Opportunities

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New Six Sigma Research Institute to Build Integrated Strategic Thrust

In a few short months, Motorola University's new Six Sigma Research Institute will begin redefining traditional approaches to product and program design and delivery.

Under the direction of Dr. Mikel J. Harry, the Institute is developing the engineering tools necessary to alleviate the three primary sources of product variation—design, process, and material.

"How do we achieve Six Sigma? We must continue to approach variation as the major enemy. When we reduce defects, reduced cycle time, increased yields, and higher quality naturally follow. By carefully blending our constantly improving process and material capabilities with robust design methodologies, we can predict and plan what we want to happen in our factories. Institute efforts will drive this concept and build upon it. Total Customer Satisfaction, of course, is our ultimate goal," noted Mike.

The Institute is planning to set new cycle time records with design and development processes that take place concurrently. In short, it is a system where four key processes are occurring at once instead of in a series. A comparison can be aptly made when the Institute is dubbed as a knowledge factory. Mike explained that in this scenario, the factory inputs are leadership, personnel, hardware, software, facilities, and financial resources. The inputs are subjected to a process that defines an engineering application and creates the tool. A book that defines and supports the tool is written, and from this an instructional program is then developed. The books are technically reviewed by key professors at a number of universities. The final outputs are technical manuals, applications software, participant guides, instructor guides, and overhead transparencies. Applications consulting/coaching completes the circle.

Mike also outlined the modularized format of the books. "Since the chapters are modularized, they are capable of being integrated into many combinations to form different books and instructional courses. A portion of each chapter can be spun off to form the management course. This parallel development means that the engineering and management courses are available at the same time."

The books will eventually link together to form a hardbound textbook on Six Sigma design. The textbooks will also be made available to universities and technical schools.

Mike concluded, "The Six Sigma thrust provides distinct advantages in the quest for Total Customer Satisfaction. That success needs to be achieved in the presence of increasing global competition and rapid technological change. These two factors emphasize the continuing need for a single foundation to unite the many aspects of product and service quality into an integrated strategic thrust. The Six Sigma Institute was conceived to provide that unifying thrust."

Mike Harry discusses Institute development with Doug Mader, senior staff engineer.

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