

ENERGY EFFICIENCY



GO GREEN



SUSTAINABILITY



Since 1952

S U A R A TEEAM

A Publication of The Electrical and Electronics Association of Malaysia



PP 4829/03/2013(032303) | ISSN PQ1780/4200/8

RM18.00

80th Issue December 2020

www.teeam.org.my





A Sonepar Company

SUN POWER



The Exclusive Agent of

LS ELECTRIC

ESTA

SANIL



DELAB
SCIENTIFIC

OBO
BETTERMANN

ELECTRONICON
always in charge

CHHG

LOW VOLTAGE

- Circuit Breaker (ACB, MCCB, MCB, RCCB, RCBO)
- Contactor & Thermal Overload Relay
- VSD / Inverter

- Power Protection Relay
- Power Factor Regulator
- Power Analyzer Meter (DPM)
- Digital Multimeter
- Voltage Monitoring Relay
- Digital Time Switch

- Surge Protection Device
- P. F. C. Capacitor
- Detuned Reactor

- Distribution Board
- Switch & Socket

THE LEADING
ELECTRICAL COMPONENTS
SUPPLIER

MEDIUM VOLTAGE

- Transformer
(33kV / 11kV | 33kV / 433V | 11kV / 433V)
- Air Insulated Switchgear



Visit our website: sunpowerberhad.com.my

SUN POWER AUTOMATION SDN BHD (639503-W) ♦ SUN POWER SYSTEM SDN BHD (799462-W) ♦ A Sonepar Company

Lot 1554, Kampung Jaya Industrial Area, 47000 Sungai Buloh, Selangor D.E. Malaysia.

+603-6157 7555 (Hunting) +603-6157 7666, 6157 7595 general@sunpowerberhad.com.my

FURUTEC®

Busduct System

Furutec busduct is engineered to operate continuously without disruption during fire and complying to the international standard requirement for the essential electrical distribution.

Key Standard of compliance:

KEY IEC61439-6

KEY IEC60331

KEY BS6387 (Category C, W & Z)



Contact us for further information :



FURUTEC®
Busduct System

Sales & Marketing Office:

Lot 4, Block A, Jalan SS 13/7, Subang Jaya
Industrial Estate, 47500 Subang Jaya, Selangor,
Malaysia



Recognition by:



WORLD CLASS QUALITY
POWER CABLE

Tonn
C A B L E

(Power & Data Cable Manufacturer)

www.tonn cable.com



ALUMINIUM CABLE
AERIAL BUNDLE CABLE (ABC)



FIRE RESISTANT &
FLAME RETARDANT CABLES

Tonn Cable Sdn. Bhd. (593174 V)

Lot 1 (PT54), Jalan Perusahaan 5, Kaw. Perusahaan
Beranang, 43700 Beranang, Selangor, Malaysia.

Tel : (+603) 8766 9888 Fax : (+603) 8766 8111

Email : enquiry@tonncable.com

TC Marketing Pte Ltd (201631981Z)

Blk 37 Defu Lane 10

#01-45 Singapore 539214

Tel : (+65) 6266 2066 Fax : (+65) 6266 2166

Email : alankwek@tonncable.com

TEEAM Office Bearers For Year 2019-2021

President

Siew Choon Thye (Gruppe Lighting Solution Sdn Bhd)

Deputy President

Ir Chang Yew Cheong (Abbaco Controls Sdn Bhd)

Immediate Past President

Datuk Ir Yong Ah Huat (Individual)

Past Presidents

Ir Chew Shee Fuee, KMN (G H Liew Engineering (1990) Sdn Bhd)

Fu Wing Hoong (EITA Resources Berhad)

Dato' Ir Lee Peng Joo (Individual)

Suresh Kumar Gorasia (Amalgamated Engineering & Commercial Co (KL) Sdn Bhd)

Vice Presidents

Ir Kok Yen Kwan (NK Engineers Sdn Bhd)

David Chong Ah Nyap (Euro Electrical Sdn Bhd)

Rajasegaran Bungara Naidu (DPI Industries Sdn Bhd)

Honorary Secretary

Lee Peng Sian (Furutek Electrical Sdn Bhd)

Honorary Treasurer

Lim Sai Seong (QAV Technologies Sdn Bhd)

Assistant Honorary Secretary

Ir Dr Ng Kok Chiang (Syarikat Pembaikan Letrik Leong Hing)

Assistant Honorary Treasurer

Stan Lim Hui Ming (Nanyang Electric Co (M) Sdn Bhd)

Committee Members

Dato' Andy Tan Boon Hin (Paramount PES Engineering Sdn Bhd)

Datuk Ir Azlan Robert Abdullah (Aras Kejuruteraan Sdn Bhd)

Chaw Wei Yin (Davex (Malaysia) Sdn Bhd)

Chew See Kheng (Negeri Sembilan Electrical Engineering Association)

Chin Ket Hiung (Sandakan Electrical Engineering Association, Sabah)

Chong Yoon Koon (Perniagaan Kejuruteraan Chongs)

Chris Yow Loo Sik (Sik Supply Sdn Bhd)

Ir Darren Lee Weng Keen (Penang Electrical Merchants' Association)

Gan Seng Chong (Malacca Electrical Contractors & Traders Association)

Hui Hua Chuon (Electrical Association of Sarawak & Sabah)

How Chee Seng (CS Project & Engineering PLT)

Julee Tan Chiew Theng (Welux (M) Sdn Bhd)

Lee Chee Kin (SW Electric Sdn Bhd)

Leslie Jong Vui Kee (Sabah Electrical Association)

Liow Lih Na (Candlelux Marketing Sdn Bhd)

Narendren Rengasamy (Malaysia CIE)

Nathan Chiam Tow Jen (TS Electrical Marketing Sdn Bhd)

Ng Kiet Tay (Zenith Electric Company (M) Sdn Bhd)

Nick Liew Kar Hoe (Persatuan Kekompetenan Penjaga Jentera & Pendawai Elektrik Perak)

Richard Wong Ngen Wah (The Perak Electrical Association)

Steven Lim Kee Teck (Johor Bahru Electrical & Electronics Association)

Ung Kah Kuok (Sarawak Electrical Association)

Willy Wong (Wintrad Industries Sdn Bhd)

Technical Advisers

Datuk Ir Ahmad Fauzi Hasan (Individual)

Ir Rocky Wong Hon Thang (Individual)

Internal Auditor

Chong Chee Siong (Wong Electrical & Teak Wood (Sel) Sdn Bhd)

Fong Mun Loon (Letrik PJ Union Sdn Bhd)

Trustees

Ir G H Liew (G H Liew Engineering Services Sdn Bhd)

Lim Yok Kee (Nanyang Electric Co (M) Sdn Bhd)

Suresh Kumar Gorasia (Amalgamated Engineering & Commercial Co (KL) Sdn Bhd)

Wong Chin Cheong (FACC Electrical Trading Sdn Bhd)

Secretariat

Winnie Khong (Executive Secretary)

State Association Members

Electrical Association of Sarawak & Sabah

Johor Bahru Electrical & Electronics Association

Malacca Electrical Contractors & Traders Association

Negeri Sembilan Electrical Engineering Association

Penang Electrical Merchants' Association

Persatuan Kekompetenan Penjaga Jentera & Pendawai Elektrik Perak

Sabah Electrical Association

Sandakan Electrical Engineering Association, Sabah

Sarawak Electrical Association

The Perak Electrical Association

SUARA TEEAM

A Publication of The Electrical and Electronics Association of Malaysia

Publisher & Editorial:

The Electrical and Electronics Association of Malaysia

No. 5-B, Jalan Gelugor, Off Jalan Kenanga, 55200 Kuala Lumpur, Malaysia.

Tel: +603 - 9221 2091, 9221 4417

E-mail: teeam@teeam.org.my or teeam52@gmail.com



www.teeam.org.my



@teeam_my



teeam.org.my/



@teeam_my



Since 1952

Contents

Activities

From the Editor's Desk	5
TEEAM Virtual AGM 2020	7
TEEAM Media Statement	11
ITAP 2020 (Industrial Transformation Asia-Pacific)	17
ARCHIDEX Focus Forum on Energy Save vs Energy Waste	19
Webinar on Future of LED Lighting Industry Across the ASEAN Region	35
LED Expo Thailand + Light ASEAN 2020 Virtual Edition	47
Virtual Seminar on Malaysian Standards for Lighting	53
State Associations News	65
ASEAN Electro-Technical Virtual Symposium & Exhibition 2020	79
Virtual IGEM 2020	81
New Members	82
Asia-Pacific Business Forum 2020	83
Virtual Meeting with the Uzeltechsanoat (Electro-Technical) Association of Uzbekistan	83
IECEX National Virtual Conference 2020	85
IESS 2020, India	87

Featured Articles

Budget 2021: A Quick Look	21
Competent Persons Registered by Energy Commission	31
Improving Vertical Transportation Systems Safety Challenges and Opportunities in the Electrical Industry – Part 37	43
CIE Position Statement on the Blue Light Hazard	45
Understanding Grid-Connected Solar Photovoltaics (PV) Impact on your Power Factor (PF)	49
Better Performance in E&E Sector	59
Digitalisation & COVID-19: Today & A Better Tomorrow? – Part 2	72
The Regional Comprehensive Economic Partnership (RCEP): What this means for ASEAN and Malaysia	75

Information

MIDA Media Release: Smart Automation Grant to Enable Future-Proofing of Local Businesses	11
Smart Automation Grant Under PENJANA	13
Showcase at Malaysia Export Exhibition Centre (MEEC)	28
Congratulatory Messages	29, 37
Malaysia Trade Statistics Review Volume II/2020	57
MATRADE MDG - Support Initiatives for Malaysian SMEs Affected by COVID-19	82
Malaysian Economic Statistics Review Volume 8/2020	85
Advertisers' Index	88

Advertorials

OSRAM Launches a Sustainable Signage System Solution for Public Infrastructure and Outdoor Application Markets	26
OSRAM Flexible Illuminations for Architectural Brilliance – Incorporating Professional Truly-Outdoor Lighting	70

Highlights



TEEAM Virtual AGM 2020

page 7



Smart Automation Grant Under PENJANA

page 13



Budget 2021: A Quick Look

page 21



Showcase at Malaysia Export Exhibition Centre (MEEC)

page 28



Virtual Seminar on Malaysian Standards for Lighting

page 53



Malaysia Trade Statistics Review Volume II/2020

page 57



Plugs, Socket-Outlets for Industrial Purposes

LS – TYPE Plugs and Socket-Outlets for Entertainment



Plugs



Couplers

Inclined flush mounting sockets - Watertight IP67



PEW...PI 16A-32A 63A-125A

Couplers - Watertight IP66/IP67



16A-32A

Wall-mounting plugs - Watertight IP67



PEW...SM 63A

Plugs – Watertight IP66/IP67



PEW...SV 16A – 32A

Interlocked switched socket-outlets with screw type fuse carrier aluminium enclosure – splashproof IP55



(PK...PB5 125A)

Interlocked Switched Socket-Outlets



TM...SP

Plugs - Low voltage from 50V to 690V

IP44



PE...PP 16A-32A

IP67



Couplers 16A-32A



PE...PQ 16A-32A



SIPW...SV



PE...SV 16A-32A



PEW...PP 16A-32A



Multipole Connectors for Industrial Purposes

C-Type



IP Enclosure C-Type



Hoods with 2 levels



Hoods with 1 level

CNE-CSE 16 Poles



Inserts, Screw terminal connection

MIXO modular units



4 poles 40A-830V

CT – CTS 64 Poles



Terminal blocks inserts screw terminal connection

CP 6 Poles 35A-400/690V



Inserts, screw terminal connection

CKS 3 and 4 Poles



Inserts, 3 poles + connection with spring terminal



Inserts, 4 poles + connection with spring terminal

CMCE 3+2 (aux) polest



Inserts, Crimp Connections

MIXO modular units 2 poles 100A



Crimp connections



CHI-TAK ELECTRICAL (SELANGOR) SDN. BHD. (163203-T)

25, Jalan 20/14, Paramount Garden, 46300 Petaling Jaya, Selangor, Malaysia.

