# Electrical Training Courses

A comprehensive guide to the current training programme for September 2003 to August 2004 featuring our PLC courses,

Includes courses held at our Rotherham Headquarters and at our <u>New</u> Bracknell Training Centre, Near Reading



#### T.J. Lowe & Associates Limited

Bradmarsh Business Park Rotherham S60 1BY Tel: 01709 360621 Fax: 01709 721212 E-mail: training@tjlowe.co.uk

Website: www.tjlowe.co.uk

## **Contents**

#### **COURSE INFORMATION**

Course Timetable
Course Booking Form
Publication Order Form
How to Find Us

#### **Legislative Electrical Courses**

City & Guilds 2377, Certificate of Competence for Inspection & Testing of Electrical Equipment
City & Guilds 2381, IEE 16th Edition (incorporating latest amendments)
City & Guilds 2391, Inspection, Testing & Certification of Electrical Installations to BS7671:2001
City & Guilds 2400, Design, Erection & Verification of Electrical Installations

(revised) Electrical 'Duty Holders' Course

(revised) Regulation Update courses

1 Day Course on the Inspection & Testing of Petrol Filling Stations

(revised) 1 Day Electrical Testing Practical Tutorial

(New) Inspection & Testing following Minor Electrical Works

#### **Supplementary Skills Courses**

(New) Practical "Pat" Testing Tutorial
Structured Cabling Course (LAN & Data Networks)
Emergency Lighting to BS5266 Course
Earthing & Bonding Course
(New) Electrical Machine Safety
(New) Electrical Risk Assessment
1 Day Electrical Safety Awareness Course
3 Day Basic Electrical Course

#### **Programmable Controller Courses**

(Recently Introduced) AC Motor Principles

3 Day Generic PLC Course
5 Day Allen Bradley PLC Course
5 Day Mitsubishi PLC Course
5 Day Siemens PLC Course
1 Day Adjustable Frequency Drives (Inverters) Course

Course Details	Price	Course Duration	Course Dates Rotherham	Course Dates Bracknell	Examination Dates	Assessment Method
			29-Sep-03	15-Oct-03	15-Oct-03	
			15-Oct-03		15-Oct-03	
			11-Nov-03	10-Dec-03	10-Dec-03	
O't : 0 O : 'Id- 0077 000 O - d'f d'		4 Day (Outland	10-Dec-03		10-Dec-03	A. I. I. a. on Maritina I.a.
City & Guilds 2377-002 Certification		1 Day (Optional	4-Feb-04	4-Feb-04	4-Feb-04	1 Hour Multiple
of competence for the inspection &	£175 + VAT	practical day available on	25-Mar-04	29-Mar-04	14-Apr-04	Choice, Open Book,
testing of electrical equipment (PAT's)			14-Apr-04		14-Apr-04	Examination Paper 6.30pm-7.30pm
(PATS)		some courses)	19-May-04	9-Jun-04	9-Jun-04	0.30pm-7.30pm
			9-Jun-04		9-Jun-04	
			14-Jul-04	11-Jun-04	11-Aug-04	- -
			11-Aug-04		11-Aug-04	
			18-Sep-03	18-Sep-03	8-Oct-03	2 Hour Multiple Choice, Open Book, Examination Paper 6.30pm-8.30pm
			16-Oct-03	·	5-Nov-03	
			13-Nov-03	13-Nov-03	3-Dec-03	
		0.00	4-Dec-03		14-Jan-04	
Oit : 9 O :: 11 - 0204			15-Jan-04	15-Jan-04	4-Feb-04	
City & Guilds 2381 BS7671:2001 (IEE 16 <sup>th</sup> Edition	£315 + VAT		12-Feb-04		10-Mar-04	
Wiring Regulations)		2 Days	18-Mar04	18-Mar-04	21-Apr-04	
willing Regulations)		-	15-Apr-04		12-May-04	
			20-May-04	17-Jun-04	16-Jun-04	
			17-Jun-04		14-Jul-04	
			15-Jul-04	16-Jul-04	4-Aug-04	
			12-Aug-04		8-Sep-04	
			9-Sep-03		23-Oct-03	_ ,,
			1-Oct-03		23-Oct-03	2 1/2 Hour Written
			5-Nov-03	29-Oct-03	11-Dec-03	Answer, Closed
City & Guilds 2391 Inspection,		2 Davis (2 24) 2 2 2 1	25-Nov-03	17-Nov-03	11-Dec-03	Book, Evening
Testing and Certification of Electrical Installations. (Optional	£465 + VAT	3 Days (optional	20-Jan-04	18-Feb-04	11-Mar-04	Examination and a
	£400 + VAI	4 <sup>th</sup> day with	24-Feb-04		11-Mar-04	Formal Practical
4 <sup>th</sup> day available		some courses)	20-Apr-04	10-May-04	10-Jun-04	Assessment (Lasting
-			25-May-04	_	10-Jun-04	Approximately 4
			22-Jun-04	30-Jun-04	22-Jul-04	Hours) to be Arranged Separately
			18-Aug-04		TBA	7 aranged deparately

