

Contents

Abstract	
1. Introduction	1
1.1 Overview	1
1.2 Forecasting Methods	1
1.2.1 Qualitative Forecasting Methods.....	1
1.2.2 Quantitative Forecasting Methods	2
1.3 Time Series Methods of Forecasting	2
1.4 Thesis Objective and Scope	2
1.5 Thesis Outline	3
2. Fuzzy Time Series	4
3. Literature review of some existing models	6
3.1 Chen's method for forecasting enrollments	6
3.2 Forecasting Enrollment Model Based on First-Order Fuzzy Time Series	8
3.3 Effective lengths of interval to improve forecasting in fuzzy time Series	10
3.4 Forecasting enrollments based on high-order fuzzy time Series	10
3.5 Multi-attribute fuzzy time series method based on fuzzy Clustering	11
4. Proposed Approach	12
4.1 Proposed Algorithm.....	12
4.1.1 Algorithm (a) using First-order (Time invariant).....	12
4.1.1.1 Computation of Algorithm (a).....	14
4.1.2 Algorithm (b) using High-order (Time variant)	17
4.1.3 Algorithm (c) using High-order and Two Factors (Time variant).....	17
4.1.3.1 Computation of Algorithm (c).....	20

5. Experimental Results	26
5.1 Results of Algorithm (a)	26
5.2 Results of Algorithm (b)	28
5.3 Results of Algorithm (c)	30
6. Conclusion and Future Extensions	32
6.1 Conclusion	32
6.2 Future Extensions	32
References	33