



## NASA-KSC/EX-E High Education Internship Project & Abstract Form

Please provide this information requested to: [rose.m.austin@nasa.gov](mailto:rose.m.austin@nasa.gov)  
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<b>Full name (First MI Last):</b>	Walter S. Wehner Jr.
<b>Academic Institution:</b>	New Jersey Institute of Technology
<b>City, State Zip Code:</b>	Tinton Falls, NJ 07724
<b>Program Hired Under (Funding Source):</b>	KSC FO
<b>Name of Branch or Division:</b>	NE
<b>Desk Location (Bldg Name, Cube #):</b>	EDL, 2133D
<b>Work Phone (If Applicable):</b>	321-867-7423
<b>Cellular Phone:</b>	
<b>Degree of Study:</b> (i.e. MBA, BS in Electrical Engineering, etc) Major & Minors	M.S. Computer Science
<b>Expected Graduation (Month/ Year):</b>	05/14
<b>Project Title:</b>	ACLO
<b>Project / Abstract Summary:</b> (Approximately 300 words)	
<p>One complete paragraph in itself (not an introduction). It should indicate subjects while also stating objectives of the project. Newly observed facts and conclusions of project discussed must be stated in summary form. Readers should be able to understand your project and what you completed in your abstract.</p> <p>The Simulation Software, KATE (Knowledgebase Autonomous Test Engineer), is used to demonstrate the automatic identification of faults in a system. The ACLO (Autonomous Cryogenics Loading Operation) project uses KATE to monitor and find faults in the loading of the cryogenics into a vehicle fuel tank. The KATE software interfaces with the IHM (Integrated Health Management) systems bus to communicate with other systems that are part of ACLO. One system that KATE uses the IHM bus to communicate with is AIS (Advanced Inspection System). KATE will send messages to AIS when there is a detected anomaly. These messages include visual inspection of specific valves, pressure gauges and control messages to have AIS open or close manual valves. My goals include implementing the connection to the IHM bus within KATE and for the AIS project. I will also be working on implementing changes to KATE's UI and implementing the physics objects in KATE that will model portions of the cryogenics loading operation.</p>	
<b>If you are writing a paper for school or specific internship program, provide the following:</b>	
<b>Paper Title:</b>	Autonomous Cryogenics Loading Operations Simulation Software: Knowledgebase Autonomous Test Engineer
<b>Mentor Name:</b>	Felix A. Soto Toro, PhD.
<b>Mailcode:</b>	NE E7