

ASM INTERNATIONAL, CHENNAI CHAPTER

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MADRAS METALLURGICAL SOCIETY (MMS)

Cordially invite you for a technical talk on

**A Novel and Simple NDT method
(DHAMES) to Evaluate Metallurgical
properties of Steel Components
(Talk + Demo)**

by



Dr V. Moorthy

**Professional Engineer, School of Engineering, Newcastle University,
Newcastle upon Tyne, UK**

at 6.30 PM on Saturday, 16th December 2023

Venue: Hotel Radha Regent (Regent-2),

171, Jawaharlal Nehru Salai, Arumbakkam, Chennai-600106

ASM Intl Chennai Chapter: Mr. N. Sampathkumar – Chairman;
Madrass Metallurgical Society: Mr. G.S. Shankar – President;

Dr. Sushanta Ku Panigrahi – Secretary
Mr Ranjan - Secretary

About The talk:

Distortion and Harmonic Analysis of Magnetic Excitation Signal (DHAMES) method can be used for quality evaluation (Segregate OK/ Not-OK) of different heat-treated components, case-hardening processes in gears, bearings and shafts, machining and grinding operations, detection of thermal ageing of ferritic steel components.

DHAMES is a new approach for non-destructive characterization of ferromagnetic steels. The DHAMES measurement is carried out by applying a cyclic magnetic field to a ferromagnetic sample using an electromagnetic yoke and analysing the distortion in the excitation voltage through a time derivative profile known as DAME profile and measuring the amplitudes of the harmonics of the excitation voltage signal.

About the Speaker:

Dr. V. Moorthy graduated B.E (Metallurgy) from IISc Bangalore in 1988 and joined IGCAR Kalpakkam as Scientific Officer. After obtaining PhD from IIT, Bombay in 2000, he went to UK for Post-doctoral Research at Newcastle University. He has more than 30 years of experience in the field of metallurgical analysis and has main interest in research and development of magnetic non-destructive evaluation methods for characterization of ferromagnetic steels.