

Foreword

Welcome to the sixth 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 and the rest are regular articles. The authors of these articles come from different countries namely Bangladesh, India, Indonesia, Malaysia, Morocco, Nigeria, Pakistan, Sri Lanka, Switzerland and Thailand.

A review on poultry manure and its contribution to inflammation and cancer progression was conducted by Ana Masara Ahmad Mokhtar and colleagues from Malaysia. Indiscriminate manure disposal has been highlighted as a significant cause of environmental contamination due to various biological and chemical irritants that harm the environment and human health. Several incidents have been reported, most notably among farmers and those living near the farms, because of air and water pollution caused by manure losses, which result in various health issues, including infection, inflammation, and even cancer. This review discusses the potential health risks or diseases linked to poultry manure and recommends future measures to minimize the hazards to health and the environment. Details of this study are available on page 2645.

A regular article titled “Effect of Scaling the Electrostatic Interactions on the Free Energy of Transfer of Azurin from Water to Lipid Membrane Determined by Coarse-Grained Simulations” was presented by Dian Fitrasari and co-researchers from Bandung Institute of Technology, Indonesia. Azurin protein potentially plays an important role as an anti-cancer therapeutic agent, particularly in treating breast cancer without having a negative effect on normal cells. Although the interaction mechanism between protein and lipid membrane is complicated, it can be modeled as protein-lipid interaction. Since the all-atom (AA) model simulation is cost computing, the researchers applied a coarse-grained (CG-MARTINI) model to calculate the protein-lipid interaction. They investigated the binding free energy value dependency by varying the windows separation and electrostatic scale parameters. After scaling the electrostatic interactions by a factor of 0.04, the best result in terms of free energy is -140.831 kcal/mol, while after window-separation optimization, it reaches -71.859 kcal/mol. The detailed information of this study is available on page 2735.

A numerical investigation on the distribution of pressure coefficients of modified building shapes was conducted by Siti Rohani Mohd Isdris et al. from Universiti Sains Malaysia. This study evaluates the impact of shape mitigation on tall buildings by applying corner modifications, such as chamfered, corner cut, plan changes with height, tapered, and setback, and combining a single modification model. The numerical simulations were carried out using Computational Fluid

Dynamic (CFD) simulation with the RNG k- ϵ type of turbulence model. All single modifications reduced the maximum +C_p and -C_p better than the basic model. The setback model is more effective in reducing suction than the basic and tapered model. Choosing an efficient geometry modification for high-rise structures can help mitigate aerodynamic concerns, particularly in pressure distribution on the building surfaces. Further details of the investigation can be found on page 3139.

In the last 12 months, of all the manuscripts peer-reviewed, 16% were accepted. This seems to be the trend in PJST.

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.

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