Tel: +603-78759622(6 Lines)

Fax: +603-78752085, 78772014

E-mail: chitakpj@yahoo.com

Website: www.chitakelectrical.com.my

sales@chitakelectrical.com.my



2019-2021 Media, Publication & Emerging Technology Sub-Committee

Chairman

Nathan Chiam Tow Jen
TS Electrical Marketing Sdn Bhd
Tel: +603-8062 2257 Fax: +603-8062 2258

Co-Chairman

Julee Tan Chiew Theng
Welux (M) Sdn Bhd
Tel: +603-5191 9971 Fax: +603-5191 9970

Editor

Ir Chew Shee Fuee KMN
G. H. Liew Engineering (1990) Sdn Bhd
Tel: +603-7954 8675 Fax: +603-7954 8450

Committee Members

Ir Chang Yew Cheong
Abbaco Controls Sdn Bhd
Tel: +603-8066 8905 Fax: +603-8066 8906

Chong Yoon Koon
Perniagaan Kejuruteraan Chongs
Tel/Fax: +603-7875 2691

How Chee Seng
CS Project & Engineering PLT
Tel: +603-4297 4134

Lee Peng Sian
Furutech Electrical Sdn Bhd
Tel: +603-5635 7088 Fax: +603-5635 6099

Lim Sai Seong
QAV Technologies Sdn Bhd
Tel: +604-643 8317 Fax: +604-643 8597

Liow Lih Na
Candlelux Marketing Sdn Bhd
Tel: +605-312 8088 Fax: +605-313 8033

Siew Choon Thye
Gruppe Lighting Solution Sdn Bhd
Tel: +603-5525 4133 Fax: +603-5525 4122

Willy Wong
Wintrad Industries Sdn Bhd
Tel: +603-8076 4008 Fax: +603-8076 4007

Suara TEEAM is distributed free of charge to TEEAM members and selective organisations. For those who wish to purchase a copy, the cost is RM18.00 which includes postage within Malaysia. For overseas orders, please check with the publisher.

Circulation

TEEAM Secretariat
Tel: +603-9221 2091

Contribution of Articles

Alex Looi Tink Huey
E-mail: alex.looi@live.com.my

Dato Ir Dr Ali Askar Sher Mohamad
E-mail: aliaskar@sherengineering.com

Calvin Cheng
E-mail: calvin.ckw@isis.org.my

CIE Central Bureau
E-mail: kathryn.nield@cie.co.at

Ir Chew Shee Fuee, KMN
E-mail: sfchew@ghliew1990.com

Dr Juita Mohamad
E-mail: juita@isis.org.my

Ir Ke Geok Chuan
E-mail: publication@bem.org.my

Ir Dr Siow Chun Lim
E-mail: chunlim87@gmail.com

Artwork & Printer

United Mission Press Sdn Bhd
No. 15 & 17, Jalan BS 9/10, Perindustrian BS 9,
Taman Perindustrian Bukit Serdang,
43300 Sri Kembangan, Selangor Darul Ehsan.
Tel: +603-8953 8836 Fax: +603-8958 0837

From The Editor's Desk



The current COVID-19 situation is still grave especially so for us in the Klang Valley. The Conditional Movement Control Order (CMCO) has been extended to 14 January 2021. Let us take all the necessary precautions to protect ourselves. We are fortunate that most manufacturing and construction businesses are back to normal.

Although vaccines are being made available, no one can predict the impact of COVID-19 on us and the world in 2021. The current prediction is not encouraging as our daily infection rates are still on the rise.

We may have to incur cost escalation in terms of COVID-19 tests for employees. This is due to the requirement by our Government as well as some private firms.

We have to get used to webinars and zoom meetings as a normal way of communication.

In this issue, we have a number of feature articles for your reading pleasure. The issue with Power Factor Correction in relation to Photovoltaic (PV) installation is quite significant.

We wish all TEEAM members a Happy New Year. May 2021 be a Safe and Productive one for all of us.

Regards,



Ir Chew Shee Fuee, KMN
Editor
Suara TEEAM



SmartGen

Gen Set & ATS Controller

GENSET CONTROLLER

Auto-Main Failure
Control Module



HGM 6110N

Auto -Sync GenSet
Control Module



HGM 9510

Marine Engine
Controller



HMC 9000A

ATS CONTROLLER

ATS Control Module



HAT 560N



HAT821



HAT 700B



HAT832



HAT833

SmartGen ATS control modules can be utilised to control Type PC, CB & CC Auto transfer switching equipment to IEC60947-6-1.

Automatic switching for two or three power sources with coupler or/& with Generator/UPS can be program.

1. HAT 821 controller - Two Utilities sources with bus tie controlling two main circuit breakers & Bus Tie breaker
2. HAT 832 controller - Two Utilities sources with GenSet/UPS source using two tier transfer switching
3. HAT 833 controller - Two Utilities sources with GenSet/UPS source controlling three Main circuit breakers

INTELLIGENT AUTO BATTERY CHARGER



BACM2410
(RS485)



BACM1206
(RS485)



BASM2406
(RS485)



BASM2420
(RS485)



Wise Pro Sdn Bhd

199601008707
(NO.381055P)

No. 8, Pusat Teknologi Sinar Meranti, Jalan IMP 1/3, Taman Industri Meranti Perdana, 47120 Puchong, Selangor
Tel : +603-8066 6491/6492/6493 Fax : +603-8052 6649 (Sales) Mobile No. +6017 - 492 1474, +6012 - 543 5515

E-mail : info@wiseprocorsa.com.my

www.wiseprocorsa.com.my



For the record – TEEAM's 68th AGM in full virtual proceedings via Zoom platform.

TEEAM Virtual AGM 2020

TEEAM reached a historic milestone when it hosted its 68th Annual General Meeting (AGM) in full virtual proceedings on Sunday, 13 December 2020 for the very first time, whereby the meeting was conducted via the Zoom Platform, garnering good response. As everyone is adapting to the “new normal” following the global outbreak of COVID-19, the Council had decided that it was in the best interest of all to have a virtual AGM allowing important matters to take place whilst ensuring safety and health precautions are strictly observed. The TEEAM Virtual AGM 2020 had 60 attendees.

Call-To-Order & Opening Address

When the AGM was called to order, TEEAM President, Mr Siew Choon Thye recorded a vote of thanks to the Emcee of the day, Ir Dr Ng Kok Chiang who is also the Assistant Honorary Secretary, and expressed his gratitude to members for their positive reception as well as for their virtual attendance and participation. Mr Siew then briefed the AGM on the significant activities of the past 1½ years under his term of office. He extended his heartfelt appreciation and thanks to the hardworking Exco, Council and Committee Members for their immense contributions towards the activities of TEEAM.

He added that TEEAM constantly appeals to the Government to provide incentives for SMEs in the E&E industry to wade through these difficult times during the pandemic and to boost the local economy so that SMEs are

able to continue to provide employment to all qualified Malaysians. TEEAM pro-actively engages with the Government to bring forward issues through regular engagements with MITI, MOF and other agencies. TEEAM has re-adopted the Government’s “Beli Buatan Malaysia” and calls for the Government’s full support to stimulate domestic economic growth and help companies to expand their local demand.

Mr Siew also highlighted that to uplift productivity, the Malaysia Productivity Blueprint had identified four Machinery and Engineering (M&E) sectoral initiatives to boost productivity, ranging from large enterprises to SMEs, which had led to the establishment of the M&E Productivity Nexus (MEPN). MEPN is spearheaded by industry

associations and is led by the Machinery and Engineering Industries Federation (MEIF). Incidentally, TEEAM is a member of MEIF. This Nexus aims to address the M&E sub-sector productivity challenges and four workgroups had been set-up to plan, monitor and execute fourteen outlined projects. TEEAM leads Workgroup 4 on Ecosystems for Policies & Procedures and Mr Siew had been appointed the MEPN WG Chairman. TEEAM hopes that through MEPN, we can address some challenging issues faced by our members. To achieve better efficiency and ease of doing business, industry issues can be streamlined through the Reduced Unnecessary Regulatory Burdens (RURB) initiative. TEEAM members are encouraged to participate in all MEPN initiatives and programmes to benefit from the Nexus.



