

Workshop Overview

This is a one day workshop tailored to bring an understanding of design, pricing and selection criteria for magnetic materials, equipment used for magnetizing and testing, and the design and application of magnetic sensors.

The workshop is formatted specifically for professionals in the Automotive industry. Presentations will include theory, practical design and application examples.



Magnetizing & Testing

MAGNETIZING EQUIPMENT

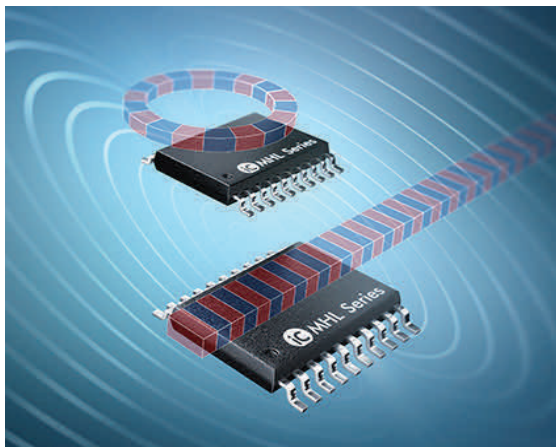
- MAGNETIZING CONFIGURATIONS
- TYPES OF MAGNETIZERS AND SUITABILITY
- DEMAGNETIZING AND CYCLING
- ELECTRONICS AND PROCESSING

MAGNETIZING FIXTURES

- TYPES AND PROCESSING REQUIREMENTS
- COOLING AND LIFE EXPECTANCY

TESTING EQUIPMENT

- REQUIREMENTS FOR MAGNET PROPERTIES
- TYPES OF INSTRUMENTS



Schedule:

- 9:00 AM START OF WORKSHOP WITH BRIEF INTRODUCTION TO PARTICIPANTS, **SNACKS AND BEVERAGES SERVED**
- 9:30 AM 2 HOUR PRESENTATION ON MAGNETIC MATERIALS, **15 MINUTE Q&A SESSION**
- 11:30 AM BREAK FOR BUFFET LUNCH IN DINING ROOM
- 12:30 PM 2 HOUR PRESENTATION ON MAGNETIZING & TESTING EQUIPMENT, **15 MINUTE Q&A SESSION AND BREAK**
- 2:40 PM 2 HOUR PRESENTATION ON MAGNETIC SENSORS , **15 MINUTE Q&A SESSION. CONFERENCE ENDS AT 5 PM**

Magnetic Materials

PROPERTIES AND TERMINOLOGY

- HYSTERESIS LOOP
- REMANENCE, COERCIVITY & ENERGY PRODUCT
- TEMPERATURE CHARACTERISTICS
- CHEMICAL AND PHYSICAL PROPERTIES

SELECTION CRITERIA

- INDIVIDUAL MAGNET CHARACTERISTICS
- AVAILABILITY AND PRICING ISSUES
- GLOBAL TRENDS AND POLITICAL ISSUES

DESIGN CONSIDERATIONS

- APPLICATION AND ENVIRONMENTAL LIMITS
- REQUIRED SPECIFICATIONS ON DRAWINGS
- INFLUENCE OF FURTHER PROCESSING
- BASICS OF MAGNETIC MODELING



Magnetic Encoders

ADVANCES IN SINGLE CHIP ENCODERS

- MAGNETIC ENCODER IC'S
- OPTICAL REFLECTIVE ENCODER IC'S
- SINE/COSINE INTERPOLATION IC'S

ENCODER TECHNOLOGY SELECTION

- MAGNETIC OR OPTICAL
- ABSOLUTE OR INCREMENTAL
- COMMUNICATION INTERFACES
- MOTOR COMMUTATION

SYSTEM APPROACH TO ENCODER DESIGN

- DESIGN CONSIDERATIONS AND IMPROVING ACCURACY
- DESIGN AND VALIDATION TOOLS