



56th Anniversary Dinner

TEEAM is celebrating its 56th Anniversary on 23rd August 2008. A grand dinner will be held in conjunction with the celebration at the One World Hotel, Bandar Utama City Centre, Petaling Jaya.

Free advertisement in the Suara TEEAM newsletter, free dinner table, visual display of company's name and logo are offered to sponsors which are categorised as Diamond, Platinum, Gold and Silver. We appreciate your support to sign back the following sponsorship pledge form. For more detailed information, please contact the TEEAM Secretariat at Tel: +603-9221 4417, 9221 2091 Fax: +603-9221 8212 E-mail: teeam@po.jaring.my or teeam@streamyx.com

56th Anniversary Dinner Sponsorship Pledge Form

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Sponsors' Benefits	Diamond	Platinum	Gold	Silver
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Memento will be presented to major sponsors.

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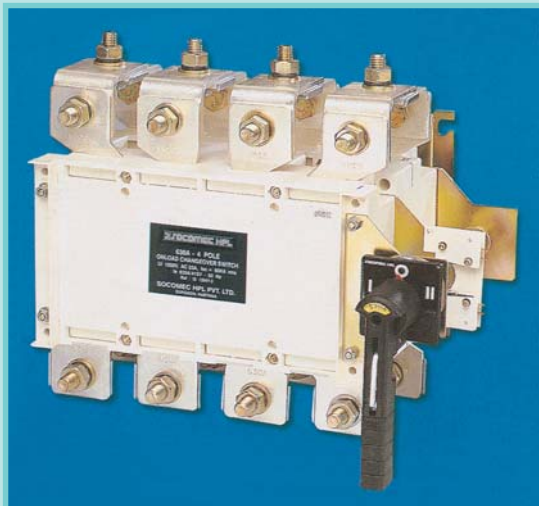
Remarks: 1. Please confirm your sponsorship by return fax and send us your remittance to reserve your booking which is on a first come, first served basis.
2. Please mail it to the TEEAM Secretariat at No. 5-B, Jalan Gelugor, Off Jalan Kenanga, 55200 Kuala Lumpur, Malaysia.
3. Dinner entrance ticket and receipt will be sent to you accordingly.



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Services Export Fund

Guidelines for Application

The Services Export Fund (SEF) is a scheme to provide assistance in the form of reimbursable grants, to Malaysian Service Providers (MSPs) for undertaking activities to venture into the international market through:

- Tendering or negotiating for international projects;
- Conducting pre-feasibility or feasibility studies for international projects; and
- Export promotion activities.

Objectives

The objectives of SEF are to:

- Expand exports of services by increasing the visibility and awareness of the expertise of MSPs in the global market;
- Brand MSPs as internationally competitive, competent and reliable; and
- Gather market intelligence through undertaking feasibility and other related studies which will assist Malaysian companies in securing projects overseas.

Types of Grants

There are 4 types of grants available under SEF:

Grant 1 – For Participating in Tenders to Undertake Studies

Grant 2 – For Participating in Tenders for Projects, or Preparing Negotiated Project Proposals*, to “Design”, “Design-Build”, “Design-Build-Operate” and “Design-Build-Operate-Maintain” projects

* Note:

1. *Negotiated projects are project proposals made directly to clients through negotiations, and not through bidding process.*
2. *The above grants are not for the purposes of carrying out or implementing projects. The grants are to partially fund the costs involved in the preparation and submission of tenders or negotiated proposals.*

Grant 3 – For Undertaking Pre-Feasibility and/or Feasibility Studies for:

- Foreign governments and their agencies;
- Owners of projects, endorsed by foreign governments;
- International funding institutions such as the Islamic Development Bank, World Bank, Asian Development Bank, to benefit a third party; or
- Global institutions like the United Nations and their agencies, World Health Organisation, International Red Cross and Red Crescent, to benefit a third party.

Grant 4 – For Export Promotion Activities

Eligibility Criteria

To qualify for the SEF Grant, MSPs must be:

- Firms incorporated under the Companies Act 1965,
- or
- Sole proprietors and partnerships registered with respective professional bodies;
- Having at least 60% Malaysian equity;
- For Grant **1, 2 and 3**, applicant must also:
 - a. Demonstrate experience and competency as a company or individual person to be an international service provider either individually or in consortia. Company must provide documentary evidence of past projects undertaken by the company or the individual; and
 - b. Provide documentary evidence of the technical expertise available for undertaking projects overseas.
- For **Grant 4**, applicants must submit copy of latest audited account. For firms in operation less than 1 year, a copy of management account can also be submitted.
- Provide evidence of **financial capability** to undertake the activity as follows:
 - a. Audited accounts for the preceding 3 years;
 - b. If the applicant is not able to provide the audited account for the preceding year, the applicant may submit an unaudited account for the immediate preceding year.
 - c. Company's account must show positive shareholders' fund and working capital;
 - d. If the company is not able to meet condition (c), the following documents are accepted as evidence of financial capabilities to undertake the project;
 - i. Company's latest 6 months bank statements with the average balance

amount **not less than 10%** of the value of the grant applied;

or

- ii. Directors' latest 6 months bank statements with the average balance amount **not less than 10%** of the value of the grant applied and letter of undertaking to provide personal financing to the company to undertake the tender/proposal;

or

- iii. Credit line or loan facility with local or foreign bank with facilities value of **not less than 20%** of the value of grant applied.

- e. For SMEs that are sole proprietors or partnerships that are registered with the respective professional bodies that do not have audited accounts, the following can be accepted as evidence of financial capabilities:

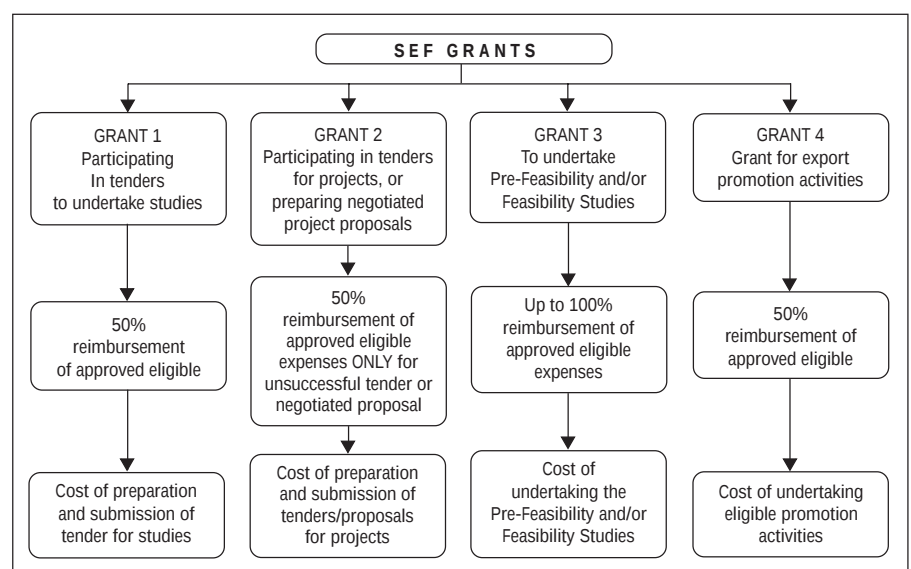
- i. Firm's latest 6 months bank statements with the average balance amount not less than 10% of the value of the grant applied;

- ii. Individual partners' latest 6 months bank statements with the average balance amount not less than 10% of the value of the grant applied and letter of undertaking to provide personal financing to the company to undertake the tender/proposal;

or

- iii. Credit line or loan facility with local or foreign bank with facilities value of not less than 20% of the value of grant applied.

