California State University San Bernardino
School of Computer Science and Engineering

CSE-695 Graduate Independent Study Presentation

Date:
03/12/2015

Time:
2:00pm

Place:
JBH-389/391

Title:
MANCALA WITH MCTS

Student:
Srinivas Bonthu

Advisor:
Dr. Kerstin Voigt

Abstract

The main Objective of this Independent study is to apply the Monte Carlo Tree search (MCTS) Algorithm for the game called MANCALA. Basically Monte Carlo Tree Search (MCTS) is a method for making optimal decisions in artificial intelligence (AI) problems, typically move planning in combinatorial games. It combines the generality of random simulation with the precision of tree search. It is a fast game played with random moves from a starting position to the end of the game, generating either a score or simply a result (win/loss). A playout can be light (completely random moves) or heavy (moves are biased based on heuristics, such as pattern libraries, shape, group status, move history, killer moves, etc.).