

Contents:

1 CURRICULUM VITAE 4

2 INTRODUCTION 9

3 NON-CONVENTIONAL TECHNIQUES 11

4 PRINCIPLE OF NOVEL BD-FG AND BD-QFG TECHNIQUES 12

 4.1 Comparative study of Sub-volt Differential Difference Current Conveyors based on BD, QFG and BD-QFG techniques..... 17

5 NOVEL AUTOMATIC TUNING CIRCUIT FOR BULK-CONTROLLED SUB-THRESHOLD MOS RESISTORS 22

6 CONCLUSION 25

7 REFERENCES..... 26

ABSTRAKT 29

ABSTRACT 30