

Malaysia's Electrical & Electronics (E&E) Industry

The Electrical & Electronics (E&E) industry is the leading industry within the manufacturing sector and is the largest contributor to Malaysia's exports. In 2017, E&E exports were valued at RM343.02 billion, accounting for 36.7% share of Malaysia's total exports and 44.7% share of Malaysia's manufactured exports. Semiconductor devices, ICs, transistors and valves, the largest exported items, accounted for 51.9% share of Malaysia's E&E exports. Singapore, China, the USA, Hong Kong and Japan remained the top 5 export destinations for E&E products, whereby these countries collectively absorbed 63.8% share of Malaysia's total E&E exports.

The E&E industry has been identified as one of the catalytic sub-sectors promoted within the 11th Malaysia Plan, National Key Economic Areas (NKEAs), National Export Strategy (NES) and Third Industrial Master Plan (IMP3) to drive exports. In May 2017, the E&E Productivity Nexus was established to assist enterprises to boost their productivity, increase innovation and capture growth opportunities. To encourage the transformation of this sector, the eco-system approach was focused upon, whereby there needed concerted effort to be put in place in promoting the entire value chain of industry clusters and thus enhance the delivery enablers to support the value chain.

As the national trade promotion agency tasked to promote Malaysia's E&E exports, MATRADE will be co-ordinating the following promotional programmes in 2018, namely:

2018 EXPORT PROMOTION ACTIVITIES

**The Time to
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23-27 Apr 2018

- Export Acceleration Mission (EAM) in conjunction with HANNOVER MESSE (Hannover, Germany)
- Focus : Integrated automation, motion & drives; digital factory; energy; industrial supply; research & technology

22-24 May 2018

- International Sourcing Programme (INSP) in conjunction with SEMICON Southeast Asia 2018 (Kuala Lumpur, Malaysia)
- Focus : Semiconductor; LED; OLED; MEMS; printed/flexible electronics

23-26 May 2018

- INSP in conjunction with METALTECH (Kuala Lumpur, Malaysia)
- Focus : Machine tools; mould & die; precision engineering; material handling & storage; tools & tooling; sheetmetal technology; measurement technology; surface & heat treatment; welding

10-12 Jul 2018

- Trade Fair at SEMICON West 2018 (San Francisco, USA)
- Focus : Semiconductor; LED; OLED; MEMS; printed/flexible electronics

2H 2018

- Global Sourcing & Partner Development Programme (Kuala Lumpur, Malaysia)
- Focus : Electrical & electronics products



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It is important that more Malaysian companies come on board to participate in these trade promotional activities as concerted effort from both the private and public sectors is required to drive the country's E&E export to the next level. Details of participation can be found at <http://www.matrade.gov.my> for Malaysian Exporter > International Trade Events*.

* Please note that some of the events may not be listed as yet. It should be updated soon.

For more information, please contact

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Taiwan National Climate Change Action Guidelines

Mr Tsai Mao-Chung

President of Taiwan Electrical Contractors Association (TECA)

This Paper was presented by Mr Tsai Mao-Chung at the AFEEC-FAPECA Conference 2017 on Carbon Neutral Opportunities which was held on 11th October 2017 at the Impiana KLCC Hotel, Malaysia

Preface

Climate change, caused by greenhouse gas emissions from economic activities, has led to ever-rising average global temperature, impacting both human kind and the eco-system. Taiwan is no exception; the frequency of extreme rainfalls, typhoons, days with high temperatures and volatility of precipitation in Taiwan are expected to increase significantly in the coming years. This will severely impact numerous areas, including water resources, homeland security, coastal environments, marine resources, food security, public health and bio-diversity.

Climate change is indeed posing a rigorous challenge to the entire planet. Despite the difficult challenges of transforming the energy and industrial structure, Taiwan has re-iterated that it will spare no effort to reduce greenhouse gas emissions while complying with the Paris Agreement and the United Nations' Sustainable Development Goals. Pursuant to Article 9, Paragraph 1 of the Greenhouse Gas Reduction and Management Act, promulgated in 2015, the central competent authority, namely the Environmental Protection Administration of the Executive Yuan, has the responsibility to formulate the National Climate Change Action Guidelines (Action Guidelines) and the Greenhouse Gas Reduction Action Plan (Action Plan) as the general guidance for the task of reducing greenhouse gases for the whole nation.

Taiwan endeavours to reduce greenhouse gas emissions, realize environmental justice, establish global partnerships, adopt low carbon lifestyles, and achieve the ultimate goal of sustainable development. It will do so through co-operation between central and local authorities, Non-Governmental Organisations (NGOs) and the general public as well as the development of climate change adaptation and mitigation strategies, which take into account inter-generational equity and the right of the minority groups.

Prospects and Objectives

1. Prospects

Formulate adaptation strategies; reduce and manage greenhouse gas emissions; construct a green and low carbon homeland that is adaptive to climate risk; ensure sustainable development of the nation.

2. Objectives

- (i) Enhance over-arching adaptability; minimize vulnerability; build-up resilience.
- (ii) Gradually reduce GHG emissions to 50% of the 2005 emission level by 2050.

General Principles

The Government shall observe the following principles:

1. Comply with the provisions of the Paris Agreement to enhance greenhouse gas mitigation and gradually phase out the use of Hydro-Fluoro-Carbons (HFCs) (which have high global-warming potential) pursuant to the Kigali Amendment to the Montreal Protocol.

2. Acknowledge that transparency, environmental co-benefits and cost-effectiveness should be considered in both policy formulation and implementation of mitigation and adaptation issues.
3. Implement a cap-and-trade scheme for greenhouse gases and taxation to put carbon pricing and green finance into practice and enhance economic incentives to reduce greenhouse gas emissions, assist green industrial development, improve national competitiveness, and promote social welfare.
4. Comply with the objective of a nuclear-free homeland, such that expansion in nuclear power will not be adopted as a means of combating climate change.
5. Take mitigation and adaptation strategies into consideration while performing environmental impact assessments.
6. Enhance capacities with regard to basic science, early warning, adaptive response to climate change, and resilience development.
7. Improve energy and resource utilisation efficiency, boost resource recycling, and ensure national energy security and sustainable utilisation of resources.
8. Establish a communication platform on which to build partnerships between the central and local Governments as well as co-operation between the public and private sectors, to practically execute localised adaptation and mitigation measures.
9. Boost international co-operation and authentic participation, based on the principle of reciprocity, to maintain industries' international competitiveness.
10. Increase public awareness and build the capacity to respond to climate change, and pro-actively assist Non-Governmental Organisations to participate in relevant events.



