

LIST OF FIGURES

1.1	Perfect, fast and slow clocks	3
1.2(a)	Clock Drift –Time difference with the Reference clock	4
1.2(b)	Clock Drift –Time difference with the Reference clock ..	4
1.3	Accuracy and Precision	6
3.1	A simple two-step Markov Chain	36
3.2	Random Walk Tree	41
4.1	Distribution of good and bad clock value	45
4.2	Extreme distribution of good and bad clock values	45
4.3	Working of a Clock and re-synchronization period	48
4.4	Graph of Variance	49
4.5	Pictorial description of working of WASA	52
4.5	Clock values distribution for worst case scenario	54
4.6	Concentration of clocks in Worst-case clock distribution	57
4.7	Normal Distribution	58
5.1	Performance of WASA in low fault environment	74
5.2	Performance of WASA in fault prone environment	75
5.3	Relationship of Precision and bad clocks	76
5.4	Relationship of Precision and Malicious clocks	77
5.5	Performance of WASA and SWA in presence of malicious fault	79
5.6	Convergence of time at various environment.....	80
6.1	Network Architecture.....	89

6.2	Synchronization Timeline,.....	94
6.4	Timeline for one Sub_sync period	96
7.1	Network Diagram of AWASA	103
7.2	Time line within a resynchronization period	105
7.3	Synchronization in Low Combined Fault Environment	113
7.4	Synchronization in High Combined Fault Environment	114
7.5	Synchronization in presence of bad clocks	116
7.6	Synchronization in presence of malicious clocks.....	117