

## Abstract

The work aim at developing a new predictive Trust model based on the well-known methodologies of the Markov process and Local Learning techniques. Commonly appearing *regimes* in the reputation time series constructed from repute values collected from the third parties over a sequence of time slots are identified by using a clustering technique. These clusters of similar regimes are learnt by local weighted linear regressors called *local experts*. The reputation time series is then modeled as a coarse-grained transition network of the regimes by using the Markov chain and value of the trust at any future time slot corresponding to a regime is predicted by the corresponding local expert. The implementation is done in C language and Matlab.