Mr Tsai Mao-Chung

Adopted Policies

1. Climate Change Adaptation

- (1) Enhance disaster risk evaluation and disaster management.
- (2) Raise resilience of infrastructure.
- (3) Maintain a balance between water supply and demand.
- (4) Assure land use safety and strengthen land consolidation and management mechanisms.
- (5) Prevent coastal hazards and ensure sustainability of marine resources.
- (6) Improve adaptability of the energy supply system and industries.
- (7) Secure agricultural production and ensure biodiversity.
- (8) Reinforce the public health and epidemic prevention system and improve health risk management.

2. Climate Change Mitigation

- (1) Adjust the energy supply structure and improve energy efficiency.
- (2) Transform to green business and execute sustainable production and consumption strategies.

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Green Initiatives

We are pleased to highlight the pro-active steps taken by one of our TEEAM Members, Furutec Electrical Sdn Bhd in following best practices as espoused by industry leaders. The objective of this article is to give us a timely peek into the diverse activities undertaken and the highly commendable progress that have been made to contribute towards the sustainability of our environment. The implementation of such a noteworthy green initiative include aspects such as product design and life cycle, building design, manufacturing processes and employee engagement towards a greener workplace.

In the area of building and workplace design, installation of a solar panel at the car park area and rainwater harvesting system have helped to save on electricity and water. A recycling centre was established to provide a proper waste management system for employees to dispose their recyclable items. Green plants were placed at each department to purify the air and heat insulation was added to the building roof to naturally reduce the consumption of air-conditioning.

In terms of the company's manufacturing processes, efficient and cost-effective production practices were incorporated. The noble vision was to become a 'Smart Factory' with Industry 4.0 implementations. This is the current trend for automation and data exchange in manufacturing technologies, inclusive of Cyber-Physical Systems, Internet of Things (IoT), Cloud Computing and Cognitive Computing.

Wastage minimisation initiatives had been efficiently and effectively implemented and have thus translated to more output of the product per unit of raw material input. All raw materials used were also in strict compliance with the RoHS (Restriction of Hazardous Substances) Standard.

As the most important underlying change factor, it was the commitment of the company's staffs, which seamlessly tied in with these green initiatives of eco-friendly products, building design and manufacturing process. The culture, mindset, practice and habits have evolved to incorporate both the individual role and team



Furutec Recycle Centre – In collaboration with Tzu Chi NGO.

responsibility, with a noble view to save Mother Earth from global warming and climate destabilization for generations to come. The winning mindset of 'It begins with us' is epitomised in the company's 'walking the talk' CSR (Corporate Social Responsibility) activities in the business operation. The all-important 5Rs (Refuse, Reduce, Re-use, Repurpose and Recycle) is now firmly embedded into the daily operations too.

This green initiative exercise is in line with our government's call for the urgent and systematic reduction of the carbon footprint and environmental pollution.

It is hereby hoped that all TEEAM Members will pro-actively work towards the noble aims of achieving the Green Transformation for our present generation and also for our progeny.

Green is the SMART way to go forward!

*This article is contributed by Furutec Electrical Sdn Bhd.
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..... Continue Taiwan National Climate Change Action Guidelines

- (3) Develop green transportation and improve energy efficiency of the transportation system.
 - (4) Construct sustainable buildings and low-carbon living areas
 - (5) Boost the development of sustainable agriculture.
 - (6) Alleviate environmental burdens and build a society that re-uses and re-cycles energy and resources.
3. Complementary Policies
- (1) Mobilize capital from the private sector through the implementation of green finance; foster the development of the green energy industry and boost resilience.
 - (2) Internalize the external costs incurred by greenhouse gas emissions via the carbon pricing scheme, including green taxation and cap-and-trade.
 - (3) Construct channels for the general public to access relevant climate change information; provide incentives or subsidy measures to trigger behavior change and region-specific low carbon action.
 - (4) Promote climate change-related environmental education; cultivate professional personnel to respond to climate change issues; enhance the awareness and skills of the general public and convert them into daily low-carbon actions.

Future Implementation

In order to re-inforce the adaptability to climate change, relevant Central Government Agencies shall follow instructions of the Action Guidelines to implement adaptation action plans in various fields. To achieve the national long-term emission reduction goals, the Taiwan Government will review the periodic regulatory goals every five years and examine their validity regularly. Through the implementation of the Action Plan, the Greenhouse Gas Emission Control Action Programme of the energy manufacturing, transportation, agriculture, environmental, residential and commercial sectors, along with the Greenhouse Gas Control Implementation Plan of municipality and city authorities, the vertical and horizontal integration of different bodies of the Taiwan Government will comprehensively expand the capacity to combat climate change and create the co-benefits of sustainable development of society, the economy and the environment, along with public health protection.

Mr Tsai Mao-Chung is the President of the Taiwan Electrical Contractors Association (TECA). He was elected in May 2017 and will hold office for three years. He owns an electrical contractor company and has over 30 years of experience in the electrical contracting business. He can be contacted at E-mail: tteca.org@msa.hinet.net



Accessories



Connector, Multi Range Line Tap, Phase Distribution Block.



Protector Trip Relays.



Ecobuild SEA & ICW 2018

Ecobuild South-East Asia 2018 was held in conjunction with the International Construction Week (ICW) from the 27th to 29th March 2018 at the Kuala Lumpur Convention Centre. The 3-day show was organised by UBM Malaysia and was hosted by the Construction Industry Development Board (CIDB), Malaysia. The event was co-located with Greenbuild Asia, Ecolight ASEAN, Construction Showcase, Malaysia IBS International Exhibition and Construction Career Fair. It was Malaysia's largest construction exhibition covering a full spectrum on market priorities such as building, housing, infrastructure, technology and innovation, making it a value-

added platform in ASEAN for the construction industry. The show was supported by numerous Trade Associations including TEEAM.

The event was a good platform to gather all the exhibitors and visitors at one place to build strong professional relationships within the construction industry. The next Ecobuild SEA & ICW 2019 will be held from the 19th to 21st March, 2019 at the newly-built Malaysia International Trade Exhibition Centre (MITEC) which is located next to the Ministry of International Trade and Industry (MITI) Headquarters in Kuala Lumpur.



Visitors at the fairground – A cross-section of the exhibition hall.