13 December 2020 – TEEAM's AGM went virtual for the very first time.



GLOBAL STANDARD QUALITY

Globally trusted provider of automation solutions from South Korea



Controllers

- Temperature/Humidity Transducers
- Control Switches/Pilot Lights/Buzzers
- Tachometer/Pulse(Rate) Meters
- Switching Mode Power Supplies
- I/O Terminal Blocks/Cables
- Temperature Controllers
- Field Network Devices
- Graphic/Logic Panels
- Sensor Controllers
- Power Controllers
- Solid State Relays
- Display Units
- Counters
- Timers



Sensors

- Photoelectric Sensors
- Fiber Optic Sensors
- Door/Door Side Sensors
- Area Sensors
- Proximity Sensors
- Pressure Sensors
- Rotary Encoders
- Sensor Connectors/Socket



Process Automation

- Photoelectric Sensors
- Recorders
- Indicators
- Converters
- Process Controllers
- Pressure Transmitters
- Temperature Transmitters
- Thyristor Power Controllers



Motion Devices

- Stepper Motors
- Stepper Motor Drivers
- Motion Controllers
- Closed Loop Stepper Motor System

Control Switches

- Push Button Switches
- Selector Switches
- Pilot Lights
- Buzzers



Providing efficient and cost-effective automation solutions in over 100 countries

The rapidly changing industry requires affordable, high-quality automation products to meet demanding manufacturing requirements. Many system experts around the world have already chosen Autonics as their solution. Find out how Autonics automation solutions can help you and your business move forward at www.autonics.com

Mal-Autonics Sensor Sdn Bhd (756765-P)

Tel: 03-7805 7190

Fax: 03-7805 7193

Technical Care Line: 1700-81-8381

Email: malaysia@autonics.com

www.autonics.com

ISO-14001 • ISO-9001 • • •

Autonics Stockist Agent

Bibus Malaysia Sdn Bhd (034270-K) - Tel: 03-5569 7077 Fax: 03-5569 7066

One Success Automation Sdn Bhd (940924-V) - Tel: 06-317 8511 Fax: 06-317 8211

Wention Controls Sdn Bhd (1237811-M) - Tel: 04-398 9800 Fax: 04-398 7900

Lutonics Sdn Bhd (1218076-M) - Tel: 03-8052 0048 Fax: 03-8069 1048

CTAE Solution Sdn Bhd (0486935D) - Tel: 07-352 2526 Fax: 07-352 2520

Besides that TEEAM also promotes and strengthens our cordial relationship with the Government and related organisations through TEEAM's representation in external organisations where standards, practices, industry's issues and concerns are discussed for the interests and benefits of our members. TEEAM is represented in 49 external Councils/Technical Committees/Working Groups of DSM, ST, PEMUDAH, MPC, MEPN, MEIF, etc.

Acceptance of Minutes, Annual Report and Audited Accounts

The attendees approved the minutes of the past Annual General Meeting. TEEAM Honorary Secretary, Mr Lee Peng Sian presented the Annual Report which outlined the activities of the Association for the year 2019. This was followed by the tabling of Audited Accounts by the Honorary Treasurer, Mr Lim Sai Seong, for the year ended 31 December 2019. Both the Annual Report and the Audited Accounts were duly approved and accepted at the Annual General Meeting.

Appointment of Internal Auditor

Mr Chong Chee Siong of Wong Electrical & Teak Wood (Sel) Sdn Bhd was duly appointed to replace former Internal Auditor, the late Mr Yong Kim Yun of Translite Electric Sdn Bhd. The General Meeting observed a moment of silence as a gesture of respect to the late Mr Yong who had contributed immensely towards the growth of TEEAM by providing 33-years of voluntary services in various capacities, i.e., both as Office Bearer as well as in the Sports & Publication Committees; while also serving as an Internal Auditor. He will be dearly missed by those who know him.

The newly-appointed Internal Auditor, Mr Chong Chee Siong is a long-standing Member of TEEAM. He is very active and supportive towards the growth of the Association and provides voluntary services in various capacities, namely, in the Sports & Trading Committees.

Proposed Constitution Amendments

The Honorary Secretary, Mr Lee Peng Sian presented the proposed amendments



Annual Report Presentation – TEEAM Honorary Secretary, Mr Lee Peng Sian presented the Annual Report which outlined the activities of the Association for the year 2019.



Business of the day – TEEAM's 68th AGM Agenda.

to TEEAM's Constitution. The proposed amendments were presented in three columns, namely, the first was on the present clauses of the Constitution, the second was the proposed changes, whilst the third column was regarding the reasons for the proposed amendments. TEEAM members at the General Meeting unanimously approved and accepted the presented proposed amendments.

Conclusion

As there was no notice received from members for any other business to be

conducted at the 68th AGM, the President concluded the General Meeting and thanked all present. In his closing remark, Mr Siew hoped that the E&E industry would remain resilient to withstand the negative shocks from the COVID-19 pandemic. Members were encouraged to adhere to the periodic directives made by the Government. Important information would be posted to members via email broadcast and social media as soon as these information became available. He wished that all members and their families are in good health and always stay safe.



Zoom platform – The 68th virtual AGM of TEEAM was hosted from the TEEAM Secretariat Office.



A job well done! – After the conclusion of the AGM. Seen here are (from left) Mr Lim Sai Seong (Honorary Treasurer), Mr Siew Choon Thye (President) and Dr Ng Kok Chiang (Assistant Honorary Secretary cum Emcee of the day) together with the Secretariat staffs.



Since 1987



Creating Lighting Image
Developing Future...

The future is now

Digitalization for SMART City & Sustainability



 **LED** Generation

Smart Intelligent LED Lighting System

BRIEF INTRODUCTION

For more
information
please contact us.

For a long time lighting control was limited to an on/off switch, and saving energy was the only possible through manual input. Meanwhile, with the extraordinary advancement of science and technology, the demand for Smart Intelligent LED Lighting Systems capable of independent automation of a Smart City and Sustainability is rapidly expanding and is undoubtedly the future of the lighting industry.

Your Lighting Solution

Gruppe Lighting Solution Sdn. Bhd. (158881-U)

No. 9, Jalan Anggerik Mokara 31/60, Kota Kemuning Section 31,

Shah Alam, Selangor Darul Ehsan, Malaysia

Tel : +603 5525 4133, Fax : +603 5525 4122

Email : info@gruppelighting.com

Web Site : www.gruppelighting.com

TEEAM Media Statement

27 October 2020

TEEAM urges the Government to waive SST and income tax penalty, for purposes of business survival and boosting Malaysia's economy

TEEAM lauds and expresses gratitude to the Government for the recent implementation of the Short-Term Economic Recovery Plan (PENJANA). However, to be more effective in ensuring the survival of businesses and boosting the local economy, we urge the Government:

1. To waive the Sales and Services Tax (SST) for all electrical and electronics (E&E) products & services from the local producer as an incentive to further boost the "Buatan Malaysia" products and services drive, thus encouraging more importers to localise their manufacturing plants, and increasing foreign direct investment (FDIs). This would in turn contribute to the reduction of trade deficits, and ensure increase in job opportunities.

2. To waive the penalty imposed on forecasted versus actual profit for income taxes by LHDN. This will further lessen the financial burden of SMEs during this challenging period.

3. To increase the SRF allocation amount and to accelerate disbursement for business survival and sustainability.

4. To increase the quantum of the existing hiring incentives to help more retrenched workers to secure jobs and reduce unemployment amongst fresh graduates and school leavers in order to enable businesses to survive this severe year-long pandemic.

Categories & Hiring Incentives for 6 months:

Target Group	Existing Hiring Incentive	Proposed to increase to
Fresh Graduates Unemployed	RM 600	RM 1,200
Aged below 40 Unemployed	RM 800	RM 1,200
Aged 40 to 60	RM 1,000	RM 1,500
OKU	RM 1,000	RM 1,500

The recent spike in the number of COVID-19 cases is back to haunt and hamper businesses. Another round of extended C M C O implemented in Selangor, Kuala Lumpur, Putrajaya and Sabah for two weeks is expected to take a heavy toll on industries and businesses.



Mr Siew Choon Thye
TEEAM President

We sincerely hope that the Government will provide the above incentives for SMEs in the E&E industry to wade through these tough times and enable us to continue to provide employment to all qualified Malaysians.



Smart Automation Grant (SAG) to Enable Future-Proofing of Local Businesses

Media Release by MIDA
2 December 2020

The Ministry of International Trade and Industry (MITI) had launched the Smart Automation Grant (SAG) on 2 December 2020, aimed at encouraging the adoption of automation for industry players, particularly local manufacturers and service providers.

YB Dato' Seri Mohamed Azmin Ali, Senior Minister and Minister of International Trade and Industry said, "The Government, through the Malaysian Investment Development Authority (MIDA) is committed in driving Malaysia's industry and businesses towards automation and digitalisation. It goes beyond having the right solution providers and talents in place; it is also about ensuring that the need for accessible financial aid is met. The SAG is timely to boost strategic domestic investments that will assist and incentivise the small and medium enterprises (SMEs) and mid-tier Companies (MTCs) to future-proof their operations, production and trade channels."

This SAG initiative is part of the RM100 million allocation within the National Economic Recovery Plan or PENJANA, which was announced in June 2020. This grant will be awarded on a matching basis or 50 per cent of total eligible expenditures, up

to a maximum grant cap of RM1 million per company.

SMEs and MTCs that have been undertaking manufacturing or services activities in the past twelve months are eligible to be considered for SAG. To qualify for the incentive, the automation machine, equipment or software purchased must be used directly in the company's value chain to improve their productivity and efficiency. Improvements will be assessed on a range of criteria such as reduction of unskilled workers, man-hours, defect rate as well as the increase in production volume. Interested stakeholders can submit their application for SAG to MIDA from 1 November 2020 to 31 December 2021.

"The Government is optimistic that this grant will see to a more robust uptake of automation and digitalisation efforts in the country to meet the current technologically-evolving global supply chain. SAG will not only improve Malaysia's industrial competitiveness and capabilities but also reduce our reliance on low-skilled foreign workers while creating new job opportunities in high value-added sectors," added YB Dato' Seri Mohamed Azmin Ali.

Furthermore, MIDA, in collaboration with selected panel banks, will be organising an Acceleration Programme for Smart

Automation Grant to create awareness and provide financial guidance to companies on automation and digitalisation through a series of simulation training and evaluation sessions.

About MIDA

MIDA is the Government's principal investment promotion and development agency under MITI to oversee and drive investments into the manufacturing and services sectors in Malaysia. Headquartered in Kuala Lumpur Sentral, MIDA has 12 regional and 20 overseas offices. MIDA continues to be the strategic partner to businesses in seizing the opportunities arising from the technology revolution of this era. For more information, please visit www.mida.gov.my and follow them on Twitter, Instagram, Facebook, LinkedIn and YouTube channel.

Guidelines for the above Smart Automation Grant under the National Economic Recovery Plan (PENJANA) appears on page 13.





EVlink Wallbox

Easy, fast, and robust,
as charging stations should be.

Unlike domestic socket outlets, EVlink Wallbox is designed to deliver a high charging current for long periods of use on a daily basis.

EVlink Wallbox complies with full electric and plug-in hybrid vehicle charging standards.

Up to 10 times faster*

Depending on your electric vehicle and your EVlink Wallbox charging power, you can charge up to 10 times faster than a domestic socket outlet.

Simply plug in and charge!

When the light on the front of your wallbox starts blinking, you know your charge has started.

Optimum user protection

Powered by a dedicated branch circuit in your electrical switchboard that has been checked by a qualified electrician, EVlink Wallbox can operate with enhanced reliability and without disrupting the rest of your electrical system.