- f. For companies in operation less than 1 year, the management account can be submitted.

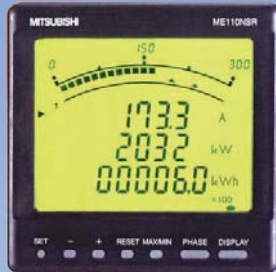


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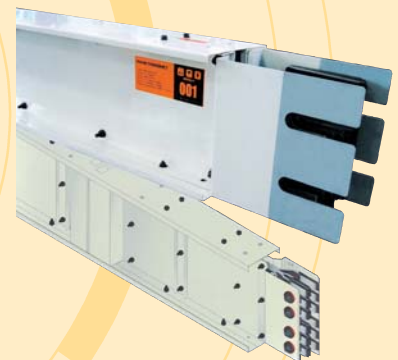
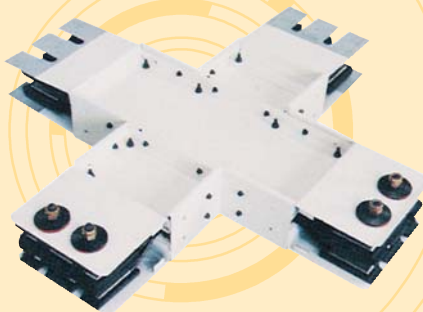
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Sectors Eligible for the Grant

- Social Services (Health, Housing, Education).
- Infrastructure (Roads, Rail, Ports, Airports and Communications).
- Environment, Water and Natural Resources.
- Energy and Mining (Oil, Gas, Coal and Electricity).
- Legal and Institutional Framework.
- Healthcare and Hospital Management Services.
- ICT Services.
- Knowledge Management.
- Information Systems and Service Applications.
- Rehabilitation and Reconstruction Studies.
- Industry, Commerce and Tourism.
- Utilities, Water Supply and Sewerage.
- Agriculture and Rural Development.
- Finance, Banking, Corporate Assurance and Business Advisory Services.
- Architectural and Interior Design Services.
- Urban Planning and Management.
- R&D Clusters and Technology Parks.
- Human Resource Development.
- Business Management, Business Re-engineering and Organisational Studies.

*Note:

This list is not exhaustive. MSPs can apply for a grant to tender or negotiate for any project that has the potential of generating exports for the services sector. The SEF Grant Approval Committee will decide on whether to award the grant.

Grant 1 – For Participating in Tenders for Studies

Under this grant, MSPs can apply for 50 per cent reimbursement of approved eligible expenses in the preparation and submission of tenders for eligible project studies. This relates specifically to the costs in preparing and submitting tenders to do studies, and not the cost of actually undertaking the study itself.

Studies eligible for this grant include:

- Pre-Feasibility Studies
- Feasibility Studies
- Privatisation Studies
- Project Management Studies
- Project Formulation Studies
- Project Audits

Grant 2 – For Participating in Tenders for Projects or Preparing Negotiated Project Proposals

Under this grant, MSPs can apply for the reimbursement of 50 per cent of eligible expenses incurred in the preparation and submission of tenders and proposals only if the company is unsuccessful in winning the bid, or the negotiated project. These grant are for “Design”, “Design-Build”, “Design-Build-Operate” and “Design-Build-Operate-Maintain” projects.

*Note:

1. Applications for Grant 2 must be made within the bid eligibility period and for negotiated projects within 90 days of receiving the Letter of Intent (LOI).

2. Approval for Grant 2 will be valid for (1) one year.

Grant 3 – To Undertake Pre-Feasibility and Feasibility Studies

Under this grant, MSPs can apply for reimbursement up to 100% of the eligible cost of pre-feasibility and feasibility studies. The funding of the studies can take any of the following forms:

- Fully funded through the SEF;
- Jointly funded by the SEF and the foreign government or its agencies;
- Jointly funded by the SEF and the owner of the project which is endorsed by the foreign government of its agencies;
- Jointly funded by the SEF and global and international financing institutions.

*Note:

The project must be either secured through Malaysia Government or its agencies, or offered directly by a foreign government to the applicant and not through a third party.

Eligible Activities and Expenses for Grant 1, 2 and 3

The expenses and activities covered under the grants are:

1. Purchase of bid documents
2. Travel and accommodation expenses related to bid briefings, technical visits and consultative meetings with potential clients.

Expenses covered:

- Costs of travel for not more than 15 trips. Air travel will be for economy class. Visa fees, excess baggage claims and insurance are not eligible for claims.
- Accommodation for a maximum of 21 nights, for the entire bidding process. Hotel accommodation limited to one room per person, not exceeding RM 1,000 per night.
- Reasonable cost of related local expenses, such as car rentals, taxi fares and cost of engaging a local guide and interpreter.

*Note:

For Grant 3, there is no limit on the number of trips for travel and number of days for hotel accommodation.

3. Approved Costs Related to Fact-Finding and Market Research

Costs associated with fact-finding and market research in the targeted market which is relevant to the bid. These include:

- Surveys relevant to the tender bid preparation and submission. These surveys include geotechnical, hydrological and ground surveys;

- Purchase of market reports and related information
- Related expenses on research and local studies

4. Approved Design Costs

Expenses incurred for:

- Schematic designs
- Computer-aided animation
- Video presentation
- Technical drawing costs

5. Staff Costs

The fees and cost of professional, sub-professional and administrative support staff directly involved with the preparation of the proposal. All approved cost must be in accordance with the latest Treasury Guidelines on Government Procurement for Consultancy Services. Copy of the guidelines is available at Treasury’s website: www.treasury.gov.my

6. Scale and Mock-Up Model Costs

The cost of preparing and constructing bidding level scale models by third party or existing staff. For the existing staff, the cost will be on man-months x charging rate.

7. Printing, Binding and Transmittal Costs

The eligible expenses include:

- Legal and Translation costs
- Printing and Binding costs
- Courier and Postage costs
- Telephone, telegram, telex and facsimile costs

*Note:

Expenses listed are only a guide. Not all activities may be relevant to a particular bid for studies.