Annual exhibition – ICW & Ecobuild SEA with this year's theme: "Achieving Peak Productivity".

At our TEEAM Booth



GOLF TOURNAMENT 2018

Date : 11th July 2018 (Wednesday)

Time : 12:30pm

Venue : Tropicana Golf & Country Resort, Petaling Jaya

Registration : TEEAM Secretariat

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What is an Arc Flash Protection Relay?

Challenges and Opportunities in the Electrical Industry – Part 31

By Ir Chew Shee Fuee KMN, TEEAM Immediate Past President

When there is a failure in an electrical switch-gear there is the possibility of an arc flash.

Arcing faults are typically caused by human errors resulting in equipment failures or aging equipment failing to operate according to stipulated specifications. Some more common equipment failures are switch-gear power cable connections and circuit-breaker cracking mechanisms.

Many arc flash faults start as single-phase to ground fault and then go on to develop into three-phase faults. This is why an early detection of the arc fault and consequently the fast fault isolation is critical.

An arc flash is a dangerous condition associated with the release of energy caused by an electric arc that moves at high speeds (about 100 meters per second) and reaches high temperatures. It can completely destroy metal panels and equipment plus cause serious physical injury, which are occasionally fatal, to people in the affected area.

There are several procedures for protecting personnel, which include the use of special clothings, arc-resistant switch-gears and remote controls via HMI (Human-Machine Interface) panels. However, a movement has recently emerged toward the greater use of protective relays that can detect in advance the formation of an arc flash and hence reduce the fault clearing time, as the three methods cited above do not prevent the destruction caused by the arc but only minimise the effects of an explosion.

An arc-flash protection system should be extremely fast, safe, and reliable. This means that the system should act instantaneously, providing high-speed detection of the arc inside the switch-gear and tripping the circuit breaker in a few milliseconds to extinguish the arc. However, the protection system must not act when there is no arc flash inside the panel.

The protective devices based on arc light sensors were first introduced in the early eighties. The first devices utilised light sensitive arc sensors acting alone as the tripping criteria. Advances combined arc light and current sensing for the dual-sensing method to further increase the reliability of the protection system. The drawback of the first combined systems was the additional operation time when current monitoring was performed.

Adopting an intelligent philosophy that combines the detection of light inside the switch-gear (which indicates the formation of an arc flash) with the detection of significant increases in load current nominal values (which confirms the presence of a short-circuit between live parts inside the switch-gear), eliminates false trips from lighting and provides the fastest detection and tripping times possible.

To ensure and improve the reliability of this smart philosophy, the main circuit protective relay is used with additional light sensor units that are placed at strategic points in low-or medium-voltage panels or switch-gears and interconnected by fiber-optic cables to this relay, thus eliminating the need for other components inside those cubicles.

The fastest arc flash relays available in the market today will detect a developing arc ash and send a trip signal to a breaker in less than 1 ms. The breaker will typically take an additional 35-50 ms to open, depending on the type of breaker and how well it is maintained. Because an arc flash can draw a fraction of bolted-fault current, especially in the early stages, circuit-breakers alone cannot be relied upon to distinguish between the arcing current and a typical in-rush current.

That's why installing an arc flash relay to detect those developing incidents rapidly helps to greatly reduce the total clearing time and the amount of energy released through an arcing fault. In turn, there is less damage to equipment as well as fewer and less severe injuries to nearby personnel. Generally, this minor damage is limited to the fault point where the arc originates and avoids the more widespread and severe damage that occurs in a full-blown arc flash.

As fault level in electrical systems increase with the planting of generators, arc flash protection becomes increasingly important. In Malaysia, TNB has deployed these protection relays in their 33 and 11KV switchgears. The number of these relays will be increasingly installed in their distribution system.

Therefore, the time is ripe for the design and addition of such relays in our electrical switchboards. This will surely enhance the protection of switch-gears and the operating personnel.



Ir Chew Shee Fuee KMN

Ir Chew Shee Fuee KMN B Sc (Hons) (Strathclyde), PEng, CEng, FIEM, MIEE Member, IEEE Member, 1st Grade Electrical Engineer (Competent up to 500 kV).

Ir Chew was President of The Electrical and Electronics Association of Malaysia (TEEAM) for 2001-2005 and 2013-2017. He is the President of the ASEAN Federation of Electrical Engineering Contractors (AFEEC) for 2016-2018. He is the Chairman of The Institution of Engineering & Technology (IET) Malaysia Local Network. Ir Chew is the Managing Director of G H Liew Engineering (1990) Sdn Bhd and Chris Chew Electrical Consultant. He graduated from the University of Strathclyde, Glasgow with a B Sc (Hons) in Electrical & Electronics Engineering. He is a Professional Engineer and is also licensed by the Energy Commission as a Competent Engineer (without voltage limits) and a Service Engineer to carry out electrical testing up to a voltage of 500 kV.

Ir Chew has more than 30 years of industry experience in electrical control and relay protection. He is also specialized in electrical site tests on power equipment, electrical fault investigation, service and maintenance of electrical switchgears and relays. His work also includes electrical supervision of sub-stations and electrical audit. He also presents lectures on electrical apparatus and the protection system. He is Vice-Chairman of MyENC (Malaysian Electro-Technical National Committee) and Member of Technical Committees (TCs) and Working Groups (WGs) in Standards Development. He can be reached at E-mail: sfchew@ghliew1990.com.

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The first session of the Training-cum-Workshop on DIALux EVO for 2018 was organised by the Malaysia CIE (MyCIE) from 10th to 12th April 2018 at the Pullman Kuala Lumpur in Bangsar.

The Training-cum-Workshop which was conducted over three days was led by Mr Narendren Rengasamy (Chairman of MyCIE/National Committee of CIE) who is the only DIALux Certified Trainer in Malaysia and one of only two Certified Trainers in South-East Asia.

This Training-cum-Workshop was organised solely for beginners to learn the DIALux EVO software. The trainer accompanied the

participants as they created a project, inserted the luminaires, carried out a calculation and generated an output.

Some ten participants attended and benefited from the Training-cum-Workshop. Certificates of Attendance with approved BEM nine CPD hours were issued to those who successfully completed the training.



Attentive – DIALux EVO Training at Pullman Kuala Lumpur Bangsar.



Thumbs up! – Participants successfully completed the training.



New Books in Our Library

Informative reference materials are available in our Library. The Library is open to members from 9:00 am to 5:45 pm, Monday to Friday.