Course Details	Price	Course Duration	Course Dates Rotherham	Course Dates Bracknell	Examination Dates	Assessment Method
City & Guilds 2400 Design Erection			Monday 22nd September, for 12 consecutive weeks. 6.00pm - 8.30pm	5 full days split over 2 sessions:	9-Dec-03	This is a 3 part examination consisting of: 3 hour written answer, open book, evening examination. Design
			Monday 3rd November, for 5 consecutive weeks. 9.00am - 4.30pm (5 full days)	Session 1, 5th, 6th & 7th November Session 2, 27th & 28th November	9-Dec-03 2 11-Mar-04	
	£495 + VAT	12 Evenings (2½ Per	Monday 5th January, for 10 consecutive weeks. 6.00pm - 8.30pm (2 additional sessions to be arranged to suit)	5 full days split over 2 sessions: Session 1, 11th, 12th & 13th February		
and Verification of Electrical Installations	1493 + VAT	evening) or Block Sessions	Monday 9th February, for 5 consecutive weeks. 9.00am - 4.30pm (5 full days)	Session 2, 26th & 27th February	11-Mar-04	project (allow 25 - 40 hours input time). Formal practical assessment (lasting approximately 3 hours
			Tuesday 23rd March, for 10 consecutive weeks (excluding 13th April). 6.00pm - 8.30pm (2 additional sessions to be arranged to suit)		10th June 2004	
			Tuesday 27th April, for 5 consecutive weeks. 9.00am - 4.30pm (5 full days)		10-Jun-04	

Course Details	Price	Course Duration	Course Dates Rotherham	Course Dates Bracknell	Examination Dates	Assessment Method
			3-Sep-03	12-Nov-03		
			6-Oct-03	14-Jan-04		
4 Day Elastriait vat Maril			21-Nov-03	17-Mar-04		Lowe Group
1 Day Electricity at Work	£175 + VAT	1 Day	30-Jan-04	16-Jun-04		Attendance
Regulations			26-Mar-04			Certificate
			12-May-04			
			11-Aug-04			
			21-Aug-03	16-Oct-03		
			25-Sep-03	15-Apr-04		
Flootrical Duty Holdon Course		•	6-Nov-03			
Electrical Duty Holders Course	£175 + VAT	1 Day	12-Dec-03			
(Regs Update)			6-Feb-04			
		-	30-Apr-04			
			11-Jun-04			
		C475 - 1/AT	12-Sep-03	20-Nov-03		
	C475 . \ /AT		28-Nov-03	13-May-04		
Electrical Testing Practical Tutorial	£175 + VAT	3 Days (optional	23-Jan-04	_		Lowe Group
(optional 4 <sup>th</sup> day C & G 2391	(£99.00 when booked with C &	4 <sup>th</sup> day with	27-Feb-04			Attendance
support course)	G 2391)	some courses)	23-Apr-04			Certificate
	G 2391)		28-May-04			
			25-Jun-04			
			30-Sep-03	14-Oct-03		
	C475 . \ /AT	•	12-Nov-03	30-Mar-04		Laura Oaarra
Portable Appliance Testing Practical	£175 + VAT	4 Days	3-Feb-04			Lowe Group
Tutorial	(£99.00 if booked	1 Day	24-Mar-04			Attendance Certificate
	with C & G 2377)		8-Jun-04			Certificate
			13-July-04			
			16-Oct-03	12-Dec-03		Lowe Group
Structured Cabling Course	£175 + VAT	1 Day	18-Feb-04	26-Apr-04		Attendance
Ğ			2-Jul-04	,		Certificate

Course Details	Price	Course Duration	Course Dates Rotherham	Course Dates Bracknell	Examination Dates	Assessment Method
Emergency Lighting to BS5266	£175 + VAT	1 Day	28-Jan-04 28-Apr-04 5-July-04	2-Dec-03 16-Jun-04		Lowe Group Attendance Certificate
Earthing & Bonding	£175 + VAT	1 Day	31-Oct-03 29-Jan-04 13-May-04	3-Dec-03 16-Apr-04		Lowe Group Attendance Certificate
Electrical Machine Safety (including P.U.W.E.R 2 Regulations)	£175 + VAT	1 Day	24-Sep-03 7-Nov-03 29-Jan-04 29-Apr-04 16-Jul-04	On Request		Lowe Group Attendance Certificate
Managing Risk Assessment	£175 + VAT	1 Day	24-Oct-03 19-Feb-04 13-May-04	On Request		Lowe Group Attendance Certificate
Electrical Safety Awareness	£175 + VAT	1 Day	5-Sep-03 8-Dec-03 12-Mar-04 11-Jun-04	4-Nov-03 17-Feb-04 17-May-04		In-Course Assessment Lowe Group Certificate
Basic Electrical Course	£395 + VAT	3 Days (optional 4 <sup>th</sup> day available)	1-Sep-03 1-Oct-03 3-Nov-03 2-Feb-04 2-Mar-04 5-Apr-04 5-May-04 7-Jun-04 6-Jul-04 4-Aug-04	6-Oct-03 1-Dec-03 8-Mar-04 1-Jun-04		In-Course Assessment Lowe Group Certificate
AC Motor Principles Course (optional 4 <sup>th</sup> day to the 3 Day Basic Electrical Course)	£175 + VAT (£99.00 if booked together)	1 Day	Available following most 3 Day Basic Electrical Courses (please call for details)			Lowe Group Attendance Certificate

Course Details	Price	Course Duration	Course Dates Rotherham	Course Dates Bracknell	Assessment Method
			22-Sep-03	28-Oct-03	
Generic PLC			17-Nov-03	19-Jan-04	
Introduction	£495 + VAT	3 Days	23-Feb-04	26-Apr-04	Lowe Group Attendance Certification
			19-Apr-04	12-Jul-04	
			28-Jun-04		
			20-Oct-03	16-Feb-04	
City & Guilds Allen			8-Dec-03	21-Jun-04	In account Account in alcoling a constitution of
Bradley SLC 500 Series	£795 + VAT	5 Days	15-Mar-04		In course Assessment including practical and theory based evidence collection.
PLC			14-Jun-04		
			16-Aug-04		
			1-Sep-03	24-Nov-03	
Oit . O O . ilda Mita	£795 + VAT	5 Days	10-Nov-03	22-Mar-04	In account Account in alcoling a constitution of
City & Guilds Mitsubishi FX Series PLC			9-Feb-04	5-Jul-04	In course Assessment including practical and theory based evidence collection.
. , , , , , , , , , , , , , , , , , , ,			17-May-04		
			2-Aug-04		
O't - 0 O - 'I - 1 O'			26-Jan-04	10-May-04	In the second of
City & Guilds Siemens S5 Series PLC	£795 + VAT	5 Days	29-Mar-04	9-Aug	In course Assessment including practical and theory based evidence collection.
			19-Jul-04		
			25-Sep-03		
AC Inverter Drives	£175 + VAT	1 Day	20-Nov-03		Lowe Group Attendance Certification
Course	LIIJ I VAI		26-Feb-04		Lowe Group Attendance Certification
			1-Jul-04		

