

First Program on Ji Kotei - Kanketsu (JKK) in India

Title : JKK that TOYOTA advances - Enhance the competitiveness of company by creating competitive workprocess .

ISQ, jointly with TQMI, organized a special programme Ji-Kotei Kanketsu (JKK) for the first time in India, on 10-11 April 2018, at Hotel Taj City Centre Gurugram, Haryana

Faculties



Mr. Shinichi Sasaki,
Advisor and Senior Executive on the board of Toyota Motor Corporation, Japan



Ms. Junko Hosomi
General Manager, Central Japan Quality Assurance Organization (CJQCA)



Mr. Yukihiro Sano
Project GM, Honsha Plant Quality Control Division, Toyota Motor Corporation, Japan



JKK is the advancement that Toyota has brought about in the Toyota Way, in their endeavour towards their new approach “Customer First” that combines Quality Assurance and Customer Service, in the context of Industry 4.0

About JKK

Over the years the technologies are becoming more sophisticated, automated and changing ever so rapidly while the customers are getting segmented and more demanding for defect free products and services in shorter lead time at lower prices. In such ‘state of the art technologies’ defects cannot be detected by inspection and cannot be repaired.

Under Industry 4.0 some organizations have started using analytics, machine learning, deep learning, design thinking, internet of things (IOT), artificial intelligence (AI) etc. as means for further improvement. Toyota in its usual way believes in addition to automation, it is important to harness the best from the employees through deeper involvement in their work and motivation.

Toyota has developed Ji Kotei-Kanketsu (JKK) as an advancement of Toyota Production System (TPS) to meet such technological challenge while enhancing employee motivation. Such an approach will be very helpful to the companies, that have already won Deming Prize or business excellence awards and those at the advanced stage of TQM implementation and are looking for further improvement.

WHY JKK in India

Some of the leading organizations in India started focusing on quality in the 1990’s in the wake of economic liberalization and made good progress as evidenced by many of these organizations challenging Business Excellence models while some successfully challenged the Deming Prize, that is considered as the Gold standard for quality awards in India. These awards are only milestones while the quality and improvement journey continue. For such organizations to enhance competitiveness to global levels in the wake of Industry 4.0 JKK could be the way forward. JKK could contribute towards realization of the ‘Make in India’ vision of the Government of India

JKK Session is in 3 segments :

1. JKK Lecture by Mr. Shinichi Sasaki
2. JKK Seminar for office environment by Ms. Junko Hosomi
3. JKK Workshop-QA Network session by Mr. Yukihiro Sano

The session started with the traditional lighting of lamp by JKK faculties and ISQ, Governing Council Members.



SUPPORTING ORGANIZATIONS

- TVS Motors
- Mahindra & Mahindra Limited
- Ashok Leyland
- Tata Steel Limited
- SLK Software Services Pvt. Ltd.
- United Phosphorus Limited
- PPAP Automotive Limited
- SRF Limited
- Sheetal Foam
- Sona Koyo
- Rinder India (UNO Minda Group)
- CEAT Limited
- CEAT Speciality tyres Limited
- Sona BLW Precision Forgings Limited
- UCAL Fuel Limited
- JSW Steels Limited
- Mindarika Pvt. Ltd.
- Indus Towers Limited
- JSW Steels Limited, Dolvi
- Hero Motocorp.

JKK Lecture



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JKK supports Built-in-Quality (BIQ) system necessary for defect-free products.

Essential parts of the JKK are:

- Ernest attitude by all
- all employees shall perform major roles with a spirit of “Go and See”
- while promoting Kaizen action in a “steadfast, sure-footed and thorough ” way.

Next generation plants will have the features like

- High-mix, low volume production ⇒ the final goal is one-piece flow production
- Synchronization of production processes with IoT
- Realization of the “zero defect process” with Big data or machine learning

The concept was tried in UK plant of Toyota initially and then refined & deployed across all plants of Toyota.

It has led to defects being reduced to zero or near zero levels in critical operations.

JKK SEMINAR



JKK concept, when applied to office environment focuses on

- High-efficiency (less mistake, waste)
- ☐ Proceed with confidence ⇒ Higher motivation

Office work is different from manufacturing in the following ways:

Manufacturing	office
<ul style="list-style-type: none"> • Subsequent process is customer • There are clear criteria 	<ul style="list-style-type: none"> • Hard to see customer • Not clear criteria
<ul style="list-style-type: none"> • Visible 	<ul style="list-style-type: none"> • Inside the mind • Invisible
<ul style="list-style-type: none"> • Judgment criteria and necessary are ready before the work started 	<ul style="list-style-type: none"> • Difficult to prepare (sometimes)
<ul style="list-style-type: none"> • Well controlled tact time 	<ul style="list-style-type: none"> • Not well controlled work time
<ul style="list-style-type: none"> • Documented standard “OP” 	<ul style="list-style-type: none"> • Not well equipped existing

As such, we need to work harder for office work and it requires deeper understanding and application of PDCA (Plan-Do-Check-Act) cycle systematically across all processes. Process standardisation is very helpful for consistent operations of the office processes and strengthens JKK initiative.

JKK WORKSHOP



Quality assurance is the foundation of JKK and Toyota has mastered the practice of effective QA over the years including concepts like QA map, QA network. QA network is to ensure zero defect is produced and dispatched to the customer. It requires detailed process map, identify points where defects can be generated and detected.

Evaluation is done for each defect on possibility of occurrence and possibility of detection, each on a 4 point scale (1 is good and 4 is bad)

Defects with high values on evaluation (bad such as 3 and 4) are prioritised to improve, initially to stop to outflow to the next process/ customer and later to prevent occurrence.

Suitable controls are then institutionalised to ensure sustenance over time.

The concept, though looks simple, requires detailed working by cross-functional team and requires team to spend enough time both for evaluation and action planning

FEW GLIMPSES

