TIFAC-CORE is conducting Certificate Program on **"ANSYS FOR ENGINEERS AND DESIGNERS"** for the benefit of VIT Students. This program is to acquire hands on exposure to Modelling & analysis of electrical, electronics & mechanical problems using ANSYS TOOL. **Last date to register is on or before 6th January 2020.**

Course fee	**: Rs 8500/-**
Duration	: **50 hours** 2 hours on 3 days in a week of 2 hours based on common free slot of students.
Participants limit	: 30 (based on first come first serve)
Payment mode	: DD taken in favour of **"Vellore Institute of Technology,Vellore" payable at Vellore**

Students undergoing this program will be given preference to carryout Mini Projects, In-Plant Training and projects at TIFAC CORE.

TOPICS:

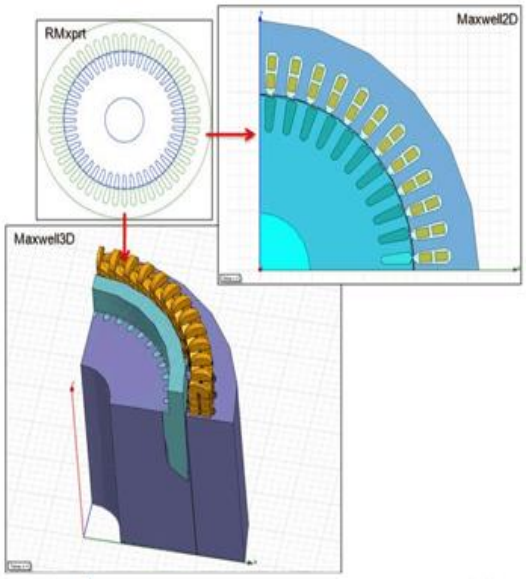
INTRODUCTION TO TOOL:

- Basic tutorials on ANSYS MAXWELL & WORKBENCH.
- Creation of Models.
- Analysis and validation of results.

ANSYS- RMxprt:

MOTORS

- Theory
- Features of RMxprt TOOL.
- Design of motors using RMxprt.
- Design of Variable-Voltage Variable-Frequency model.



Maxwell 2D Design I

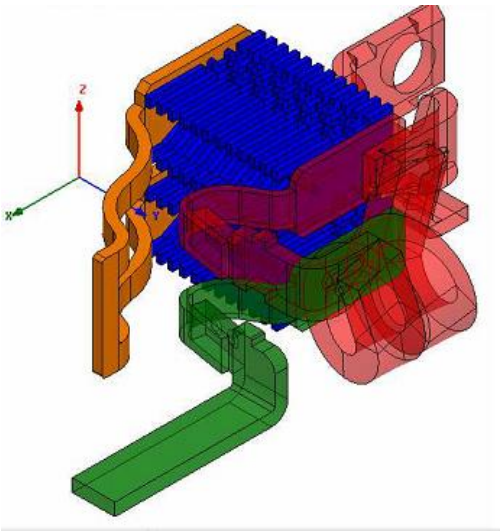
- Study Eddy Effects for All Bars.
- Report, creation of Mesh/Field Plots and Animation.
- Study of Stator Teeth and Stator Yoke Flux Densities
- Force Calculation & Multi-frequency Core Loss
- Simulation & Result consolidation.

✓ Locked Rotor Simulation

✓ **OPTIMETRIC ANALYSIS OF BRUSHLESS PERMANENT MAGNET DC MOTOR, IM**

MAXWELL 2D

- Electrostatic & magnetostatic analysis
- Transient & parametric analysis
- Post processing
- Optimetrics
- Scripting



✓ BUILDING OF PASSIVE COMPONENTS LIKE RESISTOR, INDUCTOR & CAPACITOR

✓ MODELLING & ANALYSIS OF TRANSFORMER

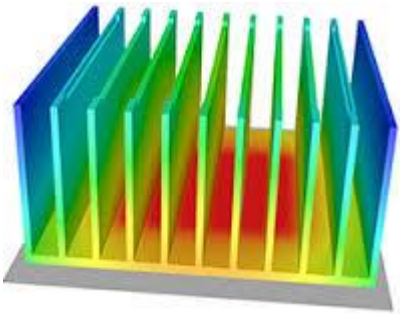
✓ STUDY OF AN INTERIOR PERMANENT MAGNET MOTOR- PRIUS MOTOR

ANSYS WORKBENCH

- Introduction to FEA (finite element analysis)
- Part modeling

THERMAL ANALYSIS

- Analysis setup
- Types of thermal analysis:
  - Steady state thermal analysis
  - Transient thermal analysis



MODAL ANALYSIS:

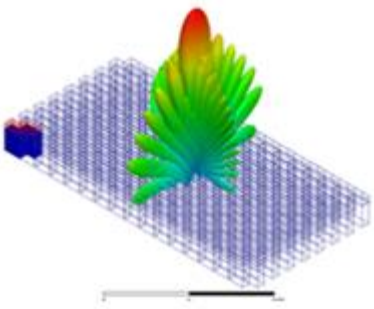
- Mechanical tool
- Defining analysis setup & plotting deformed shapes.

ANSYS-HFSS

Introduction to Antenna

Case study: Rectangular patch Antenna

- Design
- Model
- Analysis
  - Return loss/VSWR
  - Radiation pattern
    - E-plane
    - H-plane
- 3D Far field pattern



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