

# SEMINAR PROGRAMME

Colour Measurement and Visual Colour Assessment for Manufacturers and Designers.  
(How do I achieve consistent Colour?)

## INTRODUCTION

- The World of Colour

## Session 2 | COLOUR ORDER

- The Munsell Atlas
- NCS

## Session 3 | COLOUR TERMINOLOGY

- Hue
- Chroma and Value
- Lightness

## Session 4 | LIGHT AND THE EYE

- The Electromagnetic Spectrum
- Causes of Colour
- Colour Vision, Rods and Cones
- Chromatic Adaption
- Colour Perception

## Session 5 | VISUAL COLOUR ASSESSMENT

- Illuminants
- Observer
- Simultaneous Contrast
- After image
- Proximity
- Opacity
- Viewing Angle
- Communication

## Session 6 | SURFACE APPEARANCE

- Gloss
- Haze
- Orange Peel
- DOI - Distinctiveness of Image

- Surface Appearance Measurement
- Surface Appearance Spectra

## Session 7 | COLOUR MEASUREMENT AND MATHEMATICS

- CIE 1931 - Chromaticity Diagram, and McAdams Ellipses
- 10° Observer
- CIE L\*a\*b\*
- Delta E
- CMC Equation
- CIE 94 & CIE 2000

## Session 8 | INSTRUMENTATION FOR MEASURING COLOUR

- Spectrophotometers - sphere, bi-directional and multi-angle.
- Instrumentation Specifications
- Sample Characteristics - Metallic and interference effects
- New Technology

## Session 9 | COLOUR QUALITY CONTROL PROCEDURES

- Colour Standards
- Instrument Set Up and Integrity
- Visual vs Instrumental
- Metamerism
- Aptitude Testing

## CONCLUSION - GUIDELINES FOR SUCCESS

- Review and Guidelines for success

**11 COLOUR EXERCISES  
PLEASE BRING SAMPLES**