## **Booking Form**

BOOKING DETAILS	
Course Title:	Venue:
Course Date:	E D.
Purchase Order No:	
CANDIDATE DETAILS	
Mr/Mrs/Miss Surname (in full):	Home Address:*
First Name(s) (in full):	
Date of Birth:*	
Dietary or Special Needs:	
${}^{\star}\mathrm{If}$ a City & Guilds examination is being undertaken, a full candidate name,	date of birth and home address are req'd.
CONTACT DETAILS	
Contact Name:	Position:
Company Name:	VAT Reg. No.:
Company Address:	Tel:
	Fax:
	E-Mail:
Postcode:	Website:
INFORMATION F	
Please contact me about:	The full range of the Lowe Group's services:
IEE Publications:	Other training requirements:
I confirm that I have read and accept the terms	of booking as stated.
Signed:	Date:
ALL BOOKING FEES MUST BE PAID IN FULL 2 WEEKS PRIOR TO CO AGREED. THIS BOOKING FORM MUST BE ACCOMPANIED BY THE F	
When complete please post or fax to:	
T J Lowe & Associates Ltd, Bradmarsh Busine Tel: 01709 360621 Fax: 01709 721212	ss Park, Rotherham S60 1BY



## **Accounts Details**

COMPANY IDENTIF	-ICATION DETAILS	5			
Company name:		Trading Name (if di	Trading Name (if different):		
		Postcode:			
Tel:		Fax:			
E-Mail:		VAT Reg. No.:			
Company Registration N		Established:			
STATEMENT ADDR	RESS	INVOICE ADD	RESS		
Company Name:		Company Name:			
Company Address:		Company Address	:		
	Postcode:		Postcode:		
Tel:	Fax:	Tel:	Fax:		
E-mail:		E-mail:			
Contact Name:		Contact Name:			

#### **PAYMENT DETAILS**

As per conditions of booking all fees must be paid in full 2 weeks prior to commencement of the course, unless otherwise agreed. Failure to comply with these terms may mean that the course places cannot be guaranteed.

All payments are to be made to: T.J. Lowe & Associates Ltd.

Bank details for BACS payment are as follows: Bank Barclays Account No: 90321109 Sort Code: 20-76-89

#### **IMPORTANT INFORMATION & CONDITIONS OF BOOKING**

Please telephone to check availability before completing this form.

This booking form must be accompanied by the relevant cheque or Order Number before a place can be secured.

**Priority** will be given to booking forms accompanied by a cheque in full payment

**Provisional Bookings** can be taken but can only be confirmed as accepted on receipt of full payment.

Provided with course: Course Notes, pen & note paper if req'd

Not provided: IEE or other formal publications

Course schedule: Coffee and registration from 9.00am.

Training commences at 9.30am and finishes at 4.30pm. Buffet.

Training commences at 9.30am and finishes at 4.30pm. Buffet lunch and light refreshments provided.

Special diet or special needs: Please make these known on booking

Requirements for City & Guilds examination: Full candidate name, date of birth, National Insurance number & home address

**Training Vouchers:** Each voucher entitles 1 delegate to 1 days free training. Does <u>not</u> include the cost of exam registration

Charges for cancellation of booking, or transfer to a later course:

(including bookings utilising Lowe Group training vouchers)
Free of charge: If received 2 weeks before the start date

50% fee charged: If received less than 1-2 weeks before the start date.
Full fee charged: If received less than 1 week before start date.
Candidate substitutions: Will be accepted at any time without extra

charges for course. Examination registration fees are not transferable and will be charged.

T.J. Lowe & Associates Ltd reserve the right to cancel any course or venue. In this case the full fee will be returned unless a mutually convenient transfer can be arranged.

T.J. Lowe & Associates Ltd is an equal opportunities training provider. (full policy on request). (Appeals policy – on request)

### **Publication Order Form**

CUSTOMER DETAILS				
Contact Name: Mr / Mrs / Ms				
Address:				
Post Code:	Tel:			
Fax:				
Signed:				
PUBLIC	CATION DE	TAILS		
Publication Title	Category	Cost Each (A)	No. Reqd. (B)	Total Cost (A x B)
BS7671:2001 (IEE 16th Edition) Bound Version	3	£47.00		
IEE On-Site Guide to BS7671:2001	2	£14.00		
IEE Guidance Note 1	2	£25.00		
IEE Guidance Note 3	2	£16.00		
IEE Code of practice for in-service inspection of electrical equipment (PATS)	2	£25.00		
AEEU Electricians Guide	1	£6.75		
HSE Memorandum of Guidance to the Electricity at Work Regulations 1989	1	£4.00		
			Sub Total: (C)	£
	Post	age and Packagin	g (see below): (D)	£
All publications are	zero rate	d for VAT	Total: (C+D)	£