Scan here to learn more

se.com/my

Life Is On

Schneider
Electric

Guideline for Smart Automation Grant under the National Economic Recovery Plan (Penjana)

1. Background

- 1.1. The Smart Automation Grant was introduced in the National Economic Recovery Plan or Pelan Jana Semula Ekonomi Negara (PENJANA) in June 2020.
- 1.2. Under the Smart Automation Grant scheme, the Government has allocated RM100 million, capped at up to RM1 million per company.
- 1.3. The main objectives of the Smart Automation Grant are:
 - i. To assist as well as incentivise Small and Medium Enterprises (SMEs) and Mid-Tier Companies (MTCs) to automise and digitalise operations, production and trade channels
 - ii. To improve efficiency in the manufacturing and services sector
 - iii. To reduce reliance on low-skilled foreign workers
 - iv. To provide job opportunities in high value-added sectors
 - v. To enhance SME competitiveness on an international level
 - vi. To be aligned with the National Policy on Industry 4.0
 - vii. To boost domestic investment

2. Grant

- 2.1. The Smart Automation Grant will be given on a matching basis (1:1) based on eligible expenditures, up to a maximum grant of Ringgit Malaysia One Million (RM1,000,000) per company.

3. Eligible Applicants

- 3.1. Incorporated under the Companies Act, 1965/ 2016.
- 3.2. Effective equity of the company must be at least 51% owned by Malaysians.
- 3.3. The company possesses a valid Business Licence from a Local Authority.
- 3.4. The company must engage in the following activities:
 - i. Manufacturing activity in compliance with the Industrial Co-ordination Act, 1975; or
 - ii. Services activities which must be regulated by specific acts/ regulations or governed by relevant ministries/ agencies.

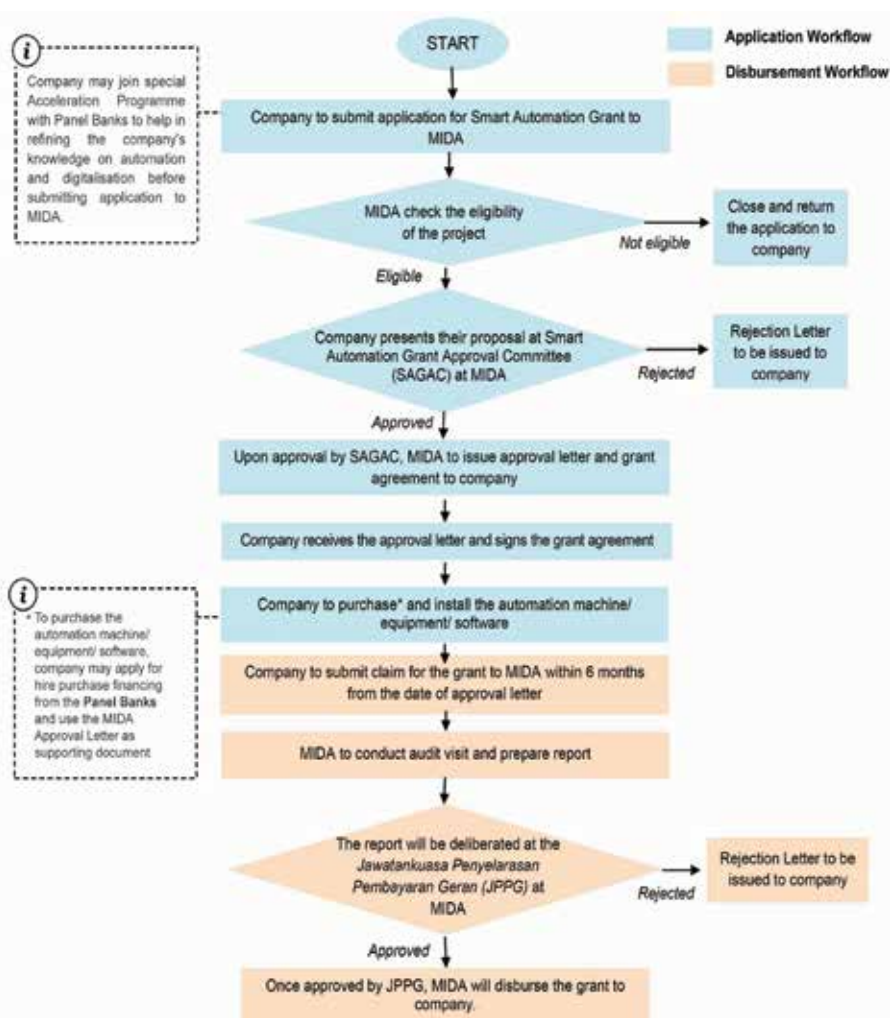
- 3.5. Eligible for SMEs and MTCs only.

- Definition of SME and MTC:

	Manufacturing	Services
SME	Sales turnover not exceeding RM50 million or Employees not exceeding 200	Sales turnover not exceeding RM20 million or Employees not exceeding 75
MTC	Sales turnover from RM50 million to RM500 million	Sales turnover from RM20 million to RM500 million

- 3.6. The company has been in operation for at least 12 months.
- 3.7. The company must meet at least one of the Committed Deliverables in Appendix I.

PROCESS WORKFLOW FOR SMART AUTOMATION GRANT UNDER NATIONAL ECONOMIC RECOVERY PLAN (PENJANA)



4. Eligible Expenditures

- 4.1. Eligible expenditures refer to the automation machine/ equipment/ software that are used directly in the overall value chain of manufacturing and services activities.
- 4.2. Non-eligible expenditures*:
 - Purchase or rental of land / building office / vehicles / equipment
 - Purchase or rental of second hand or refurbish automation machinery / equipment / software
 - Maintenance and repair costs including renovation of premise
 - Wages paid to employees
 - Employee benefits programmes

SINO Electric Fans



Forward Creative Solutions

60" CEILING FANS



Model: SCF-60-WH



Model: SCF-60-BK



Model: SCF-60-SL



Model: SCF-60-GD

16" WALL FAN



Model: SWF-16-C

EXHAUST FANS SERIES



Model: SCX-8 / SCX-10
CEILING MOUNTED



Model: SWX-8 / SWX-10 / SWX-12
WALL MOUNTED

18" COMMERCIAL FANS



Model: SSF-18-C



Model: SWF-18-C



Model: SFF-18-C

20" COMMERCIAL FANS



Model: SSF-18-D
SSF-20-D



Model: SWF-18-D
SWF-20-D



Model: SWF-20-DR



Model: SFF-18-D
SFF-20-D

26" INDUSTRIAL FANS



Model: SSF-26



Model: SWF-26
(WALL MOUNTED)

HD OCTAGONAL INDUSTRIAL VENTILATION FANS



Model: SX-12 / SX-16 / SX-18 / SX-24



- Legal and stamp duty fees
- Insurance
- Collateral or loan including its interest paid for purpose other than smart automation
- Office expenses and supplies including general purpose computers & peripherals and mobile phones
- Utility expenses
- Research & development expenses
- Advertising and marketing expenses

**This list is not meant to be exhaustive and will be reviewed from time to time.*

5. Project Duration

- 5.1. The project must be completed within 12 months from the date of the Approval Letter issued by MIDA.
- 5.2. Any unutilised grant amount after 12 months will be withdrawn by MIDA.
- 5.3. Any request for extension is required to be made at least 2 months before the project end date and is subjected to the approval of the Committee.

6. Application Process

The application processes are as follows:

- i. Application for Smart Automation Grant is submitted to MIDA.
- ii. MIDA will then evaluate the application and invite the eligible applicant to present their proposal at a pitching session in MIDA.
- iii. Eligible applicant will present (pitching session) their proposal to the Smart Automation Grant Approval Committee (SAGAC) at MIDA.
- iv. Once approved, the company will receive the approval letter and sign a grant agreement with MIDA.

- v. Awarded company has to purchase* and install the automation machine/ equipment/ software.
- vi. Awarded company will need to apply to MIDA for the disbursement of grant within 6 months from approval date.
- vii. MIDA will conduct an audit visit and report the audit findings to the Committee on Coordination & Disbursement of Grants (JPPG).
- viii. Once approved by JPPG, MIDA will disburse the grant to the awarded company. For companies using Panel Banks, the grant will be disbursed to the selected Panel Banks.

** Note:*

Company may apply for hire purchase financing from the Panel Bank to purchase the automation machine/ equipment/ software, and use the MIDA Approval Letter as a supporting document.

7. Acceleration Programme

Recognising the need to create awareness and provide knowledge to companies on automation and digitalisation, MIDA in collaboration with selected Panel Banks will organise a special Acceleration Programme.

Under this programme, companies will go through a series of session which will help them refine their knowledge on automation and digitalisation through simulation trainings and evaluations. Subsequently, the company will share their plans to start developing or adopting new technologies to automate their production process or to digitalise their business operations.

Successful companies under this programme may submit their application to MIDA and present their application to the SAGAC at MIDA for approval.

8. Effective Date Of Application

Applications received by Malaysian Investment Development Authority (MIDA) from 4 December 2020 to 31 December 2021 are eligible to be considered for this grant.

9. Application Submission

9.1. Applicants are required to submit the following documents:

- i. Application Form (PENJANA SAG)
- ii. Latest Financial Statement (audited)
- iii. Latest SSM Company Profile (e-Info) by Companies Commission of Malaysia (SSM)
- iv. A copy of Business Licence from Local Authority
- v. A copy of Manufacturing Licence (ML) OR a Confirmation Letter Exempted from ML from MIDA under Industrial Co-ordination Act, 1975 (Applicable for manufacturing company only)
- vi. A copy of License/ Permit/ Support letter from relevant ministries/ agencies that govern the activities. (Applicable for services company only)

9.2. The application should be submitted to:

Chief Executive Officer
Malaysian Investment Development Authority (MIDA)
MIDA Sentral,
No. 5, Jalan Stesen Sentral 5
Kuala Lumpur Sentral
50470 Kuala Lumpur

9.3. For enquiries and clarification, please refer to:

MIDA Website : www.mida.gov.my
Tel : (603) – 2267 3633
Fax : (603) – 2273 4208
Email : investmalaysia@mida.gov.my

Appendix I: Committed Deliverables, Calculation Formulas and Measures

No.	Committed Deliverables	Calculation Formulas	Measures
1.	Reduction of Unskilled Workers	$(W1 - W2)/W1 \times 100$ W1: Number of workers directly involved before use of equipment/ machine W2: Number of workers directly involved after introduction of equipment/ machine	Percentage of reduction of workers after the use of equipment/machine
2.	Reduction in Man Hours	$(M1 - M2)/M1 \times 100$ M1: Direct man-hour involved to produce 1 item or 1 batch before use of equipment/machine M2: Direct man-hour involved to produce 1 item or 1 batch after introduction of new equipment/ machine	Percentage of reduction in number of hours worked to produce 1 item or batch of item after the use of equipment/machine
3.	Increase in Production Volume	$(V2 - V1)/V1 \times 100$ V1: Production volume per day before the use of equipment/ machine V2: Production volume per day after the use of equipment/ machine	Percentage of increase in production volume as a result of the use of equipment/machine
4.	Quality Improvement – Reduction in Defect Rate	$(D1 - D2)/D1 \times 100$ D1: Defect rate before the use of equipment/ machine D2: Defect rate after the use of equipment/ machine Defect rate = No. of defects/Total number of goods produced	Percentage reduction of defect rate as a result of the use of equipment/machine
5.	Increase in Services Delivery	$(S2 - S1)/S1 \times 100$ S1: No. of services delivered per day before the use of equipment/ machine S2: No. of services delivered per day after the use of equipment/ machine	Percentage of increase in services delivery as a result of the use of equipment/machine
6.	Reduction of Man Hours in Delivering Services	$(M1 - M2)/M1 \times 100$ M1: Direct man-hour involved to deliver a service before use of equipment/machine M2: Direct man-hour involved to deliver a service after introduction of new equipment/ machine	Percentage of reduction in number of hours worked to deliver after the use of equipment/machine

TERASAKI is the world's power specialist since 1923, we offer a comprehensive range of LV Switchgear & services for the Residential, Office Building, Manufacturing Plant, Energy & Infrastructure. The brand name of our products is TERASAKI which is already well established in Marine Systems, Industrial System and Circuit Breaker Industry.