Grant 4 – For Export Promotion Activities

Under this grant, MSPs can obtain a 50% reimbursable grant on the approved cost of the eligible activities. Eligible activities are as follows:

1. Participation in International Trade Fairs.
2. Participation in Trade and Investment Missions (T&I) and Specialised Marketing Missions (SMM).
3. Participation in Industry Related International Conferences Overseas.
4. Participation in meetings related to negotiations on Mutual Recognition Agreement (MRA), Free Trade Agreement (FTA), ASEAN, World Trade Organisation (WTO) and other market access negotiations by representatives of Trade and Industry Associations and Professional Bodies.
5. Preparation of Promotional Materials.
6. Export Market Research.
7. Initial Cost of Setting Up Office Overseas, for the purpose of:



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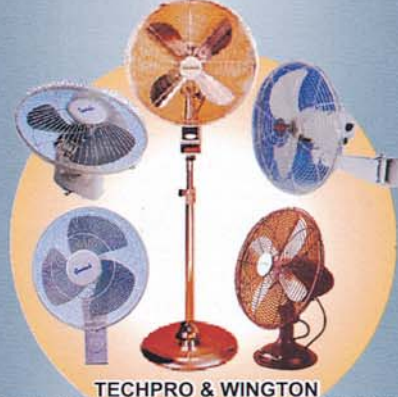
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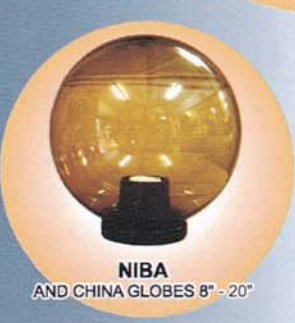
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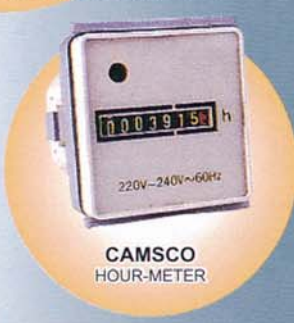
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Email: wetkl@wongelectrical.com.my Website: www.wongelectrical.com.my

..... Continue Services Export Fund

- undertaking activities for promotion of Malaysian products and services;
- seeking opportunity for outsourcing and subcontracting business;
- to undertake research on the market; and
- to undertake and monitor implementation of projects and contracts.

Claimable Expenses

1. Participation in International Trade Fairs.

- Participation fee;
- Economy class airfare for one person. Cost does not include items such as visa fees, excess baggage and insurance premium;
- One hotel room not exceeding RM 200 per night for local international trade fairs, and RM 1,000 per night for overseas fairs;
- Payment will cover the duration of the event and 2 additional days;
- Rental of standard booth which is limited to 18 m²;
- Construction and enhancement of standard booth or shared cost of construction on group basis;
- Interpreter services for non-English speaking countries of the international trade fair limited to RM 1,000 for the duration of the fair;
- Shipment of exhibits and promotional materials. Cost does not include items such as import duties, bank guarantee and surcharge;
- For local international trade fair sending of samples and promotional materials is subject to a maximum cost of RM 2,000;
- Standard advertisement in trade fair show directory;
- For claims related to participation in Local International Trade Fair, company must submit a copy of the event report from the fair organiser, which has been certified by an external auditor. The report must certify that the fair has fulfilled the criteria of an international trade fair, as follows:
 - minimum space occupied for the fair must be at least 1,000 m² gross, **and**
 - at least 10% of visitors must be foreign visitors, **or**
 - at least 20% net space is rented to foreign exhibitors, **or**
 - at least 20% of exhibitors are foreign exhibitors.

* Note:

Companies are not eligible for the grant if 50% of the cost of eligible expenses is already borne by the organiser or sponsor eg booth rental, airfare and accommodation (package).

2. Participation in Trade and Investment Missions and Specialised Marketing Missions.

- Participation fee;
- Economy class airfare for one person. Cost does not include items such as visa fees,

- excess baggage and insurance premium; and
- One hotel room not exceeding RM 1,000 per night. Payment will cover the duration of the event and two days before or after the event.

* Note:

Trade and Investment Missions organised to promote exports of Malaysian made products and services by Government Agencies, Trade and Industry Associations and Professional Bodies are eligible for SEF. The trade mission programme must be submitted to MARTRADE at least one month before the event for approval of the programme. Once approved, companies participating in the programme must apply for SEF individually and will be subjected to the qualifying criteria for SEF.

3. Participation in Industry Related International Conferences Overseas.

- Participation or registration fee;
- Economy class airfare for one person. Cost does not include items such as visa fees, excess baggage and insurance premium; and
- One hotel room not exceeding RM 1,000 per night. Payment will cover the duration of the conference and two days before or after the conference.

4. Participation in meetings related to negotiations on Mutual Recognition Agreement (MRA), Free Trade Agreement (FTA), ASEAN, World Trade Organisation (WTO) and other market access negotiations by representatives of Trade and Industry Associations and Professional Bodies.

- Economy class airfare for one person; and
- One hotel room not exceeding RM 1,000 per night covering the duration of the meeting and two days before or after the meeting.

5. Preparation of Promotional Materials.

- Companies are eligible for a maximum grant of RM 15,000 for preparation of export promotion materials;
- Cost incurred in relation to the production of promotional materials such as brochures, catalogues, flyers, banners, posters and CD-ROM;
- Eligible expenses include;
- For printed materials:
 - Design concept
 - Finished artwork
 - Colour separation
 - Printing
 - Re-printing (For Trade fairs or Trade mission only)
- Production of CD-ROM and Video can be considered for SEF only if it is part of the company's participation in trade fairs or trade missions.
 - Content of text, audio, video, photography, graphic, animation, etc.

- Design
- Development
- Replication and Production of CD-ROM packaging
- Companies must use the services of local printing and CD-ROM companies to benefit from this grant.

* Note:

The approval of the claim is subject to the acceptance of the promotional materials by the SEF Secretariat. Companies that have utilised the maximum grant of RM 15,000, are not eligible to apply for SEF for this activity.

6. Export Market Research.

- Companies are eligible for a maximum grant of RM 30,000 per export market study conducted overseas.
- Eligible expenses are:
 - Research fees
 - Cost of publication of initial report

7. Initial Cost of Setting Up Office Overseas.

- Companies are eligible for a maximum grant of **RM 100,000** per office or the initial Six (6) months set up cost of the office (which ever is earlier);
- Eligible expenses are:
 - Rental of office and Utilities (does not cover deposits);
 - Salaries of support staff excluding allowance and bonuses.

* Note:

For repeat applications, office must be set up in a new city.

MSPs Eligible For the SEF Grants

For Grant 4, all services sectors are eligible except for Financial Services, Tourism Sector and Property Development.

Application Procedure

- Application for Grant 1, 2 and 3 must be made using the SEF Grant Application form **SEF 1/07 Rev. 3**.
- Application for Grant 4 must be made using the SEF Grant Application form **SEF/PROMOTION/07**. These forms can be downloaded from MATRADE's website, www.matrade.gov.my.
- All supporting documents needed for the applications are described in the checklist attached to the form **SEF 1/07 Rev. 3** and **SEF/PROMOTION/07**. Applicants must submit all relevant documents when applying for the grant.
- The SEF Grant Approval Committee will take into account the following additional factors when considering applications for Grant 1, 2 and 3:
 - the risk assessment of the country in which the project is located;
 - the need to utilise to the fullest extent Malaysian expertise and technology;
 - the viability of the project to be undertaken;

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Energy Efficiency and Conservation Guidelines for Lighting

Introduction

Lighting power load contributes significant portion to the energy bills. This guideline provides guidance for indoor lighting in conformity with applicable MS 1525:2001 and MS ISO 8995:2005 covering design criteria, selection and best practice with recommended average illuminance and maximum lighting power.

Guideline for best practice provides methods for determining lighting power consumption and energy-saving measures in lighting.

