TOP-DOWN APPROACHES TO THE ENGINEERING DESIGN PROCESS

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OBJECTIVES
Apply System Architecture Methodology to field of education.
Apply System Architecture Methodology to manufacturing of CCRS (Capture Containment Return System).
Apply educational and cognitive psychologies to System Architecture Methodology.

SYSTEM ARCHITECTURE METHODOLOGY

DISCUSSION
This research was conducted over summer 2018 at the Jet Propulsion Laboratory, California Institute of Technology. The goal of the project was to apply the System Architecture Methodology to the engineering and education fields. We hope to expand this table to other projects. Before implementing the methods to education, I went through each component of the methodology to devise a plan to create a structure for the Mars Sample Return Module. At the end of the summer, I wrote a curriculum that could be applied to a high school engineering capstone class. Throughout each lesson, Bloom’s Revised Taxonomy is utilized. Each standard, objective and assessment fall under the same category.

APPLICATIONS

H.S. ENGINEERING DESIGN

State-of-the-Art

State-of-Technology

REFERENCES


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