Title : ACCCIM Bulletin, December 2017 Publisher : The Associated Chinese Chambers of Commerce and Industry of Malaysia	Title : Jurutera, December 2017 & January 2018 Publisher : The Institution of Engineers, Malaysia	Title : MBAM OneBuild Show Directory Publisher : Master Builders Association Malaysia
Title : AFEEC & FAPECA Conference 2017 Booklet Publisher : The Electrical and Electronics Association of Malaysia	Title : Industrial Automation Asia, February/March 2018 Publisher : Eastern Trade Media Pte Ltd	Title : MGCC Perspectives, No. 2/2018 Publisher : Malaysian-German Chamber of Commerce and Industry
Title : Berita KLSCCCI, July-September 2017 Publisher : Chinese Chamber of Commerce & Industry of Kuala Lumpur & Selangor	Title : Magazine of EASS 39th Anniversary 2018 Publisher : Electrical Association of Sarawak and Sabah	Title : PAC World, March 2018 Publisher : Protection, Automation & Control World
Title : Berita Sin Chew 29 Publisher : Sin Chew Media Corporation Bhd	Title : Magazine of SEA 56th Anniversary 2017 Publisher : Sarawak Electrical Association	Title : PKPPE 16th Anniversary Celebration – Special Issue Publisher : Persatuan Kekompetenan Penjaga Jentera & Pendawai Elektrik Perak
Title : HKECA Newsletter, September-December 2017 Publisher : Hong Kong Electrical Contractors' Association	Title : Malaysia-China Business Magazine, No. 63 (October-December 2017) Publisher : Malaysia-China Chamber of Commerce	Title : Wire Cable Show Malaysia 2017 Exhibitor Directory Publisher : Century Exhibition Group (UK) Ltd



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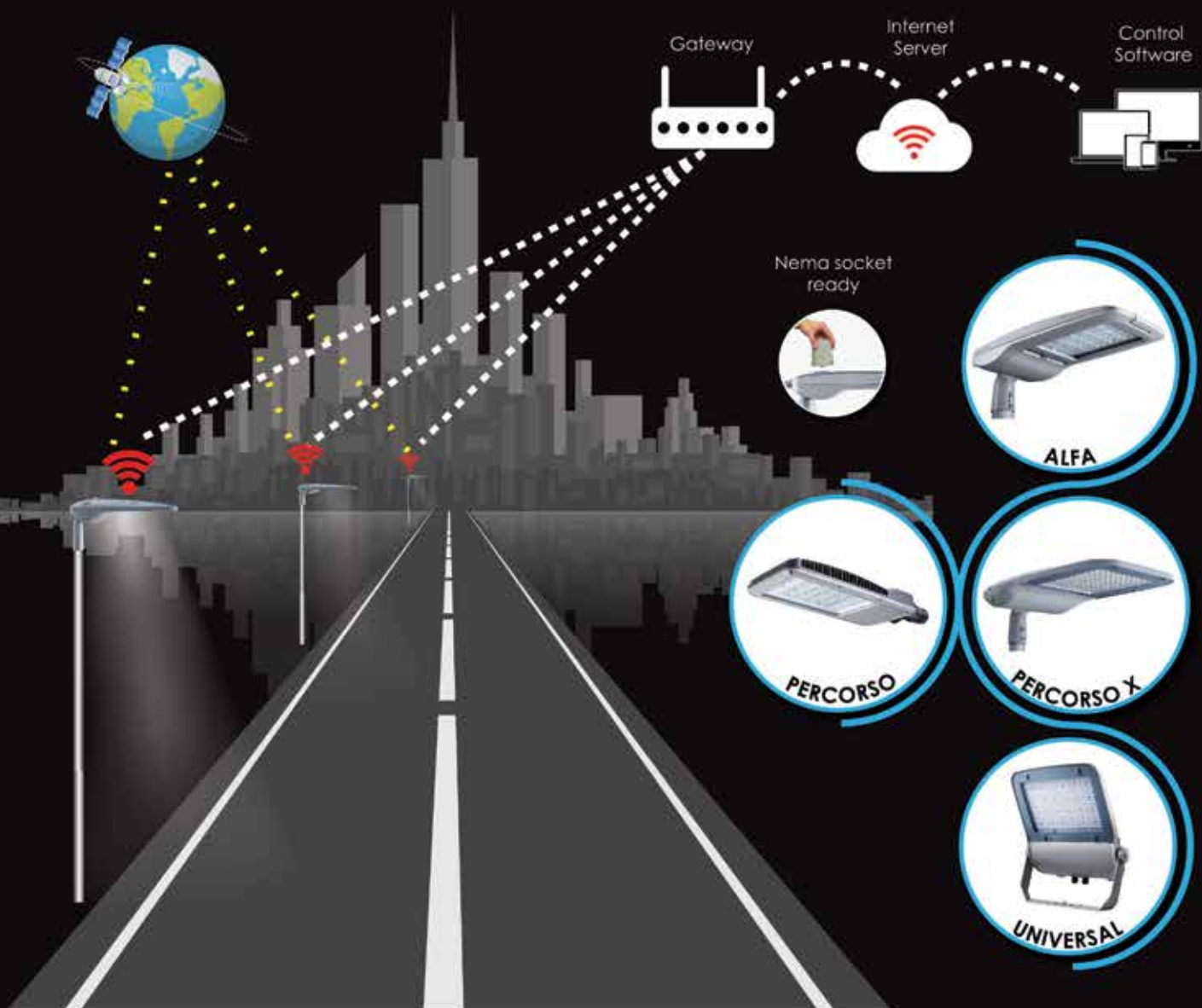
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SPRING CLAMP TERMINAL BLOCKS

Spring Clamp Terminal Blocks are suitable for all types of wires. Connections can be made by simply stripping the wire of its insulation to the recommended length and inserting it into the terminal where the wire is held against the current carrying part by a pre-stressed Spring Clamp.



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MCMEA News

Formation of MCMEA

MCMEA is also known as the Malaysia Council of Mechanical & Electrical Associations. It was founded as a result of the smart win-win collaborative efforts among the various Mechanical and Electrical (M&E) Associations. It is aimed at making a collective effort to effectively address all M&E works-related issues, providing one common platform and voice representing the said industries whenever the need arises. The Founding Members are:

- PERKEM - Malay and Bumiputra Manufacturers, Suppliers, Contractors of the Electrical, Electronics, Mechanical and ICT Industry Associations of Malaysia
- MACRA - Malaysian Air-Conditioning & Refrigeration Association
- BASAM - Malaysia Building Automation System Association
- MFPA - Malaysian Fire Protection Association
- SKLPA - The Selangor & Kuala Lumpur Plumbing Association
- TEEAM – The Electrical and Electronics Association of Malaysia

The signing ceremony to mark the official formation of MCMEA was done on 21st May 2017 at the Hotel Armada in Petaling Jaya during TEEAM's Annual General Meeting. TEEAM was the Chair for 2017 and it was helmed by Ir Chew Shee Fuee KMN, TEEAM Immediate Past President.