TemPower

AC 690V, 800V.



TemBreak

The Ultimate Safety Breaker

AC 690V, 800V.



TemBreak

DC Moulded Case
Circuit Breaker
DC 350V, 600V,
750V, 1000V.



TemBreak

Circuit Breaker
with Residual
Current Protection
(CBR)



Mersen



Surge Protective Device

FRANKE
GMKP ENERGY



Power Capacitor



Earth Leakage Relay
(TZS-AD)



ELCB



MCB



RCBO

TERASAKI ELECTRIC (M) SDN BHD (156366-X)

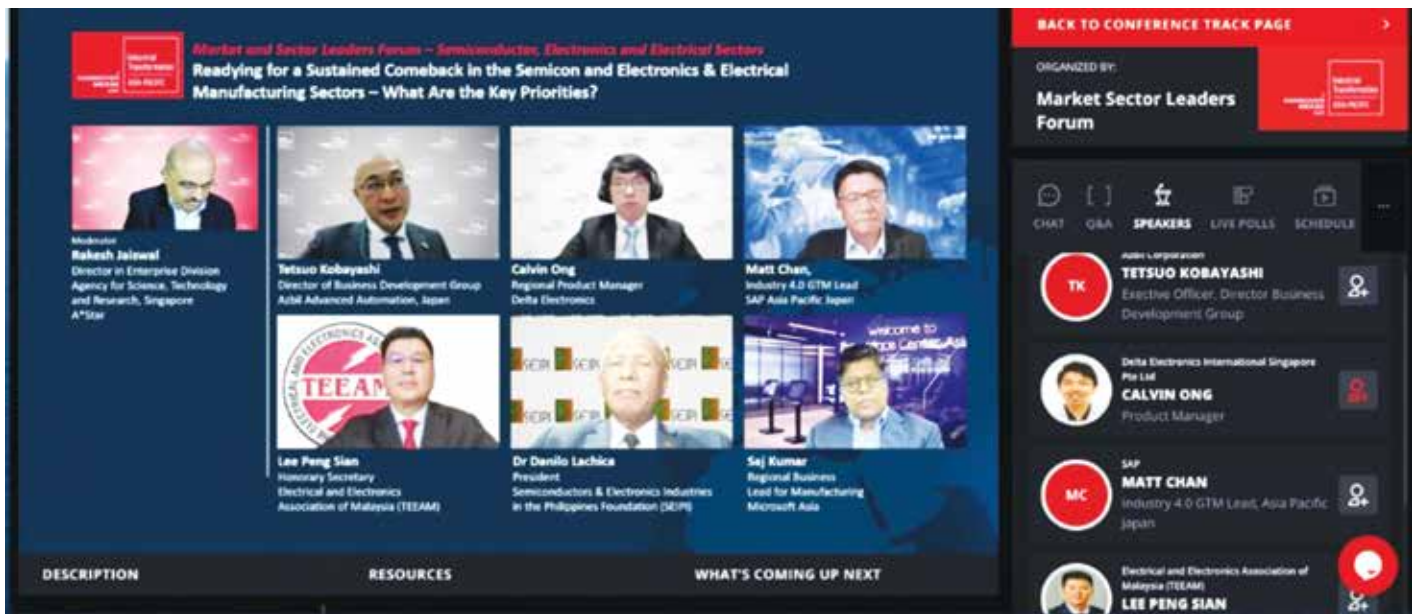
Lot 3, Jalan 16/13D, 40000 Shah Alam, Selangor Darul Ehsan, Malaysia.

Tel: +603-5549 3820 (6 Hunting Lines) Fax: +603-5512 9299

E-mail: sales@terasaki.com.my / ykkoh@terasaki.com.my



ITAP 2020 (Industrial Transformation Asia-Pacific)



Market & Sector Leaders Virtual Forum for the Semiconductors and E&E Sectors.

Organised by SingEx Exhibitions with international partner Deutsche Messe, the Industrial Transformation Asia Pacific (ITAP) 2020 – A Hannover Messe event, is Asia Pacific’s go-to platform for companies and Governments looking to START, SCALE and SUSTAIN their adoption of Industry 4.0 (IR4.0) processes and solutions across industries and sectors. In its 3rd edition this year, the event staged a first hybrid edition from 20 to 23 October 2020. ITAP 2020 went virtual with a custom-built interactive platform and physical bolt-on activities to optimise engagement and knowledge transfer opportunities beyond the physical event barriers of time, language and geography.

The Opening Ceremony which was held on 20 October 2020 at the Singapore Expo, was officiated by Singapore’s Deputy Prime Minister, who is also the Coordinating Minister for Economic Policies and Minister for Finance, Mr Heng Swee Keat. A small group of attendees sat 1-meter apart from one another, while a whopping 5,000 other participants from 50 countries watched the industry event online. TEEAM Vice President and Construction & Services Chairman, Ir Kok Yen Kwan attended the Opening virtually. With “Forging Ahead with Industry 4.0 in the



The Opening Ceremony was officiated by Singapore’s Deputy Prime Minister, Mr Heng Swee Keat.



VIPs virtually attending the Opening Ceremony.

New Normal” as the driving theme, ITAP 2020 devised innovative ways in the virtual space for stakeholders to continue to explore IR4.0 solutions to aid and complement business operations. The three-day live virtual event and physical bolt-on activities were delivered on a dedicated platform powered by the AI recommendation engine, enabling personalised digital learning journeys with bite-sized content and facilitating deeper community engagement and collaboration. The event offered comprehensive content-rich learning avenues and themed activity zones for companies at various stages of business transformation to explore, collaborate and co-create solutions to future-proof their businesses. Cohesively, it brought together a self-contained ecosystem and helped build a professional community for end-to-end engagements among IR4.0 practitioners, technology and solution providers, industrial companies, component manufacturers, software companies, manufacturing solutions suppliers, service companies and consultancies, and start-ups.

From 20 to 22 October 2020, ITAP 2020 successfully live-streamed several key industry conferences, including the Future

of Manufacturing Summit, Global Additive Manufacturing Summit, Germany Singapore Business Forum Connect, Standards Forum and the Market & Sector Leaders Forum. The special Market & Sector Leaders Virtual Forum for the Semiconductors and E&E Sectors was held on 21 October 2020. The Forum theme was “Ready for a Sustained Comeback in Semi-con and E&E Manufacturing Sectors - What are the Keys Priorities?”. TEEAM Honorary Secretary, Mr Lee Peng Sian, was one of the esteemed forum panel speakers. He shared his insights on the Malaysian E&E manufacturing sector. TEEAM was one of the Supporting Organisations of ITAP 2020.

Overall, the event was very interesting and beneficial as it enabled stakeholders to share, learn, network and collaborate with one another in a changed business landscape due to the pandemic. In every crisis, there are always opportunities. As the fourth Industrial Revolution now gathers steam, we must make the most of the opportunities in this crisis, to ride successfully the waves of growth in a post-COVID world, and emerge as victors.



UNITED MS CABLES MFG SDN. BHD.

Quality & Reliable

Cables

Manufacturer of :

- Armoured/Non Armoured Cable
- PVC insulated cables
- Flexible Cables
- Automotive cables
- Battery Cables
- Speaker Cables



BUATAN MALAYSIA



MALAYSIA



Suruhanjaya Tenaga



PLS Limited
95 209-5
LIC : 00318



Manufactured by :

UNITED MS CABLES MFG SDN. BHD. (399247-X)

NO. 15 JALAN JASMINE 1, SEK. BB10,
BANDAR BUKIT BERUNTUNG,
48300 SERENDAH, SELANGOR, MALAYSIA.

Tel : +603-6028 2828 Fax : +603-6028 2288 / 2289

Email : enquiry@unitedms.com.my / umsc_marketing@yahoo.com

Website : www.unitedms.com.my

ARCHIDEX Focus Forum on Energy Save vs Energy Waste

TEEAM is a proud partner of ARCHIDEX 2020, one of Malaysia's largest trade exhibitions for architecture, interior design, building and construction industry for over 20 years. ARCHIDEX is jointly organised by the Malaysia Institute of Architects (PAM) and CIS Network.

ARCHIDEX sets the trend again by thriving on opportunities to introduce ARCHIDEX Online, a hybrid exhibition concept that merges the digital component to complement on-site exhibition. The new online platform is an easily accessible platform since 1 August 2020; it connects all stakeholders within a dynamic industry and provide a real-time business tool to a targeted community of architecture and building professionals. Due to the current COVID-19 pandemic, the physical on-site showcase is set for 3-6 November 2021 at the Kuala Lumpur Convention Centre.

ARCHIDEX continues to facilitate business dealings and promote industry learning through this beneficial online platform to fulfil industry's needs and demand for online sourcing; showcase new products and solutions; plus networking and knowledge-sharing. Five virtual sessions of Focus Forums were successfully held during the recently-concluded ARCHIDEX Online event.

The Focus Forum on Energy Save vs Energy Waste: Back-to-Reality was hosted on 17 December 2020. The terms 'consumption', 'efficiency', 'saving' and 'waste' are regularly confused amongst practitioners in the energy-related sphere of the building and construction industry. Hence, the timely Forum aimed at addressing the importance of incorporating basic Measurement & Verification (M&V) practices in buildings to sustainably drive energy efficiency. TEEAM Member, NK Engineers Sdn Bhd's Head of Energy Sector, Ir Jack Chan, was the distinguished Speaker who shared his thoughts and expertise on the subject topic. Meanwhile, the Forum was moderated by Internal Designer Architect, Ar IDr Alice Leong, who is the Honorary Treasurer of PAM. It was a fruitful and informative Forum for all who attended.

