

## **PREFACE SEMESTA TEKNIKA MAY 2024**

Welcome to the May 2024 issue of Semesta Teknika Journal. In this edition, 11 articles covering various engineering disciplines are published. These articles consist of 5 articles in Civil Engineering, 3 articles in Mechanical Engineering, and 1 article each in Electrical Engineering, Information Technology, and Chemical Engineering. Themes on construction and disaster, health instruments and manufacturing industry are still the choice of the authors and editorial board. The following is a brief summary of the articles published in this edition:

The first article, written by Totok Suwanda et al, describes the effect of friction pressure in CDFW welding on the mechanical properties of Al6061 and SS metal dissimilar joints. The second article by Atep Maskur et al. presents damage to a lightweight steel roof structure caused by a tornado. The third article, by Cici Maarasyid, presents thermogravimetric analysis to identify the thermochemical characteristics of eucalyptus leaves.

Ahmad Zaki, in the fourth article, examines the use of Naive Bayes algorithm to predict diabetes with a maximum accuracy of 88.16%. The fifth article by Asiya Nurhasanah Habirun aims to identify damage to foundation structures caused by earthquakes that have never been dealt with before.

Furthermore, Widi Hastomo et al. introduced a new neural network model (EfficientNet B1-B2) to detect brain tumors in MRI images with high accuracy. The seventh article, by M. Nadjib et al, discusses the characteristics of using phase change materials (PCM) in heat storage for solar water heaters. Aris Widyo Nugroho, in the eighth article, explores the impact of tool rotation speed and welding configuration on friction stir welding joints on HDPE plates. The ninth study by Nursetiawan et al. highlights the importance of designing buildings in accordance with SNI 1726:2019 standards for earthquake mitigation.

The tenth article by Virda Utari and Pinta Astuti evaluates the deterioration of sports facilities at PT SIER and develops a maintenance plan that is both cost and time efficient. Finally, Jazaul Ikhsan in the eleventh article discusses the use of rain data from satellites such as PERSIANN and GPM as a promising alternative in measuring rainfall, with the GPM satellite showing better accuracy.

This is a brief explanation of the articles published in the May 2024 edition of Semesta Teknika Journal. We hope that these articles can make a positive contribution to the development of science and technology. Currently, we are preparing for the upcoming November 2024 edition. Thank you for your attention and participation.

Best regards,

Editorial Team of Semesta Teknika Journal