MCMEA Constitution Inked – PERKEM, MACRA, TEEAM, BASAM, MFPA and SKLPA officially formed MCMEA.

Meeting with Suruhanjaya Tenaga

MCMEA made a courtesy visit to Ir Md Zakuan Ibrahim, Director of Regional Operations & Enforcement of the Suruhanjaya Tenaga – ST (Energy Commission) on 14th September 2017. The visit was to raise to ST's attention that tests conducted by PERKEM members on low-voltage underground cables along the North-South Expressway found that the cables were in bad condition. Most underground cables there have exceeded their life span and this could endanger the safety of expressway users. Hence, at the meeting, MCMEA called on ST to urgently look into the issue. ST then requested additional supporting data which were eventually forwarded for ST's immediate action.



For the album – Group photo to cap off the discussion.

Courtesy Call to Lembaga Lebuhraya Malaysia (LLM)

MCMEA also called on Datuk Ir Hj Ismail Md Salleh, Director-General of Lembaga Lebuhraya Malaysia – LLM (Malaysian Highway Authority, MHA) on 23rd November 2017. The visit was to introduce MCMEA and to raise amongst others, the issue of the bad condition of underground cables along the North-South Expressway. The Director-General took note of the issue and suggested a focus meeting with all stakeholders concerned to resolve the matter.



Fruitful visit – Group photo of MCMEA Council Members and LLM Officials.

Acknowledgment Ceremony for MCMEA

On 17th November 2017 during MACRA's 17th Anniversary Dinner which was held at Dewan Tan Sri Yeoh Tiong Lay (YTL) at Wisma Huazong, Seri Kembangan, an Acknowledgment Ceremony was organised to introduce MCMEA to the M&E industry. MCMEA which represents a broad spectrum of M&E stakeholders will be the ultimate voice to raise M&E work-related issues. The six founding members were invited on stage for the signing ceremony which was witnessed by Ir Kamaluddin Abdul Rashid (Deputy Director-General of Public Works) representing the Minister of Works, as Guest-of-Honour for the night. Also present to give support to the occasion was Ir Chen Thiam Leong (MACRA Advisor).

MCMEA was honoured to be invited to the dinner to join in the celebration of MACRA's success, achievements and recognitions.



Happy occasion – (from left) Ir Chen Thiam Leong (MACRA Advisor), Dato' Andy Kwan (MACRA President), Ir Chew Shee Fuee KMN (TEEAM Immediate Past President), Dato' Mohsen Hasbollah (PERKEM President), Mr Tee Siew Chong (MFPA Honorary Secretary), Mr David Tan (SKLPA Vice President), Mr Jeffrey Lim (BASAM President) and Ir Kamaluddin Abdul Rashid (Deputy Director-General of Public Works).

New Chair of MCMEA

On 12th April 2018, after the 4th MCMEA Council Meeting, Ir Chew Shee Fuee KMN, handed the Chair to the Designated Chairman, Dato' Mohsen Hasbollah of PERKEM. Dato' Mohsen Hasbollah will now helm the MCMEA Chairmanship for 2018. Congratulations!

On 16th May 2018, the Malaysian Energy Professionals Association (MEPA) joined MCMEA which now has seven National Associations Members.

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Technical Visit to American Air Filter Manufacturing

3rd July 2018 - 9:30 am to 12:00 noon

American Air Filter Manufacturing Sdn Bhd
Lot 6, Jalan Pengapit, 15/19, Seksyen 15, Shah Alam



Introduction

Modern industrial processes produce significant amount of airborne pollutants in all forms - particulate, gases, vapors, fumes and mists. Many are toxic and concentrations often exceed safe levels of exposure. These include adverse effects on human health, property and atmospheric visibility. Reducing the pollutants to acceptable levels is critical for the safe operation of many industrial processes and is mandatory to meet stringent emission regulations.

Many of the technologies used to control air pollution were originally developed by American Air Filter (AAF) International. AAF International is committed to applying environmentally friendly practices in all aspects of their business operations.

Content

TEEAM is organising a Technical Visit to AAF and during the visit, participants will be briefed on the following AAF's activities:

- (a) Air Pollution Control Products & Systems
- (b) Employee Development and Welfare
- (c) ISO 9001/14001/18001
- (d) Safety Activity and Implementations
- (e) Corporate Social Responsibilities (CSR)
- (f) New Technology to Improve Productivity.
- (g) Pro-activity Towards Industrial Revolution 4.0

Registration

The Technical Visit is FREE and is strictly for TEEAM Members. Prior registration is required. Seats are limited and will be on a first-come, first-served basis. For member participation, please contact the TEEAM Secretariat at vince@teeam.org.my

BUILDING IN THE FUTURE: THE NEXT 30 YEARS

Seminar and Forum for the Construction Industry

27th June 2018 - 9:00 am to 1:00 pm

@ TEEAM Seminar Hall, Kuala Lumpur

BEM and CIDB Approved CPD & CCD



Content

The Seminar and Forum will start with a brief introduction to construction safety, with case studies for the electrical industry. It will be conducted by Ir H P Looi.

This will be followed by a presentation from Mr Mark Mumenthaler of Wiha Asia Pacific (purveyor of Wiha hand tools essential for the electrical contractor) on proper hand tools for efficiency, productivity and safety for the savvy contractor.

The Seminar and Forum will conclude with a presentation on the future of the construction industry for the next 30 years. It will cover the changing face of world economics and the construction industry with defining trends; world demography (greying population), virtualisation of markets, the 4th industrial revolution and ramifications of a multi-polar world.

Speakers

Ir H P Looi, B.Eng (Hons), P.Eng (Practice License); Jurutera Gas; FIEM. More than 30 years in design consultancy. More than 20 years in National Standards (Malaysia Standard-MS). Principal of Mektricon Sdn Bhd.