ARCHIDEX[®] ONLINE 14 - 19 DEC

ARCHIDEX[®] Fast Forward Webinar Series Industry

FOCUSFORUM

Energy Save vs. Energy Waste: Back-to-Reality by The Electrical and Electronics Association of Malaysia (TEEAM)

17 Dec (Thurs) 11.00am - 12.00pm (+8GMT) LIVE

Moderator:
Ar. IDr. Alice Leong Pek Lian,
Honorary Treasurer of Malaysia Institute of Architects (PAM)

Speaker:
Ir. Jack Chan,
Head of Energy Sector,
NK Engineers Sdn. Bhd

Supported by: **ARCHIDEX[®] ONLINE** Jointly Organised By: **PAM** **CIS**

CPD POINT APPLICABLE* *Note: CPD Points applicable only to architects. Follow instructions to redeem.

Focus Forum on Energy Save vs Energy Waste: Back-to-Reality.

Energy Saved vs Energy Wasted

Ir Jack Chan
17 December 2020

ARCHIDEX

Speaker from TEEAM, Ir Jack Chan of NK Engineers Sdn Bhd.



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 new company member will be entitled to two points, whilst introducing an individual member will be entitled to 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



Electrical Insulation Tape

THE UNMISSABLE PRODUCTS FOR ELECTRICIANS

- Available in a wide range of sizes and colors
- Flame retardant materials
- Suitable for electrical insulation, binding, colour coding and general work



DESEA SDN BHD (566667-U)

Unit TB-19, Level 19, Tower B, Plaza 33, No. 1, Jalan Kemajuan, Seksyen 13, 46200 Petaling Jaya, Selangor, Malaysia
TEL : (603) 7883 6133 FAX : (603) 7883 6188 WEBSITE : www.himel.com

Budget 2021: A Quick Look

Calvin Cheng & Dr Juita Mohamad

November 2020

The 2021 Budget, along with 2021 Fiscal Outlook and Revenue Estimates was proposed by the Finance Minister on 6 November 2020. This article takes a quick look at the Federal Government's fiscal position and growth projections, along with some initiatives in the Budget related to social assistance, TVET, digitalisation, and automation.

1.0 Overview of Government fiscal position and growth projections

The proposed 2021 Budget allocates a record high RM321.7 billion in Government expenditure for 2021, of which about 74 percent of the proposed budget is allocated to operating expenditure and about 21 percent to development expenditure, and the remaining 5 percent to the special 2020-2021 COVID-19 fund. The proposed 2021 Budget also widens existing 2020 expenditure allocations amid the onset of the COVID-19 pandemic and the dual shocks to Government revenue and expenditure that it has produced. Compared to Budget 2020 which initially allocated RM297.0 billion in Government spending for 2020, the new proposed budget increases 2020 spending by an estimated RM16.7 billion, to RM314.7 billion.

Table 1: Overview of Government fiscal position, projected (RM millions)

Item	2017	2018	2019	2020E	2021F
Revenue	220,406	232,882	264,415	227,270	236,900
Operating Expenditure	217,695	230,960	263,343	226,720	236,540
Development Expenditure	43,032	55,532	52,570	49,000	68,200
COVID-19 FUND				38,000	17,000
Overall budget balance	-40,321	-53,610	-51,498	-86,450	-84,840
% of GDP	-2.9%	-3.7%	-3.4%	-6.0%	-5.9%

Source: Ministry of Finance, Author's estimates
Note: E = estimates, F = forecasts

Even as the Government expenditures continue to rise, current revenue projections suggest that the socio-economic shocks produced by the pandemic have already severely dampened Government revenue. In 2020, total Government revenue is expected to decline by about RM37.1 billion, driven mainly by a fall in direct tax revenue amid lower crude oil prices (for petroleum income taxes) and lower economic activity (for corporate and individual income taxes). This will exacerbate a decades-long trend of falling revenue-to-GDP since the late 1980s, and highlight existing issues with Malaysia's Government revenue-including a relatively small tax base, an over-reliance on direct tax revenues, and return to dependence on commodity-related revenues.

As revenues fall whilst expenditures mount, the fiscal deficit will continue to widen, and debt levels will need to rise as a result. MOF projections suggest that the 2020 fiscal deficit will widen to about 6.0 percent of GDP in 2020 and gradually decline to 5.4 percent in 2021, and eventually to 4.0 percent in the following three years. Meanwhile, MOF projects federal debt levels to hit an all-time high of about RM874.3 billion in 2020, or about 61 percent of GDP. Despite the record high debt levels, we anticipate that fiscal risks will remain manageable, in view of low borrowing costs (MGS 10-year yields remain around 2.5 percent) and the high proportion of Ringgit-denominated domestically-held Government debt.

In terms of economic growth, the Ministry of Finance (MOF) has projected GDP growth to contract by about -4.5 percent in 2020, down from +4.3 percent growth in 2019. MOF's own forecasts suggest that GDP growth is anticipated to recover strongly in 2021 with a growth rate of between 6.5 percent to 7.5 percent. However, there may be

large downside risks to MOF's forecasts, with 2021 growth rates remaining highly dependent on how quickly the novel coronavirus can be contained globally as well as on domestic economic and political developments. A full recovery to pre-crisis levels of GDP is projected to be gradual, in contrast to Malaysia's swift recovery from the recession following the Global Financial Crisis in 2009. Back in 2009, a sharp recovery in oil and electronic exports along with a surge in foreign investment allowed GDP to quickly return to pre-crisis levels in less than a year. This time around, low global energy prices, muted demand from the world's major economies, and a likely slow recovery in global trade make a similar "V-shaped" recovery less likely.

Table 2: Summary of Government revenue, projected (RM millions)

Revenue Item	2017	2018	2019	2020E	2021F
Direct tax	116,024	130,034	134,723	115,105	131,870
Corporate income taxes	64,465	66,474	63,751	59,385	64,596
Individual income taxes	28,945	32,605	38,680	35,906	42,439
Petroleum income tax (PITA)	11,761	20,082	20,783	8,551	13,000
Indirect taxes	61,634	44,026	45,843	38,155	42,500
Sales tax	44,352	25,679	27,668	24,533	27,900
Excise duties	10,112	10,779	10,511	8,507	8,768
Non-tax revenue	42,748	58,821	83,849	74,010	62,530
Total Government revenue	220,406	232,882	264,415	227,270	236,900

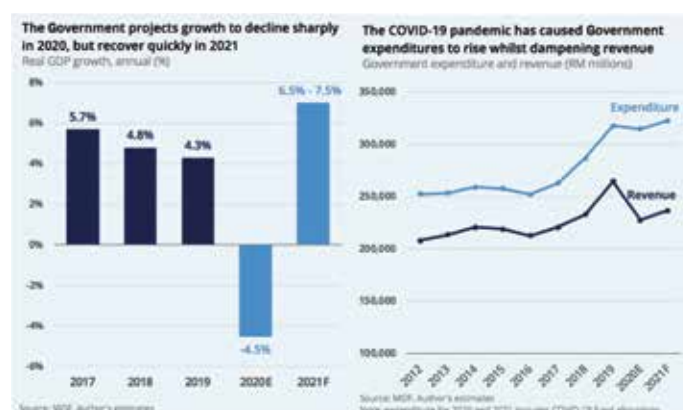
Source: Ministry of Finance, Author's estimates
Note: E = estimates, F = forecasts

Table 3: Summary of Government expenditure, projected (RM millions)

Expenditure Item	2017	2018	2019	2020E	2021F
Operating expenditure	217,695	230,960	263,343	226,720	236,540
Emoluments	77,036	79,989	80,534	82,611	84,532
Social assistance	22,354	27,516	23,901	20,145	18,853
Retirement charges	22,800	25,177	25,894	27,055	27,583
Debt Service	27,863	30,547	32,933	34,945	39,000
Development expenditure	44,884	56,095	54,173	50,000	69,000
Economic	24,186	36,103	31,300	28,525	38,887
Social	12,425	12,873	14,484	13,058	18,369
Security	5,334	4,929	5,614	5,557	7,780
Add: COVID-19 fund for 2020/21	-	-	-	38,000	17,000
Total Government expenditure (including COVID-19 fund)	262,579	287,055	317,516	314,720	322,540

Source: Ministry of Finance, Author's estimates
Note: E = estimates, F = forecasts

Fig 1: Overview of Government fiscal position and growth projections



SMART LIGHTING SYSTEM ENHANCING CITY LIFE EXPERIENCE

The **ILCS**® smart technology delivers the fundamental necessity to a healthy and vibrant society with the purpose of creating smart city infrastructure. **ILCS**® is equipped with surveillance system features which benefits to smart city implementation. The **ILCS**® smart system alone is able to integrate with new or existing luminaires at the premise of business area to safeguard assets.

ILCS®
Intelligent Light Control System



- 1 LCU NEMA**
is installed onto smart street lantern to establish a smart city neural infrastructure network.



- 2 Cloud Vision**
Cloud based on platform for real time control of luminaires, real time monitoring of load and lighting levels.



- 3 Software Control**
Operator able to control and monitor lights individually through software installed into smartphone or computer.

