

Simulation of Electric field and Potential Distribution of Electrical and Electromechanical devices using Quick Field

Quick Field is a very efficient Finite Element Analysis package for electromagnetic, thermal, and stress design simulation with coupled multi-field analysis. It combines a [family of analysis modules](#) using the latest solver technology with a very user-friendly [model editor](#) (preprocessor) and a powerful [postprocessor](#). Quick Field can be effectively applied to many engineering tasks. Most often, it is used in the design of [electric motors](#), turbine generators, [actuators](#), [speakers](#), [transformers](#), [induction heating systems](#), [transmission lines](#) and other complex electrical and electromechanical devices. Students get hands-on experience in solving industrial problems.

HDL programming – Verilog and VHDL

Hardware Description Language (HDL) is a computer- aided design (CAD) tool for the modern design and synthesis of digital systems. The recent advances in semi conductor technology continue to increase the power and complexity of digital systems. Due to complexity, such systems cannot be realized using discrete Integrated circuits. They are usually realized using high density, programmable chips such as Application Specific Integrated Circuits (ASIC) and Field Programmable Gate Arrays (FPGA), hence they require sophisticated CAD tools. HDL is an integral part of such tools, in present technology HDL plays a vital role in design of digital systems, ASIC, FPGA chips. This Technology helps the students for front end design who wish to lead their career in VLSI.