Mr Mark Mumenthaler, Managing Director of Wiha Asia Pacific. Wiha, started as a family-run business in Germany in 1938 specialising in hand tools, has a worldwide presence. Mr Mark Mumenthaler is a Swiss with an MBA and has more than 20 years working experience in the Asia Pacific region.

Registration

The Seminar and Forum is FREE and is strictly for TEEAM Members. Prior registration is required. Seats are limited and will be on a first-come, first-served basis. For member participation, please contact the TEEAM Secretariat at vince@teeam.org.my

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..... Continue MCMEA News



For the album – Group photo after the 4th MCMEA Council Meeting which was held on 12th April 2018 at TEEAM.



Fruitful meeting – MCMEA Council Members posing after the 5th Council Meeting which was held on 16th May 2018 at PERKEM.





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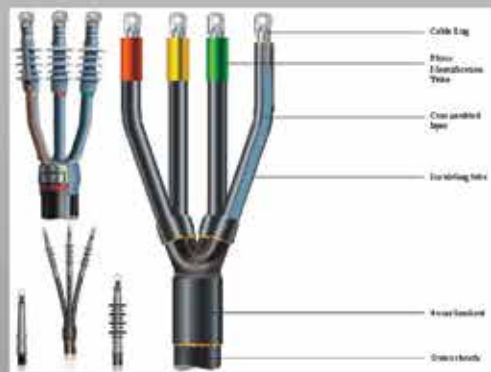


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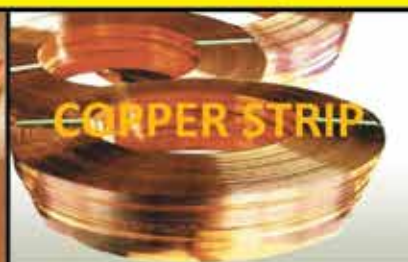
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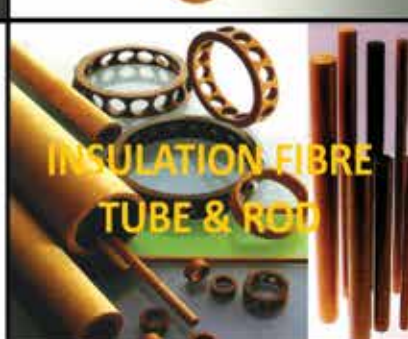


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Model	WHC-1	WHC-14W
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Cable Type	—	4.0 mm ²
Cable Length	—	1.0 meter
Rated Voltage	250 V A.C.	
Rated Ampere, Power	25 A, 5.5kW	
Water Ingress Protection	IP25	
Tested and comply to	IEC 60998-1 & IEC 60670-22 Ed. 1.1 b: 2015.	
Material	Fire-retardant Thermoplastic: Polycarbonate (PC)	

Danger electric shock risk

A safer way of electrical connection for Household Water Heater



Sustainable and Co-Existable Power Network of Korea for the 4th Industrial Revolution

Professor Moon Seungil, Seoul National University

This paper was presented by Professor Moon Seungil at the AFEEC-FAPECA Conference 2017 on Carbon Neutral Opportunities which was held on 11th October 2017 at the Impiana KLCC Hotel, Malaysia

Korean power network had connected South and North Korea as an energy passage. However, as North Korea unilaterally cut off the transmission line down to the South in 1948, the network became isolated. At that time, capacity of generating units in South Korea was only about 200,000KW but the units and transmission network saw rapid expansion in 1970 due to the strategy of industrial economic development centred on heavy chemical industry. Multiplying at the world's fastest rate, the capacity of current generating plants exceeded one hundred million KWs. The maximum peak load has increased steadily every year and annual electric consumption is also on the steady rise, reaching saturation point. With these moves, Korean electricity quality such as planned outages currently boasts a world-class level.

The centralised and over-saturated Korean power network cannot be expected to grow anymore – its outdated structure hardly satisfies increasing expectations of the Korean people. With this problem in tow, our society faced the Fourth Industrial Revolution. Now, the industrial structure transforms itself from the centralised pattern focused on heavy chemical industry to a new one based on ICT. This calls for a rapid change in the power network, from the current supply-based and centralized form to a demand-based and distributed one. Moreover, we must use new electric power technologies such as large-scale renewable energy, energy storage system, electric car charge and discharge facility, in the decentralised network to enable the new operational system, utilising IoT. This is so-called 'Smart Grid', the solution of the 4th Industrial Revolution.

The 'Jeju Smart Grid Demonstration Site Construction Project' in Korea is the first one that activated this research. In 2014, a total amount of \$240,000,000 (two hundred and forty million dollars) was invested into a village in the north-east of Jeju Island, on the southern part of the Korean Peninsula, with an aim of securing the world's largest Smart Grid test site. The Jeju site covered new energy technologies such as new and renewable energy, Energy Storage System (ESS), and Electric Vehicle (EV) and saw participation of numerous domestic conglomerates including KEPCO, POSCO, SK and LG.

Since then, more and more people have paid attention to the innovative Smart Grid. Reflecting this interest, large scale projects were implemented, centering around ESS business for F/R that installs 500MW ESS for frequency adjustment and energy-independent island businesses, a representation of which is the Ulleungdo Green Island Project. In particular, the Campus Micro Grid Project, Korea's grid-connected micro-grid project, enabled Seoul National University to reduce energy consumption by 20% and to operate independently for

four hours – this proves the technological competitiveness of the new energy industry in Korea.

South Korea is very interested in phasing out nuclear power plants. Negative policies on those power plants continue to be implemented, such as shutting down the aged Kori Nuclear Power Plant Unit 1 and abandoning the construction of new nuclear power plants. These policies will naturally expand the promising new and renewable energy business.



Professor Moon Seungil

South Korea has the lowest level of renewable energy generation facilities among OECD countries, which amounts to only 1/22 of German facilities that are at the world's highest level. However, the nation aims at producing 20% of total energy output through new and renewable energy by 2030, utilizing the world's best solar power technology.

Now, the only divided country in the world is faced with growing tension due to North Korea's recent missile experiment and South Korea's THAAD-related conflicts. Contrary to the situation before division, North Korea today shows a very poor electric environment. Thus, hurrying electric connections between the two Koreas may crash down the whole system. This kind of lack of understanding made KEDO project to build generators in North Korea, to fail. However, South Korea now has the most advanced energy technologies in the world. Power supplies to the North must use these new technologies including micro-grid and HVDC.

