OPPORTUNITY TO WORK ON ADVANCED R&D TOOLS AND
BECOME A PROFESSIONAL IN AUTOMOBILE INDUSTRY

CO-CERTIFIED & CO-SPONSORED BY: SGT INTERNATIONAL,
STEINBICHLER, GERMANY & RAPIDFORM, KOREA

Get Certified By: SGT International, AIESEC, Metawing & Vysor Technologies

Work on Product Designing using Reverse Engineering & Rapid Prototyping
Reverse Engineer Live Product of Automobile with Tools Worth Rs. 21 Million

FOR REGISTRATION VISIT: www.metawinggroups.com

Venue
College of Engineering
Guindy Anna University

Date:
8th -10th November, 2012

Last Date of Registration: 2nd November, 2012

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Fees: 1800/-

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Conducted By: SAE INDIA
SAE Collegiate club of COE Guindy

Summary

- Participate in an Industry Endorsed Course.
- Certificated Kit containing Course Reader, Handbook, Case studies etc.
Part of Asia’s Biggest Fest for Automobile and Advance Technologies
National Technology Awareness Campaign
Part of Garage-One 2013
For the First Time in India
Direct from Research Industry
Product Design Using Reverse Engineering and Rapid Prototyping
Get Opportunity to Work with Live Scanning and Product Designing of Automobile
Get Ready to Design and Develop Any Product which Surrounds You Using Reverse Engineering

Certified by: SGT-International, Steinbichler Germany,
IMETRIC USA, Rapidform Korea and Metawing Technologies

Co Certified by WIZIQ, IMET Global
Metawing Technologies (P) Ltd, education and research domain of Metawing group of Companies comes up with a professional workshop programme designed for young engineering minds on Product Designing Using Reverse Engineering and Rapid Prototyping. The students will learn the basics concepts and gain the practical experience about software usage and parameters used for Designing and Reverse Engineering the Technology and product design and various analyses which need to be performed for complete Automobile unit. The training sessions are being designed and developed by Metawing Technologies (P) Ltd and SGT-International (One of the global Organization for Research and Hub for more than 14 companies and MNCs).

This workshop has been designed to provide an insight view in the field of automotive and engine design to the engineering graduates and technocrats. It aims at bridging the gap between the college curriculum and the industry environment. METAWING are the pioneers in conducting interactive workshops in INDIA in which moulds will be showcased so that the students can enhance their knowledge and experimentation skills. The course content has been designed and developed under the guidance of our faculty advisors and highly experienced individuals from industrial background which have been working for Industry for past 12 years and delivered consultancy for various projects of Product Designing, Reverse Engineering, Rapid Prototyping and Inspection services. Our team has worked on many national and international Industrial projects for more than 70 diversified automobile industries including Lumax, Maruti Suzuki, DRDO, Yamaha, Aerostar and Minda. To mention one, we have developed a prototype for a Gyro Car (a self balancing 2 wheeled car) which is made to run on water as a fuel.

All the concepts will be explained in detail with the Help of Theory and with the Rapidform software which is of Korean origin using Specially Designed Animations and Practicals which would help the students to visualize things before actually working on it.
NEED FOR REVERSE ENGINEERING:

• The original manufacturer of a product no longer produces a product
• There is inadequate documentation of the original design
• The original manufacturer no longer exists, but a customer needs the product
• The original design documentation has been lost or never existed
• Some bad features of a product need to be designed out. For example, excessive wear might indicate where a product should be improved
• To strengthen the good features of a product based on long-term usage of the product
• To analyze the good and bad features of competitors’ product
• To explore new avenues to improve product performance and features
• To gain competitive benchmarking methods to understand competitor’s products and develop better products
• The original CAD model is not sufficient to support modifications or current manufacturing methods
• The original supplier is unable or unwilling to provide additional parts
• The original equipment manufacturers are either unwilling or unable to supply replacement parts, or demand inflated costs for sole-source parts
• To update obsolete materials or antiquated manufacturing processes with more power, less-expensive technologies
COURSE CURRICULUM:

DAY-1

- Basic Overview on what different kinds of products are used in Automobile and other manufacturing Industries - like plastics, sheet metal, rubber, pressure die casting.
- Different kind of moulding and Casting
- Stamping techniques
- Use of forward engineering
- Reverse engineering Complete Concept
- Product Design, Mould Design/ Tool Die Designing using CAD Software NX UG

DAY-2

- 3D scanner Practical session and other tools with Scanning of Car or Automobile Product.
- Live demonstration of 3D Scanner.
- What are different kinds of scanners used?
- What is CMM Machine?
- Classification of CMM Machines.
- Rapid Prototyping Machines
- Different kind of RPT processes

DAY-3

- Training on Think-3 software for Styling
- Design modification
- 2D-3D conversion
- Sheet metal fabrication design
- Surface creation
- Training on Rapid form software for Reverse Engineering from point cloud data to surface data.
- Parametric and Non parametric Modeling
- Deviation analysis
Also given below are the links of videos explaining about what we are going to do during the workshop 3D Scanning, Modelling, Reverse Engineering.

3D Scanning

http://www.youtube.com/watch?feature=player_embedded&v=fyV7ZjBRaVw

Car Scanning Demonstration

http://www.youtube.com/watch?feature=player_embedded&v=Qn5e2Zz2EEM#

Reverse Engineering Software Video

http://www.youtube.com/watch?feature=player_embedded&v=RT-Oi-bssJ4#!