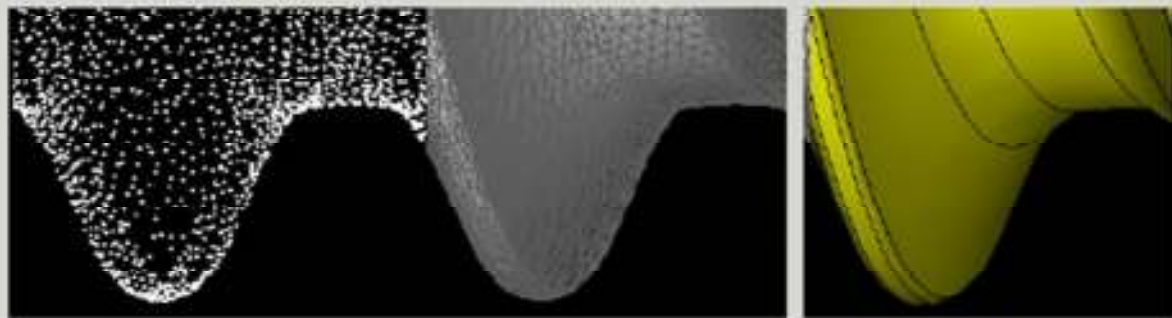


3D measurement

Modeling



Complimentary 1 year
SAEINDIA membership for
non-member participants

Special discount on Group
Booking (minimum 5 attendees
for same session 15% Discount)

TOPTECH

Reverse Engineering

Technology for Domain Knowledge Building

Three Days Workshops by SAEISS Experts

Trainer: Mr. S. Shanmugam
Managing Director, Design Desk (India) Pvt Ltd

Venue:

SAEINDIA Southern Section

Block-1, Modules 29 & 30, SIDCO Electronic Complex

Thiru-Vi-Ka Industrial Estate, Guindy, Chennai-600032

Phone: 044-42188651-52 Mobile: +91-90430 01718

E-mail Id: toptech@saeiss.org Website: www.saeiss.org

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SOUTHERN SECTION

Course Content

Workshop Content

Day 1

- Reverse Engineering Introduction
- Reverse Engineering Stages
- Reverse Engineering Case Study
- Team formation
- Step-1
 - Disassembly,
 - Product Structure
 - Photograph and Video
- Review-1
- Step-2
 - Sketch
 - Measure
- Review-2
 - Need for complete part definition and clarification

Day 2

- Step-3
 - Develop Liaison diagram
 - Liaison / Mates Table
- Review-3
 - Reducing degrees of freedom clarification
- Step-4
 - Reassembly with video
 - Physics - Geometry / Material / Function Introduction
 - Subtract and Operate Procedure
 - Material and Process Identification
- Review-4
 - Assembly choreography – capturing assembly entry features

Day 3

- Step-5
 - Function Identification
 - Geometry Definition
 - Material and Process Selection
- Review-5
 - Check Linkages
- Step-6
 - Detail Drawings – part and assembly
- Review-6
 - Linkage of details to functions

About the Course

Reverse engineering is the process of discovering the technological principles of a device, object, or system through analysis of its structure, function, and operation. Reverse engineering is widely practiced in the industry today. Companies routinely analyse competitors' products to gather information about specifications. In a competitive market introducing new products with better features and at a faster pace is critical for any manufacturer. There are many applications for Reverse engineering. This course focuses on the application of reverse engineering technology for domain knowledge building.

Note: Participants should bring a calculator for in class exercises

Benefits of attending the Course

- Domain Knowledge building
- The original manufacturer no longer exists, but a customer needs the product
- The original manufacturer of a product no longer produces the product
- The original product design documentation has been lost or never existed
- Creating data to refurbish or manufacture a part for which there are no CAD data, or for which the data have become obsolete or lost
- Inspection and/or Quality Control—Comparing a fabricated part to its CAD description or to a standard item
- Some bad features of a product need to be eliminated
- Strengthening the good features of a product based on long-term usage.
- Analyzing the good and bad features of competitors' products.
- Exploring new avenues to improve product performance and features.
- Creating 3-D data from a model or sculpture for animation in games and movies.
- Creating 3-D data from an individual, model or sculpture to create, scale, or reproduce artwork.
- Architectural and construction documentation and measurement. Fitting clothing or footwear to individuals and determining the anthropometry of a population

Learning Objective

By attending this workshop, you will be able to:

- Define the critical steps of reverse engineering
- List the measurements and analysis required for reverse engineering a part
- Recognise if a part can be reverse engineered
- Check if a reverse engineered part will meet the design functionality of a part
- Evaluate the feasibility of a reverse engineering project

Course prerequisites

Participant should have an undergraduate degree engineering degree or equivalent experience / knowledge

Who should attend?