Guideline on Equipment Energy Efficiency

Types of Lighting

There are many types of lighting products including light bulbs, lamps, ballasts, fluorescent lamps and fluorescent fixtures, troffers, track lights, emergency fixtures, batteries, incandescent lighting, high intensity discharge (HID) lamps and fixtures, rope lights, mercury lamps, dimmers and other products for area lighting.

For domestic and industrial use, the selection of lighting, in terms of wattage and colour rendering, is important in ensuring the right environment for a working area and the efficient utilisation of energy, without jeopardising any visual elements.

Lighting Design Criteria

Luminous environment

Good lighting practice for workplace is more than just providing good task visibility. It is essential that tasks are performed easily and in comfort. Thus, the lighting must satisfy the quantitative and qualitative aspects demanded by the environment. In general, lighting is to ensure:

- visual comfort, where the workers have a feeling of well-being,
- visual performance, where the workers are able to perform their visual tasks, speedily and accurately, even under difficult circumstances and during long periods,
- visual safety, to see one's way around to detect hazards.

Accordingly, to have a good lighting design, the following criteria should be taken into consideration:

- Luminous environment
- Luminance distribution
- Illuminance
- Glare
- Directionality of light
- Colour aspects of light and surfaces
- Flicker
- Daylight
- Maintenance

Luminance distribution

The luminance distribution in the field of view controls the adaptation level of the eyes, which affect task visibility. A well-balanced adaptation luminance is needed to increase:

- visual acuity (sharpness of vision),
- contrast sensitivity (discrimination of relatively small luminance differences),
- efficiency of the ocular functions (such as accommodation, convergence, pupillary contraction, eye movements, etc.).

Diverse luminance distribution in the field of view also affects visual comfort and should be avoided:

- too high luminance can give rise to glare,
- too high luminance contrasts will cause visual fatigue due to continuous re-adaptation of the eyes,
- too low luminance and too luminance contrasts result in a dull and non-stimulating working environment,
- attention should be given to adaptation in moving from zone to zone within a building.

The luminance of all surfaces is important and will be determined by the reflectance of and the illuminance on the surfaces. The range of useful reflectance for the major interior surfaces is given in Table 1 below.

Table 1: Range of useful reflectance for the major interior surfaces

No	Interior surfaces	Range of useful reflectance
1	Ceiling	0,6 – 0,9
2	Walls	0,3 – 0,8
3	Working planes	0,2 – 0,6
4	Floor	0,1 – 0,5

Illuminance

The illuminance and its distribution on the task areas and the surrounding area have a major impact on how quickly, safely and comfortably a person perceives and carries out the visual task. For spaces where the specific area is unknown, the area where the task may occur is taken as the task area.

All values of illuminance specified in this guideline are maintained illuminance and will provide for visual safety at work and visual performance needs.

Scale of illuminance

A factor of approximately 1.5 represents the smallest significant difference in subjective effect of illuminance. In normal lighting conditions, approximately 20 lux of horizontal illuminance is required to just discern features of the human face and is the lowest value taken for the scale of luminance. The recommended scale of illuminance is:

20 – 30 – 50 – 75 – 100 – 200 – 300 – 500 – 750 – 1,000 – 1,500 – 2,000 – 3,000 – 5,000 lux.

Illuminances of immediate surroundings

The illuminance of immediate surrounding areas shall be related to the illuminance of the task area and should provide a well-balanced illuminance distribution in the field of view. Rapid spatial changes in luminance around the task area may lead to visual stress and discomfort.

The maintained illuminance of the immediate surrounding areas may be lower than the task illuminance but shall not be less than the values given in the table below.

Table 2: Illuminance of immediate surroundings and task illuminance

Task illuminance lux	Illuminance of immediate surroundings lux
≥ 750	500
500	300
300	200
≤ 200	Same as task illuminance

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Uniformity

The uniformity of the illuminance is the ratio of the minimum to average value. The illuminance should change gradually. The task area should be illuminated as uniformly as possible. The uniformity of the task illuminance shall not be less than 0.7. The uniformity of the illuminance of the immediate surrounding areas shall not be less than 0.5.

Colour aspects

The colour qualities of a near-white lamp are characterised by two attributes:

- The colour appearance of the lamp itself
- Its colour rendering capabilities, which affect the colour appearance of objects and persons illuminated by the lamp.

These two attributes must be considered separately.

Colour Appearance

The variation in the amount of colours within a light mixture affects the appearance of the light in terms of its relative ‘warmness’ or ‘coolness’. To describe this ‘warmness’ and ‘coolness’ of the colour of the light sources, the term ‘colour temperature’ is used.

Colour Temperature or Correlated Colour Temperature (CCT) due to its theoretical basis in the study of ‘black body’ radiation should apply only to sources with a continuous spectrum (such as incandescent lamps and natural light). However, for light sources with non-continuous spectral distribution (such as fluorescent lamps where the spectrum consist of peaks of energy), CCT is used mainly on an empirical sense (i.e. in a very ‘near approximate’ sense).

Colour Rendering

A more common method of characterising light sources by its colour is the Colour Rendering Index (CRI). The CRI compares the spectral energy content of a light source to that of a standard reference source with full-spectrum. The CRI value is the numerical value and is 100 for full-spectrum natural white-light. Incandescent lights are considered nearly white and have CRI close to 100. Most lights have CRI typically in the range of 20-80.

The CRI model is not a perfect model and should only be used to compare light source with the same colour temperature. For example, (about) 6,000K daylight fluorescent and clear mercury has CRI of 76 and 22 respectively. The daylight fluorescent will therefore render colours better than clear mercury. The difference between a 3,400K tungsten halogen with CRI 99 and an ordinary 2,800K incandescent with CRI 92 can usually also be differentiated by most observers. Despite the small difference in CRI values, the tungsten halogen will render colours more vividly compared to the ordinary incandescent. Colour rendering is important especially in the case of (building) façade and monument building.

Daylight

Daylight may provide all or part of the lighting for visual tasks. Daylight may create a specific modelling and luminance distribution due to its nearly horizontal flow from side windows. Daylight can also be provided by roof lights and other fenestration elements.

General Principles of Efficient Lighting Practice

Lighting must provide a suitable visual environment within a particular space, i.e. sufficient and suitable lighting for the performance of a range of tasks and provision of a desired appearance.

The maintained illuminance levels and maximum allowable power for illumination systems for general building areas are given in Table 3.

For a building that comprises one or more discrete spaces, the lighting power density of each space should not exceed the corresponding maximum allowable value as listed in Table 3.

Table 3: Recommended average illuminance levels and maximum allowable values of Lighting Power Density

Buildings Type / space	Recommended average Illuminance levels (Lux)	Max. Lighting power (W/m ²)
Food Service	200	14
Cafeteria	200	14
Leisure Dining / Bar	150	14
Fast food	200	20
Office	300-400	20
Supermarket / Department Store	200-750	30
Retail Shop	200-750	20
Main Concourse at multi-store shopping centre	200-750	15
Basement Car Park	50	5
Hotel / Motel:		
Guest room & Corridor	100	17
Public Area	100	20
Banquet & Exhibit	300	20
Store / Stairs / Lavatory	100	10
Classroom	300-500	18
Lecture Theatre / Auditorium	300-400	25

Guideline for Best Practice

Maintenance

Maintained illuminance depends on the maintenance characteristic of the lamp, the luminaire, the environment and maintenance programme. The lighting scheme should be designed with overall maintenance factor calculated for the selected lighting equipment, space environment and specified maintenance schedule. The calculated maintenance factor should not be less than 0.70.

