

Tutorial No. 1 (INDICON 2008)

Permanent Magnet and Switched Reluctance Motors

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IIT Bombay

Duration: Half day (9:30 AM to 1:00 PM), 11 Dec 2008

Venue: L12

Topics to be Covered:

Permanent magnet materials

Types of Radial flux Permanent Magnet motors

Modeling and control of above motors

Line start PM machines for irrigation pumps

Design issues

Single phase line start PM motors

Axial flux PM machines

Design issues

PM machines for low speed applications (wind power generation)

Special Motors (SRM with High Power Density)



Prof. B. G. Fernandes

Biography of Prof. B. G. Fernandes:

Prof. B. G. Fernandes obtained his B.Tech. degree in Electrical Engineering from NIT Surathkal in 1984, M.Tech. in Power Electronics and Electrical Drives from IIT Kharagpur in 1989 and Ph.D from IIT Bombay in 1993. He worked as a Design Engineer with D.C.P.L during 1985-1987. During 1993-1997, he was an Assistant professor at IIT Kanpur. He joined IIT Bombay in 1997 where he is currently a Professor of Electrical Engineering. He has published several papers in referred journals and conferences. His areas of research are Switch-Mode Rectifiers, Switch-Mode Power Supplies, Soft switching Techniques for SMPS, Permanent magnet machines and Electric Drives, Power electronic circuits and applications, Electrical machines, Solid state drives, Active filters, Microcontroller application in drives