Electrical connection with the North will become a first step to building the North-east Asia Super Grid. North-east Asia is the only region without electrical connections. Currently, South Korea, China, Japan and others are getting more and more interested in grid connections. Furthermore, they plan that the North-east Asia Super Grid will distribute abundant renewable energy resources of both the Gobi Desert and Mongolia, throughout North-east Asia. Realization of the North-east Asia super grid is not too distant in the future.

Moon Seungil is a Professor at the College of Engineering, Seoul National University. He is the Chairman of Electric Power Policy Committee of Korea and President of Korea Electrical Engineering & Science Research Institute. Professor Moon is a Member of the Committee on Green Growth and National Energy Committee of Korea. He can be reached at E-mail: moonsi@plaza.snu.ac.kr



Membership Recruitment Campaign

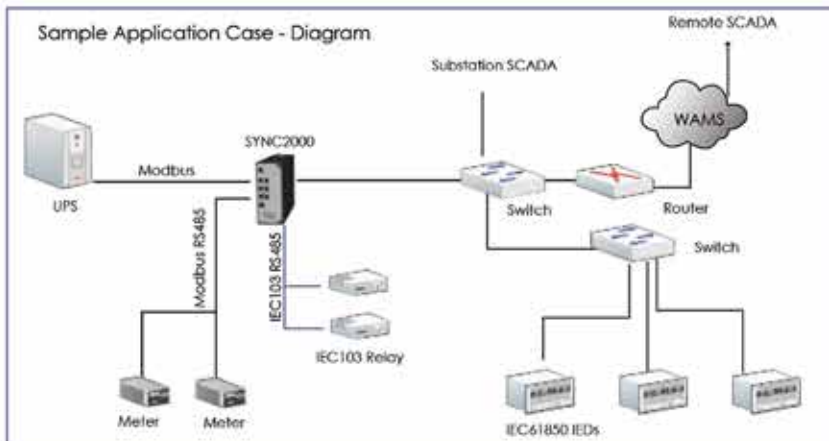
TEEAM appeals to members to help in recruiting companies and individuals to join the association to strengthen TEEAM's membership base. Incentives are offered by the Membership Recruitment Committee. Members introducing a company member will be entitled to two points, whilst introducing an individual member will be entitled for one point. The points can be accumulated and used to redeem free advertisements in Suara TEEAM or redeem membership subscription.

For details, please contact the TEEAM Secretariat at Tel: +603 – 9221 4417. The membership application form can be downloaded from the TEEAM website at www.teeam.org.my.

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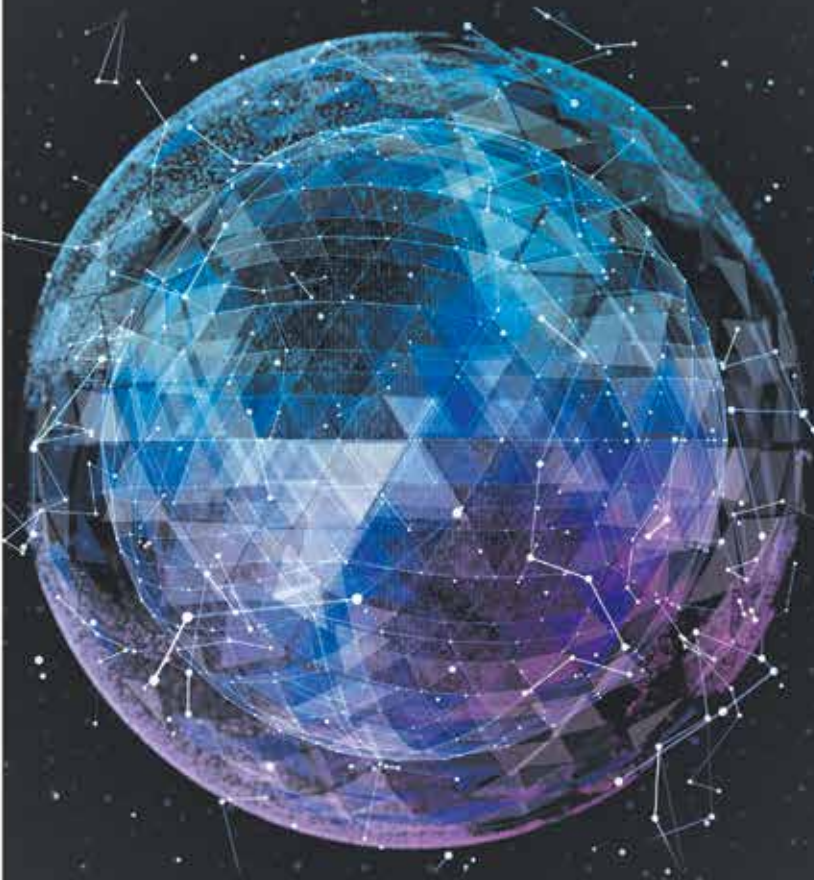


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As the President of AESIEAP and Tenaga Nasional Berhad (TNB), I would like to invite all members and industry players to take part in CEPSI 2018, which will be held from 17th to 22nd of September, 2018 in Kuala Lumpur, Malaysia.

I look forward to seeing you soon!

Datuk Seri Ir. Azman Bin Mohd

President of AESIEAP (2017-2018)

President/Chief Executive Officer of Tenaga Nasional Berhad



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exhibition@cepsi2018kl.org

New Members

The following new members have been approved and accepted by the TEEAM Council (as at 27th March 2018). A warm welcome to all the new members and special appreciation is extended to those who introduced these new members. For those who are not yet members..... why wait? Join us and find out how our Association can offer our value-added services to you and to your highly esteemed Companies!

