

**UNIVERSITY OF LOUISIANA  
AT LAFAYETTE**

**STEP COMMITTEE**

**Technology Fee Application**

Industrial Automation Engineering and Technology  
Laboratory Enhancement  
**Title**

Dr. G.H. Massiha and Harvey Ozbirn  
**Name (Submitter)**

Department of Industrial Technology and  
the College of Engineering  
**Organization**

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**Signature of Dean or Administrative Head  
(REQUIRED)**

## ABSTRACT PAGE

**Title:** Industrial Automation Engineering and Technology Laboratory Enhancement

**Date:** 07/12/2018

**Name (Contact Persons):** Dr. G.H. Massiha and Harvey Ozbirn

**Address:** Department of Industrial Technology, P.O. Box 42972, University of Louisiana at Lafayette, Lafayette, LA 70504

**Phone Number:** 482-5719 **Email:** massiha@louisiana.edu

**Dept/College:** Departments of Industrial Technology and Mechanical Engineering in the College of Engineering

**Number of Faculty Impacted:** 12

**Number of Students Impacted:** 1,200 (graduate and undergraduate)

### Abstract

This proposal is being submitted to improve the Automation Technology laboratory maintained by the Department of Industrial Technology in the College of Engineering which is located in room 270 of Rougeou Hall. There are several courses offered in this laboratory who serve over 500 Industrial Technology (ITEC) majors and several graduate and undergraduate in System Technology (STEC) and Mechanical Engineering (MCHE) students in the college. Funding this project will provide this large pool of students' access to state of the art hardware and software intended to improve their productivity in areas of electrical and programmable control technology. The addition of one extra Siemen automation system will increase the capacity of this laboratory by 10% per laboratory session. In addition, we use Allen Bradley equipment in this laboratory for and may new companies starting to use Siemen system. **Our students will become more makeable in the fields of automation technology and engineering if they are more versatile and able to manage multiple systems.**

### A. Purpose of Grant

Automation, robotics and information fields of study have become an important part of many engineering and technology programs. This is also true for departments within the College of Engineering. Departments within the college provide opportunities for students to learn about a wide array of modern technologies, most of which require the latest technology in hardware and computing to handle the demanding software requirements. The purpose of this grant is to enhance the educational experiences and opportunities of UL Lafayette students by providing an upgrade to the automation technology laboratory located in Rougeou Hall, room 270. Multiple departments that include Industrial Technology (ITEC), System Technology (STEC) and, Mechanical Engineering (MCHE) and the entire College of Engineering students may utilize this

laboratory for instruction in automation, robotics, information systems technology and engineering curriculums.

### **Impact on Student Body**

This initiative will impact students in the following ways:

1. Adding the Siemen System make it possible for our students to learn about latest and cutting edge technology available in software and hardware automation world. The new system can make our students more marketable because companies do not feel that have to train students for new system and save money in long run.
2. The number of students interested in new technologies has increased rapidly. The addition of one additional Siemen automation system will allow the laboratory to accommodate up to 10% more students per laboratory session to respond to the increased demand.

### **B. The Projected Lifetime of Enhancement**

This equipment will be an effective tool in student recruitment and retention that will last a minimum of 4 years.

### **C. Person(s) Responsible for Project**

- a. **Implementation:** Dr. G.H. Massiha, Department of Industrial Technology
- b. **Installation:** Harvey Ozbirn, College of Engineering
- c. **Maintenance:** Dr. Massiha and Harvey Ozbirn, College of Engineering
- d. **Operation:** College of Engineering faculty (Dr. Massiha and Dr. Houston will monitor the operation for this laboratory classroom)
- e. **Training:** N/A

### **Qualifications:**

**Dr. G.H. Massiha** is a professor in the college of engineering. He has more than twenty years experience in teaching and using automation and robotics. His research specialties include microprocessors; advanced electronics control devices and integrated circuits.

**Harvey Ozbirn** is the computer systems manager for the College of Engineering, and is on the faculty of the Department of Industrial Technology. He holds master degrees in Business Administration and Engineering & Technology Management from the University of Louisiana at Lafayette.

**Timeline:**

**Year 1:**

Order all equipment. Set up equipment.

**Year 2:**

Maintenance & general upkeep

**Year 3:**

Maintenance & general upkeep

**Year 4:**

Maintenance & general upkeep

**Previously Funded STEP Grants**

Dr. Massiha does not have any funded STEP Grants.

**Budget Proposal**

Length of Implementation (In years)	1	2	3	4
1. Siemen Automation	\$8,400	\$0	\$0	\$0
2. Software ( <b>included</b> )	\$0	\$0	\$0	\$0
3. PC	\$1,600			
4. Shipping and Handing	\$250	\$0	\$0	\$0
<b>TOTAL:</b>	\$10,250	\$0	\$0	\$0



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## QUOTE

### Customer

Name G.H. Massiha Ph. D. University of LA Lafayette  
Address 241 E. Lewis Street - P.O. Box 42972  
City Lafayette State LA ZIP 70504-5719  
Phone 1-337-482-5719

Date 7/11/2018  
Order No.  
Rep Billy McCord  
FOB Columbus, MS

Qty	Description	Unit Price	TOTAL
1	S1200-EP-SIM Siemens Simatic Step 7-1200 PLC Trainer With Siemens HMI, MecLab Connections And EasyPort Interface (Includes Step 7 Portal PLC Software And EasyVeep Software)	\$8,400.00	\$8,400.00
** This quotation good for 3 months from creation date **			
		SubTotal	\$8,400.00
		Shipping	\$250.00
		<b>TOTAL</b>	<b>\$8,650.00</b>

ATTENTION: G.H. Massiha Ph. D

Quote expires:

SIGNATURE: Billy McCord

*Warranty: One year Workmanship Warranty, Manufacturer's Warranty on Components  
Technical Support: Free 24/7 Technical Support as long as you own the equipment.*