**Indian Institute of Technology Delhi**

**MET 420 Summer Practical Training**

**Mechanical Engineering Department**

**Weekly Report - 3**

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| 505 Army Base Workshop  Delhi cantt. 110010  WS Supervisor: Mr. Harsh Agarwal | Avnish Gaur (2010ME20769)  Faculty Supervisor: Prof. Kiran Seth Production & Industrial Engineering |

**Week – 3**

**Summary:**

This week we started working on our project. We are working under a large project of Built-in Testing Equipment. I went across many employees here at ground level to understand their process system, and during one of these trips, I realized that most of the disassembly part is not required. That is, only if the employees here could check beforehand whether the assembly is faulty or not, it would save them at least 3 weeks, which is considerably huge considering total time of overhauling is around 144 days. So, I started working on creating BITE (Built-in Test Equipment) for testing GCE (Gun Control Equipment). So far, I have been able to access some internal manuals about it and get in contact with all the experienced people in the workshop who has done some work on these lines in the past. I have started doing research on this topic, and with the help of fellow employees here, by next week I will get all the stuff required for this project here.

The main purpose of BITE is to reduce the complexity, and thereby decrease the cost and reduce reliance upon external (pattern-programmed) test equipment.

BITE reduces cost in two ways:

1. Reduces test-cycle duration
2. Reduces the complexity of the test/probe setup, by reducing the number of I/O signals that must be driven or examined under tester control.

Both lead to a reduction in hourly charges for automated test equipment (ATE) service.