

Multidisciplinary Models for Information Systems

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Course Description

Information Technology was initially used for scientific computing and automation of Business processes. However, with convergence of computing, communication and other technologies, IT digs into multiple disciplines to create new products and services. This course helps in exploring some of the models from various disciplines to help decision makers understand and utilize the same in decision making, products and services.

Topics

1. Segregation and Peer effect
2. Aggregation and Decision Making
3. Thinking Electrons: Modelling People and Categorical & Linear Models
4. Tipping Point and Economic Growth
5. Diversity & Innovation
6. Models for Coordination and Culture
7. Path Dependence and Networks
8. Randomness and Random Walks
9. Prisoners Dilemma and Collective Action
10. Replicator Dynamics and Prediction
11. Nash Equilibrium
12. Repeated Games
13. Bayesian Games
14. Coalitional Games
15. Analytical Hierarchy Processing
16. Experience and Expertise