Best practice guideline is established for periodical maintenance and appropriate selection and usage of lighting equipment.

Determination of Lighting Efficiency

Lighting power consumption in terms of kWh is determined as follows:

$$\text{Consumption power per lighting (kW)} \times \left(\frac{\text{Average luminance on working place, } E \text{ (lx)} \times \text{Area, } A \text{ (m}^2\text{)}}{\text{Luminance flux per one lamp, } \Phi \text{ (lm)} \times \text{Criteria for rational use of energy} \times \text{Maintenance rate, } M} \right) \times \text{Operating hour, } T \text{ (h)}$$

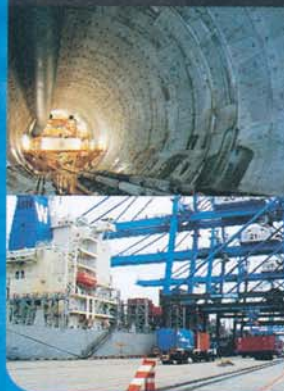
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..... Continue Energy Efficiency and Conservation Guidelines for Lighting

Table 4: Suggested methods for energy savings

No	Suggested methods for energy savings	Recommendations
1	Life-span / maintenance	• Use of longer lifetime lamps; • Frequent cleaning is required as the reflecting value of fluorescent fixtures is directionally correlated to their illuminating ability and their tendency to collect dust. The lamp maintenance factor is one of the parameters in the illuminance calculation. It is recommended to follow the recommended factor of 1-3 years for factories and office buildings; • Bulbs should be replaced when they first begin to dim, before they completely burn out. • Keep the maintenance records for all lamps and send for maintenance / replace whenever necessary. • Select appropriate lighting equipment considering of an easy maintenance lighting equipment. • Any installation shall follow supplier(s) recommendation to avoid over-wattage limit of the lighting device that would increase the energy consumption. • All excessive and / or unnecessary lighting equipment shall be removed. • To follow maintenance factor (MS ISO 8555:2005).
2	Design specification	• The nature of the building environment is an important factor in the design of the lighting system; • If dark colours are used on walls, floors and ceilings, the result is decreased light levels as more light is absorbed by the dark surfaces. Using light colours instead can allow the removal of lamps in some cases.
3	Daylighting / natural lighting	• For a place that is opened to the sunlight, there should enclose a lux sensor / light control system to limit the glare entering the workstation to avoid errors, fatigue and accidents. • Wherever possible, use "natural lighting". Choose transparent roof material, which is easy to clean and will not darken under the action of sunlight. • Clean windows and roof lighting regularly; • Clean the "reflector" portion of the fluorescent light fittings to maintain the available light output. • Task or area lighting may be used in some cases where only a small area of a building needs higher lighting levels. Therefore, an efficient use of lighting is applicable; however, it must not compromise the visual aspects of a lighting installation simply to reduce the energy consumption. • Factors such as glare or stray reflections should also be taken into account. They can have an impact on productivity as well as on the energy efficiency of the system. • An automatic or manual switching or dimming of the lamps is required during daytime depending on the visual acceptance limit.
4	Lighting zones control for energy savings	• All spaces enclosed by walls or ceiling height partitions shall be provided with at least one operated on-off lighting control for each room; • Switch to compact fluorescent light bulbs, in areas where lights are left on for long periods of time, or in difficult to reach places. • One switch is provided for each task or group of tasks within an area of 30 m² or less. • The total number of switches shall be at least one switch for each 1kW of connected load. • Use of a separate circuit where daylight can be used. • Use of alternate switching to optimise the use of lighting. • Automatic 'on' / 'off' control switches are required for areas of infrequent use. • For commercial buildings and offices, lighting in low occupancy areas, i.e. M&E plant rooms, store rooms, meeting rooms and any other identified areas, an automatic control system equipped with sensor shall be placed in order to reduce the energy consumption at that particular area. • For landscaping areas in condominiums and apartments, lighting shall be switched off 30% after 12:00 am due to low occupancy in these areas. • Street lights at urban area (especially major highways and federal routes) shall be dimmed to 50% after 1:00 am in view of the low traffic. However, this is not applicable in rural areas where only a few street lights are installed.
5	Efficiency of luminance	• The efficiency of a light source depends to large extent on how efficient (L.O.R) and performance of the lighting fixtures. • A lamp that produces 20 lumens / watt, when installed, may actually distribute only 10 lumens when covered by dust.
6	Awareness	• An intensive programme of electricity-saving awareness for all employees for their cooperation in lighting control.

Source: The Energy Efficiency and Conservation Guidelines for Malaysian Industries
Part 1: Electrical Energy—use Equipment published by Pusat Tenaga Malaysia



..... Continue Services Export Fund

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The Fine Art of Sleeping – The Unorthodox Way

This article is extracted with the generous permission from “Coverage” Magazine, published by The China Press.

The famous slogan of Dreamland – *Tomorrow begins tonight* – is one of the most touching and powerful appeals I have ever come across. It is such a simple statement, but carries so much wisdom and love which mankind seems to have forgotten or simply choose to violate.

Man spends about a third of his time sleeping. If this revelation does not seem to drive the message home, then consider this: A 60-year-old man has spent 20 years of his time on bed, with his eyes close and doing nothing but dreaming! And the ‘joke’ is, like many others, he could have been sleeping the wrong way!

To many people, sleeping is just part of a daily routine and it occurs naturally like breathing and heartbeat. It is like a biological clock built within us the moment we were born, with an intrinsic itinerary and programme set out for all our bodily organs and functions for strict adherence.

As such, sleeping is also taken for granted as a natural propensity and capability of the human body to retire timely to recharge itself. And in the same vein, we also expect ‘sleeping’ to do its job properly and efficiently for the betterment of the body. But alas, such assumption is simply too far from the truth, and as a matter of fact, the quality of sleep varies greatly from night to night, and person to person.

Indeed, sleeping is one vital aspect of life that has long been neglected by mankind, even though it makes up a third of our life span. Another wonderful truth is, sleep is also an art form which can be improved and perfected by ways of various techniques, many of which are so simple and very effective.

It’s common knowledge that sleeping is vital to ensure good health. A person deprived of several days of sleep could end up in coma or death. That is how important sleep is to mankind.

The prerequisites for quality sleep, are basically to relax the body by various means in order to unwind the body in the process of transiting into the sleeping mode. Some of the techniques which had been featured in the previous issue of Suara TEEAM include:

- Positive thinking technique
- Breath-listening technique
- Parts relaxation technique
- 3-line relaxation technique
- Abdominal respiration technique

Here, we will delve on some other unique relaxation techniques as well as several simple DIY methods.

1. Skin Breathing Technique

Not long ago, it was reported in the newspaper that a European had set a new record of staying underwater without any breathing aids for more than 15 minutes. Among other factors, he attributed his feat to the higher oxygen content in the water that day. This is a very interesting remark, as it is related somewhat to the phenomenon of Skin Respiration, which is what we wish to talk about here.

