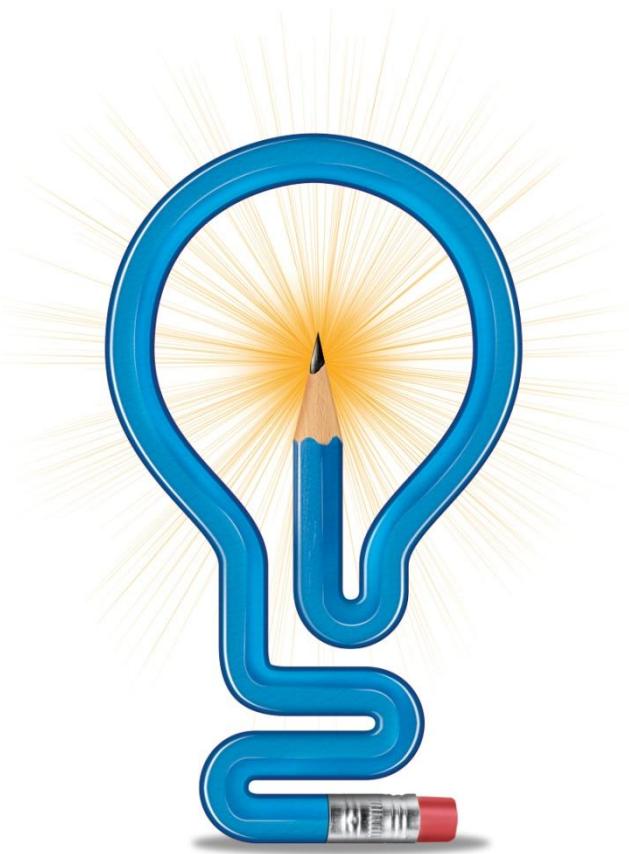




Approach Paper

Product Cost Reduction

Submitted to:





- Are you priced-out because of your high product cost/globalisation?
- Are you not making enough profits on your existing products?

Approach:

SSA Technologies will undertake the responsibility of analysing and offering solutions for bringing down your product cost. Pay us after you reap the benefits.

Objective:

SSA Technologies proposes to partner with you to bring down your existing/New Product cost by minimum 10%.

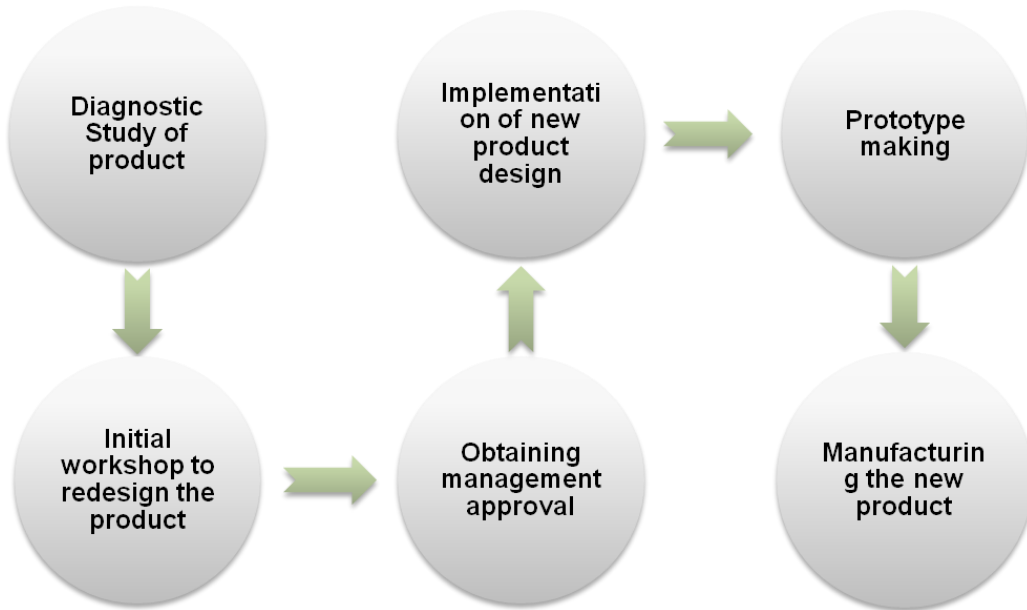
Offering from SSA Technologies

- Atleast 10% cost reduction benefits
- Practical hands-on experience of the new tools and techniques
- Not merely idea generation, but we will facilitate the execution of the new product from design to launch.

