عنوان مقاله:
Application of Markov Chains in futures studies

محل انتشار:
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خلاصه مقاله:
Future Studies methodologies are the combination of qualitative and quantitative methods. Cross impact analysis (CIA) is a Futures Studies method for forecasting probability of the events in future. The basic CIA does not consider the time impact on unprecedented future events. The basic trend impact analysis (TIA) is another method in futures studies for determining the occurrence impact of multiple unprecedented future events on one variable at future years. Both methods can be modified using Markov Chains. A Markov chain is a mathematical system that experiences transitions from one state to another according to certain probabilistic rules. The first aim of this study is to consider the time dimension in CIA by integration between Markov chain and CIA. The second aim is to modify the basic TIA by studying the occurrence impact of multiple unprecedented future events on multiple variables at future years using .Markov Chains. The algorithms of the both methods are presented and examples are provided

کلمات کلیدی:
.Markov Chain, forecast, multiple variables, Cross impact, transition matrix

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