

LIST OF FIGURES

Fig. 1 Conceptual Framework Representation	4
Fig. 2 LSTM Architecture.....	16
Fig. 3 Stages of Monarch Butterfly Optimization (MBO).....	18
Fig. 4 Research Work Flowchart	21
Fig. 5 Stages Works of SMILES2Vec	22
Fig. 6 Ratio of Case Dataset	27
Fig. 7 Example of creating dictionary character	28
Fig. 8 Example of result matrix vectorize	29
Fig. 9 Learning Curve Without tuning.....	36
Fig. 10 F1 - Score Result of Optimal Performance Without Tuning Scheme	37
Fig. 11 Box Plot Result With tuning Scheme.....	38
Fig. 12 Convergence Plot LSTM (L) Scheme.....	40
Fig. 13 Convergence Plot Convolution and LSTM (CL) Scheme	40
Fig. 14 Convergence Plot LSTM and Dense (LD) Scheme	41
Fig. 15 Convergence Plot Convolution, LSTM and Dense (CLD) Scheme.....	42
Fig. 16 F1 - Score Result Comparison in With Tuning Scheme	45
Fig. 17 F1 - Score Result Best Without vs Without tuning Scheme	47
Fig. 18 Evaluation Metric Result Best Without tuning vs WithTuning Scheme.....	48