Gigatera (M) Sdn Bhd D3-29, Jalan Dutamas 3, Taman Dutamas, Cheras, 43200 Balakong, Selangor Darul Ehsan. Tel: +603-9081 8355 Fax: +603-9082 8355 E-mail: gigatera@malaysia@gmail.com Website: www.gigatera.com.my Contact Person: Mr Thoong Johnney <i>Business: LED lightings for indoor and outdoor use.</i>	Enthu Technology Sdn Bhd No. 7, Jalan Anggerik Mokara F31/F, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan. Tel: +603-5122 0760 Fax: +603-5131 8837 E-mail: info@enth-tech.com Website: www.enth-tech.com Contact Person: Mr Soong Hoi Chua <i>Business: Electrical engineering (saving power energy).</i>
Qlux Group Sdn Bhd 18-2, Block B, Persiaran Rahang Jaya, Pusat Perniagaan Rahang Jaya, 70100 Seremban, Negeri Sembilan Darul Khusus. Tel: +606-761 3339 E-mail: avelyn@qluxgroup.com Website: www.qluxgroup.com Contact Person: Mr Jaya Seelan Ramasamy <i>Business: LED lighting manufacturer.</i>	Dynamic Electrical Sdn Bhd PLO 193, Jalan Cyber 8, Kawasan Perindustrian Senai IV, 81400 Senai, Johor Darul Takzim. Tel: +607-590 9889 / 9669 Fax: +607-590 9339 E-mail: dowson@debusduct.com Website: www.debusduct.com Contact Person: Mr Law Tiew Hung <i>Business: Manufacturing of busduct and copper products.</i>
ZGSM Lighting(M) Sdn Bhd No. 1, Lorong Permai Impian 1/1, Taman Permai Impian, 70300 Seremban, Negeri Sembilan Darul Khusus. Tel: +606-767 8768 Fax: +606-761 2726 E-mail: zgsm.ns@gmail.com Contact Person: Mr Ong Jia Khang <i>Business: Trading of lighting products.</i>	Yong Huat Electrical Enterprise Sdn Bhd No. 28, Jalan Sungai Kapar Indah 3A, Sg Kapar Indah, 42200 Kapar, Klang, Selangor Darul Ehsan. Tel: +6012-969 6169 Fax: +603-3290 3868 E-mail: yonghuat1@hotmail.com Contact Person: Mr Lee Kui Hock <i>Business: Sales of electrical and hardware products.</i>
Dynamonic Sdn Bhd 10-8-8, Queen's Avenue, Jalan Bayam, Off Jalan Peel, 55100 Cheras, Kuala Lumpur. Tel: +603-9286 5282 Fax: +603-9205 5282 E-mail: eric@dynamonic.com Website: www.rolandmalaysia.com Contact Person: Mr Eric Heng <i>Business: Machinery trading and engraving services.</i>	Voon Yong Jian No. 6, Jalan 1, Batu 1½ Jalan Sungai Tekali, 43100 Hulu Langat, Selangor Darul Ehsan. Tel: +6011-1577 6652 E-mail: voon_1620@hotmail.com <i>Business: Undergraduate (Bachelor of E&E Engineering).</i>
IQ Group Sdn Bhd Plot 149, Jalan Sultan Azlan Shah, Taman Perindustrian Bayan Lepas, Fasa 1 (FIZ 1), Bayan Lepas, 11900 Pulau Pinang. Tel: +604-644 6677 E-mail: christabell.choong@iq-group.com Website: www.iq-group.com Contact Person: Ms Choong Ming Choo <i>Business: Manufacturing of passive infrared detectors, motion sensor lighting controllers and wireless video communication devices.</i>	Visit TEEAM at www.teeam.org.my www.facebook/teeam.org.my



Badminton Tournament 2018

Date : 5th & 12th August 2018 (Sunday)

Time : 9:00 am

Venue : Sports Forum 19, Petaling Jaya

Registration : TEEAM Secretariat

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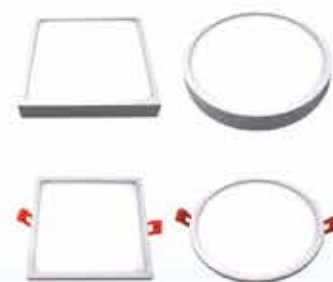
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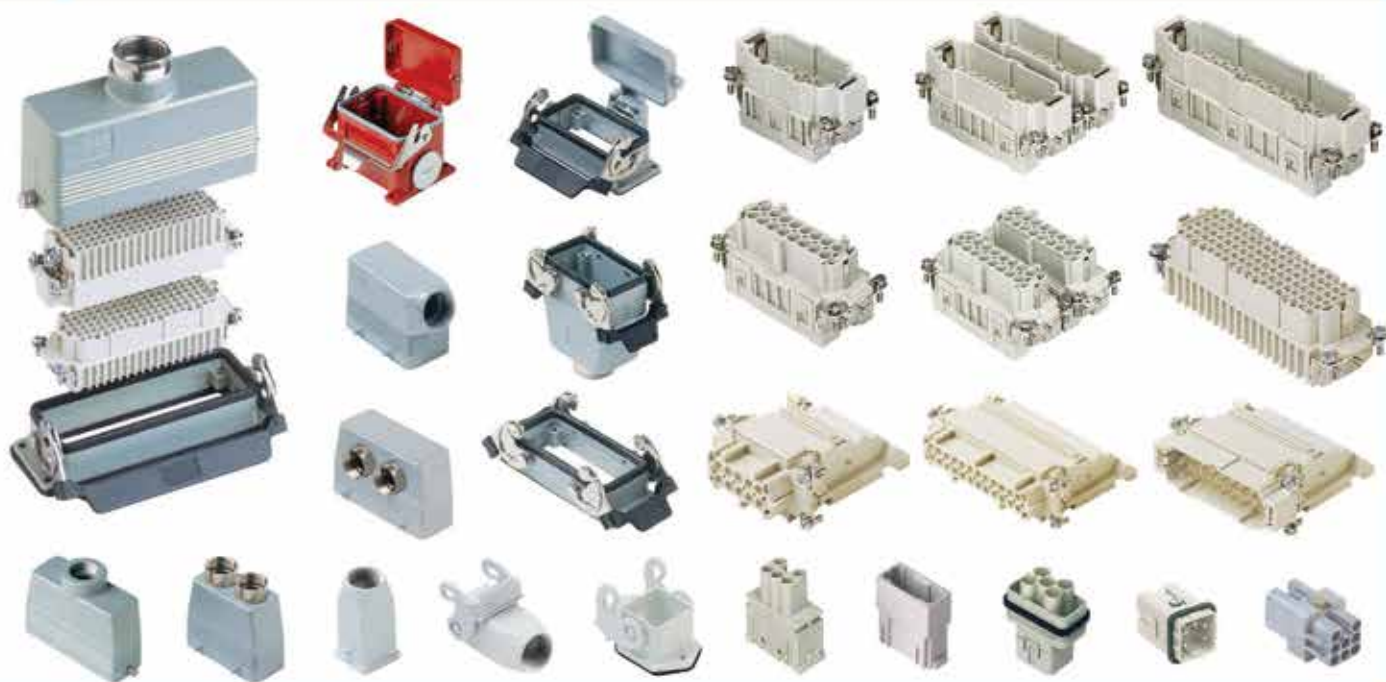
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