Actually, skin respiration is nothing new, as it commonly occurs in many low class living organisms such as bacteria and leeches, and also some amphibians like some species of frogs.

The question is, is it possible for human being to perform skin respiration? And how will it bring about better sleeping, as far as our subject title is concerned?

Believe it or not, human being can actually perform skin respiration, albeit only to a certain extent which is insignificant for human survival. With the naked eyes, one can easily notice the numerous tiny pores on our skin which actually allow the skin to perspire and breathe by way of osmosis and air adsorption. As a matter of fact, the same process also allows our cells in the lungs to exchange oxygen and carbon dioxide to keep us alive.

Even though it is of little use to help replenish the large amount of oxygen needed by the body, the technique of skin respiration can be easily exploited to effectively bring about relaxation of the mind and body, with the help of the power of imagination.

The ultimate aim of the skin respiration technique is to free the body of mental and bodily stress, thus paving the way for the pre-sleeping mode, which is vital to ensure quality sleep so that the body is fully recharged within the shortest possible time.



The fine art of sleeping.

The best thing is, the skin respiration technique, being basically a relaxation exercise, can also be carried out any time and anywhere, not necessarily on bed. A few minutes of this exercise on your office armchair after your lunch can refresh your mind a great deal.

Now back to the bedroom. First set the room temperature right and cozy by adjusting the aircond or ceiling fan. Put on the lightest and least attire possible (best naked for optimum effect). Lie down on bed on a pillow of comfortable height, facing upwards. Spread out your limbs slightly and close your eyes.

From here onwards, you will have to put in a lot of imagination. Once you are fully relaxed from the head to the toes, imagine that the skin on your whole body is breathing in and out gradually in tandem with the lung respiration. When breathing in, there should be a nice cool feeling on your skin, as if tiny streams of cool air are flowing into the pores of your skin. When breathing out, try to imagine your skin releasing tiny streams of air into the atmosphere very gracefully, until the stage when you feel like a flattened tyre.

For the beginners, it could be easier for them to first focus on certain parts of the body, especially the scalp and facial skin. Once such feeling is acquired, it can then be extended step by step to other parts of the body.

Repeating the above imagination process and you will have an enjoyable glide into the pre-sleeping mode within a few minutes. (Personally, I have also tried out this technique while floating on a mirror-calm sea, which is similar to zero-gravity situation. It feels great!)

..... Continue The Fine Art of Sleeping – The Unorthodox Way

2. Foot Massage

The discovery of how foot massage could help improve my sleep was quite co-incidental, and in a way, thanks to the severe recession our nation experienced in the mid-80s. Since then, through my personal observations and experience, foot massage has become one of my main defenses and DIY treatments against ailment.

Foot massage was brought to Malaysia in the early 80s from Taiwan. At the height of recession, a Chinese couple set up a foot massage service centre right above my office in Taman Maluri, Kuala Lumpur. Since my business was slow, I was quite free at times, and decided to try out the foot massage service one afternoon, to take advantage of their special package of 10 sessions for a mere RM 200.

The first session of foot massage took almost an hour, and the pain that I had to go through was most shocking and unforgettable. I almost wanted to give up, but the long list of testimonies from treated patients managed to convince me to visit them several days later, when the bruises on my sole were gone.

With the pain anticipated and psychologically more prepared, the second foot massage session was an entirely different experience. Towards the second half, there was a strong urge to sleep. And the fact was, I knocked off twice, with loud snoring, without me even noticing it. This was only told to me by the masseur later.

As far as I was concerned, this was something marvelous and interesting, as I normally found it almost impossible to sleep in the afternoon, even while idle at home during holidays. This finding prompted me to make further study into this subject, and eventually came out with

a set of my own hypothesis, which is relevant to the subject of relaxation and sleep.

According to the foot masseur, the massage had the effect of removing some of the uric acid and ‘toxins’ locked inside the leg acupoints, which are associated to every part of the body. The release of this harmful material into the blood stream will bring about blood contamination and dizziness, hence the yearning to sleep.

However, I think his explanation could only be part of the cause. You see, when exerting great pressure on the acupoints on the legs, the body will immediately emit a warning signal that the legs are ‘in danger’ and in need of help. As a result, more blood will be flown to the legs, and the reduction of blood on the upper part of the body, especially the head, will also bring about sleepiness.

The second factor is even more intriguing, as far as I was concerned. I had read somewhere about the subject of pain, and the article said that ‘pain is a relative sensation’. This means that the severity of pain is circumstantial and variable depending on the situation a person is in.

For instance, you have a headache. If someone were to prick your finger with a long sharp needle, your headache is likely to disappear immediately, as the pain has somehow shifted to the finger.

The same thing happens during foot massage, which is known for its acute pain experienced the moment pressure is exerted on the so-called ‘problem areas’. These pains, the more intense the better, will cause all the hidden pains in your head and pending worries in your mind to be temporarily transferred to the legs. Effectively, such void in your head is an excellent prelude to the sleeping mode.

Nowadays, if my wife were to have a headache, 20 minutes of foot massage is what I need to relieve her complaint. Better and faster than the doctor can do, she said.

After doing DIY foot massage for more than twenty years, I had also discovered another phenomenon which has never been published in existing literature. I apply this technique when I only had few sleeping hours but still need to rise early the next day. It involves applying intense pressure on the inner section of the big toe for about five to ten minutes (mind you, it is extremely painful). The result is wonderful. It will wake me up early the next morning without the alarm clock, and I would feel as fresh as it could be, even though I could have slept for 2 or 3 hours only. I still do not understand why but it simply works that way.

If you have someone to massage your feet, well and fine. Otherwise, there are various kinds of foot massage tools in the market for you to DIY.

Nowadays, foot massage is also the surest way to ‘put my active children to sleep’. All I need is 15 minutes, and they will be happily snoring away in the most relaxed manner.

3. Other Sleep-Inducing Techniques

i) Crystal Ball Technique

This is one of the most basic Qigong techniques commonly used to amass the qi-energy in the body and the surrounding to serve certain purposes. Literally speaking, qi is a gas. But in Chinese medical theory, it is also a form of invisible energy that exists in the whole universe and in every living thing, including the human body.

In the body, the efficient flow of such energy is a must to ensure robust health. Death occurs when the energy ceases to activate.

To ensure good sleep, it is also necessary to establish a smooth and gentle flow of the qi-energy throughout the body. Any obstruction will lead to discomfort and ailment, and also bad sleep.

One way of amassing the qi-energy is to focus your mind on the formation of a nice crystal ball of comfortable size. It can be as small as a golf ball and as large as a tennis ball. One easy way to achieve this is to first visualise a huge crystal ball, with the eyes closed, then shrink it gradually to the size you prefer. You also need to be fully at ease mentally to achieve this.

Once you have a clear image of the small crystal ball with a mild and pleasant glow, move it gradually to various parts of the body to bring about a soothing sensation. If the energy ball fades in the process, focus your mind on the ball until its glow is restored, before moving it again. Also, remember to keep your body relaxed all the time. Often, you will fall asleep in the process without you realising it.