ILCS® Service & System Benefits

- Air Quality Monitoring System
- Enhance Safety & Security
- Facial Recognition
- Illegal Parking Detection
- Intelligent Real-Time Monitoring
- Motion Detection
- Public Security Management System
- Telecommunication Hub
- Visual Intelligence & Analysis
- Wireless Smart Parking



Our Technology Partner:

ILCS®

Intelligent Light Control System



Success Electronics & Transformer Manufacturer Sdn. Bhd. [200853-K]
(A wholly owned subsidiary of Success Transformer Corporation Berhad)

Contact us now at 1300 88 2788 / +603 - 6279 2800
or email marketing@success.com.my
Website: www.nikkonlighting.com



Most Innovative Product Award
by Australian Smart Lighting Summit 2018

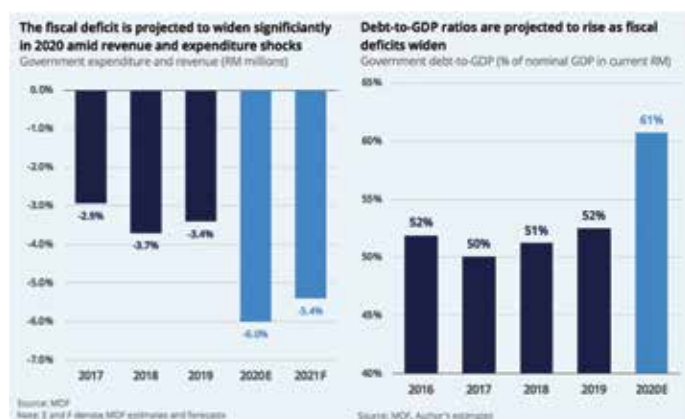


Most Innovative Product Award
by Middle East Lighting Design Summit 2018



Participation Award
by Abu Dhabi Smart City Summit 2019

Fig 1 (cont): Overview of Government fiscal position and growth projections



2.0 Social assistance and EPF-related initiatives

Budget 2021 also proposes the Bantuan Prihatin Rakyat (BPR) income-targeted cash transfer programme, which is intended to replace the existing Bantuan Sara Hidup (BSH) programme in 2021. BPR will have a proposed total allocation of RM6.5 billion and is expected to reach 8.1 million beneficiaries, compared to a RM5.0 billion allocation for the BSH programme. The BPR cash benefits are also more widely-targeted compared to BSH, targeting households earning up to RM5,000 per month. At the same time, the supplementary Bantuan Prihatin Nasional (BPN) cash assistance programme, introduced in the Prihatin economic recovery package will continue to run on top of the BPR programme in 2021.

Nonetheless, as the BPR is based largely off of the existing BSH/BPN infrastructure, there remains much room to improve these cash transfer programmes to maximise programme impacts. This would entail working towards mending existing weaknesses in Malaysia's cash transfer programmes such as the relatively high targeting inclusion and exclusion errors, and the eligibility income requirements that do not scale with household size.

Table 4: Bantuan Prihatin Rakyat 2021 benefit schedule

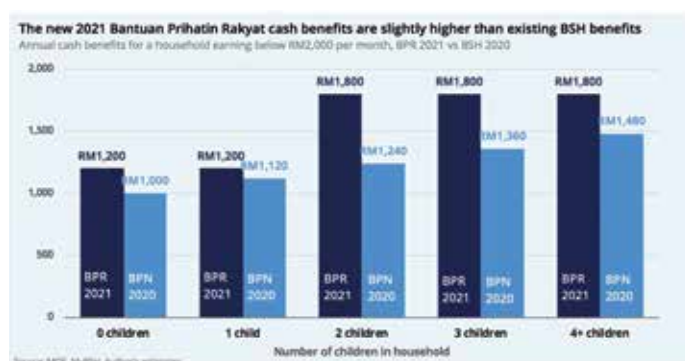
Monthly household income	0-1 children	2+ children
<RM2,500	RM1,200	1,800
RM2,501-RM4,000	RM800	RM1,200
RM4,001-RM5,000	RM500	RM750
Single <RM2,500	RM350	-

Table 5: Bantuan Sara Hidup 2020 benefit schedule

Monthly household income	0 children	2 children	4 children
<RM2,000	RM1,000	1,240	1,480
RM2,001-RM3,000	RM700	940	1,180
RM3,001-RM4,000	RM500	740	940

Source: MyBSH, MOF

Fig 2: BPR 2021 vs BSH 2020 benefit levels, for a household earning below RM2,000/month



Building upon similar measures in the Prihatin/Penjaja stimulus packages, Budget 2021 also proposes numerous EPF-related measures for 2021. The first is an initiative to allow a reduction in employee's EPF contribution rates for employees from 11% to 9% starting from January 2021. At the same time, eligible individuals can withdraw RM500 a month from their EPF Account 1, and use Account 2 funds to make insurance purchases.

While these measures can provide some households with much-needed liquidity, on balance it risks being largely ineffective in safeguarding the welfare of low-income and marginalised households. Some 62 percent of working-age Malaysians are not covered by EPF or any other national pension programme and as a result do not have EPF accounts to draw from. And even for those who are covered by EPF, about 32 percent of contributors only have less than RM5,000 in their Account 1, with some lower-income workers having even less than that. Additionally, drawing down funds from workers' own future contributory retirement savings for current consumption will erode the social safety net protections afforded to workers meant for their old-age. As such, direct Government spending on expanding and broadening social safety net programmes like the Employment Insurance Scheme (EIS) unemployment benefits and BSH cash transfers are likely to have a far greater impact than EPF-related measures in cushioning the socio-economic impacts of the pandemic on lower-income households.

3.0 Technical and Vocational Education and Training (TVET) Programmes

For 2021 a significant amount of allocation is distributed for TVET programmes amounting to RM6 billion. Loans will be given to up to 24,000 employees both in the public and private skills training institutions which amounts to RM300 million through the Skills Development Fund Corporation. This allocation is RM100 million higher than the year before as the Government anticipates the unemployment rate to be higher next year as businesses and employers continue to reel from COVID-19's economic impacts well into 2021.

Incentives are also given to institutions and agencies who create and execute TVET programmes here in Malaysia.

However, the fundamental issues of the quality of the existing TVET programmes and the need for reforms were not highlighted in the budget.

Additionally, efforts to streamlining and monitoring these programmes were not emphasised during the tabling of the budget. Restructuring and reorganising the existing TVET syllabus is key if we aspire to produce TVET graduates who are competitive not just locally but internationally as well. To do this the quality of our programmes need to be improved significantly.

Table 6: Students Enrolment at TVET Tertiary Institutions Malaysia Excluding IKBN and MARA Colleges from 2017 – 2019

Monthly household income	2019	2018	2017
Polytechnics	96,362	96,370	99,606
Community Colleges	26,118	26,069	20,921
Total tertiary enrolment	1,323,449	1,343,830	1,325,669
As % of total tertiary enrolment	9.3%	9.1%	9.1%

Source: Ministry of Higher Education Malaysia (MOHE) (2020)

As upgrading the quality of TVET programmes is still a big challenge and issue in Malaysia, enrolment rate into TVET programmes is still very low as highlighted in the figure above. From 2017 to 2019, TVET enrolment rates did not surpass the 10 percent mark for polytechnics and community colleges. The negative mindset of employers, students and the public towards TVET programmes is linked to the quality of these programmes. As such, improving the quality of the existing programmes will lead to increased enrolment rate and higher employability rate among TVET graduates in the country. This will then rectify the biases towards TVET graduates and programmes in the long run.

To improve the quality of the TVET programmes, both the Government and private sectors need to play a role in upskilling and reskilling workers in Malaysia. To date, there are numerous Technical and Vocational

CHNT

CHINT ELECTRIC

· China Top500 Corporation ·

Empower the World



NU6-II G/F

LV Surge Protection Device (SPD)



Poles	: 1PN / 3PN
Protection Class	: Type 2
Compliance	: IEC 62305 - 4 (Lightning Protection)
	: IEC 61643 - 11 (LV SPD)
	: ST Guidelines for Electrical Wiring in Residential Buildings

Uc / Up (1P)	: 275V / 1.5kV	In / Imax (8/20μs)	: 20kA / 40kA
(3P)	: 440V / 2.0kV		: 30kA / 65kA
(NPE)	: 255V / 1.5kV	(NPE)	: 30kA / 65kA



ALPHA AUTOMATION (SELANGOR) SDN BHD (372711-D)

+603-5569 3698

+603-5569 4099

alphamail@alphasel.com

ALPHACHINT

5, Jalan Pemberita U1/49, Temasya Industrial Park, Glenmarie, 40150 Shah Alam, Selangor

Education and Training (TVET) programmes provided by seven different ministries at certificate, diploma, and degree levels. This creates an issue of overlapping and redundancies. Consolidating these programmes into fewer flagship programmes, along with establishing rigorous, measurable monitoring and evaluation mechanisms can help in removing lower-performing programmes and improving programme administrative capacity.

4.0 Digitalisation and automation

In Budget 2021, there were large allocations towards promoting digitalisation and automation across different sectors for micro SMEs (MSMEs). Under the digital adoption objective, there is an allocation of RM150 million in grants with relaxed conditions for MSMEs and start-ups. A separate RM150 million is distributed to encourage adoption of e-commerce in SMEs through training, sales assistance and digital equipment. In terms of automation and upskilling RM230 million are allocated to financing SMEs especially for working capital and upgrading of automation systems.

In 2019, it was found that 98.5 percent of business establishments amounting to over 900,000 establishments in Malaysia are MSMEs. Given the nature of our MSME community and its challenges in securing financing especially during the pandemic for digital upgrading and adoption, the allocation is in line with the growing importance of the digital economy in Malaysia. Past experience during the early stages of the Movement Control Order (MCO) in March suggests that digital trade has been essential in creating employment and maintaining livelihoods of smallholders-and support is needed for the MSME community to give them opportunities to participate by equipping them with the proper knowledge, infrastructure and tools in the immediate term.

Additionally, the agriculture sector is receiving RM100 million for high impact and high value agriculture and livestock, while the fishery sector is allocated RM50 million for modernisation of fishing vessels in upgrading their technology to increase productivity. While these efforts are very much welcome, there may be huge implementation challenges in ensuring that small-time farmholders and fishermen are able to reap the benefits from these allocations. UN Food and Agriculture Organisation (FAO) 2017 estimates suggest that there are about 132,305 fishermen and 21,156 workers engaging in aquaculture full-time. Yet, it is estimated that there are only about 49,640 decked motorised vessels, suggesting that an overwhelmingly large proportion of fishermen and aquaculture workers do not own their own fishing vessels. This highlights the potential for unequal access to budgetary allocations for these sectors. Vessel owners stand to benefit from this allocation while non-vessel owners may not necessarily have the capital to acquire the

assets or technology to capitalise on these funds, potentially exacerbating income inequality between capital and non-capital owners.

5.0 Localisation of Sustainable Development Goals (SDGs)

It is also refreshing to note that in the 2021 Budget, in addition to the 12th Malaysia Plan, the Government has pledged to allocate funding to localising SDGs at the community level through the All Party Parliamentary Group Malaysia on Sustainable Development Goals (APPG-SDG) Framework, of which ISIS Malaysia is a partner institution. This project is different from some other SDG related projects in that it includes an active role in engaging local stakeholders at the ground level, mapping local issues, seeking project-based solutions based on the 17 SDGs adopted in the UN's 2030 Agenda for Sustainable Development.

In its first year of execution, the allocation has amounted to RM5 million for different constituencies in Malaysia to tackle issues concerning unemployment, decent jobs, income inequality, access to education and the environment. This is more than twice its size compared to the allocation given to the group in 2020, where more than 30 pilot solution projects and capacity projects are to be executed in 10 different constituencies across Malaysia including Sabah and Sarawak from 2020 to 2021.