What will we do?

- Analyzing your current product design by our design experts. Apply tools like Value Engineering, Design For Manufacture and Assembly to identify opportunities for re-engineering your product. Suggest re-engineered product design along with the cost estimate and implement the design subject to your approval. Facilitate in implementing the methodology.

Methodology:



Milestones:

Activities	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Diagnostic study of product	█											
Initial workshop to redesign the product		█										
Obtaining management approval			█									
Implementation of new product design				█	█	█	█	█				
Prototype making								█	█			
Manufacturing the new product										█	█	█

Our Competencies

The subject matter experts include Mr. NC Narayanan, our Founder & CMD is the active key mentor for implementing his thought-leadership in the new product design and development ventures since 3 decades in diverse sectors.

Mr. NC Narayanan, Founder & Managing Director



Professional Experience

NC is the founder & CMD of SSA Group of companies and MD of SSA Techknowlogies (P) Ltd. NC is a Gold Medallist in B.E (Mech) from Anna University and MS. Research in Finite Element Method (FEM) from IIT, Chennai. After a professional career in design and technology for 3 decades he founded SSAT with a missionary zeal to share his wisdom for the development of Indian industries for strengthening their new product introduction systems. From his formative days, NC grew up in the design discipline passing several roles till he held the Chief Designer and Technology Head positions in reputed engineering companies.

Experience Profile:

- NC commenced his career in automobile engineering at TAFE, Engineering Division. He spent 17 years in Lucas-TVS, an auto-electrical company where he held the position of Chief Designer to pursue his technology career in Lighting R&D of Crompton Greaves Ltd where he served for 10 years.
- NC was responsible for re-engineering the entire New Product Introduction process at Lucas TVS implementing concurrent engineering approach where he was trained by Lucas Engineering Systems in the UK.

- NC was trained by Lucas UK in Design For Manufacture (DFM) and Design for Assembly (DFA) by the founder of DFM and implemented DFM/DFA across Lucas companies.
- NC was trained in CAD/CAM in Lucas, UK and common wealth CAD program where he was exposed to several FEM packages such as FINEL, NASTRAN, ANSYS and many others.
- In his tenure of 30 years in Design, NC worked on product design, process design, Lean manufacturing design and tool & die design. He was involved in technology transfers from Lucas, UK to India and Ballast technology from Malaysia for Crompton Greaves. He is exposed to wide range of manufacturing processes covering metal forming, finishing, plastics, heat treatment etc during the tenure of his design exposure to automobile, auto-ancillary and lighting technology. These exposures gave him the design competency which will be beneficial for building designers capability.
- NC is a value analyst and played the role of transforming the Lighting products cost effective applying VE principles.
- NC is a trainer in DFSS (Design for Six Sigma) methodology. He is also a Master Black Belt in Lean six sigma practices. In his tenure of 12 years consulting for SSA Group of companies he institutionalized best practices in Business excellence across many corporate. He is a Train the Trainer for DFMA, FMEA, Statistical Tolerance, SPC and many other Design Quality tools. He is a Trainer for TS 16949 core tools and supported auto and ancillary companies to institutionalize these practices.
- NC has authored the famous pocket book “Lean six sigma in a nutshell”, “Enigma of Lean” & Statistical Software Guide in addition to several publications in the press.
- He has been conferred the **Award of Excellence** by Rotary Club, for his contribution towards Facilitation for Business Excellence in Indian Industries. He has been awarded **Rashtriya Udyog Ratna Award** 2011 by National Education and Human Resource Development Organization (NEHRDO) for excellence in his work; thus acknowledging his persistent journey in the Consulting and Education.
- Trained in JUSE, Japan in TQM

Please go through the Linked in profile:

<http://www.linkedin.com/pub/narayanan-narashimhachariar-chakrapani/5/342/16>

To know more about Mr. NC. Narayanan's thoughts and view kindly visit his blog at:

<http://www.ncnarayanan.blogspot.in/>

- VE^{DMAIC}

Value Engineering / Analysis is an opportunity which focuses more on improving the functionality as per the customer's requirements in a product/service and less on unwanted functionality reducing the cost and adding value to the product following the DMAIC process. Value Engineering (VE) or Value Analysis is a systematic investigation / analysis of a product or service to establish the function and worth of each component with an aim to optimize the worth to cost ratio. It follows a unique D-M-A-I-C approach for the product cost reduction.



