EQUIPMENT NEEDS ASSESSMENT APPLICATION
Fall 2016

Name of Person Submitting Request:	**Tarif Halabi**
Program or Service Area:	**Electricity/Electronics**
Division:	**Applied Technology, Transportation, Culinary Arts**
Date of Last Program Efficacy:	**Spring 2015 Mini Review(Electrical), Spring 2016 spring program review(Water)**
What rating was given?	**Continuation(Electrical), Continuation (WST)**
Equipment Requested	**Two Complete Supervisory Control Automation and Data Acquisition (SCADA) trainers to expand and Augment The Water Distribution and Maintenance Program as well as Industrial Automation and Electrician Programs**
Amount Requested:	**$200,000.00**
Strategic Initiatives Addressed: (See http://www.valleycollege.edu/about-sbvc/office-of-president/college_planning_documents/documents/strategic-plan-report-working-doc-8-25-15-2.pdf)	3.2,6.1

NOTE: To facilitate ranking by the committee, submit separate requests for each item; however, multiple items can be submitted as one request if it is required that the equipment is packaged together.

Replacement ☐   Additional X☐

Are there alternative funding sources? (for example, Department, Budget, Perkins, Grants, etc.)

Yes ☐   NO X☐

If yes, what are they? _____

1. Provide a rationale for your request. (Explain, in detail, the need for this position.)

The request for SCADA Equipment is unique in that it will augment and serve the needs of two CTE programs within the division, Water Technology program and Electricity/Electronics program. This will help us squeeze the most value out of the limited budgets for program needs on the campus and serve more students. All the water purveyors use SCADA for process control, such monitoring of water levels, regulation of flows and pressure in the pipelines. Electricity/Electronics programs use it for Industrial automation and power technology to detect current flow and line voltage, to monitor the operation of circuit breakers, and to take sections of the power grid on or offline. Industrial controls is a very big part of our programs in the General Electrician Certification as well as Power Technology. We have just introduced Industrial Automation certification. SCADA is an integrated technology that networks several PLC and PLA systems together into one data acquisition and control system. It is a natural

extension of controls technology that is already embedded into our curriculum. Furthermore, it is a technology being utilized by all utility companies, production plants, refineries, chemical plants, mass transit, traffic signals and building facilities and environments. In future we expect that this would be incorporated into our HVAC/R curriculum and also be part of industrial maintenance program that is sorely missing from our curriculum. We have a large and ever growing presence of distribution and logistics sites in the inland empire such as Amazon, Target, Stater Brothers, and many third party logistic (3PL) service providers. Both Electrical/Electronic and WST industry advisory committee, have provided input that these jobs are in demand and growing. Target and Amazon are looking for students with skill set in maintaining and troubleshooting their large warehouse automation equipment. Many of our students currently hold jobs in these warehouses at lowest end of the pay scale doing unskilled work. This knowledge will provide them upward mobility and career growth.

2. Indicate how the content of the department/program's latest Efficacy Report and/or current EMP supports this request and how the request is tied to program planning. *(Directly reference the relevant information from your latest Efficacy Report and/or current EMP in your discussion.)*

According to the latest industry advisory board meeting, industrial automation and control remains to be the most prominently needed skills needed by many of our local employers. The SCADA system training will provide a great advantage to our graduates from both the Water Technology and the Electricity programs mentioned above. It will improve student marketability and employment opportunity which will directly affect enrollment in a positive manner which will help grow our programs. The more up to date skills we can offer within our curriculum the more potent or effective our programs become.

3. Indicate any additional information you want the committee to consider *(for example, regulatory information, compliance, updated efficiency, student success data, planning, etc.).*

Again, the uniqueness of this equipment and technology is that it will directly serve two programs and potentially even more programs. This will ensure that we will most efficient use of our resources. The instrument and control technicians start at $25-35 per hour, which provides good living wages and upward mobility. A cursory look at Indeed or BCWaterjobs show many opening for these jobs in our area.

4. Indicate any related costs (including any ongoing maintenance or updates) and department/program's plans to support those costs.

This request for equipment will permit us to buy two complete training system modules that teach SCADA principles specifically in a water technology distribution system. It is actually a water tank transfer and treatment system controlled through a SCADA system utilizing PLC's and Variable Frequency Drives and integrating three separate processes in three modules as one single complete system. It is basically a complete SCADA lab. The upfront cost is high but this system requires very minimal on-going continuing expense.

5. What are the consequences of not funding this equipment?

As mentioned above, this equipment will greatly enhance two large programs within the Applied Technology division with potential to incorporate into other programs such as HVAC. It will elevate the programs and provide most up to date training for the equipment which is currently used in the field by the industry. Lack of this equipment will prevent our programs from attaining new heights of the student success rate to enrollment to providing gainful employment

opportunities at living wages for our students.