



IIT PALAKKAD

COMPUTER SCIENCE AND ENGINEERING  
Indian Institute of Technology, Palakkad  
CS2180: Artificial Intelligence Lab  
Lab 8

01 Mar, 2019

Time: 3 hrs

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1. Given an  $n \times n$  grid where diagonal moves are not allowed, the start location, the destination, location of obstacles. Write a program that
  - (a) Finds the optimal path from the source to the destination using BFS. [30]
  - (b) Finds the optimal path from the source to the destination using DFS. [30]
  - (c) If diagonal moves are allowed, uses  $A^*$  with Euclidean distance as heuristic to find the best path. [40]