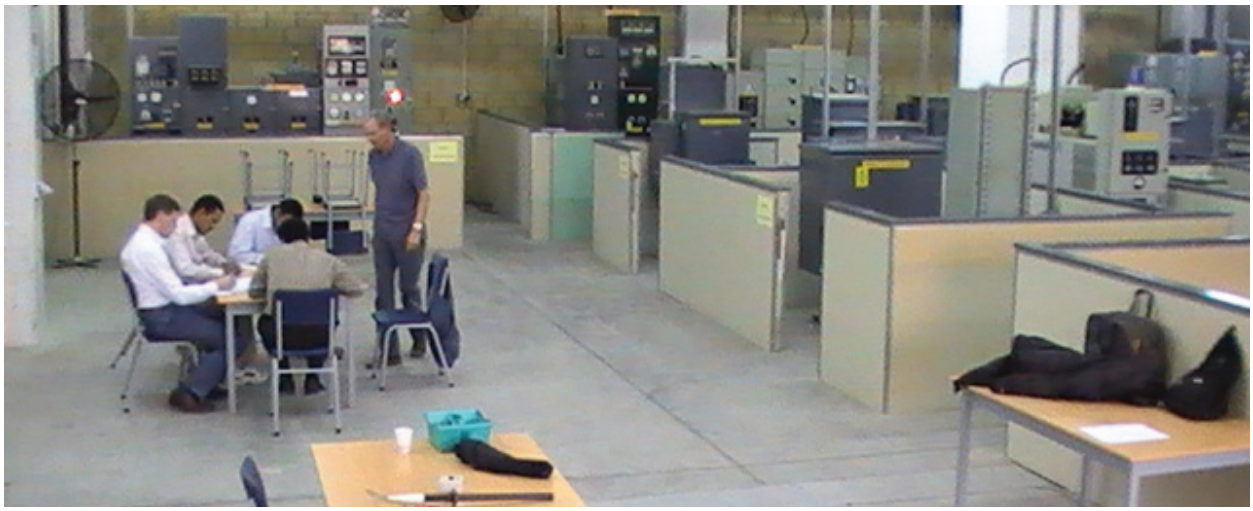
the Faraday Training group

Cyprus course prospectus 2012

Specialists in **Electrical Training & Consultancy**

Thomas-Faraday Training Ltd



Thomas-Faraday Training centre, part of The Faraday Training Group, specialises in providing competency based high and low voltage electrical training. Practical hands-on training is provided in almost all Faraday's courses using real industrial electrical equipment supporting theoretical training. Training can be delivered at our 550 square metres purpose-designed facilities in Limassol, Cyprus.

High Voltage courses applicable to land based electrical systems as well as marine / offshore high voltage systems, including

- Authorised / Senior Authorised high voltage safety training
- Marine / Offshore high voltage safety courses
- High voltage refresher training
- Basic high voltage safety courses
- Electrical protection training
- Electrical testing: pressure testing, earth electrode testing & transformer testing

The Low Voltage training offers a wide range of courses accredited by the UK City & Guilds, including:

- 17th Edition wiring regulations
- Inspection, Testing & Certification
- Portable Appliance Testing

For further course information, please contact The Faraday Training Group.

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High Voltage Courses

S1 **Introduction to the Safe Operation of High Voltage Power Systems** (Limited High Voltage Authorisation)

Duration: 3 days

Participants: Electrical/non-electrical personnel required to carry out restricted HV switching operations with limited safety document issuing responsibilities, up to and including 15kV. Switching at higher voltages may be undertaken at client's premises.

Aim: To introduce personnel to the concept of electrical power systems to enable them to enter substations/ switchrooms, carry out restricted switching operations, monitor the performance and condition of the system (including relay operation) in a safe and competent manner. The course is intended to provide knowledge and awareness of limited safety document issuing responsibilities.

Outline Contents

- Safety requirements & Electrical hazards and precautions
- Arrangement of high voltage substations/switchrooms
- Emergency conditions
- Philosophy of high voltage distribution
- Operational and safety features of switchgear
- High voltage safety rules
- Introduction to electrical protection
- Practical switching exercise (1)

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate, candidates who fail or do not wish to undertake the competence assessments will receive a Faraday "Attendance" certificate.

