Abtract

*Chronic Kidney Disease (CKD) could increase the risk of other complications such as hipertention, heart disease, anemia, death, end-stage of Kidney Disease. In addition different stages of CKD are refered to different clinical options. Therefore early detection of CKD is needed not only to support clinicians to make decisions but also to prevent and to manage the risk. Extreme Learning Machine (ELM) which is fast, accurate,and efficient algorithm has a potential to detect CKD in order to support clinical care of the patients. Artificial Neural Network Resilient Backpropagation (ANN-RP) and Support Vector Machine are used for comparison. In this research, the peformance of ELM achieved 97.8% in accuracy, 99.4% Sensitivity, 95% Specificity.*