

About This Special Issue

We are pleased to publish for 2023 this Special Issue on Meteorological Research in the Philippines. Meteorology is a branch of the atmospheric sciences that focuses on the challenging task of reliable weather forecasting. Long-term predictions are extremely difficult to make at high accuracy because the weather is a chaotic physical system that is quite sensitive to initial conditions. Small changes in the initial values that are caused by ambient noise or imprecise measurements can lead to significantly different future dynamical behavior.

The Philippines (2020 population: 109,035,343) is prone to extreme weather events. Between 1946 and 2022, an average of 37 ± 8 tropical cyclones (TCs) were formed yearly in the Western North Pacific Basin, with 23 ± 5 of them entering the Philippine Area of Responsibility (PAR) and 10 ± 4 eventually making landfall in the Philippine archipelago. TCs can be categorized into five: super typhoons (max sustained wind speed > 185 kph), typhoons (118–184 kph), severe tropical storms (89–117 kph), tropical storms (62–88 kph), and tropical depressions (< 62 kph). The United States National Oceanic and Atmospheric Administration's International Best Track Archive for Climate Stewardship database (1950s–2010s) reveals that typhoons (at 80.85 ± 33.95 per decade) were the most numerous—followed by tropical depressions (78.57 ± 38.82), super typhoons (60.2 ± 31.14), tropical storms (56.6 ± 26.34), and severe tropical depressions (52.28 ± 23.8).

Determining accurately at the earliest possible lead time, when and where will an incoming TC hit land in the archipelago, is vital in disaster preparedness and mitigation planning, especially for concerned government agencies and local government units (Romero *et al.* 2019). This Special Issue aims to highlight ongoing efforts by Filipino scientists and researchers in improving the accuracy of our understanding and awareness as a people of the weather dynamics within PAR and to use this knowledge to develop more effective strategies in systematic disaster response, organized community recovery programs, and prudent infrastructure reconstruction.

The first call for papers was issued on 27 October 2022, and a total of thirty-one (31) manuscript submissions were received by 30 April 2023. More than 110 scientists and researchers from 20 research institutions responded as co-authors. All submissions passed through a peer-review process without exception, with each manuscript evaluated by at least two independent reviewers, whose recommendations were then transmitted to the Editor-in-Chief for final decision. A total of 37 experts, with 68% of them from outside the country, accepted to generously review as of 24 October 2023. On average, publication suitability was decided within 17.58 weeks from the receipt date. The initial number of articles featured in the Special Issue is fifteen (15), but it will increase as the editorial processing of the other sixteen (16) is completed.

This issue provides PJS stakeholders with an earnest view of the current state of meteorological research in the Philippines. Its content will be a critical resource of reliable information serving as a veritable reference guide for the next generation of Filipino scientists who will continue the work that has been started by their predecessors.

On behalf of the PJS Editorial Board and the Publisher, I thank Dr. Joseph Basconcillo and Dr. Marcelino Villafuerte II for their invaluable contributions and support as Guest Editors. I am also expressing my appreciation to all the manuscript contributors and reviewers for their patience and generosity in the conduct of the review process.

CAESAR SALOMA
Editor-in-Chief

REFERENCE

ROMERO RA, TAPANG G, SALOMA C. 2019. High accuracy Philippine landfall prediction of Pacific cyclones at their genesis using neural networks. Proc Samahang Pisika ng Pilipinas (37th International Physics Conference); Tagbilaran City, Bohol; 29 May–01 Jun 2019. Accessible at <https://proceedings.spp-online.org/issue/archive>