Course Fee: €650 +VAT **Competence assesment:** €110 +VAT

Dates

30th Jan - 1st Feb 27th - 29th Feb 7th - 9th May 3rd - 5th Sep
1st - 3rd Oct 7th - 9th Nov

S4 **Fundamentals of the Safe Operation of High Voltage Power Systems** (Full Authorisation)

Duration: 5 days

Participants: Personnel who are to be responsible as Senior Authorised Persons for switching and issue of electrical safety documents.

Aim: To provide an understanding of Industrial HV/LV power systems including statutory regulations, safe operation, protection and fault diagnosis on a wide range of power equipment. Also to enable candidates to perform HV switching operations on industrial HV networks up to and including 15kV and to prepare them for HV authorisation in accordance with their companies' safety rules/regulations. Switching at Higher voltages may be undertaken at client's premises.

Outline Contents:

- Statutory regulations & electrical hazards and precautions
- Arrangement of high voltage systems
- Operational and safety features of switchgear

- High voltage safety rules
- Issue and control of safety documentation
- Safety Lockout Procedures, Key Safes/Multi Hasp locking devices (Isoloks)
- Application of electrical protection
- Applications of fault levels
- Emergency conditions
- Practical exercises & Fault incidents

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate, candidates who fail or do not wish to undertake the competence assessments will receive a Faraday "Attendance" certificate.

Course Fee: €1025 +VAT **Competence assesment:** €110 +VAT

Dates

9th - 13th Jan	20th - 24th Feb	12th - 16th Mar	23rd - 27th Apr
7th - 11th May	11th - 15th Jun	9th - 13th Jul	20th - 24th Aug
10th - 14th Sept	8th - 12th Oct	12th - 16th Nov	10th - 14th Dec

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S5 Advanced Refresher Training in the Safe Operation of High Voltage Power Systems

Duration: 3 days

Participants: Personnel experienced in carrying out High Voltage switching duties up to and including 15kV and testing, as a senior authorised person, associated with the safe operation of electrical power systems and who previously attended a course such as the S4.

Aim: To provide refresher training to senior authorised personnel with a responsibility for carrying out High Voltage switching duties and the issue of permits to work/sanctions for test associated with such work.

Outline Contents

- Electrical statutory regulations
- Causes of electrical accidents
- Electrical hazards and precautions
- Case studies
- Application of electrical protection
- An outline of electrical testing & Maintenance requirements
- Practical exercises
- Fault situations and investigation, Fault switching exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate, candidates who fail or do not wish to undertake the competence assessments will receive a Faraday "Attendance" certificate.

Course Fee: €650 +VAT **Competence assesment:** €110 +VAT

Dates

17th - 19th Jan	19th - 21st Mar	2nd - 4th Jul	27th - 29th Aug
16th - 18th Oct	19th - 21st Nov		

MAR4/OS4 Fundamentals of the Safe Operation of Marine/Offshore High Voltage Power Systems

Duration: 5 days

Participants: Marine/offshore personnel with a prior knowledge of the inspection, operation, maintenance, and repair of high voltage systems and who are to be responsible for switching and issue of safety documents (such as electrical permits to work).

Aim: To improve the understanding of HV/LV power systems including statutory regulations, safe operation, protection, maintenance and fault diagnosis on a wide range of marine/ offshore power equipment. Also to enable candidates to perform HV switching operations on marine offshore power equipment and to prepare them for HV authorisation in accordance with their companies' safety rules/regulations.

Outline Contents

- UK and other national marine/offshore statutory electrical regulations, Electrical hazards and precautions
- Arrangement of high voltage switchrooms
- Operation and safety features of switchgear & Operational Procedures.
- Marine/offshore high voltage safety rules
- Issue and control of safety documentation
- Safety Lockout Procedure, Key Safes/Multi Hasp locking device (Isoloks)
- Appreciation of fault levels
- Marine/offshore application of electrical protection
- Emergency conditions & Practical exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate, candidates who fail or do not wish to undertake the competence assessments will receive a Faraday "Attendance" certificate.