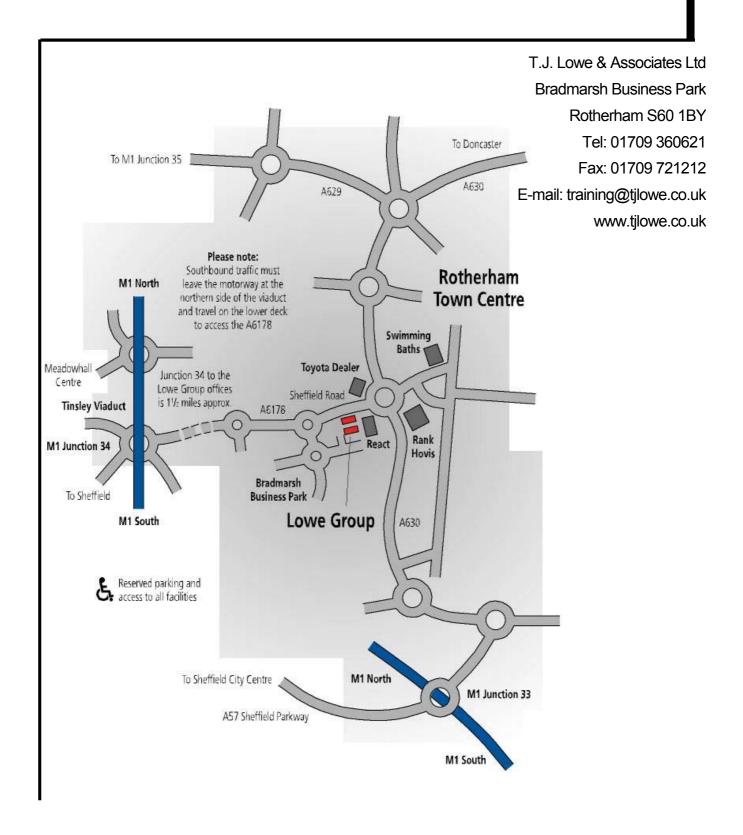
## POSTAGE AND PACKAGING (The following costs are applied when publications are sent by post)

Number of Publications	Category 1*	Category 2*	Category 3*
1 Publication	£1.50	£2.50	£3.50
Upto 3 Publications	£3.00	£5.00	£7.50
Each additional publication	£0.75	£1.00	£1.75

Prices correct at time of publication. T J Lowe & Associates Ltd reserve the right to change prices without notification.

COMPANIES WISHING TO PURCHASE PUBLICATIONS WITHOUT TRAINING ARE REQUESTED TO COMPLETE THE ACCOUNTS DEPARTMENT DETAILS PAGE OR ENCLOSE A CHEQUE WITH ORDER (PAYABLE TO T J LOWE & ASSOCIATES LTD)

## How to Find Us (Rotherham)



## How to Find Us (Bracknell)

T.J. Lowe & Associates Ltd

Doncastle House

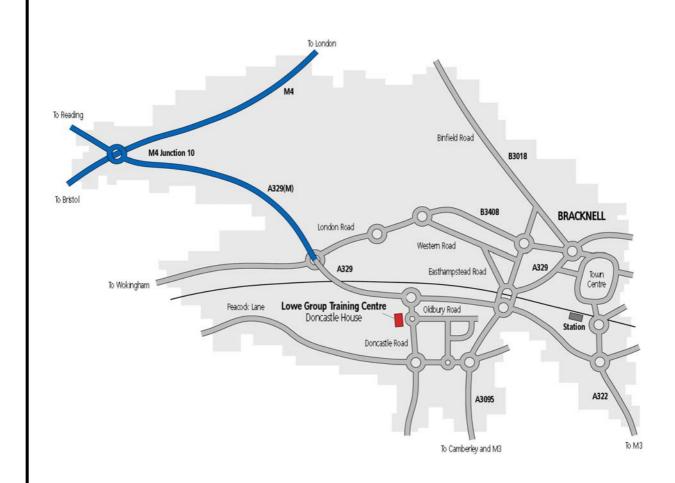
Bracknell RG12 8PE

Tel: 01709 360621

Fax: 01709 721212

E-mail: training@tjlowe.co.uk

www.tjlowe.co.uk



## **Legislative Electrical Courses**

City & Guilds 2377 Course – Certificate of competence for the Inspection & Testing of Electrical Equipment

City & Guilds 2381 Course – BS 7671:2001, IEE 16th Edition (incorporating latest amendments)

City & Guilds 2391 Course – Inspection, Testing & Certification of Electrical Installations to BS7671:2001

City & Guilds 2400 Course – Design, Erection & Verification of Electrical Installations

Electricity at Work Regulations 1989 and 16th Edition Wiring Regulations Update Course (Duty Holders)

**Electricity at Work Regulations 1989 Course (in depth study)** 

16th Edition Wiring Regulations Update Course (in depth study)

1 Day Course on the Inspection & Testing of Petrol Filling Stations

1 Day Electrical Testing Practical Tutorial

## City & Guilds 2377 Course

## Certificate of competence for the Inspection & Testing of Electrical Equipment

A 1 day course focusing on the requirements of the formal inspection, testing and recording of electrical equipment (portable appliance testing) in preparation for the City & Guilds 2377 – 002 written examination

This multiple choice examination is 1 hour in duration 6.30 – 7.30pm and on successful completion delegates will be awarded the City & Guilds 'Competence for the Inspection & Testing of electrical equipment' certificate.

The course fee includes comprehensive course notes, City & Guilds examination fees, refreshments and a buffet lunch. IT DOES NOT include a copy of the IEE Code of Practice for In-Service Inspection & Testing of Electrical Equipment.

Delegates require a copy of this publication both for the course and for reference during the examination.

**Course Fee: £175.00 + VAT** 

#### **COURSE CONTENT**

The legal requirement, purpose and frequency of Inspection & Testing of Electrical Equipment.

The main inspection & testing requirements prescribed in the IEE Code of Practice for In-Service Inspection & Testing of Electrical Equipment.

Equipment, construction and definition.

