

## DESIGN FOR SAFETY AND COMFORT

### **OBJECTIVE:**

This integrated workshop is designed for the basic understanding of automotive seat position and comfort functions accelerate your design using high-performance motor drivers with cost-effective scalable solutions to provide intelligent drive capabilities with enhanced diagnostics for robust motion control systems. Module are as follows :Scalable control of various motors for different trim levels, Control of powerful mechanism with sensitive obstacle detection, Low power dissipation while driving high-current loads, Position feedback to provide automatic position control.

### **PRE-REQUISITE(s):**

A dedicated engineering approach is required to ensure effective planning and design of the department, taking into account workflow, patient comfort, and prerequisites required for installation of the imaging equipment.

### **OVERVIEW:**

The impact of a protective mechanism or safety device on other components must be considered to prevent secondary faults or errors, including the possibility that normal operation be resumed prematurely. Maintenance checks of the mechanism also are crucial as over time it may become inactive or unreliable without any warning.

The growing importance of software to mechanical systems is placing other burdens on design engineers. Far too many programs exhibit unexpected bugs, lockups, memory errors, out-of-bounds errors, even excessive test errors or failures. Hence, effective software reviews should begin early enough in the development and design process so that errors can be fixed, including those difficult-to-find-and-solve design safety problems that often emerge much later. Extended

field-testing, not just bench testing, is needed to head off design safety problems before the customer has to experience them.

### **Why take this course?**

Safety features and accessories intended to protect equipment operators were considered the responsibility of the user and owner, not the design engineer. But today, more stringent safety standards and rapid technological advances mean engineers can more easily ferret out a product's potential for failure and then design to prevent it. While these techniques provide management and customer assurance the products they use will help and not hurt, some design-safety mechanisms can cause problems if not used wisely.

### **What you will learn in this course:**

- A technically upgraded approach for planning and designing safety aspects.

### **Who this course is for:**

- ME / ME-AE

### **Course Outline:**

- Chemical process safety
- Risk assessment and hazard identification
- Safety Engineering
- Material Science
- Fire protection systems
- Hydraulics and pumps
- Industrial safety management
- Firefighting equipment
- Search and rescue techniques
- Special fire hazards
- Explosion and fire dynamics
- Fire safety risk assessment
- Health safety environment
- Disaster management