Kinematics Analysis of FANUC robot using Matlab software

The Technology and Innovation

• Creation of a Matlab based software that can solve the Kinematics problem of a FANUC robot
• Workspace generation based on the manufactory information
• This program can do:
  • Ai matrixes generation based on D-H parameters
  • Forward Kinematics calculation
  • Inverse Kinematics calculation

Community/Industry Impact and Value

• Creation of a user friendly interface
• Easy and compact program to public access
• Good simulation program for education and industries assembly

Community/Industry Engagement

• Djuric’s Robotic Lab at Engineering Technology

Team Composition

• Vinicius Zgoda Parizotto, EET
• João Paulo Jacomini Prioli, EET
• Ana Djuric (Faculty Advisor)

Further Research and Development

• Implementation of Inverse Kinematics
• Implementation of Dynamics
• Implementation of CAD graphics

Learning Experiences

• Inverse Kinematics
• Forward Kinematics
• Workspace
• Matlab
• Matlab GUI
• Simulation
• Validation
• Plot generation