Approved testing procedures with "Portable Appliance Testers."

Establishing maintenance charts, registers and recording of results.

#### **FURTHER INFORMATION**

Delegates wishing to address the practical use of their own specific test equipment or who require further information regarding the management component of the exam (C&G 2377-001), are advised to speak with a member of our training staff prior to booking.

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## City & Guilds 2381 Course

## BS 7671:2001 IEE 16th Edition Wiring Regulations

A 2 day course aimed at electricians & electrical contractors, and is intended to ensure familiarity with the layout, content and use of the Regulations.

The course is also suitable for others who require a working knowledge of BS7671:2001.

The multiple choice examination is of a 2 hour duration 6.30 – 8.30pm.

The course fee includes City & Guilds examination fees, comprehensive course notes, refreshments and a buffet lunch. IT DOES NOT include copies of BS7671:2001 and the latest edition of the On-Site guide. Delegates require a copy of these publications, both for the course and for private study prior to sitting the examination.

Course Fee: £315.00 + VAT

#### **COURSE CONTENT**

The legal status and association with statutory documents.

Scope, object and fundamental requirements for safety.

Assessment of general characteristics.

Protection for safety.

Selection and erection of equipment.

Special installation or locations.

Inspection & Testing.

Preparation for City & Guilds 2381.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## City & Guilds 2391 Course

## Inspection, Testing & Certification of Electrical Installations to BS7671:2001

A 3 day course including detailed practical demonstrations in preparation for practical assessment and written examinations, aimed at personnel who are involved in Inspection & Testing of Electrical Installation to BS7671:2001 (16th Edition Wiring Regulations) and require certification possibly for NICEIC purposes or to demonstrate competence as a "Duty Holder" with responsibility for the safety of electrical installations within the organisation.

The full 2391 qualification is achieved following successful completion of both the written examination (closed book) of 2½ hours duration: 6.30 – 9.00pm and the practical assessment. This is approximately 3 to 4 hours in duration and is arranged for a mutually agreeable time outside of the 3 day course timetable.

Delegates must possess relevant practical experience and a good working knowledge of BS7671.

and a good working knowledge of BS7671.

The course fee includes City & Guilds

for the assessments, lunch, refreshments and comprehensive course notes.

Course Fee: £465.00 + VAT

examination fees, administration costs

#### **COURSE CONTENT**

The purpose and frequency of Inspection & Testing of Electrical Installations.

The main inspection requirements prescribed in BS7671 (Guidance Note 3).

Sequence and actual tests to be carried out in premises

as prescribed in BS7671(Guidance Note 3).

Proving Test Instruments.

Completion, periodic and minor works forms with associated schedules and results.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## City & Guilds 2400 Course

## Design, Erection & Verification of Electrical Installations

Either a 10 - 12 week evening course  $(3 - 2\frac{1}{2})$  hours 1 night per week), or a 5 day, split session block, aimed at personnel who have responsibilities within their company for the design and specification of electrical installations as well as the process of inspection and testing upon completion.

The course is designed to provide a thorough understanding of the 16th Edition Wiring Regulations and specifically the requirements of the NICEIC with regards to their prospective and acting qualifying managers.

The full City & Guilds 2400 examination consists of three parts: a 3 hour written paper, a practical testing assessment and a 15 hour design project. (Candidates that can verify recent achievement of the City & Guilds 2391 qualification may be deemed exempt from the practical assessment component).

The course fee includes City & Guilds examination fees, comprehensive course notes, refreshments and a buffet lunch. IT DOES NOT include copies

of BS7671 (16th Edition), the latest edition of the On-Site guide and copies of the Guidance Notes 1 & 3. Delegates require a copy of these publications both for the course and for private study prior to sitting the examination.

Course Fee: £495.00 + VAT

#### **COURSE CONTENT**

Overview of the Regulations. Installation characteristics.

Wiring systems.

Cable selection and design.

**Discrimination & Diversity** 

Earthing and earthing systems.

Special installations.

Inspection and testing including pricing.

Documentation and certification.

Project design.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

# Duty Holders Course (Regulations Update)

A 1 day course aimed at personnel who have a responsibility for, or fundamental involvement with safety of electrical systems.

The course enables electrical "Duty Holders" to fully understand their responsibility as well as re-aquainting electrical personnel with BS7671:2001 & the Electricity at Work Regulations 1989.

The course fee includes comprehensive course notes, a copy of the Memorandum of Guidance on the Electricity at Work Regulations 1989, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

#### **COURSE CONTENT**

Electricity at Work Regulations 1989

Legal requirements.

Safe design.

Protection against electric shock.

Competence, experience and supervision.

"Duty Holders."

Safe systems.

BS7671 2nd Amendment

Contents and layout.

Structure.

Supporting publications.

The amendments.

BS7671:2001 Parts 1-7.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## 1 Day Electricity at Work Regulations 1989 Course

A 1 day course aimed at engineers and supervisory staff with responsibility for electrical systems.

You are now legally obliged to take precautions against death or personal injury from electricity at work. As the person with responsibility for maintenance you could be the "Duty Holder," whether a Foreman or the Managing Director, you could be held accountable under the Electricity at Work Regulations 1989.

The course fee includes comprehensive course notes, a copy of the Electricity at Work Regulations 1989, a certificate of attendance, refreshments and a buffet lunch.

**Course Fee: £175.00 + VAT** 

#### **COURSE CONTENT**

Legal requirements.

Safe design – protection against electric shock.

Dangers of electricity.

Competence, experience and supervision.

"Duty Holders".

Safe systems.

Discussion and question.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## 1 Day 16th Edition Wiring Regulations (BS7671:2001) Update Course – including latest amendments

A 1 day course aimed at engineers, supervisors and electricians who are already 16th Edition qualified and need to update their knowledge of the 16th Edition Wiring Regulations (BS7671:2001) and the latest amendments.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £99.00 + VAT

Sit the City & Guilds 2381 examination for just £36.00 extra.