This workshop is designed to assist individuals in various industries including, but not limited to automotive, aerospace and off highway. Companies' senior executives, engineering managers and engineers will find the course relevant and informative.

Course Date & Time

Reverse Engineering Technology for Domain Knowledge Building	19th & 20th & 21st June 2014
Start: 9:00 am to 5:00 pm	

Facilities provided during course

- Networking Tea/Snacks
- Networking Lunch
- Delegate Kits

How to enroll

Fee Structure (Three days)

Non-Member	INR 13000/-	Last date of Registration 16 th June 2014
Member	INR 10000/-	
Faculty Advisor	INR 4000/-	
Registration fee for three days		

- Admissions would be on first come first serve basis and will be strictly through enrolment Procedure
- Limited seats per batch
- Special discount to Teaching Faculty advisor
- Special discount on group booking (minimum 5 attendees for same session- 15% Discount)

Pay course fee through DD/Cheque or Transfer to our account

Name of the account holder: SAEINDIA Southern Section Toptech

Account No. : 32506111653

Bank Name : State Bank of India

Branch Name : Kottur, Chennai

IFSC Code : SBIN0001669

Enrollment Procedure

- Send us following details to toptech@saeiss.org for registration
- Registration form enclosed or [Click Here](#) 

Course Instructor

Mr. S. Shanmugam / Managing Director Design Desk (India) Pvt Ltd

Mr.S.Shanmugam is currently the managing director of Design Desk (India) Private Limited, a 21 year old Small and Medium enterprise based in Chennai. DDI has completed 3200 projects for 100+ customers in automotive, medical devices, power, process and offshore industry segments. He has been a technical instructor, engineer, consultant and researcher in Reverse engineering for more than 22 years. Mr Shanmugam taught at IRTT Erode and Dr. MGR University, Chennai. He is currently a visiting faculty in AU FRG centre for CAD/CAM of Anna University for their ME Product Design Course. He has received much recognition from various industries for his work on Reverse engineering. Mr.Shanmugam presented lectures at numerous seminars and conferences. Active with professional societies, he is on the management committee of SAEINDIA Southern section as its secretary for 2013-2015term. Mr.Shanmugam has a B.E. automobile engineering from Institute of Road and Transport Technology, Erode, a M.E. automobile engineering from Madras Institute of Technology , Chennai.

About SAEINDIA Southern Section

SAEINDIA Southern Section is a premier society that serves the cause of mobility engineering. It is a unique society that includes professional engineers who serve different OEMS and Suppliers, academia as well as budding engineers (students) who aspire to be part of the professionally attractive field of mobility engineers. We believe that Mobility Engineering is a knowledge rich field and that learning and sharing can be fun and rewarding. To this end, SAEISS organises several events throughout the year, runs programmes that enrich and engage and conducts lectures and symposia. It is a part of SAEINDIA.

SAEINDIA is a Premier Professional society that serves the Mobility Engineering Community engaged in the design, manufacture and service of self-propelled vehicles and systems that move in land, sea, air and space. It is an affiliate society of SAE International which is head quartered in USA and has a glorious record of over 100 years of service to the mobility community. SAEINDIA works closely with other fraternal societies such as Society of Indian Automobile Manufacturers (SIAM), Automotive Component Manufacturers of India (ACMA) and American Society of Engineers of Indian Origin (ASEI) for spreading knowledge and relevant information to a wider cross section of the Indian community. It is also a member of International Federation of Automotive Engineering Societies (FISITA)

www.saeiss.org

www.saeindia.org

SAEINDIA
SOUTHERN SECTION

Further pls contact:

S. Ilangovan, TopTech Executive

SAEINDIA Southern Section

Mobile No: 9043001718