Course Fee: €1025 +VAT **Competence assesment:** €110 +VAT

Dates

23rd - 27th Jan	2nd - 6th Apr	18th - 22nd Jun	30th Jul - 3rd Aug
15th - 19th Oct	3rd - 7th Dec		

MAR 5 Principles of the Safe Operation of Marine/Offshore High Voltage Power Systems

Duration: 5 days

Introduction: This is an advanced training programme that requires a good foundation of electrical knowledge and experience of high voltage Power systems.

Participants: Electrical engineers, electrical officers and contract electrical engineering staff, responsible for the construction, commissioning and operation of marine/offshore electrical power systems, and to be responsible for switching and the issue of safety documents.

Aim: This course has been developed to meet requirements of the safe operation of high voltage systems in marine/ offshore applications (HV systems not control systems) This course is more advanced than the MAR4 course and includes a broader technical emphasis with fewer practical switching operations.

Outline Contents

- Marine/offshore statutory electrical requirements
- Philosophy of high voltage distribution
- Operational and safety features of switchgear
- Marine / offshore high voltage safety rules
- Basic fault calculations
- Marine / offshore application of electrical protection
- Principles of power management systems
- Outline of electrical testing
- Synchronisation & Electrical maintenance
- Automatic voltage regulation
- Case studies & Practical exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate, candidates who fail or do not wish to undertake the competence assessments will receive a Faraday "Attendance" certificate.

Course Fee: €1025 +VAT **Competence assesment:** €110 +VAT

Dates

5th - 9th Mar 11th - 15th Jun 17th - 21st Sep

MAR1 **Introduction to the Safe Operation of Marine & Offshore High Voltage Power Systems** (Limited High Voltage Authorisation)

Duration: 3 days

Participants: Electrical/non-electrical personnel required to carry out restricted HV switching operations with limited safety document issuing responsibilities.

Aim: To introduce personnel to the basic concept of marine/offshore electrical power systems to enable them to enter substations/switch rooms, carry out restricted switching operations; monitor the performance and condition of the system (including relay operation) in a safe and competent manner. The course is intended to provide knowledge and awareness of limited safety document issuing responsibilities.

Outline Contents

- Statutory regulations and code of practice
- Operation and safety features of switchgear
- Primary conductors
- Circuit breakers - oil/gas/air/vacuum
- Auxiliary equipment & Exterior of switchpanels
- Switchroom housekeeping & Battery units
- Practical maintenance exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate, candidates who fail or do not wish to undertake the competence assessments will receive a Faraday "Attendance" certificate.

Course Fee: €650 +VAT **Competence assesment:** €110 +VAT

Dates

23rd - 25th Apr 18th - 20thjune 24th - 26th Sep

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Electrical Protection Courses

P1 **Protection of Electrical Power Systems**

Duration: 5 days

Participants: Electrical/plant engineers, supervisors, technicians, electricians with responsibility for the application, commissioning and/or maintenance of electrical protective equipment used on electrical power systems

Aim: To provide detailed theoretical and practical instruction on HV/LV electrical protective equipment including primary and secondary injection of electronic and electro mechanical devices

Outline Contents

- The role of protection
- Current and voltage transformers
- Fuses and other protective devices
- Methods of achieving discrimination
- Fault calculation and testing procedures
- The calculation of graded time settings for IDMTL relays
- Motor protection, feeder protection, transformer protection, generator protection, Busbar zone protection
- Standard marking of switchgear panel wiring
- Tutorials, Case studies & Practical exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate. Candidates who do not wish to undertake or complete the competency assessments will receive a Faraday attendance certificate.

Course fee: €1025 +VAT **Competence assessment:** €110 +VAT

Dates

23rd - 27th Jan 2nd - 6th Apr 6th - 10th Aug

Testing Courses

T1/T2/T3/T5 Electrical Pressure Testing, Earth Electrode Testing, Transformer Testing & Maintenance, Cable Identification & Spiking

Duration: 5 days

Participants: Electrical engineers/technicians responsible for carrying out high voltage pressure testing, earth electrode, transformer and cable identification.