Ask For Details

#### **COURSE CONTENT**

The scope and fundamental requirements of BS7671. The supporting publications and amendments. Protection against electric shock by automatic disconnection of supply, earthing and bonding. Isolation and switching.

Special locations, generators, commercial installations, computer suites, USP's, bathrooms and swimming pools.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## 1 Day Course on the Inspection & **Testing of Petrol Filling Stations**

A 1 day course aimed at suitably experienced qualified personnel (conversant with BS7671 City & Guilds 2381 and electrical inspection & testing qualification – City & Guilds 2391),

#### **COURSE CONTENT**

The Electricity at Work Regulations 1989, HS (R) 25 overview.

The Code of Practice for the Selection, Installation and Maintenance of Electrical Equipment in Hazardous Areas (BS5345) – overview.

HS (G) 41 – Petrol Filling Stations: Construction and Operation.

Hazardous characteristics.

Hazardous area classification/zoning.

Selection, location and installation of appropriate electrical equipment.

Certification and identification of electrical equipment for use in hazardous areas.

Isolation and switching.

Short circuit and overload protection.

Protection against electric shock.

PME and special earthing provisions.

Wiring methods/systems.

Site register test and inspection schedules.

Inspection and testing of electrical equipment in hazardous areas.

Precautions, warning notices, suitability of test records.

Essential records – certification, schedules, test results

and compliances.

with the objective of providing a level of competence necessary for safe working on petrol filling stations and sites where hazards from flammable substances are present.

Upon completion of the course an optional written assessment is available based on the course content. A certificate of assessment will be issued to successful candidates.

The course fee includes comprehensive course notes, a certificate of attendance. refreshments and a buffet lunch.

Course Fee: £175.00

+ VAT

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant HSE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## 1 Day Electrical Testing Practical Tutorial

This 1 day short course provides an introduction to testing in accordance with BS7671:2001 (IEE 16th Edition) and is aimed at electrical personnel who lack practical testing experience or require a refresher.

The course should be seen as a support course for delegates attempting the C & G 2391 qualification, not as an alternative to it. Personnel planning to undertake full electrical inspection, testing & certification are advised to undertake the full 2391 course.

The course combines formal teaching with practical sessions.

Due to the practical nature of the course the places will be restricted to a maximum of 10.

The course fee includes familiarisation with test procedures & test instruments, course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

(£99.00 + VAT when booked as 4<sup>th</sup> day to a 2391 course)

#### **COURSE CONTENT**

Our hardware permits the following tests to be made:

Continuity of protective and bonding conductors.

Ring circuit continuity.

Insulation resistance.

Polarity.

Earth loop impedance and PSC.

RCD operation.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

# Basic Inspection & Testing Pocedures Associated with Minor Works Certification

A recently introduced course aimed at electrical service engineers and alarm installers that are required to fill out Minor Electrical Works certificates when completing works.

The course assumes the engineers have an electrical background and are familiar with the requirements for electrical installations associated with their work.

Delegates are welcome to bring their own test instrumentation to the course, although generalised test instrumentation requirements will be covered

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

**Course Fee: £175.00 + VAT** 

#### **COURSE CONTENT**

Introduction to the requirements of BS7671:2001 (with regard to Minor Works)
Electrical Inspection procedures
Required test procedures
Minor Works Certification Forms
Practical Testing

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## **Supplementary Skills Courses**

Portable Appliance Testing Practical Tutorial
Structured Cabling Course (LAN & Data Networks
Emergency Lighting to BS5266 Course
Earthing and Bonding Course
Electrical Machine Safety
Electrical Risk Assessment
1 Day Electrical Safety Awareness Course
3 Day Basic Electrical Course
AC Motor Principles

## Portable Appliance Testing Practical Tutorial

This recently introduced course offers delegates the chance to increase their understanding of the practical issues relating to portable appliance testing. It is aimed at personnel that will perform inspection & testing, using modern portable appliance test equipment in line with the requirements of the IEE code of practice.

Delivered as a practical tutorial workshop it provides sufficient coverage of the techniques and methods currently adopted by portable appliance testers, with extensive 'hands on' sessions.

Although this course covers the requirements for practical inspection & Testing of portable appliances it should **not** be seen as adequate preparation for the City & Guilds 2377 examination.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

**Course Fee: £175.00 + VAT** 

(£99.00 if booked with C & G 2377 course)

#### **COURSE CONTENT**

- Overview of legislative requirements
- Introduction to test instruments
- Inspection procedures
- Test instrument operation
- Test result analysis
- Documentation & record keeping
- Practical testing

Delegates are welcome to bring their own PAT equipment along to the course for guided instruction.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or to discuss bookings, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## Structured Cabling Installation

A 1 day course aimed at engineers, electricians and other personnel who require a detailed knowledge of Structured Cabling Installation practices related to Local Area Networks (LANs) and other Data cabling installations.

Correct installation procedures are a fundamental part of today's structured cable industry.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

**Course Fee: £175.00 + VAT** 

#### **COURSE CONTENT**

- Structured cabling introduction and industry overview
- Installation practices
- Overview of LAN topologies
- Link testing, verification and troubleshooting
- Industry standards

The course includes a comprehensive theory session, followed with a practical tutorial allowing delegates to gain a full understanding of structured cabling systems and installation techniques.

The course requires no previous knowledge of structured cabling and aims to provide each delegate with adequate knowledge, confidence and practical experience for the future supervision and assessment of system installations.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or to discuss bookings, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## **Emergency Lighting** to BS5266 Course

A 1 day course aimed at engineers, electricians and other personnel who require a detailed knowledge of emergency lighting to BS5266.

