CHAPTER 6 CONCLUSION

A capacitorless all-OTA bandpass BIQUAD is tuned via the sequentially trained ANN. A training set of a few of ten samples is selected from predefined bias points that are close to the BIQUAD specification. With this selection scheme, the deployed ANN can be less complex, which consequently requires little tuning time. The feasibility of BIQUAD requirements is indicated by examining the maximum error of the training set. A second-order bandpass requirement is picked as a sample which is successfully tuned within a minute. Experiments on the varied sizes of the training set indicate the insignificance of the training set larger than 10 records. In addition, a threshold of 10% is recommended as there is virtually no difference in α and β while varying the sizes of the training set.