

Proactive Dengue Management System Synergize by an Exponential Smoothing Model

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In a critical area like health sector centralized computer system helps to improve the efficiency of the health system. In particular, controlling an epidemic is usually difficult in developing countries. In this study we introduce a multi-platform, centralized proactive management system to manage dengue controlling activities in Sri Lanka. The system make common platform (ProDMS) for all sectors who contribute their services for mitigating dengue [1]. We mainly focused to the special feature of the system which enhance the centralized property. Cross platform environment was developed under this feature as a bridge to connect researches and general public. ProDMS is a internet base web application and researches can plug their dengue forecasting models to the system and publish their outputs as graphs through the web system. The ProDMS web application, which consisting of plug and play system architecture concepts, fully support for any statistical or mathematical model to publish its results online. In this work we use one of the univariate time series modelling approaches; namely exponential smoothing to plug with the system. This research helps to enhance efficiency of Dengue controlling process and support to generalize centralization.

References

- [1] Wetthasinghe, W. A. U. K, Liyanage, U. P. and Perera, S. S. N. Multiplatform dengue management android mobile application, *In AIP Conference Proceedings*, 2184(1), 060025, 2019.