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# SINAYA

Philippine Journal for Senior High  
School Teachers and Students

## Editors' Note

The Sinaya Journal takes pride in completing its first publication for Science, Technology, Engineering and Mathematics (STEM). This attests that even with the limitations of the new normal, through hard work, dedication, and persistence, this masterpiece is achievable.

Showcasing various practical means of addressing problems commonly encountered in the Philippines, this STEM issue features seven significant research works. The first article reviewed some recent advances in density separation techniques for microplastic recovery from sediments. The second article developed and validated a home hazard and disaster awareness game which the authors called "Hazard O'Clock". The third article compared the effectiveness of coconut water as a rooting hormone in a hydroponic and a conventional setup in growing basil. The fourth paper investigated the impact of self-agitating anaerobic batch digester in biogas production of cattle manure co-digested with *Lemna minor*. The fifth paper explored various colors of light emitting diodes in vertical farms for tomatoes. The sixth paper utilized carrot peels and rice as alternative materials to produce paper. Lastly, the seventh paper tested bio-briquettes made from *Musa acuminata* Colla, *Musa acuminata*, and *Musa balbisiana* silk, and *Citrus reticulata* and *Citrus sinensis* peels. The editors are hopeful that these works would serve as groundwork for future research endeavors.

Thus, we would like to express our deepest gratitude to the following individuals and institutions which contributed to the success of this issue. To the administrators of the three La Salle schools—Br. Bernard S. Oca FSC, Dr. Raymond R. Tan, Br. Dante Jose R. Amisola FSC, Br. Manuel R. Pajarillo FSC, Dr. Haidee M. Angeles, Ms. Tricia Anne M. Castro, Mr. Rafael A. Reloza, Mr. Richard T. Lasap, Mr. Raymund G. Endriga, Dr. Ethel C. Ong, Mr. Engelbert C. Talunton,



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and Mr. Rembrandt P. Santos (deceased)—for their invaluable support on this project. To the managing editor for STEM-Mr. Fritz M. Ferran, the copy editors- Mr. Leo Vicentino and Ms. April Rose C. Gonzales, the layout artist- Mr. Mark Joseph L. Mendoza, we acknowledge their significant contributions in the last phase of the publication.

Finally, to the contributors, the reviewers, the advisory board, the founding editors- Mr. Christian P. Gopez, Dr. Henry Leen A. Magahis, and Dr. Analiza D. Resurreccion, and most importantly, to the founding adviser, Dr. Feorillo A. Demeterio III for the professional direction and recommendations which valuably contribute to the fruition of this issue.

The Editors,

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