

# Foreword

Welcome to the fifth issue of 2023 for the *Pertanika Journal of Science and Technology (PJST)*!

PJST is an open-access journal for studies in Science and Technology published by Universiti Putra Malaysia Press. It is independently owned and managed by the university for the benefit of the world-wide science community.

This issue contains 30 articles; five review articles, one short communication and the rest are regular articles. The authors of these articles come from different countries namely Bangladesh, China, England, India, Malaysia, Nigeria and Thailand.

A regular article titled “Super-resolution approach to enhance bone marrow trephine image in the classification of Classical Myeloproliferative Neoplasms” was presented by Umi Kalsom Mohamad Yusof and co-researchers from Universiti Putra Malaysia & Hospital Serdang, Malaysia. This study has developed a classification system for classical MPN subtypes: polycythemia vera, essential thrombocythemia, and primary myelofibrosis. It was done by reconstructing low-resolution images of bone marrow trephine using a super-resolution approach to address the issue. Identified low-resolution images from calculating Laplacian variance were reconstructed using a super-resolution convolution neural network (SRCNN) to transform into rich information of high-resolution images. Based on the result, the dataset of SRCNN images produced higher results, with an accuracy of 92% compared to the control images (88%). In conclusion, image reconstruction using SRCNN has proven to effectively improve the quality of BMT images in the pre-processing stage and enhance the performance in the development of the prediction model. Detailed information on this study is available on page 2161.

The next article discussed image retrieval using a fusion of Sauvola and Thepade’s sorted block truncation coding-based color features. The proposed technique is tested using two standard datasets with mean square error (MSE) as a distance measure and average retrieval accuracy (ARA) as a performance metric. The technique has contributed to the enhancement of ARA with the small and fixed-size image feature vector. The feature vector generated is much smaller than the image dimension and is used as a feature vector to represent the image for retrieval. Results prove that the proposed technique of SBTC 8-ary with 0.1 weight and SLT with 0.9 weight feature fusion gives better ARA than other techniques studied. Details of this study are available on page 2217.

An investigation on *Fusarium solani* species complex (FSSC) in nests of hawksbill turtles (*Eretmochelys imbricata*) with high hatching success in Melaka, Malaysia, was conducted by Khai Wei See and Nurul Salmi Abdul Latip from Universiti Sains Malaysia. Samples of cloacal mucus, nest sand, eggshells, and eggs were collected from seven hawksbill turtles and their corresponding

nests at Melaka's nesting beaches and hatchery site. FSSC was prevalent in the unhatched eggs (n = 32) from the seven study nests, colonizing 96.9%. The remaining eggs from the study nests were found to have high hatching success, with a mean of  $85.8 \pm 10.5\%$  (n = 7). It is unknown if the presence of FSSC contributed directly to embryonic mortality in this study. Further details of the investigation can be found on page 2601.

We anticipate that you will find the evidence presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones in your own research. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

All the papers published in this edition underwent Pertanika's stringent peer-review process involving a minimum of two reviewers comprising internal as well as external referees. This was to ensure that the quality of the papers justified the high ranking of the journal, which is renowned as a heavily-cited journal not only by authors and researchers in Malaysia but by those in other countries around the world as well.

We would also like to express our gratitude to all the contributors, namely the authors, reviewers, Editor-in-Chief and Editorial Board Members of PJST, who have made this issue possible.

PJST is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

**Chief Executive Editor**

**Mohd Sapuan Salit**

[executive\\_editor.pertanika@upm.edu.my](mailto:executive_editor.pertanika@upm.edu.my)