

Robotics in Construction Automation

Assignment 7

Due : Apr 17 2008 2:20pm

Assigned Reading

Kang, S. C. and Miranda, E. (2006). "Planning and visualization for automated robotic crane erection processes in construction," *Journal of Automation in Construction*, 15, pp.398-414

Description

Please read the assigned reading and answer the following questions. The answers need to be clear and straight to the point. Each answer can be a short paragraph but should be limited within 300 words and one page (including figures). If you refer any material other than this assigned reading, please cite the reference as a footnote. Please submit the assignment before the due date before the class and please list your name and school number in the right-upper corner of the first page.

Questions

1. Please explain how to determine an erection path is collision-free.
2. How the authors link the C-space and physical space (i.e. Cartesian space)?
3. Please briefly explain the motion planning method for finding the erection paths for cranes.