Program Background and Goal

The mission of the Industrial Electronics program is to provide students with a strong fundamental knowledge of electronics for successful lifetime employment. It is our desire to provide the student with a sound foundation with sufficient depth and scope to prepare for any area of electronics. Industrial Electronics graduates enter all fields of electronics, including communications, consumer electronics, instrumentation, avionics, medical equipment repair, computer repair, and many other fields. Because of our heavy concentration on the electronic fundamentals in our first three semesters, we believe our graduates have the skills to enter any electronic field and to progress and grow with the future of electronics.

We believe that a thorough knowledge of electronic fundamentals, as well as an introduction to the advanced subject areas, is essential to the overall career success of the individual student. The goal of the department is to train technicians to troubleshoot electronic equipment at three levels: 1) system level, 2) card level, and 3) component level. These three levels comprise the entire spectrum of electronic troubleshooting. These skills allow students to work successfully at any level.

Curriculum Design

The program is based on curriculum approved by the Program Advisory Committee for the Industrial Electronics Technology program. The program awards a 77-hour Associate’s in Applied Technology degree in Industrial Electronics, a 28-hour Specialized Training Certificate in Electronics/Instrumentation/Electrical Technician’s Helper, and a 27-hour Special Training Certificate in Microelectronics.

Occupational Demand

According to statistics provided by the Alabama Department of Industrial Relations, the Montgomery metropolitan area will need 53 electrical and electronic repairers of commercial and industrial equipment annually, which represents a growth rate of 1.6 percent. In addition, 93 electronic engineering technicians are expected to be needed annually, reflecting a .7 percent growth. Four hundred ninety-four electricians will need to be employed annually, which represents a 2.1 percent increase in growth. Also, the industry projects to need twelve powerhouse, substation and relay electrical and electronic repairers annually, which represents a .4 percent growth. No electrical and electronic equipment assemblers are expected to be needed, representing a decrease of 1.8 percent.

Assigned Faculty

There are two full-time instructors, Patrick Thomason and James Turner, Jr., teaching in the program. The program coordinator is Tobit Ellis.
Operating Costs
The 2004-2005 total operating costs for this program were $273,588.03.

Viability
The program currently enrolls 64 students. The completion rate for 2004-2005 was 100 percent, and the placement rate was 84 percent.

Findings
The Curriculum Team found that the Industrial Electronics Technology program is a viable program with healthy enrollment, completion, and placement rates, qualified and dedicated instructors and program coordinator, well-developed curriculum, and strong industry support.

Conclusions and Recommendations
The Curriculum Team recommends that the college continue this program for the next five years with an expectation of increasing enrollments.