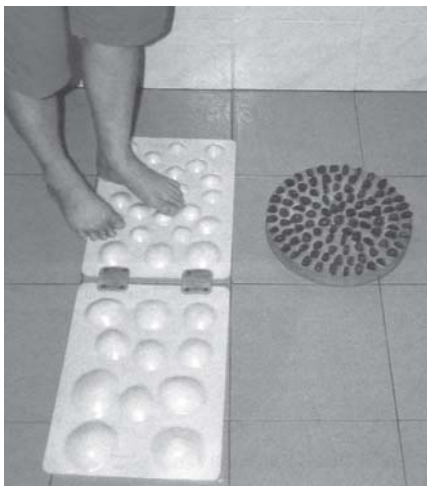
ii) Open Mouth Technique

This is one of the simplest techniques which can even be learned by the children. First, lie down and attain full relaxation, with the eyes closed. Then open your mouth and inhale through the nose as much air as possible. When you cannot inhale any more, pause for several seconds, then let the air be exhaled naturally and gradually. Make sure you do not use too much force to exhale.

The above process is a sort of simulation of the natural yawning process. Done repeatedly for several minutes and you will actually start to yawn, which is a good sign that you are already drifting into a slumber.



Foot massage can greatly improve your quality of sleep



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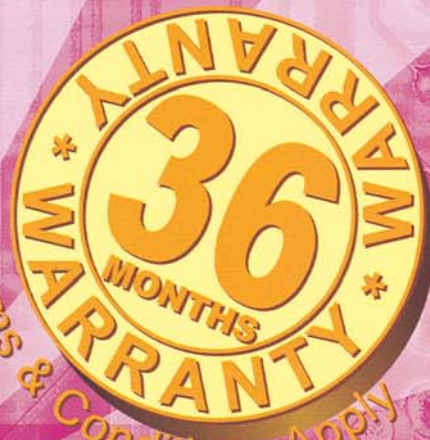
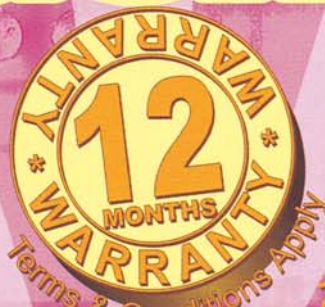
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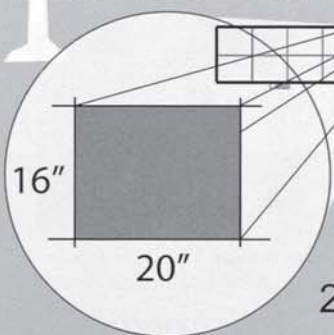
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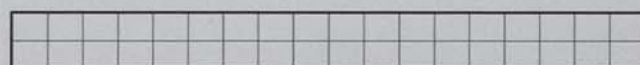
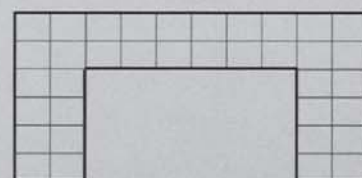
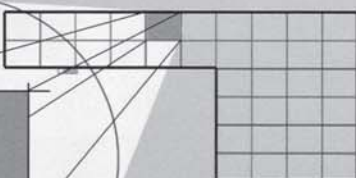
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..... Continue The Fine Art of Sleeping – The Unorthodox Way

iii) Cold Bath Technique

The Cold Bath Technique is somewhat similar to the Skin Respiration technique, albeit simpler to execute. First, relax the body and ensure rhythmic breathing. Then, imagine you are lying on a stretcher and being dipped into the cold bath very slowly and gently at regular interval, say every 15-30 seconds. While in water, imagine that your body is a kind of sponge which can absorb water. As water is absorbed, you should also feel a nice chill, which would help to reduce your physical and mental stress. Focus the thought of absorbing water on various parts of the body in a cyclic manner. If you can, let the 'chill' seeps deeper into the internal organs. Repeat the process until you fall asleep.

(In case you are overseas during winter and find it difficult to sleep because of the cold,

you can also modify the above technique by dipping yourself in a 'Warm Bath'. (Putting on a pair of socks will be of great help to keep yourself warm and comfortable).

iv) Teeth Tabbing Technique

This technique is very simple. Lie on bed and close your eyes. Relax your body and achieve rhythmic breathing by one of the usual methods. Then tab your teeth lightly, first at the incisor section at a rate of 2 to 4 tabs per second, for about half a minute. After this, rest for a while with open mouth, before proceeding to do the same for the canines and molars. Repeat the process several times.

Such tabbing has the effect of enhancing saliva secretion, which is particularly good for those who had just taken supper or those

who had gastric problems. A lighter stomach is certainly conducive in achieving good sleep.

In addition, the tabbing also helps to focus attention on the teeth, and indirectly reduce stress and prevent straying thoughts.

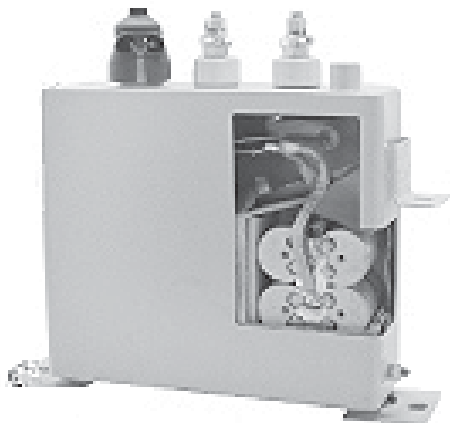


The crystal ball technique is one of the easier ways to achieve pre-sleeping mode.



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E-mail: teeam@po.jaring.my or teeam@streamyx.com

Building Wiring Installer Course

Introduction

The Building Wiring Installer training programme is designed for the construction personnel involved in the low voltage installation of electrical wiring and related electrical equipment. It is also a skill standard developed by the Construction Industry Development Board (CIDB) with participation of industrial experts from the public and private sectors. The Course is sponsored by CIDB subject to prior approval.

Course Duration & Language

Training lessons are conducted in Bahasa Malaysia from Monday to Friday, 10:00 am to 5:00 pm, over a period of 3 months.

Course Content

1. Fundamentals of electricity

Series and parallel circuits. Measurement units. Supply sources. Single phase and Three phase.

2. Wiring cables

Types, size, colour code, rating and applications. Conductor and insulator. Current carrying capacity and voltage drop. Types and methods of electrical wiring joint.

3. Protective devices

Fuse, miniature circuit breaker and earth leakage circuit breaker. Overload relay.

4. Read and interpret drawings

Electrical layout diagram. Schematic diagram. Wiring circuit diagram. Electrical symbols.

5. Electrical wiring

Concealed and surface wiring. Conduit and trunking. Surface and flush mounting. Lighting and power final circuits. Consumer terminal unit. kWh meters and earthing system.

6. Installing electrical equipment and appliances

Water heater, door bell, discharge lamp, exhaust fan, distribution board, etc.

7. Use measuring and testing instrument

Voltmeter, ammeter, clamp tester, multi-tester, insulation tester, earth resistance tester, etc. Principle of operations and applications.

8. Practical safety measures

Apply first aid treatment. Hazardous environment. Safe usage of tools and equipment. Report accidents on-site. Acts and regulations.

Certificate

Course participants who have achieved the skill competency requirement will be awarded with a certificate. In addition, a CIDB Green Card will also be issued.

