

Course code VA-BTI 06

Course Title: Basic Drives (AC – DC Drives) in coordination with Siemens

TARGET GROUP: Users, Commissioning / Service / Maintenance / Fresh Engineers

DURATION: 40 hours

PREREQUISITE: Engineers in Electrical / Electronic Engineering with Power Electronics Background

Course Objectives: The participants will

1. have a basic or fundamental knowledge of various DC/AC Variable speed drives
2. know about the product specifications, range, hardware / constructional details and features of the product

Course Outcomes: The participants will be able to

1. perform drive start-up and parameterize drive for different configurations including use of programmable digital and analog inputs and outputs

TRAINING METHODOLOGY: Explanation, demonstration and hands-on practice

COURSE CONTENTS:

Module	Details
1	Brief Basics Power Electronics (including Thyristors, Power-Transistors and IGBTs. DC Motor Basics (construction, principle of operation, T-N Characteristic etc).
2	DC Drives Basics (Block diagram, 1Q-4Q principle of operation, T-N Curves etc) Selections, calculations & applications of typical DC drives, Siemens DC Drives (6RA80) - Ratings, Specs, features, options & applications.
3	AC Motor Basics (construction, principle of operation, T-N Characteristic etc)., AC Drives Basics (Block diagram, 1Q-4Q principle of operation, T-N Curves etc)
4	Selections, calculations & applications of typical AC drives. AC Drives (Sinamics V, G & S) - Ratings, Specs, features, options , applications
5	Hands on practice on DC and AC drive

