

HANDSON

CUSTOMER TRAINING

Training includes both lectures covering theory and practical hands-on exercises in the fully equipped ZEST Drives Technology Centre.

Some of the courses on offer are:

VSD training which includes these topics:

- Calculations and concepts of power and torque
- Understanding different VSD load types
- Motor theory of operation
- VSD theory of operation
- How to select the correct VSD and motor combination for different applications
- Correct installation procedures and practices
- Description of VSD inputs/outputs and connections
- VSD commissioning
- Practical initialization of VSDs
- Complete parameter description with hands-on exercises
- Fault finding methods with corrective actions
- Software demonstration for: motor selection, harmonic calculation, panel ventilation, energy saving and reactor value calculation. This software is also provided to trainees

Soft Starter training which includes:

- Motor starting methods with advantages and disadvantages of each method
- Soft starter theory of operation
- How to select the correct soft starter and motor combination for different applications
- Correct installation procedures and practices
- Description of soft starter inputs/outputs and connections
- Soft starter commissioning
- Parameter settings of soft starters
- Complete parameter description with hands-on exercises
- Fault finding methods with corrective actions
- Comparison of various soft starters available
- Software demonstration for correct selection and parameter settings. This software is also provided to trainees

SPECIALISED PROGRAMMES

In addition to the range of standard courses, ZEST offers a number of more specialized programmes. These courses are designed to provide more specialised and in-depth instruction.

Service level training: In-depth fault diagnostics and correction or repair methods down to PC board or component level – as applicable. The trainees are also provided with a detailed service manual as part of the course.

Serial communication: Understanding the concepts and operation of serial communication as well as setting up of VSDs and Soft Starters for Fieldbus and Ethernet control.

WEG VSD PLC card – programming and use of the WEG VSD PLC card.

Advanced VSD training:

- Understanding, prediction and mitigation of VSD harmonics
- Filter types and uses
- Motor compatibility for VSD applications
- Premium efficiency motor VSD applications
- Hazardous Area motor VSD application
- Motor inrush currents
- International and local standards and normative aspects
- EMC understanding and installation practices
- Dip ride through methods and implications
- Voltage suitability (525V – 550V – 690V)
- Energy savings
- Fieldbus theory

Motor training – a basic course covering motor operation, motor data sheet information, motor heat rise, mounting configurations, maintenance and de-ratings for ambient, altitude and duty cycle.

DRIVES AND SOFT STARTER TRAINING SCHEDULE 2010

Course Name	Amount of participants	Course Duration	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Drives														
Johannesburg	12	2 days	11/12	1/2	8/9	12/13	3/4	7/8	12/13	11/12	1/2	11/12	8/9	1/2
			13/14	3/4	10/11	14/15	5/6		14/15	16/17	13/14	13/14	10/11	
			25/26	15/16	23/24	28/29	10/11		26/27	18/19	15/16	25/26	22/23	
			27/28	22/23	25/26		12/13		28/29	25/26	20/21	27/28	24/25	
Cape Town	6	2 days		24/25	1/2		26/27			30/31	29/30			
					3/4		17/18			2/3	4/5			
Durban	8	2 days			15/16			1/2		4/5	6/7			6/7
					17/18			3/4			8/9			8/9
Rustenburg	8	2 days				19/20			19/20			18/19	15/16	
						21/22			21/22			20/21	17/18	
Soft starters														
Johannesburg	12	1 day	29	5		16	7	9	16	20	3	1	12	3
				17			14		30	27	17	15		
Cape Town	4	1 day			5		21			6	10	8		
Durban	8	1 day			19									10
Rustenburg	8	1 day	22	12		23			23			22	19	
Service training														
Johannesburg	12	1 day	15		12	30	28			13	22		26	

Course bookings

Please complete the form below and fax to +27 (11) 723 6116 or e-mail training@zest.co.za

This booking confirms acceptance for a debit of the R500 booking fee per delegate to the employer's account. This amount will be credited on attendance by the delegate. Should a trainee fail to attend, or cancel a booking less than two weeks in advance, ZEST reserves the right to retain this amount in lieu of the required notice.

Should delegates require assistance with either accommodation, or have specific dietary requirements, please contact the training department in advance.

Company name:
Contact person:
Company telephone:
Order number:
Course name:
Date:
Trainee name:
ID number:
Job title:
e-mail address:
Approved by:
Signature:

Detach, fill in and fax to: +27 (11) 723 6116

ZEST has been granted Continuing Professional Development (CPD) points for its Drives and Soft Starter training program. This means that we can award Engineering Council of South Africa (ECSA)/South African Institute of Electrical Engineers (SAIEE) members points for successfully completing these programmes.

ECSA is a statutory body that controls professional standards and qualifications in the engineering field and all Professional Engineers are required to register with ECSA.

ENDORSEMENT

The CPD system ensures that professionals are properly qualified and that their qualifications remain current. For example, a BSc Electrical Engineering degree obtained in 1986 will not necessarily ensure that the engineer is current with the latest technologies. To ensure that engineers remain up-to-date in their knowledge and skills, the CPD system utilises a five year qualification cycle. During this time, every registered engineer will be required to accumulate at least 25 credits in order to maintain his, or her, registration status.

All SAIEE members are required to participate in this process.

Johannesburg (011) 723 6000 • **Cape Town** (021) 551 2710
Durban (031) 569 7260 • **Port Elizabeth** (041) 486 1262/1396
Middelburg (013) 246 2849 • **Rustenburg** (014) 594 0450
Richards Bay (035) 751 1607 • **Trichardt** (017) 638 1571
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DRIVES TRAINING PROGRAMME

2010
ZEST