

# Understanding How to Improve IT Fluency in an Engineering Technology Program

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## EXTENDED ABSTRACT

### **Introduction**

The University of Memphis provides a rich set of Information Technology (IT) resources for use by the faculty, staff, and students. Since many universities claim to be at the cutting edge of IT, it would also be reasonable to assume that an Engineering Technology Department would be a shining example for implementation of the latest IT products. Surprisingly, the opposite situation was found to exist.

### **Purpose**

After recognizing the gap in IT usage, the Department of Engineering Technology decided to embrace it as an opportunity for improvement. A study was undertaken to determine the underlying factors and extent of the problem. Further study was done to determine what actions were needed in order to achieve IT goals.

### **Method**

Surveys, interviews, internet searches, and literature reviews were conducted to assess the current usage of IT technologies, and gain insight to the barriers experienced by the three constituent groups. A comparison was made with the technologies that were currently deployed at the university level. For this study, linkages with other organizations outside of the department were not considered.

### **Results**

The primary cause for the gap was found to be the lack of defined strategic goals to achieve IT fluency. As a result, there were no action plans, deployments, or training being done to support the activities of the department. Individual faculty, staff, and student were left to their own initiative to find and use available IT technologies. The fundamental solution is to utilize a standard strategic planning process to establish goals and action plans.

### **Conclusion**

The department must decide as a whole, which technologies they will use in departmental business, then train and deploy to get full implementation. For educational programs, the faculty, with advice from students, partners, and stakeholders, must decide which specific IT skills are needed by the students, and then integrate the achievement of these skills throughout the curriculum. This approach can be followed by any department.