The course will supply attendees with a knowledge of different types of emergency lighting, appropriate schemes, the documentation required and the inspection and testing requirements.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

#### **COURSE CONTENT**

Appropriate scheme types.

U.K. law and regulatory authorities.

BS5266 Part 1.

Documentation.

Inspection & testing.

Products and systems.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## **Earthing and Bonding**

A 1 day course aimed at engineers, electricians and other personnel who require a detailed knowledge of earthing and bonding procedures in line with the requirements of BS7671.

The course aims to provide a detailed analysis of the requirements for earthing and bonding with respect to installations covered by the Electricity at Work Regulation 1989 and BS7671 (IEE 16<sup>th</sup> Edition Wiring Regulations).

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

#### **COURSE CONTENT**

Overview of Supply earthing arrangements Analysis of statutory and non statutory earthing Analysis of statutory and non statutory earthing requirements

Main Equipotential and supplementary bonding requirements

Overview of the approach to testing earthing and bonding arrangements

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or to discuss bookings, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## **Electrical Machine Safety**



A 1 day course aimed at engineers, electricians and other personnel who have a responsibility for electrical safety in the workplace with regard to electrical machinery.

The course focuses on the requirements put forward in the 'Provision and Use of Work Equipment Regulations (PUWER2). However it also includes coverage of the requirements under the 'European Machinery Directives and the 'Supply of Machinery Regulations 1992.

The course looks closely at the specific issues of machine guarding, safety interlocking and electro sensitive protection systems. A general look at risk assessment is also included.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

**Course Fee: £175.00 + VAT** 

#### **COURSE CONTENT**

Introduction to the Provision and Use of Work Equipment Regulations

Legislative documents related to the above in respect of power presses, woodworking and lifting machinery

General risk assessment relating to electrical machinery

Risk assessment associated with compliance with the 'European Machine Directives' and the 'Supply of Machinery Regulations 1992'

Machine guarding and safety interlocking

Safety circuitry and PLC controlled safety issues

Electro sensitive protective systems

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## **Electrical Risk Assessment**



A 1 day course aimed at engineers, electricians and other personnel who have a responsibility for electrical safety in the workplace.

The requirements for generalised risk assessments are documented within the 'Management of Health & Safety Regulations 1999'. This course looks closely at these requirements and offers clear and effective methods towards compliance

The course is split into two parts, one dealing with inspection of electrical systems and equipment, the other concentrates on evaluating the risk and lays down measures to minimise or eliminate that risk.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

#### **COURSE CONTENT**

Sections relating to the Provision and Use of Work Equipment Regulations

Sections relating to the Management of Health & Safety Regulations 1999

General risk assessment relating to electrical machinery

Risk assessment associated with compliance with the 'European Machine Directives' and the 'Supply of Machinery Regulations 1992'

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant IEE publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## 1 Day Electrical Safety Awareness Course

A 1 day course aimed at plant operatives and un-skilled employees that have no previous awareness of electricity in the workplace, and although, not expected to carry out electrical duties, must have a basic awareness of electrical safety.

An introductory level course that introduces many safety issues to the 'un-enlightened' employee, creating an awareness to basic issues that can help prevent electrical incidents and reduce production downtime.

Upon completion of the course a self assessment is available based on the course content. This will assist companies to establish and evaluate the level of competence attained by each candidate, and plan further training requirements.

#### **COURSE CONTENT**

Morning
What is electricity?
Employee responsibilities.
How electricity is used and controlled.
How electrical incidents occur.
Afternoon
Basic first aid principles (relating to electrical causes).
Safe isolation.

Prevention of electrical incidents.

Self assessment questions.

ow electricity is used and controlled.

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## 3 Day Basic Electrical Course



A 3 day course aimed at creating awareness of electrical systems to both newcomers to the electrical trade and to a mechanical craftsperson wishing to prepare for cross trade working.

The course contains theory and practical sessions covering essential foundation level principles that form the baseline for any involvement with electrical systems.

Upon completion of the course an optional self assessment is available based on the course content. This will assist delegates to plan follow-up training requirements and provide measurable progress.

#### **COURSE CONTENT: Day 1**

What is electricity?
Electrical units and their relationships.
Component identification.
Use and care of
test instruments.

The course fee includes comprehensive course notes, refreshments and a buffet lunch.

Course Fee: £395.00 + VAT

#### **COURSE CONTENT: Day 2**

Conventional circuits.
Electrical drawing.
Electrical power theory, AC supplies, Inductors, Capacitors, etc.

#### **COURSE CONTENT: Day 3**

Circuits used for control. Safe isolation. Safe working practices.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212



## **AC MOTOR PRINCIPLES**

Primarily developed as an optional extension to the 3 day Basic Electrical course, this 1 day course provides an excellent introduction to AC motors.

The course looks in detail at their main principles of operation, starting & connection methods as well as basic testing and fault finding techniques.

Delegates will be from a wide range of industrial & commercial backgrounds at shop floor level through to managerial personnel

The course fee includes comprehensive course notes, a certificate of attendance, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

(£99.00 + VAT when booked as 4<sup>th</sup> day to a 3 day basic electrical course)

#### **COURSE CONTENT**

AC Motor principles

Methods of starting

Methods of connection

Testing procedures

Fault finding techniques

Introduction to speed control

**Discussion and Questions** 

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212

## **Programmable Controllers**

3 Day Generic PLC Course
5 Day Allen Bradley PLC Course
5 Day Mitsubishi PLC Course
5 Day Siemens PLC Course
1 Day Adjustable Frequency Drives (Inverters) Course

# 3 Day Generic PLC Training Course

A 3 day course aimed at Electrical, Mechanical and Management Officers that have little or no experience of PLC systems.

