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, EDF, 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
Bhaba P. Das, PhD, Hitachi Energy, Singapore

FDITORS

Daosheng Liu, Jiangxi University of Science and Technology, China

Mislav Trbusic, University of Maribor, Slovenia Dr. Mohammad Yazdani-Asrami, University of Strathclyde, United Kingdom

Dr. Shuhong Wang, Xi'an Jiaotong University, China

ASSISTANT EDITOR

Pedro Henrique Aquino Barra, MSc, EESC/USP - University of São Paulo, Brazil

Art Director: Momir Blazek Photo: Shutterstock.com Language Editor: Lidija Kasik

ADVERTISING AND SUBSCRIPTION

Ante Prlic +44 20 373 474 69 ante.prlic@merit-media.com

SUBSCRIPTION RATES:

Print edition: \$125 (1 year, 4 issues)

Digital edition: \$60 (1 year, 4 issues)

Online edition - full access: \$20 (1 year, 4 issues)

Online edition - free access: free of charge for registered users

www.transformers-magazine.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 do not 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.

DEDDINT

Libraries are permitted to photocopy for the private use of patrons. Abstracting is permited 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: HR8023600001102375121

Director: Mladen Banovic, PhD

Dear readers,

ooking at plans at the beginning of the year, one feels as if one is starting a massive job from scratch. However, we are constantly building on what we have done so far. Therefore, our editorial calendar for this year is primarily determined by what we did last year, especially the special issues on sustainability and digitalization. Work is already underway on some of the content.

Also, the annual research we have recently conducted and the results of which we are currently processing are an excellent foundation for some joint projects this year. One of the things we wanted to investigate with this research, and which is appropriate here to highlight, is the importance of education. Specifically, we examined the priorities for the success of sustainability initiatives. Among the categories: Decarbonization, Circular economy, Saving resources, Protecting ecosystems, Enhancing operational health and safety, Increasing efficiency, Digitalization, and Education, education is at the top of the list of priorities. I would personally place education at the top; however, I was a bit surprised, but of course pleasantly, that this is also the view of our wider commu-

Education's priority position further confirms the importance and role of our educational platforms: Industry Navigator conference, Transformers Magazine, Transformers Academy, and Transformers Forum. I can say with assurance that these platforms are unbiased, transparent, open to everyone on equal terms, and are in the service of excellence, information exchange, and overall prosperity of our industrial community. When it comes to education, we always ensure that it is top-notch (prepared in collaboration with top experts) yet accessible, especially in developing countries. We are aware, and we want to remind others about the fact that almost a billion people still do not have access to electricity. As education is key to the success of other initiatives, it is also key to ensuring the availability of electricity to the entire human population.

However, we can only achieve these 'higher' goals through collaboration with partners who share the same values. I am incredibly proud of the numerous projects we work on with these partners.



The content we bring in this issue is precisely the result of such projects. As this is a regular magazine issue, it covers all topics from our domain. However, we wanted to ensure the presence of articles on 'Transformer life management' since it is the featured topic of this edition. Therefore, we present the following articles on this subject: We are with you over the entire transformer life cycle - COMEM, TESSA® FLEETSCAN 2D: Your fleet at a glance - MR, DGA: Early fault indication and trend analysis - Juergen Schuebel and Alexander Alber, and Online moisture management - Rajeev Shevgaonkar.

As education is key to the success of other initiatives, I believe it is also vital in ensuring the availability of electricity to the entire human population

I would like to emphasise three exciting interviews that we are bringing: **Andrew Collier** from Hitachi Energy, titled 'Time to get real about digital', then **Murat Yurekten**, Chairman and CEO at ENPAY, where we are presenting an incredible story of building a global manufacturing company from a small local agency business, and **Jan Prins**, MD at Ganz, a company where the tale of transformers began in 1885.

Our regular columnists and technical article authors are also here: Marius Grisaru, P. Ramachandran, Vitaly Gurin, Bhaba Das, and Woo Hyun Park, whose articles are regularly requested and read.

Finally, I wish you all great success in 2023.

(Paneni)

Enjoy your reading.

Mladen Banovic, Editor-in-Chief