



Staff Development Programme on
Design For Manufacture and Assembly (DFMA)
23rd April to 04th May 2007

Organised by
The Department of Mechanical Engineering
Amrita School of Engineering
Ettimadai, Coimbatore – 641 105

Sponsored by
All India Council for Technical Education
(AICTE), New Delhi



PROGRAMME SCHEDULE

Coordinator
Dr. R.K.Suresh

Date & Day	Time	Topic
24-03-2007 Monday	09.30 - 12.30 pm	Registration
	02.30 - 3.00 pm	University Visit
24-04-2007 Tuesday (L1- L4)	09.30 - 10.00 pm (F1)	INAUGURATION OF THE PROGRAMME
	10.00 - 11.00 am (L1)	Key Note Address: DFMA: An overview Dr. P.V. Mohanram Professor and Head Department of Mechanical Engineering PSG College of Technology, Coimbatore
	11.30 - 01.00 pm (L2)	DFA PRACTICES ON NEW PRODUCT DEVELOPMENT IN TVS Mr. K. Ravi Project Coordinator-HP TVS Motor Company Hosur-635 109
	02-00 - 3.00 pm (L3)	INTEGRATED SUPPLY CHAIN COST MANAGEMENT Dr. N. Jawahar (jawahartce@yahoo.co.in) Professor Department of Mechanical Engineering Thiagarajar College of Engineering Thirupparankundram Madurai- 625 015.
	03.30 - 4.30 pm (L4)	DESIGN FOR DISPOSAL AND RECYCLING Dr. N. Jawahar (jawahartce@yahoo.co.in) Professor Department of Mechanical Engineering Thiagarajar College of Engineering Thirupparankundram Madurai- 625 015.

Date & Day	Time	Topic
25-04-2007 Wednesday (L5-L8)	09.00 -10.30 am (L5)	DFM FOR CAD ENGINEERS – I Mr. K.S. Ramalingam C- 26 Bay View Apartments 18 Parvathy St, Kalakshetra Colony Besant Nagar Chennai - 600 090.
	11.00 - 12.30 pm (L6)	DFM FOR CAD ENGINEERS – II Mr. K.S. Ramalingam C- 26 Bay View Apartments 18 Parvathy St, Kalakshetra Colony Besant Nagar Chennai - 600 090.
	01-30 - 3.00 pm (L7)	PARAMETRIC DESIGN FOR PRODUCT DEVELOPMENT Dr. S.M. Kannan Professor, Department of Mechanical Engineering Thiagarajar College of Engineering Thirupparankundram Madurai- 625 015.
	03.30 - 4.30 pm (L8)	VARIATION MANAGEMENT Dr. S.M. Kannan Professor, Department of Mechanical Engineering Thiagarajar College of Engineering Thirupparankundram Madurai- 625 015.
26-04-2007 Thursday (L9-L12)	09.00 - 10.30 am (L9)	RELIABILITY MODELLING Dr. K. Mohandas Chairman -Department of Mechanical Engineering Amrita School of Engineering Ettimadai, Coimbatore – 641 105
	11.00 - 12.30 pm (L10)	DESIGN OF EXPERIMENTS Dr. S.R.Devadasan Professor, Department of Production Engineering PSG College of Technology Post Box No.1611, Avinashi Road Coimbatore - 641004.
	1-30 - 2.30 pm (L11)	TOLERANCE CHARTING Dr. R.K. Suresh
	3.00 - 4.30 pm (L12)	OPTIMIZATION USING PSO K. Ramaeshkumar Assistant Professor Department of Mechanical Engineering Amrita School of Engineering Coimbatore -641 105

Date & Day	Time	Topic
27-04-2007 Friday (IV1-IV2)	09.30 am (IV1)	Visit to Roots Industries Limited, Coimbatore
	02.00 pm (IV2)	Visit to Lakshimi Machine Tools Limited, Coimbatore
28-04-2007 Saturday (W1)	09.00– 12.30 pm & 01-30 – 4.30 pm (W1)	One Day Workshop on FAILURE MODES AND EFFECTS ANALYSIS Mr. Dharmar (dharmar_i@yahoo.co.in) Deputy Manager, Brakes India Limited Padi, Chennai-600 050.
29-04-2007 Sunday (L13-L16)	09.00 - 10.30 am (L13)	INTEGRATED, INNOVATIVE NEW PRODUCT DEVELOPMENT Prof. Achutha Rao (rao_achutha@yahoo.com) Head – Product Design & Engineering Programme NTTF- Peenya, Bangalore 560 058
	11.00 - 12.30 pm (L14)	DESIGN FOR ASSEMBLY (DFA) –OVERVIEW Prof. Achutha Rao (rao_achutha@yahoo.com) Head – Product Design & Engineering Programme NTTF- Peenya, Bangalore 560 058
	01-30 - 3.00 pm (L15)	DFA INDEX AND CONCURRENT COSTING USING BOOTHROYD & DEWHURST SOFTWARE Mr. Syed Mubasheer Ali (syed@espat.com.sg) Business Development Manager D-ESPAT Pvt Ltd, Chennai
	03.30 - 4.30 pm (L16)	MISTAKE PROOFING (POKA – YOKE) Prof. Achutha Rao (rao_achutha@yahoo.com) Head – Product Design & Engineering Programme NTTF- Peenya, Bangalore 560 058
30-04-2007 Monday (L17-L20)	09.00 - 10.30 am (L17)	DFMA GUIDELINES Prof. Achutha Rao (rao_achutha@yahoo.com) Head – Product Design & Engineering Programme NTTF- Peenya, Bangalore 560 058
	11.00 - 12.30 pm (L18)	Design of Plastic Parts Dr. N. Ramani (nr@nttf.co.in, nttfpg@vsnl.net) Principal-School of P G Studies NTTF- Peenya, Bangalore 560 058
	01-30 - 3.00 pm (L19)	DESIGN OF PRESSURE DIE-CASTING PARTS Dr. N. Ramani (nr@nttf.co.in, nttfpg@vsnl.net) Principal-School of P G Studies NTTF- Peenya, Bangalore 560 058
	03.30 - 4.30 pm (L20)	DESIGN FOR SERVICE AND DESIGN FOR ENVIRONMENT using Boothroyd & Dewhurst Software Mr. Syed Mubasheer Ali (syed@espat.com.sg) Business Development Manager D-ESPAT Pvt Ltd, Chennai

