

## 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 &amp; Associates, Inc., USA

Juliano Montanha, SIEMENS, Brazil

Craig Adams, TRAFIX, Australia

Arne Petersen, Consulting engineer, Australia

Zhao Yongzhi, Shandong Electrical Engineering &amp; Equipment Group Co., Ltd, China

Barry M. Mirzaei, LargePowerTransformers Inc., Canada  
Bhaba P. Das, PhD, Hitachi Energy, Singapore

## EDITORS

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

Nam Tran Nguyen, PhD, Hitachi Energy, USA

## ASSISTANT EDITOR

Pedro Henrique Aquino Barra, MSc,

EESC/USP - University of São Paulo, Brazil

Art Director: Momir Blazek

Photo: Shutterstock.com

Front page image: MR

Language Editor: Ena Tomičić

## ADVERTISING AND SUBSCRIPTION

+385 1 7899 507

sales@merit-media.com

## SUBSCRIPTION RATES:

**Print edition: \$130** (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.

## 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

VAT number: HR09122628912

www.transformers-magazine.com

Bank name: Revolut

Bank IBAN: LT343250038251836452

SWIFT / BIC: REVOLT21

Intermediary BIC: CHASDEFX

Director: Mladen Banovic, PhD

## Dear readers,

Welcome to the July 2024 edition of Transformers Magazine!

I'm writing this Editorial Message just after returning from the recent Transformers Magazine Industry Navigator conference on Investments, Artificial Intelligence, and Sustainability, held in the vibrant city of Madrid from June 11-13, 2024. This landmark event brought together the leading voices in our industry to provide guidelines for the future through discussions on investments, artificial intelligence, and sustainability, tackling pressing issues of the industry, in particular skilled labour shortage, availability of transformers and materials, and price volatility.

## Our conference welcomed around 300 in-person and online delegates from 160 companies and 58 countries

Over the course of three dynamic days, our conference welcomed around 300 in-person and online delegates from 160 companies and 58 countries, creating a truly global dialogue. The event featured 27 high-quality presentations, two focused workshops on sustainability and AI, and numerous engaging Q&A sessions. Special acknowledgment goes to the WiPE (Women in Power Engineering) meeting, which highlighted the critical role of women in our industry and underscored our commitment to attracting young talent to the industry.

The conference kicked off with my opening address, underscoring the main industry's current challenges and the pivotal role of people for the energy transition and related investments in power grids and transformers, all based on the in-depth research findings.

One of the highlights of the opening day was the Award Ceremony where I had the honor of presenting the Transformers Magazine awards to industry leaders whose contributions have been exemplary:



Excellence Dedication Award: Oscar Picó, Hitachi Energy

Best Article Award: Uğur Yayan and Osman Yilmaz

Best Author Award: Dr. Bhaba Das, Hitachi Energy

Industry Champion Awards: Giuseppe Luca Petrelli, Hitachi Energy; Marcel Hilgers, thyssenkrupp; and Juan Acosta, Ergon

Exciting announcements included the launch of our new sister publication, Switchgear Magazine, introduced by Douglas Maly and Puneet Harminder Singh. This publication will leverage the rich expertise and extensive network of Transformers Magazine to provide invaluable insights into the switchgear sector.

Additionally, my colleague Maja Butorac unveiled a refreshed and harmonized visual identity for Merit Media entire brand portfolio, including Transformers Magazine, Transformers Academy, Transformers Forum, WiPE, Switchgear Magazine, and Industry Navigator.

The Industry Navigator conference underscored our industry's readiness to embrace the future through collaboration on disruptive projects, innovation, and a commitment to sustainability.

As we move forward, the insights and connections forged in Madrid will undoubtedly serve as a catalyst for growth and transformation. In order to support spreading the key messages from the conference, we bring a detailed post-event report with key extracts from presentations and workshops, as well as a think tank report with unique and highly precious opinions.

This edition brings also detailed articles on some of the presentations as well as a number of other valuable articles, interviews and columns.

I hope this edition of Transformers Magazine provides you with valuable knowledge and inspiration. Together, let's continue to lead and innovate in the ever-evolving world of transformers and power grids.

Yours sincerely,

Mladen Banovic, Editor-in-Chief