PROJECT DESCRIPTIONS

Brief project problems and statements are provided below. Form groups of four members and designate someone in the group as the group leader. An electronic copy of the project proposal report (2 pages) must be submitted by 9:00 am, Friday February 29, 2008, which includes names of your group members, project description, objectives, and the direction or outline of the project.

A mid-way Progress Report, not less than 7 pages, is due on Friday March 28, 2008. The types Final Report, in a neat and professional manner and be consistent with the final reporting requirements, is due by 12pm noon on Friday, May 2, 2008. These requirements will be provided at a later date.

THEMES: CHEAPER! FASTER! & BETTER!

New technology has made possible products that provide more functions and high performance levels. Today’s engineering systems have become increasingly complex to design and build while the demand for higher quality, faster delivery, dependability, and cost effective development continues. To compete successfully, a business organization needs to be profitable. However, that no longer necessarily implies the lowest cost operation. To be successful, a business organization has to identify the needs of its customers and must compete simultaneously along many of the following dimensions: price, quality, speed, flexibility, and service.

Project #1: Order Entry to Shipment Process – Dranetz-BMI Company
Dranetz-BMI is a company located at 1000 New Durham Road, Edison, NJ, that manufactures a wide variety of power measurement devices. From the initial request for quotation to what arrives on the customer’s loading dock, it is critical for good customer relationships that this process being accurate and efficient. Modeling of the flow of information throughout this process would help uncover issues that affect both efficiency and accuracy, as well as making recommendations to improve such.

Group:
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Project #2: Kaizen of an Expanding Product Line– Dranetz-BMI Company
Dranetz-BMI is a company located at 1000 New Durham Road, Edison, NJ, that manufactures a wide variety of power measurement instruments. The Encore Series product family introduced in December 2005 and more different products and options are continually added for user-customized systems. The growth rate is expected to accelerate in 2008. However, it shares part of the part production needed with another product line. The project consists of (1) determining in-process times for the products, (2) determine where the optimization can be done without compromising quality, and (3) recommend changes to increase the throughput with same resources.
Project #3: Consolidation of Low Volume Product Lines– Daytronic Corporation
Daytronic is a company located at 1000 New Durham Road, Edison, NJ, that manufactures a wide variety of data acquisition meters and instruments. Some of the product lines are more than ten years old but customers still order significant quantities periodically. The total floor space and labor required is disproportionate to the revenue stream, but product lines cannot be discounted at this time. The project consists of (1) determining in-process times for the products, (2) determine where the optimization of space and labor can be done without compromising quality, and (3) recommend changes to increase the throughput with same resources.

Project #4: Facilities & Management Process & Service Improvements- Dunkin’ Donuts
In an ever-demand global marketplace, customers are insisting on higher quality, faster delivery, dependability, and more product variety. To compete successfully, a business organization needs to be profitable. However, that no longer necessarily implies the lowest cost operation. To be successful, a business organization has to identify the needs of its customers and must compete simultaneously along many of the following dimensions: price, quality, speed, flexibility, and effective and efficient service.

This project involves working with the Management Group at the Dunkin’s Donuts facility located in Piscataway (Dunkin's Donuts at 1254 Stelton Road, Piscataway) to examine, evaluate, and look into ways to improve the current business strategy, operations, supply chain management, facilities planning, everyday operations and current issues. Focusing on the facilities and management process and service improvements, the tasks of the project should include: Analyze the current materials handling, facilities layout, ergonomics, customer service, and inventory control of the facility and make recommendations regarding current operations and potential expansion.

Project #5: Order Entry and Inventory Control - Siemens Project
Siemens Hearing Instruments is a company located at 10 Constitution Ave in Piscataway, NJ. The BTE (Behind the Hear Instrument) order fulfillment center is located in this facility and distributes a large variety of BTEs and hearing aid accessories to the hearing care professionals.
The BTE order fulfillment center has doubled in business during the past couple of years and will continue to grow as new models are introduced.

This project consists of – (1) Analyzing the current method of fulfilling BTE and accessory orders and suggest improvements to the workflow; (2) Based on the upcoming new BTE models, calculate the additional space required to store the additional items; (3) Improve overall layout design of the fulfillment area.

**Group:**
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