

EDITORIAL WORD

Dear readers and collaborators,

You are holding the latest issue of *Elektroprivreda – Electric Power Industry Journal*, the fourth installment since the Journal's relaunch and the first published in digital format, two years ago (August 2, 2023). This issue represents a further special edition, featuring expanded and enhanced manuscripts of four selected papers recognized at the 14th CIRED Serbia national conference with regional participation.

The first article analyzes underground single-core cables laid in a triangular formation, featuring metal screens that are galvanically bonded and grounded at only one end. It explains the rationale behind employing a parallel Earth Continuity Conductor (ECC) in cable lines utilizing this specific screen-bonding method. The study outlines procedures for evaluating ECC temperature, minimum conductor cross-section, and the maximum allowable earth fault current based on the ECC's proximity to the cable line. Temperature calculations were performed using the finite element method. The article provides a detailed examination of the factors that should be considered when implementing an ECC. The findings offer valuable insights for the broader professional community engaged in power cable applications.

The second article traces the evolution of automation strategies for medium-voltage electricity distribution networks (MV EDNs), highlighting the shift from decentralized approaches and integration with Remote Control Systems (RCS) toward advanced functionalities driven by rapid digitization. It emphasizes the importance of power supply reliability as a key motivator for further automation efforts. The study explores future development paths, including a semi-decentralized architecture incorporating network controllers, as well as controller-less models utilizing predefined application algorithms embedded in MV EDN automation equipment. The article provides a comparative analysis of implemented solutions, discussing their benefits and potential drawbacks.

The following article addresses the digitization of low-voltage electricity distribution networks (LV EDNs) through the deployment of 'smart' electricity meters. These devices offer near real-time monitoring and control capabilities, capturing a wider range of physical parameters and operational data. This functionality creates new opportunities for distribution system operators (DSOs), providing deeper insight into network events and enabling more effective analysis. The article specifically explores methods for identifying phase configurations and detecting power interruptions in LV networks, using event data recorded by smart meters.

The final article examines the potential consequences faced by distribution system operators (DSOs) when deviating from predefined quality benchmarks. It emphasizes the timely and critical issue of regulatory reform within the energy sector, presenting a model that directly links power supply quality to financial incentives. As an illustrative case, it describes the 'Methodology for Determining the Regulatory Allowed Income and Prices for Electricity Distribution System Usage' in Montenegro, focusing on the component that defines target values for general power supply quality indicators, specifically measured using the SAIDI parameter.

We hope this issue's content proves both engaging and informative. We would like to renew our cordial invitation for readers to actively participate by submitting manuscripts to the Editorial Board. In addition to full articles, we also welcome discussions, critiques, and personal viewpoints related to previously published pieces, as well as contributions addressing specific professional and scientific issues raised therein. All submissions will be carefully reviewed for consideration in future editions of the Journal.

On behalf of the Editorial Board,



Vladimir Šiljkut (Shiljkut), Ph.D.E.E.
Editor-in-Chief