek
Photo: Shutterstock.com
Cover image by Maschinenfabrik Reinhausen
Language Editor: Marina C. Williams

ADVERTISING AND SUBSCRIPTION
Marin A. Dugandzic
+44 20 373 474 69
marin.dugandzic@merit-media.com

TRANSFORMERS MAGAZINE
Transformers Magazine is published quarterly by Merit Media Int. d.o.o., Setaliste 150, brigade 10, 10 090 Zagreb, Croatia. Published articles don’t represent official position of Merit Media Int. d.o.o. Merit Media Int. d.o.o. is not responsible for the content. The responsibility for articles rests upon the authors, and the responsibility for ads rests upon advertisers. Manuscripts, photos and other submitted documents are not returned.

Subscription rates:
Print edition: $115 (1 year, 4 issues)
Digital edition: $54 (1 year, 4 issues)
Online edition - free access: $19 (1 year, 4 issues)
Online edition - free access: free of charge for registered users
www.transformers-magazine.com

REPRINT
Libraries are permitted to photocopy for the private use of patrons. Abstracting is permitted with credit to the source. A per-copy fee must be paid to the Publisher, contact Subscription. For other copying or republication permissions, contact Subscription. All rights reserved.

Publisher: Merit Media Int. d.o.o., Setaliste 150, brigade 10, 10 090 Zagreb, Croatia
Contact: +385 1 7899 507
Contact: +44 20 373 474 69 UK
VAT number: HR09122628912
www.transformers-magazine.com
Bank name: Zagrebacka banka
Bank identifier code: ZABAHR2X
Bank IBAN: HR80236200001102375121
Director: Ana Jelčić

EDITORIAL MESSAGE

Dear Readers,

Transformation is one of the notions that permeates the core of our industry. Although energy transformation made possible the transmission of electric energy from the place of production to remote places of consumption, thus enabling the development of the society to reach the stage we are at today, impacting and improving the life of billions of people worldwide, it was only when it acquired the prefix digital that the concept of transformation got wider popularity.

However, digital transformation has different implications from energy transformation, and today, this concept forms an essential part of all significant business analyses and strategies. One of the definitions of digital transformation is that it is a profound business and organizational transformation whose aim is to fully leverage the opportunities of a mix of digital technologies in a strategic and prioritized way, with present and future shifts in mind.

Industry 4.0 is one example of the digital transformation of manufacturing, whose impact can also be witnessed in our field. Examples of Industry 4.0-related products, which to a certain extent enable digital transformation in our field, are machines used in transformer manufacturing process, such as winding machines, core cutting and stacking machines, test systems, etc. These products can communicate and share data with other machines, processes and systems for monitoring, control and analytics.

Another development that we are witnessing is an emergence of the so-called digital transformer, as ABB and some other manufacturers call it, or the Sensformer as Siemens calls it. These transformers are equipped to share some of the critical information with potential users of such information. The idea here is to enable utilizing the data from the transformers located at critical nodes in the grid in order to digitalize some operations and business decisions.

Having worked on such concepts for more than ten years, I am happy to see that they are now being applied in specific solutions.

Having said that, talking to people engaged in the industry, I still have an impression that many among us still do not fully understand these concepts and their values. So, the ability to address all the issues that these new concepts raise will definitely require better communication and, particularly, deeper involvement of potential users of this information. Some of the major issues in this respect have already been discussed in Transformers Magazine, in the article The future of manufacturing: Precautionary measures for Industry 4.0, published in Volume 5, Issue 1, and we will continue to support these trends as well as all other positive trends.

In this issue, we bring you an interview with a managing director of a company that celebrates 150th anniversary this year, and boasts the largest installed base of tap-changers in the world. In our second interview, the president and CEO of a company developing an oil analysis software talks about the development of a reliability-based technology for interpreting DGA test data.

Don’t miss to read the latest contributions from our columnists, who discuss and provide expert insight on relevant topics relating to market trends and developments, transformer maintenance, condition monitoring and transformer lifecycle.

A selection of other articles and advertorials dealing with new developments, technologies and their applications across different fields of the transformers industry will hopefully make an interesting read and introduce you to the content that will be useful in your work.

If you would like to join the circle of authors who have published with Transformers Magazine, feel free to contact us and request more information on how you can start the process.

I wish you a joyful reading!

Mladen Banovic, Editor-in-Chief