The course is tutor driven and employs generic PLC simulation software which allows the principles of PLC systems to be understood without the complexity of the manufacturers interface software.

The courses are undertaken within our modern computerised training suite, allowing one PC per person. All prices include: comprehensive course notes, refreshments and a buffet lunch.

#### **COURSE CONTENT: Day 1**

What is a PLC?

Principle of operation and construction concepts.

Numbering systems and data types. Program structure and techniques. Generic program exercises.

#### **COURSE CONTENT: Day 2**

Introduction of control techniques, timers and counters.
Programming exercises using simulation hardware.
Documentation and testing of programmes.

#### **COURSE CONTENT: Day 3**

Introduction to physical PLC hardware. Overview of conventional systems. Fault finding techniques. NOW AVAILABLE AS A RESIDENTIAL COURSE for just £49.00 per night (8&B)
For more details contact Training on 01709 360621

Course Fee: £495.00 + VAT

## 5 Day Allen Bradley PLC Training Course

A City & Guilds accredited course aimed at Electrical and Mechanical personnel who wish to enhance their knowledge of PLC systems or specialise in a particular manufacturers type.

The course is tutor driven giving each delegate ample opportunity to understand the topic areas covered. Course content follows the format outlined within the City & Guilds 2301-004 Level 1 PLC accreditation, however, ample scope is available for company specific material to be covered and consultation with a technical member of staff is recommended prior to booking.

The courses are undertaken within our modern computerised training suite, allowing one PC per person. All prices include: comprehensive course notes, City & Guilds registration, refreshments and a buffet lunch.

Course Fee: £795.00 + VAT

#### **COURSE CONTENT**

Overview of Allen Bradley PLC systems (hardware). SLC memory organisation and program file types. Introduction to interfacing software.

Programming exercises to include standard elements, timers and counters. Design and program small industrial application solution, from functional specification.

Program control instructions and data point forcing. Documentation, uploading and testing of programs. Comparison and mathematical functions.

Examination of data table utilisation.

Overview of PLC status file area.

NOW AVAILABLE AS A RESIDENTIAL COURSE
from just £49.00 extra per night (B&B)
For more details contact training on 01709 360621

## 5 Day Mitsubishi PLC Training Course

A City & Guilds accredited course aimed at Electrical and Mechanical personnel who wish to enhance their knowledge of PLC systems or specialise in a particular manufacturers type.

The course is tutor driven giving each delegate ample opportunity to understand the topic areas covered. Course content follows the format outlined within the City & Guilds 2301-004 Level 1 PLC accreditation, however, ample scope is available for company specific material to be covered and consultation with a technical member of staff is recommended prior to booking.

The courses are undertaken within our modern computerised training suite, allowing one PC per person. All prices include: comprehensive course notes, City & Guilds registration, refreshments and a buffet lunch.

Course Fee: £795.00 + VAT

#### **COURSE CONTENT**

Overview of Mitsubishi PLC systems (hardware).

Memory organisation and program file types.

Introduction to interfacing software.

Programming exercises to include standard elements, timers and counters.

Design and program small industrial application solution, from functional specification.

Program control instructions and data point forcing.

Documentation, uploading and testing of programs.

Comparison and mathematical functions.

Overview of PLC status file area.

Examination of data table utilisation.

NOW AVAILABLE AS A RESIDENTIAL COURSE from just £49.00 extra per night (B&B)
For more details contact Training on 01709 360621

# 5 Day Siemens PLC Training Course

A City & Guilds accredited course aimed at Electrical and Mechanical personnel who wish to enhance their knowledge of PLC systems or specialise in a particular manufacturers type.

The course is tutor driven giving each delegate ample opportunity to understand the topic areas covered. Course content follows the format outlined within the City & Guilds 2301-004 Level 1 PLC accreditation, however, ample scope is available for company specific material to be covered and consultation with a technical member of staff is recommended prior to booking.

The courses are undertaken within our modern computerised training suite, allowing one PC per person. All prices include: comprehensive course notes, City & Guilds registration, refreshments and a buffet lunch.

Course Fee: £795.00 + VAT

#### **COURSE CONTENT**

Overview of Siemens PLC systems (hardware).

PLC memory organisation and program file types.

Introduction to interfacing software.

Programming exercises to include standard elements, timers and counters.

Programming languages Ladder, Statement List and Flowcharts explained. Design and program small industrial application solution, from functional specification.

Program control instructions and data point forcing.

Documentation, uploading and testing of programs.

Comparison and mathematical functions.

Examination of data table utilisation.

Overview of PLC status file area.

Use of Istack and Bstack.

NOW AVAILABLE AS A RESIDENTIAL COURSE from just £49.00 extra per night (B&B)
For more details contact training on 01709 360621

## 1 Day Adjustable Frequency Drives for Motor Control Training Course

A 1 day course aimed at Electrical and Mechanical personnel who are responsible for the commissioning and maintenance of variable speed AC drive control units.

The course provides a sound understanding of the basic operational principles of adjustable frequency drive units followed by an in-depth analysis of commissioning techniques and controlling features.

The courses are undertaken within our Rotherham Training Centre, utilising latest drive unit technology within the practical aspects of the course.

All prices include: comprehensive course notes, course attendance certificates, refreshments and a buffet lunch.

Course Fee: £175.00 + VAT

#### **COURSE CONTENT**

Overview of an invertor controlled system.

Principles of operation.

Setting and Commissioning procedures.

Interrogation and interpretation of parameters.

Fault diagnosis and serviceability.

#### **FURTHER INFORMATION**

Courses are undertaken at our Rotherham and Bracknell premises, or on-site if required. For further course information, or for the details of relevant publications, please contact the courses unit on:

Tel: 01709 360621 Fax: 01709 721212