# CONCLUSION

In this study, we have developed novel a 1D CNN model for stress level classification using HRV signals and validated the proposed model based on a publicly available dataset, SWELL−KW. In our model, we also applied an ANOVA feature selection technique for dimension reduction. Through extensive training and validation, we demonstrate that our model outperforms the state-of-the-art models in terms of major performance metrics, i.e., *Accuracy, Precision, Recall, F1-score*, and *MCC* when all features are employed. Furthermore, our approach with ANOVA feature reduction also achieves excellent performance. For future work, we plan to further investigate the feasibility of optimizing the model to fit it into edge devices so that real-time stress detection can become a reality.