

**An Expert Talk under IIIC**  
**on**  
**"6 SIGMA- ITS SIGNIFICANCE AND APPLICATIONS**  
**IN A PRODUCTION SYSTEM"**

**25th October, 2016**

**(Under TEQIP-II)**

An expert talk was organized under IIIC on "**6 SIGMA- Its Significance and Applications in a Production System**" by Dr.G.Saravanan, Operations Group Manager, Caterpillar India Pvt. Ltd., Thiruvallur, Tamil Nadu sponsored by Technical Education Quality Improvement Programme (TEQIP-II) on 25<sup>th</sup> October, 2016 by the Department of Mechanical Engineering, Sree Vidyanikethan Engineering College, Tirupati.



Six sigma is important because it scores much higher over other quality improvement techniques such as Total Quality Management. Six Sigma concepts and methodologies stress the use of statistical tools and techniques for improving quality and reducing defects.



**Dr.G.Saravanan, Operations Group Manager, Caterpillar, India Pvt.Ltd.**

Dr. Saravanan started his first session with the fundamental concepts in six sigma. He defined six sigma and various levels of sigma in a production system and its importance. He explained the significance of six sigma, how it is improving the quality of the output of a process by identifying and removing the causes of defects and minimizing variability in manufacturing and business processes.



**Dr.G.Saravanan, delivering a talk on 6 Sigma**

In the second session, Dr.Saravanan explained about the Six Sigma methodology. It is the implementation of a measurement-based strategy that focuses on process improvement and variation reduction. This is accomplished through the use of two Six Sigma sub-methodologies: DMAIC and DMADV. The Six Sigma DMAIC process (define, measure, analyze, improve, control) is an improvement system for existing processes falling below specification and looking for incremental improvement. The Six Sigma DMADV process (define, measure, analyze, design, verify) is an improvement system used to develop new processes or products at Six Sigma quality levels.



### **Students listening the lecture**

During the third session, Dr.Saravanan focused on applications of six sigma in a production system. He shared some case studies about the applications of six sigma in Industry. He also told that the goal of Six Sigma is to create a plan that results in a solution to improve a process or product to a ratio of 3.4 defects per million opportunities.

The students of Mechanical Engineering got enriched by the interaction with Dr.G.Saravanan. His knowledge and experience helped them in appreciating the significance of six sigma and its implications in the industries.