- DFMA

DFMA is a technique that integrates Design and Manufacturing aspect of the product at the drawing board stage itself. It uses Functional analysis and classifies the essential components and the non-essential components which can be eliminated or combined with other component within the product assembly. It selects and plans proper joining methods for assembly and analyzes each component with respect to feeding, gripping, insertion & fixing operations to ease the manufacturing and assembling of the product.



SSA Technologies has also developed a comprehensive DFMAPRO™ software application for DFMA analyses.

Scope

SSA Techknowlogies scope will be completely participating, applying the tools like DFMA, VE^{DMAC}, etc., working with your design team, re-engineering the product, facilitating for detail drawings, support in prototype making, implementation of the new value engineered product. We become handholding resource till the cost realization has happened.

Our Clientele



Institutionalising DFMA



Institutionalised QFD
Institutionalised DOE
Facilitated DFSS



Facilitated VOC -BM
Institutionalised QFD



Institutionalising DFMA
Facilitating DFMEA



Institutionalized DFMA



Quality Management in NPD



Vendor Competency Programs



Lead Time reduction for transformers design



Institutionalizing DFMEA



Institutionalizing DFMA on AC Components



Handholding for DFMEA Implementation



NPILean Implementation across the R&D sector

About SSA Technologies



Company Overview

About SSA Techknowlogies

- SSA TECHKNOWLOGIES, an off-shoot of the flagship company SSA Business Solutions, identified its purpose to transform the paradigm of New Product Introduction in this country by offering various change management solutions focusing on the designers' community. Among the various offerings, SSA Techknowlogies empowers the Indian Industries to adopt the world class New Product Introduction Process and endeavour to develop the Designers' competency to offer state-of-the-art new products. The name, SSA Techknowlogies, reflects the company's twin competencies – Knowledge & Technology. Where Knowledge generates ideas to create better and better Technology.
- SSA Techknowlogies focuses on the design and development capabilities of Indian industries and brings them on par with the overseas' competitors. SSA group companies resolved to make 'Made in India' synonymous to 'Quality'; in line with their ethos to Imagine Innovate and Improve.

SSA Techknowlogies helps its clients solve an array of Product Design & Development issues by

- Improving product designs by increasing reliability
- Improving customer loyalty and design better quality products
- Improving product development processes leading to shorter lead time
- Improving production processes which leads to high throughput and low cost
- Improving quality of incoming supplies
- Enhancing support processes

Vision

- To become the most preferred product & process technology partner enabling to Imagine Innovate and Improve new products and supply chain management that will make 'Made In India' synonymous to excellence.

Purpose

- To make a significant contribution towards improving the quality of human life through innovative new products.

Values

- Customer-focused. The customer is God
- Integrity. We believe in keeping up promises
- Creativity. Dreams. Imagination
- Mentoring. Encouraging people to excel
- A passion for the impossible. Our core strength

Corporate Direction

- NC's vision for SSA when he founded the company in 1999 was for it to become a world-class result-oriented consulting resource, focused on return on investment for its clients. His ideology has become the character of SSA today.

Differentiators

- From IDEA to Execution
- Understand stated & latent needs of customer using VOC & QFD techniques
- Design a robust product using DFSS, DFMA principles
- Design for manufacturing using tool designs, LEAN principles at lowest time & cost
- Consulting modes that involves hand-holding of teams during the project execution process
- State-of-the-art teaching methods

Strategic Alliances

- SSA has many strategic alliances with overseas companies specialized on specific areas of Business Excellence solutions. These include Rath & Strong, iGrafx from US and i-Nexus, a division of i-solutions Global from UK. SSA has experts trained in US by iGrafx, on Process Simulation techniques used in six sigma. SSA provides sales and support for implementing Process Management Systems and process Simulation Solutions in India. For more details log on to www.iGrafx.com
- Anticipating the demands, SSA TECHKNOWLOGIES provided the thought-leadership applying LEAN concepts to the NPI process, a glimpse of which is given below.

Management Team

SSA is a professionally managed company runs by highly qualified and experienced senior level management experts.

SSA Management includes the following professionals:

- Mr. NC. Narayanan, B.E (Mech) , MS (Research) IIT(Madras) – Founder & Managing Director
- Mr. Naveen Narayanan, B.E (Mech), MBA - Thunderbird (USA) – JMD
- Mr. Ganesh Iyer – B.E (Chem), PMP, (MBA - INSEAD) - JMD
- Ms. Sashi Iyer – B.Com , MBA (Washington University) – CEO

END OF DOCUMENT