



ICEM'2022 TUTORIAL

TUTORIAL NAME:

Advanced Technologies for Axial Gap High-Speed Induction Motor Development

TUTORIAL PRESENTERS (Full Names, affiliations and e-mails) (Max 2):

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BIOS OF THE PRESENTERS (max 150 words each):

Masato Enokizono was born in Oita, Japan, on February 19, 1949. He graduated from Kyushu University, School of Engineering and obtained Dr. Degree in 1979. He became a Professor at Oita University in 1995. He was invited from the Alexander von Humboldt foundation in PTB in 1986 and 2003, Germany. He acted as a conference chairman of the 15th Biennial IEEE conference on Electromagnetic Field Computation (CEFC 2012 in Oita). He was president of Japanese Society of Applied Electromagnetics and Mechanics (JSAEM), 2009 - 2012. He was a special researcher of Technology Research Association of Magnetic Materials for High-Efficiency Motors (MagHEM) of Japanese government NEDO project, 2013 - 2017. After he retired Oita University in 2014, he established the Vector Magnetic Characteristic Technical Laboratory on June. He is an Emeritus Professor of Oita University and a Research Professor of Nippon Bunri University.

ABSTRACT (max 200 words):

The induction motor is robust, stable and highly reliable. Therefore, high power is expected as a new motor by increasing the speed of the induction motor. This presentation outlines the technologies required for the development of high-speed induction motors. The basic policy of this research is to develop a new motor by a new method using a new material.

- Basic Concept of high-speed induction motor as High-efficiency, High-power density, High-speed induction motor; H3-motor
- Vector magnetic characteristic analysis of induction motor
- Core magnetic material for high-speed induction motor

- Vector magnetic characteristics of Ultra-thin electrical steel strip
- Ultra-thin Steel Wound laminated core and its magnetic characteristics
- Dual-axial gap high-speed induction Motor
- Mechanical balance, Electrical balance, magnetic balance and Load Characteristic Evaluation
- high-speed induction motor

Do not forget to attach one photo of each presenter to this document

