

Ram Narayan

Is a Bachelors in Mechanical Engineering and a Post Graduate Diploma in Business Administration. Graduated in 1991 from PSG College of Technology, Coimbatore, India.

Is a Six Sigma Master Black Belt . Using Shainin DOE techniques extensively for solving manufacturing problems for the last 29 years in various assignments. Has improved upon the techniques through the various problems solved

Key customers for Problem solving and deployment of Six sigma initiative

- a. Tata Steel, UK
- b. COGEN Power systems, UK
- c. Bosch
- d. Bajaj Auto
- e. Wanxiang Ltd, Shanghai
- f. GM Shanghai
- g. Brakes India, Padi
- h. Amara Raja Batteries
- i. Kirloskar Oil Engines
- j. Kirloskar Ferrous Industries
- k. Cadbury
- l. Titan – Watch Division
- m. Titan – Precision Engineering Division
- n. Sriram Pistons
- o. Sundram Fasteners
- p. Rane TRW
- q. Automotive Axles
- r. Fairfield Atlas
- s. TE Connectivity
- t. EPCOS
- u. Piaggio
- v. Johnson & Johnson
- w. VIT College, Vellore

Has done work in the following areas

- a. Product development
- b. Manufacturing Systems design
- c. Process Improvement
- d. Quality systems implementation
- e. Problem Solving and Process optimization using Shainin DOE tools
- f. Second party and Improvement audits

Running my own company called 'World Class Manufacturing Solutions' from August 2003

Worked in Lucas-TVS, Chennai from 1991 till end 1996.

Was heading Omnex India Operations from 1996 till Dec 2002

Was heading Academy and Systems Certification for TUV Rheinland, Indian Operations from Jan 2003 till July 2003

Work done from 1999 till date:

- Has helped various automotive organizations in India and China solve various manufacturing problems. Till now, has been involved in solving over **5000 manufacturing problems** involving the following processes:

1. Pressure Die casting
2. Machining
3. Injection Molding
4. Rubber Molding
5. Assembly operations
6. Shell molding
7. Sheet metal forming
8. Steel making
9. Welding
10. Seat foam manufacturing
11. Sand casting
12. Capacitor manufacturing

- Has trained over 10,000 people in India and China on Six sigma methodology
- Has done 250 batches of Six sigma Black belt certification programs
- Has done 70 batches of Six sigma Green belt certification programs
- Has improved upon, Shainin's Variable search tool and found a new tool to do Process optimization for existing and new processes in a very efficient way.
- Lead trainer for CII and ACMA Six sigma Black Belt and Green Belt certification courses

Work done from 1996-1999

Helped the supplier base of OEM's and OEM's for improving the product quality and achieving customer satisfaction through implementation of effective systems. Has worked with the following automotive component ranges for effective implementation of systems (QS9000) in industries manufacturing these components

1. Clutch assemblies
2. Disc and Drum brake assemblies
3. Drive Shafts
4. Door seals and rubber liners
5. Fan motor assemblies
6. Ball bearings, Taper bearings and Needle bearings
7. Decals
8. Roof and Door liners

9. Transaxle components like Knuckle joints
10. Plastic injection moulded parts
11. Forged rings for manufacturing bearings
12. CRCA sheets
13. Seat frames
14. Tractors
15. Castings – Pressure and Gravity Die castings
16. Automotive Paints
17. Steering assemblies
18. Heavy vehicle assemblies

Has helped the industries implement FMEA's, Process control using Statistical techniques

1. Machining
2. Assembly of Bearings
3. Forging
4. Pickling and cold rolling
5. Heat treatment processes like annealing
6. Galvanizing
7. Pressure and Gravity Die castings
8. Paint manufacturing
9. Assembly lines

Trained around 1500 suppliers of Ford, Maruti and Telco. Helped the suppliers of Ford India in training and implementation of QS9000. Did the First RAB approved Internal audit training in India.

Has trained the following OEM manufacturers in India on QS9000 and TS16949 implementation

1. Ford India Limited, Maraimalainagar plant, Chennai
2. New Holland Tractors, Delhi
3. Tata Motors – Jamshedpur
4. Tata Motors – Lucknow
5. Tata Motors – Pune (Both Car and Truck plants)
6. Maruti Udyog Limited

Work done from 1991-1995

- Involved in Product development of Alternator and Starter motors for Ford
- New Process establishment at the Supplier's factories
- Implementation of Statistical Process control techniques in in-house and supplier manufacturing processes
- Trouble shooting problems during development of the product
- Implementation of QS9000 at Lucas-TVS

Expert Credentials:

- Manufacturing Problem solving using Shainin DOE tools
- Implementation of FMEA's and Control Plans for many manufacturing processes like Machining, forging, Cold rolling, Assembly of bearings, Heat treatment

- Implementation of Control charts for processes like machining, forging, cold rolling and forging
- Implementation of Calibration systems based on NAMAS guidelines
- Implementation of Ford's 8-D problem solving tools and techniques
- Implementation of Ford's QOS (Quality Operating Systems)
- Understanding the Measurement systems and implementation of appropriate statistical studies to determine the variations arising out of Measurement processes
- Implementation of QS9000 systems
- Implementation of TS16949 systems
- Value added Process and Product auditing techniques
- Implementation of Ford's APQP process for Product development
- Linking FMEA's to the Corrective Action system of the company for continuous improvements
- Development of custom softwares for FMEA's, Control Plans, MSA and TPM
- Has trained over 1000 Black Belts
- Has been involved in solving over 5000 problems in various processes