Aim: To cover the theoretical and practical aspects of above testing.

Outline Contents

- Safety requirement / Statutory regulations & standards
- Power cables, Insulation resistance, Polarisation index
- Flash testing, AC pressure tests, DC pressure tests
- Purpose of test, Testing conditions, Test equipment
- Test results / Remedial work, Testing procedures
- Transformer design and construction
- Installation/periodic testing, Transformer oil
- Buchholz protection unit, Open circuit tests
- Short circuit tests, Vector group tests, Temperature devices
- Ground clearance, Methods of cable identification
- Cable spiking, Case studies and Practical exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate. Candidates who do not wish to undertake or complete the competency assessments will receive a Faraday attendance certificate.

Course fee: €1025 +VAT

Competence assessment: €110 +VAT

Electrical Testing:

Electrical Pressure Testing:	7th May
Earth Electrode Testing:	8th May
Transformer Testing & Maintenance:	9th - 10th May
Cable Identification & Spiking:	11 May

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Low Voltage Courses

L1 Live Testing on Systems up to 1000 Volts & Fault Finding Techniques

Duration: 3 days

Participants: Electrical engineers, electrical technicians, electricians and multi-skilled technicians required to carry out fault finding on or near live conductors.

Aim: To identify potential hazards, determine safe working procedures and carry out fault finding to avoid danger from such work. The course is not designed to cover any live work for maintenance, repair or modification purposes.

Outline Contents

- Electrical hazards and precautions
- Fault energy & Statutory regulations
- Necessity for live testing
- Electrical symbols and diagrams
- Construction, installation and maintenance
- Forms of separation of switchgear
- Safe use of test instruments
- Isolation procedures
- Risk assessments / PPE / HSG 85 and flow chart
- Case studies & Practical exercises

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate. Candidates who do not wish to undertake or complete the competency assessments will receive a Faraday attendance certificate.

Course fee: €650 +VAT **Competence assessment:** €110 +VAT

Dates

13th - 15th Feb 2nd - 4th Apr 20th - 22nd Aug

S11 Low Voltage Authorised Person Training

Duration: 5 days

Participants: This course is intended for personnel involved with the operation of low voltage installations (up to 1000 AC) for the purpose of commissioning, testing, inspection, maintenance or repair.

Aim: This course is intended to enhance candidates knowledge of statutory regulations, codes of practice, safety procedures and technical aspects of low voltage power systems.

Outline Contents

- Electricity at Work Regulations
- Electrical hazards & precautions
- Outline of the design, construction, installation and maintenance of LV equipment
- Appreciation of earthing systems, power equipment and safety earths
- Outline of HV and LV installations (including incoming transformers)
- Electrical isolation and safety procedures
- Safety documentation (switching programme – lockout/ tagout)
- Electrical permit to work
- Safe testing of LV electrical equipment and installations
- Practical switching exercises & Case studies

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate. Candidates who do not wish to undertake or complete the competency assessments will receive a Faraday attendance certificate.

Course fee: €1025 +VAT **Competence assessment:** €110 +VAT

Dates

16th - 20th Jan 5th - 9th Mar 28th May - 1st jun

C&G 2377-32 **Management of Electrical Equipment Maintenance** (Portable Appliance Testing, City & Guilds 2377-32)

Duration: 1 day + City & Guilds examination

Participants: Electrical and non-electrical personnel with a responsibility for the safe use of electrical equipment (portable appliances). Candidates should bring along a copy of the IEE Code of Practice for In-service Inspection and Testing of Electrical Equipment.

Aim: To provide information and familiarise candidates with the management of electrical equipment maintenance based on the IEE Code of Practice for in-service inspection and testing of electrical equipment.

