

# Research Publications

Institute of Computer Science

February 18, 2025

- [1] R. T. Santos, A. J. Jacildo, A. D. Montecillo, R. J. D. Flores, and M. P. A. De Leon. Cross-sectional analysis of bacterial co-occurrence networks of bat gut-associated microbiomes sampled across various cave sites in calabarzon, philippines. Poster paper presented at IWOMB 2025 - International Workshop on Mathematical Biology, January 2025. Poster Paper.
- [2] M. R. U. Anacleto, J. M. Samaniego, M. C. C. Manuel, N. B. Lantican, and M. G. Q. Diaz. Taxonomic analysis of bacterial and archaeal communities collected from the manleluag hyperalkaline spring in pangasinan, philippines using two bioinformatic pipelines. *Philippine e-Journal for Applied Research and Development*, 15:1–13, 2025. Journal Paper.
- [3] Rachel Edita O. Roxas and Reginald Neil C. Recario. Scientific landscape on opportunities and challenges of large language models and natural language processing. *Indonesian Journal of Electrical Engineering and Computer Science*, 36(1):1–1x, October 2024. Journal Paper; Scopus-indexed.
- [4] C. A. Del Rosario, R. C. Camaclang, E. Prieto-Araujo, and O. Gomis-Bellmunt. Kolmogorov-arnold network for machine learning-based motor condition diagnosis. In *2024 IEEE 7th International Conference on Electrical, Electronics and System Engineering (ICEESE)*, pages 1–5, . IEEE, November 2024. Conference Paper; Possibly indexed in Scopus.
- [5] J. P. Pabico. Regulating ai in education and empowering educators: Policy, governance, and ethical considerations (invited plenary paper). In *1st Research Conference on Mission-Driven Education (RCMDE 2024)*, Universidad de Sta. Isabel de Naga, Naga City, July 2024. Conference Paper.
- [6] R. E. O. Roxas. Large language models and natural language processing on minority languages: A systematic review. In *Pacific Asia Conference on Language, Information and Computation*, Tokyo, Japan, December 2024. Conference Paper; To be indexed on Scopus.
- [7] Angelica Anne A. Naguio and R. E. O. Roxas. Hybrid neural-rule based architecture for filipino stemming with fine-tuned bert variants. In *Pacific Asia Conference on Language, Information and Computation*, Tokyo, Japan, December 2024. Conference Paper; To be indexed on Scopus.

- [8] A. D. Madrid, V. R. Madrid, A. F. Cayetano, S. P. Catelo, A. T. Orillo, and R. L. Belleza. The value of transdisciplinarity in creating solutions to wicked problems: The heal-ph experience in a mobile app hackathon. In *7th Asia Future Conference*, Bangkok, Thailand, August 2024. Conference Paper.
- [9] Aldrin Joseph Hao and others. Validation of harvest date estimator mobile application for banana (banatech version 1): A way towards a more efficient farm planning. *Philippine Journal of Crop Science (PJCS)*, pages 12–21, April 2024. Journal Paper.
- [10] E. Rico, J. Rabajante, J. Tubay, A. Lapitan, and V. R. Madrid. A multi-objective site selection model for evacuation centers in taguig city, philippines. *Natural Hazards*, April 2024. Journal Paper.
- [11] R. C. Camaclang III, S. G. Bon, A. J. J. Hao, and J. P. D. Banares. Harnessing the potential of open-source database platform and related web technologies for managing seed inventory of cereals germplasm collection. *The Philippine Journal of Crop Science*, 49(3):16–24, 2024. Journal Paper [WOS-indexed].
- [12] J. I. N. Gojo Cruz and P. C. Naval. Utilizing naïve bayes for multidimensional poverty classification and identifying key poverty determinants. *2024 6th International Conference on Computer Communication and the Internet (ICCCI)*, pages 12–17, 2024. Journal Paper; Scopus-indexed, Date Added to IEEE Xplore: 19 September 2024.
- [13] L. M. L. Ocampo and M. A. A. D. Clariño. A novel automatic definition selector and scoring scheme for the identification of filipino metaphors. *2024 6th International Conference on Computer Communication and the Internet (ICCCI)*, pages 24–29, 2024. Journal Paper; Scopus-indexed, Date Added to IEEE Xplore: 19 September 2024.
- [14] David Ochieng Otewa and Jaime Samaniego. Machine-learning model for program selection in technical and vocational educational training (tvvet) in kenya. *The International Journal of Science & Technoledge*, 12(8), 2024. Journal Paper.
- [15] S. D. A. Crespo and R. N. C. Recario. Lip reading filipino words using convolutional neural networks and recurrent neural networks. *Lecture Notes in Networks and Systems, vol 823*, 2024. Journal Paper; Scopus-indexed, Published Online 2024.
- [16] J. M. Justo and R. N. C. Recario. Text simplification system for legal contract review. *Lecture Notes in Networks and Systems, vol 919*, 2024. Journal Paper; Scopus-indexed.
- [17] R. B. Valencia and R. N. C. Recario. A non-transfer learning approach in exploring the variations of extractive summarization components for a

- low-resource language. *Lecture Notes in Networks and Systems*, vol 919, 2024. Journal Paper; Scopus-indexed.
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  - [23] J. M. Justo and R. N. C. Recario. -text simplification system for legal contract review-. In *Future of Information and Communication Conference*, pages 105–123, 2024. Conference Paper.
  - [24] A. K. D. Balangcod and J. P. Pabico. Extracting graphs from plant leaf venations using image processing. *Fourth International Conference on Image Processing and Capsule Networks: ICIPCN 2023*, 798:131, November 2023. Journal Paper.
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  - [26] Edwin P. Alcantara and Arian J. Jacildo. Agent-based modeling for insect resistance management. In *ISSAAS International Scientific Congress and General Meeting 2023 “Integrated Management of Southeast Asian Agricultural Landscapes”*, Acacia Hotel Manila, Alabang, Muntinlupa City, Philippines, November 2023. (poster).

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- [32] Hoa Xuan Trieu, Maria Art Antonette D. Clariño, Vladimir Y. Mariano, Val Randolph M. Madrid, Ria Mae H. Borromeo, and Thuong Thanh Tran. 3dkd - an effective knowledge distillation-based model for human fall detection. In *2023 RIVF International Conference on Computing and Communication Technologies*, December 23-25 2023. Conference Paper.
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- [39] JKB Tumpalan and RNC Recario. English-filipino speech topic tagger using automatic speech recognition modeling and topic modeling. In *Advances in Information and Communication. FICC 2023*, volume 652, pages 427–445, 2023.
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