Date & Day	Time	Topic
01-05-2007 Tuesday (IV3)	06.00 am (IV3)	ONE DAY TRIP TO OOTY, THE NILGIRIS
02-05-2007 Wednesday (L21-L23)	11.00 - 12.30 pm (L21)	PRODUCT LIFE CYCLE MANAGEMENT Mrs. V. Vani Scientist –“F” CAD Group, Aeronautical Development Agency P.B. No. 1718, Vimanapura Post Bangalore – 560 017.
	01-30 - 3.00 pm (L22)	SIX SIGMA Dr. Sriram Devanathan Professor Department of Polyner Engineering Amrita School of Engineering, Coimbatore
	03.30 - 6.00 pm (L23)	VALUE ENGINEERING Er L. Kannappan Consultant W 62, Kovaipudur Coimbatore - 641042.
03-05-2007 Thursday (L24-L25)	9.00 - 10.30 am (L24)	DFM IN CASTINGS Dr. K. Natarajan Professor, Department of Mechanical Engineering PSG College of Technology Post Box No.1611, Avinashi Road Coimbatore - 641004.
	11.00 - 12.30 pm (L25)	TOLERANCE ANALYSIS Dr. K. Natarajan Professor, Department of Mechanical Engineering PSG College of Technology Post Box No.1611, Avinashi Road Coimbatore - 641004.
03-05-2007 Thursday (W2)	2-30 - 3.30 pm (W2)	MEETING WITH CONFEDERATION OF INDIAN INDUSTRIES, COIMBATORE.

Date & Day	Time	Topic	
04-05-2007 Friday (W3)	9.30 - 12.30 pm (W3)	Mr. Rajendra Deshmukh Principal Consultant i square, Garden View e#404, Parvati Nagar, Sinhgad road Pune - 411 030, Maharashtra, India www.isquare-india.com	
Sr #	Topic	Duration (minutes, approx.)	Purpose
1	GD&T Quiz	15	To understand participants familiarity to ASME Y14.5M-1994
2	Mythes / Mis conceptions about GD&T	10	To understand myths about GD&T and clarify
3	ASME Y14.5M-1994 GD&T Rules	20	To explain two rules of ASME Y14.5M-1994 rules
4	Form tolerances	15	Teaching methods and coverage of topic and share possible improvements based on experience
5	Orientation / Location tolerances	15	Teaching methods and coverage of topic and share possible improvements based on experience
6	Understanding Concentricity Vs Tolerance of Position (co-axiality)	10	To clarify difference between concentricity and co-axiality and selecting correct one
7	Boundaries (Virtual/Inner/Worst case/Resultant)	25	To understand differences between various boundaries and its significance
8	Major Differences between ISO and ASME GD&T standards	10	Understand differences and taking appropriate care while specifying on drawing
9	Datum Terminology	10	To understand Datums and datum terminology correctly
10	Calculating Min wall thickness exercise (LMC Concept)	10	To understand how LMC modifier works and preserves design requirements
11	Datum Material condition concept (Datum Shift / DRF Displacement)	10	Explain often confusing concept of having datum material condition modifier in datum comparment
12	DCS Software presentations (1DCS, DCS-DFC, 3DCS-SA/CAA V5)	30	To explain how dimensional management tools calculate variations based on part tolerances and assembly methods
13	Q & A	10	Answering doubts
04-05-2007 Friday	2.00 - 3.00 pm (F2)	VALEDICTORY FUNCTION	

Note: 1. L-> Lecture Session; W-> Workshop Session; IV-> Industrial Visit; F->Function.

2. 10.30 am to 11.00 am: TEA Break; 03.00 pm to 03.30 pm : TEA Break.

12.30 pm to 01.30 pm: LUNCH Break (On 24/04/2007, 01.00 to 02.00: LUNCH BREAK)

For Further Details: Please contact Dr. R. K. Suresh, Coordinator-SDP, Professor, Department of Mechanical Engineering, Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Ettimadai, Coimbatore-641 105. Mobile: 9442110920, Email: rk_suresh@ettimadai.amrita.edu