Outline Contents

- The Law and scope of the legislation
- Electrical equipment classification
- In-service inspection and testing
- Documentation and labelling
- Training for competence
- Instruments
- City and Guilds 2377-32 examination

Examination: The online multiple choice examination comprises 45 questions (1.5 hour).

Certification: Candidates who successfully complete the course and City & Guilds examination will receive a City & Guilds certificate.

Course fee: €230 +VAT **City & Guilds exam:** €70 +VAT

Dates

22nd Feb 19th Mar 3rd Apr 28th Jun
6th Sep 27th Sep 4th Oct 10th Nov
3rd Dec

C&G 2377 –22 **Inspection & Testing of Electrical Equipment** (Portable 2377-22 Appliances Testing) City & Guilds

Duration: 1 day + City & Guilds examination

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Participants: Electrical and non-electrical personnel with a responsibility for the safe use of electrical equipment (portable appliances). Candidates should bring along a copy of the IEE Code of Practice for In-service Inspection and Testing of Electrical Equipment.

Aim: To give delegates theoretical and practical experience in the implementation of a formal inspection and testing regime for electrical equipment (portable appliances)

Outline Contents

- Hazards of electricity & Classification of appliances
- Dangers associated with the use of various types of portable and fixed electrical appliances.
- Legal requirements & IEE Code of Practice
- Approved inspection and testing procedures
- Portable appliance testers
- Recording of results and maintenance documents
- Practical exercises
- City and Guilds 2377-22 examination

Examination: The online multiple choice examination comprises 30 questions (1 hour)

Certification: Candidates who successfully complete the course and City & Guilds examination will receive a City & Guilds certificate.

Course fee: €230 +VAT **City & Guilds exam:** €70 +VAT

Dates

2nd Feb	20th Mar	5th Apr	29th Jun
7th Sep	26th Oct	9th Nov	4th Dec

C&G2382-12 **IEE 17th Edition Wiring Regulations BS7671:2008** (City & Guilds 2382-12)

Duration: 3 days + City & Guilds examination

Participants: All electrical personnel with a responsibility for the safe installation of electrical apparatus operating up to 1000 volts in industrial /commercial and domestic premises.

Aim: To familiarise participants with the layout, content and application of the regulations

Outline Contents

- Background to BS7671 (2008)
- Legal status and association with statutory documents
- Layout and numbering system
- Scope, object and fundamental requirements for safety
- Assessment of general characteristics
- Protection for safety
- Selection and erection of equipment
- Special installation or locations
- Inspection and testing
- City and Guilds 2382-12 examination

Examination: The online multiple choice examination comprises 60 questions (2 hours).

Certification: Candidates who successfully complete the course and City & Guilds examination will receive a City & Guilds certificate.

Course fee: €510 +VAT **City & Guilds exam:** €70 +VAT

Dates

1st - 3rd Feb
26th - 28th Jun
4th - 6th Dec
26th - 28th Mar
27th - 29th Aug
23rd - 25th Apr
2nd - 4th Oct
23rd - 25th May
6th - 8th Nov

C&G2391-10 **Inspection, Testing & Certification of Electrical Installations, BS7671:2008** (City & Guilds 2391)

Duration 3 days plus ½ day practical assessment & City & Guilds examination

Participants: Electrical personnel responsible for the inspection, testing, and certification of electrical installations operating up to 1000 volts in industrial, commercial and domestic premises. Participants should possess relevant experience and City & Guilds 2382 or equivalent qualification before undertaking this course.

Aim: To give participants theoretical and practical "hands on" experience of the Inspection, Testing and Certification requirements of BS7671.

Outline Contents

- The Purpose and frequency of inspection and testing
- The main inspection requirements
- The requirements and sequence of tests
- Test apparatus
- Understanding and completion of certification documents
- Practical exercises
- City & Guilds 2391 examination

Examination: City & Guilds 2391 written exam (2.5 hours) must be **booked at least 8 weeks** in advance.

Certification: Candidates who successfully complete the course and City & Guilds examination will receive a City & Guilds certificate.