For registration and further information, please contact the TEEAM Secretariat at:

Tel: 603-9221 4417, 9221 2091

E-mail: teeam@po.jaring.my

Website: www.teeam.com

ElectricalDirectory.com.my

Electrical Network, Malaysia.



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Electrotechnical Training Short Courses Programme

Course Title

Safe Switching in LV and MV Installations (2½ Days)

Objectives

This course is designed to familiarise and/or refresh electrical workers on the safe operation of electrical equipment in their plant. Set against a participative approach, this course aids in recounting individual's experiences and sharing of practical encounters to encourage hazards identifications of electrical works and enhance electrical safety awareness.

Course Content

- Sharing of personal experiences – near misses or accidents
- Electrical hazards – electric shocks, burns, fall, explosion, blasts
- Root causes of hazards – man, machine, materials and environment
- Vital statistics – arc flash facts, body threshold, burn survival rate
- Electrical accidents – statistics and case studies
- Switching failures – root causes
- In Service failures – root causes
- Safe system of work, personal safety, safe work habits
- NFPA 70E flash protection boundary
- Switching steps for LV and MV switchgear
- Emergency response for trippings and breakdowns in electrical equipment
- Permit-To-Work, Job-Safety-Analysis, Lock-Out-Tag-Out
- Switching procedures for electrical installations
- Visit to TNB Sub-station and/or ILSAS sub-station workshop

Course Fee

RM 1,100.00 per participant (member)
RM 1,200.00 per participant (non-member)
(inclusive of lunch & light refreshment)

Who Should Attend?

Electrician, Wiremen, Electrical Chargemen, Technical Assistants, Engineers, Electrical supervisors, those involved in the operation and maintenance of electrical installation.

Certificate

Certificate of Attendance will be awarded to course participants who have achieved 90% attendance and have completed all assignments.

Course Title

Low Voltage Switchgear (3 Days)

Objectives

Upon completion of this course, the participant will receive a thorough grounding in switchgear theory, standards and applications. You will gain a solid understanding of the issues associated with the proper installation, operation and maintenance of the switchgear.

Course Content

- Key components of the switchgear
- Compartmentalisation
- Functional units
- Insulation technology
- Busbar system – arrangement, sizing or verified by test
- Earthing system – sizing or verified by test
- Cabling system – types & sizes of cables, top/bottom entries, glanding
- Types of motor starters: DOL, SD, AT, soft starters, series resistance
- Protection relaying
- Metering & protection
- CT & PT sizing
- Controls circuitry
- Alarm annunciation & Semaphore indications
- Auto-transfer system, Designing Capacitor Banks
- Designing Capacitor Banks
- Specifying LV switchgear & control gear
- Ratings, design & construction, clearance & creepages, tightness, flammability
- Type test requirements – temperature rise, short time withstand, IP verification, Tightness test, EMC test, short circuit make & break tests, capacitive current test
- Relevant standards: IEC, ANSI
- Maintenance trends, principles
- Failures mechanism

Course Fee

RM 1,300.00 per participant (member)
RM 1,400.00 per participant (non-member)
(inclusive of lunch & light refreshment)

Who Should Attend?

Electrician, Wiremen, Electrical Chargemen, Technical Assistants, Engineers, Electrical supervisors, those involved in the operation and maintenance of electrical installation.

Certificate

Certificate of Attendance will be awarded to course participants who have achieved 90% attendance and have completed all assignments.

Course Title

MV Switchgear Asset Management – Commissioning, Operation And Maintenance (3 Days)

Objectives

Upon completion of this course, the participant will gain a solid understanding of the issues associated with the proper design, installation, commissioning and operation and maintenance of the switchgear.

Course Content

- Switchgear installation & commissioning
- Transport and storage
- Preparation work
- Floor construction
- Erection of panel
- Commissioning tests
- Switchroom requirements
- Switchgear operations – proper procedures
- Maintenance trends, principles
- Condition monitoring
- Performance indicators – MTBF, MTTR
- Contacts and bus connections
- Insulation

Course Fee

RM 1,300.00 per participant (member)
RM 1,400.00 per participant (non-member)
(inclusive of lunch & light refreshment)

Who Should Attend?

Electrician, Wiremen, Electrical Chargemen, Technical Assistants, Engineers, Electrical supervisors, those involved in the operation and maintenance of electrical installation.

Certificate

Certificate of Attendance will be awarded to course participants who have achieved 90% attendance and have completed all assignments.

Course Title

Fundamentals of Protection Systems (2 Days)

Objectives

This course is designed to provide a comprehensive treatment of protection relays applications in industrial power systems and to equip the course participants with a working knowledge of modern practices in power system protection.

Course Content

- Purpose – Reliability – Selectability
- Stability – Sensitivity – Speed
- Unit and Non-unit protection
- Primary and back-up protection
- Overlapping
- Types of earthing
- Choice of earthing
- Fuses
- Overcurrent
- Thermal Overload
- Earth Fault
- Differential protection
- Troubleshooting
- Protection of electrical equipment – Motor, Transformer, Generator, Feeder
- Case studies
- Worked examples
- Simple fault calculations

Course Fee

RM 800.00 per participant (member)
RM 950.00 per participant (non-member)
(inclusive of lunch & light refreshment)

Who Should Attend?

Electrician, Wiremen, Electrical Chargemen, Technical Assistants, Engineers, Electrical supervisors, those involved in the operation and maintenance of electrical installation.

Certificate

Certificate of Attendance will be awarded to course participants who have achieved 90% attendance and have completed all assignments.

For registration and further information,
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Dec '07/Jan '08 Issue



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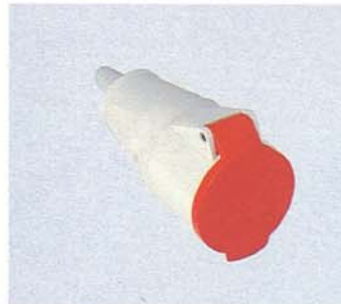
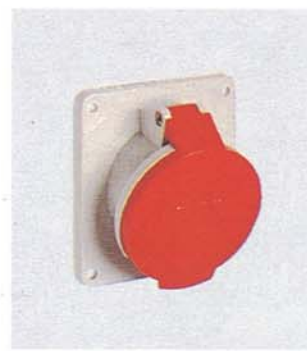
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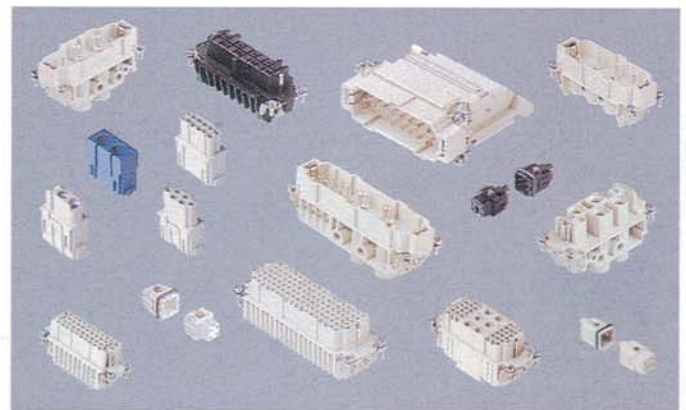




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