Course fee: €600 +VAT **City & Guilds exam:** €70+VAT

Dates & Examination

To be Confirmed

BE1 **Basic Electrical Course**

Duration 5 days

Participants: Personnel working in industrial/commercial environments requiring electrical knowledge to work safely and effectively. For multi craft environments where skills enhancement and development are required.

Aim: To introduce participants to electrical equipment/procedures and to build confidence with individuals working within industrial/commercial environments, and to develop existing knowledge/skills.

Outline Contents

- Electricity at Work Regulations
- Health & safety / electrical hazards
- Basic electrical theory (Ohms Law, etc.)
- 16th & 17th Edition IEE Wiring Regulations BS7671
- Earthing arrangements and protection
- General principals of lighting
- Fault finding (practical 'hands-on' workshops)
- Test instruments (application and understanding readings- practical workshops)
- Installation methods (practical 'hands-on' workshops)
- End of course assessment

Certification: Candidates who successfully complete the theoretical and practical competence assessments will receive a Faraday "Competence" certificate. Candidates who do not wish to undertake or complete the competency assessments will receive a Faraday attendance certificate.

Course fee: €800 +VAT **Competence assessment:** €110 +VAT

Dates

20th - 24th Feb 11th - 15th Jun 24th - 28th Sep

For further course dates please contact The Faraday Training Group

Customised Courses

In addition to our standard scheduled training programmes, customised courses can be designed to clients' specific requirements and duration. Whether a single day training or a full staff development programme over several months.

Our extensive experience can help to achieve clients' training objectives within the high and low voltage sectors.

Course content and duration can be designed to suit clients' needs:

- Tailor the content and duration to our existing course(s)
- Combine contents of existing scheduled courses
- Design 'hands-on' practical training to suit clients' environment
- Develop new training programmes to client specifications

Training programmes can be delivered at our training facilities in Limassol, Cyprus, UK Head Office training centre and, where applicable, on-site at clients' premises.

For further information, please contact us to discuss your specific electrical training requirements.

Consultancy

The Faraday Training Group offers consultancy service in auditing and developing high voltage safety rules/documents and operational procedures designed specifically to meet client's requirements.

Accreditations

The Faraday Centre is an accredited/registered training provider with various UK institutes and organisations, including but not limited to the following:

City & Guilds Approved Centre

IMCA (International Marine Contractors Association)

EAL (EMTA Award Limited)

ECA (Electrical Contractors Association)

Members of the British Standards Institution

RoSPA (The Royal Society for the Prevention of Accidents)

ISO 9001 Registered

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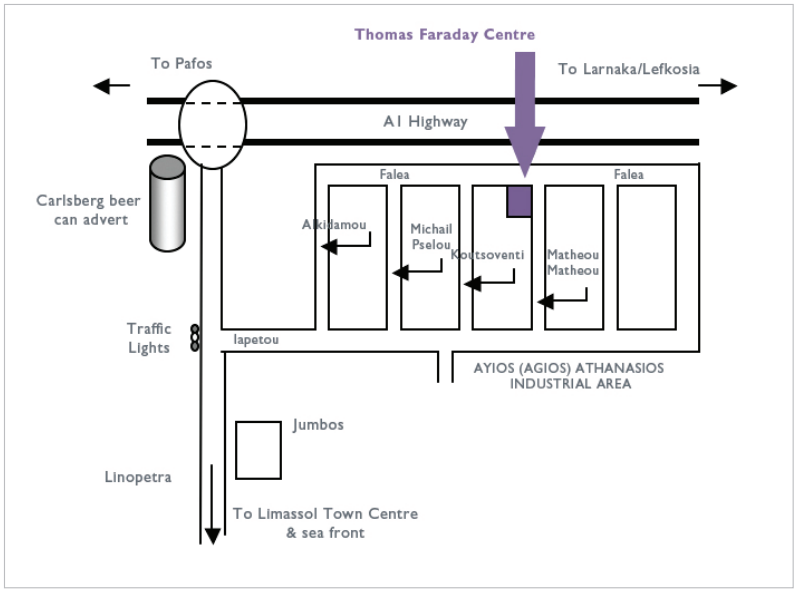
Where to find us



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