The projects to be executed in the initial areas identified in Bentong, Tanjung Piai, Jeli, Papar, Pensiangan, Bandar Kuching, Batang Sadong, Selayang, Pendang and Petaling Jaya cover river clean-up drives, island waste management, bio-diversity protection, organic farming and slum incubator, among others. In 2021, the projects will be extended to other constituencies given the interest of the MPs and with the awareness among the communities and other stakeholders, it is hoped that the 17 SDG goals can be pursued together at the ground level.

Acknowledgment

TEEAM is deeply grateful to the Institute of Strategic and International Studies (ISIS) Malaysia for granting permission to reprint this article from their publication, Policy Brief Issue #4-20.

We would also like to extend our heartfelt thanks to the esteemed Authors, Mr Calvin Cheng and Dr Juita Mohamad, for sharing their valuable research and insights.

Mr Calvin Cheng is an Analyst at ISIS and he can be reached at calvin.ckw@isis.org.my while Dr Juita Mohamad is a Fellow of ISIS and she can be reached at juita@isis.org.my



SUARA TEEAM 2021

Successful targeting of your services or products will improve your business and company's image. "Suara TEEAM" is the official information news medium for our members, consultants, government departments, trade missions, embassies, plus local and foreign electrical and electronics associations. Therefore, targeting the right market with your company's advertisements often means the difference between better profits versus losses.

Our attractive advertisement rates are an economical way for your company to promote your products or services, targeted to a specific market. For added value to our Advertisers, the Suara TEEAM newsletter is also posted in the TEEAM website and social media after publication, and e-copy is also circulated.

For advertising enquiries, please contact:

TEEAM Secretariat
E-mail: thila@teeam.org.my



Osram Launches a Sustainable Signage System Solution for Public Infrastructure and Outdoor Application Markets



OSRAM, established in 1919 and headquartered in Munich, Germany, is one of the leading lighting manufacturers in the world. A global enterprise with presence in over 120 countries, OSRAM envisions “Light for a Better World”, by using light to improve Health & Well-being, Mobility, Safety & Security and Connectivity.

Recently, the Company launched a brand-new LED signage module, BackLED® M CP G4 Advanced version. With the inherited German philosophy of quality, craftsmanship and durability, OSRAM has long been enriching and improving its BackLED® and BoxLED® families of lighting products. This

module, made of halogen free (LSHF) material, is designed keeping in mind the ever-growing need of the market for environment-friendly, reliable and easy to use lighting systems.

OSRAM BackLED® M CP G4 Advanced version is made of halogen-free material and is highly fire-retardant. It avoids releasing hazardous gases which may harm the people in subways, airports and other public places in case of fire, etc.

Having pioneered in Signage Lighting, OSRAM System is geared towards serving as “digital” lightboxes for public infrastructure, rail transport (the subway

in particular) and other special application environments to safeguard public security and environmental health.

Selection of Halogen-Free Materials – Attention to Public Safety

As compared with other means of rail transport, the subway is subject to a more complicated and harsh environment: more passengers, denser spaces, higher chances of fire-spread due to flammable materials, and dangerous toxic smoke in closed spaces. This necessitates the integration of public safety and reliability into the subway lighting systems.

OSRAM provides tailored solutions that measure up to IP65 protection rating for dust-proof and water-proof purposes. Moreover, OSRAM also offers stable lighting systems comprising the high surge-protection power supply and a smart lighting control system, which feature a function of "Constant Light Output (CLO)", ensuring that the lumen output of the sign lighting module maintains at a certain level.

"Digital" Smart Controllable Lightbox - "Appropriate" Lighting: No More, No Less

The night economy diversifies the night life of people with its colourful light landscape with high power and high intensity discharge (HID) lamps. However, the night lighting is a double-edged sword as over-lighting in urban areas disrupts the bio-clock of animals, affect the people, the animals and plants, the environment, and hence can lead the way to light pollution.

To combat this calamity, OSRAM has launched an integrated digital control system solution for outdoor applications, aiming to produce a digital controllable "smart lightbox", wherein the brightness can be adjusted for different periods of time. Alternatively, the lightboxes and other lighting devices on the site can be connected with the lighting control system to create a joint lighting system, that can be accessed and controlled remotely. This smart energy-saving solution is a great contributor towards lowering the "light pollution" and making use of artificial lighting more reasonable and efficient at night.

In the case of subways, the lightboxes come with a "Time Scheduling" function, with the brightness of the lightboxes scheduled individually for peak hours, late night and less traffic periods, as per specific traffic situations. This function can lower the brightness to pre-set level during off-peak hours, and refrain from "disturbing" people at night along with achieving energy-saving.

These digital controllable "smart lightboxes" can regulate the colour temperature and brightness automatically through the "Occupancy Sensing" and "Day Light Harvesting" functions. For instance, when it is cloudy or rainy, the lightboxes on the



ground rail transport automatically reduce the brightness to match the ambient light and avoid over-bright and dazzling light against the dim natural background which may do harm to the eyes. With OSRAM's digital control system, the sunrise and sunset time can be set precisely in the lightboxes at their geographical locations, adapting the "ON/OFF" and "BRIGHTNESS" parameters to the local conditions.

In addition to the utilisation of halogen-free materials for valuable public safety and digital controllable lightbox solution, OSRAM Signage System portfolio seeks to introduce solutions which address the challenges of "sustainable" use of light for the benefit of the living environment and for mankind.

OSRAM (Malaysia) Sdn Bhd

Contact person:-

David Khong - David.Khong@osram.com

Danny Kaw - Poh-Fun.Kaw@osram.com

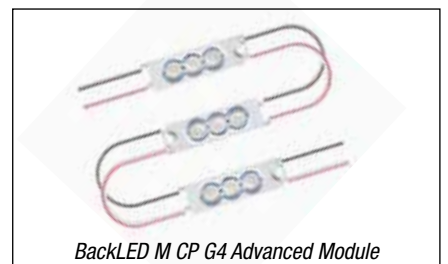
Hunting Line: +603-7959 0000

Website:-

<https://www.osram.asia/di/>

<https://www.osram.com/launch-window>

<http://www.osram.asia/launch-window>



BackLED M CP G4 Advanced Module



Showcase at Malaysia Export Exhibition Centre (MEEC)

Malaysia Export Exhibition Centre or MEEC is a permanent display centre of 4,500 sq meters exclusively designed to showcase and promote various Malaysian products and services on the second floor of Menara MATRADE, Kuala Lumpur. MEEC houses a wide selection of products and services from over 500 Malaysian companies, covering 30 industries such as Green Technology, Electrical and Electronics, Chemical, Automotive, Rubber, Plastic, Pharmaceutical and Timber/Wood. In addition to that, the rapidly growing services sector is also represented via industries like Oil and Gas, Construction, Business Services, Healthcare and Education. The Centre is exclusively meant to promote Malaysian products and services to foreign buyers, visitors and incoming trade delegations.

Participation Details

TEEAM Members are cordially invited to exhibit their company's products or service offering at MEEC for the 2021 session, which commences on 1 January 2021 and ends on 31 December 2021. The total participation fee for the twelve months of the 2021 Session for the E&E products sector is RM600.00. Application to participate at MEEC is only opened to MATRADE Members. If you are not a MATRADE Member, please register now.

Participation at MEEC is categorised into three sections:

- Home Display Area:** Provides a 'real-life-backdrop showcase' for visitors to view the products in their actual state of application and usage;
- Booth Area:** Allows visitors to view a wide range of Malaysian products and

services according to specific industry cluster; and

- Open Concept:** Products/Services are creatively displayed to enhance appeal in an open concept, segmented by its respective industry cluster.

Advantages of Exhibiting at MEEC

There are many advantages of exhibiting at MEEC. Your company will highly benefit through the following marketing exposure:

- Virtual meetings with MATRADE's overseas Trade Commissioners in a country of your choice, to discuss export market opportunities and identification of potential buyers;
- Online listing as an MEEC exhibitor, with detailed profiling of company's offering in MATRADE's website at: www.matrade.gov.my/meec;
- Aggressively promoted by MATRADE's Overseas Trade Commissioners (via MATRADE's 46 overseas offices) and is the first choice of reference and citation in related foreign buyer inquiries;
- Your company will be actively circulated and marketed at every international trade promotion activity conducted by MATRADE, such as trade fairs, trade missions, buying missions and exploratory missions;
- Given priority consideration for any participation in MATRADE's trade promotion events, both locally and internationally;
- Listing in MATRADE's printed hard-copy MEEC Directory, which is distributed

to all MATRADE regional and overseas offices (46 in total), other related agencies and to foreign visitors/buyers;

- Complimentary use of MEEC facilities such as business lounge, discussion rooms and briefing rooms (please call ahead to check on availability); and
- Provide experienced and well-informed MATRADE personnel to assist and facilitate buyer inquiries on your products or services.

Application Procedure

Interested companies are required to:

- Complete the online application form available at www.matrade.gov.my/meec.
- Attachment of proof of payment must be uploaded in the online application. MATRADE will only process your application upon receipt of payment.
- Participation fee can be paid through Online Banking, made payable to: Maybank (Wisma FGV): Account Number 564-294-317-380 (MATRADE).
- Submit a set of brochures/product catalogues/service descriptions in colour, together with the relevant business cards to the following address:

MALAYSIA EXPORT EXHIBITION CENTRE (MEEC)

Level 2, East Wing, Menara MATRADE,
Jalan Sultan Haji Ahmad Shah,
50480 Kuala Lumpur, Malaysia.
Tel: +603-6207 7183
Fax: +603-6203 7259
E-mail: meec@matrade.gov.my

Our Heartiest Congratulations

to

Datuk Ir Yong Ah Huat

Immediate Past President & Council Member

On Being Conferred

Darjah Pangkuan Seri Melaka (DPSM)

By Tuan Yang Terutama Tun Seri Setia (Dr) Hj Mohd Ali Mohd Rustam

Yang Di-Pertua Negeri Melaka on His 71st Birthday

SMN, SPSM, DUNM, PSM SPDK, DGSM, DCSM, DMSM, DSM, PBM



From



The Electrical And Electronics Association Of Malaysia

Introduces an extensive line of automation, control and power distribution products - all designed, manufactured and tested with cutting edge technology to meet extreme environmental conditions and global specification requirements.

PRODUCT OF KOREA 

KEMA 

CE

UL

IEC

Sunhanjaya
Tenggara

MS
SIRIM

Susol Super Solution

Metasol Meta Solution



ACB

Ics = 100% Icu



Ics = 100% Icu

MCCB



Contactor
& TOR



MCB



RCCB & RCBO



V5 SERIES

Switch & Socket



Inverter Series:
iG5A, H100, M100

Exclusive Agent (MY):



A Sonepar Company

SUN POWER AUTOMATION SDN BHD (639503-W)

Lot 1554, Kampung Jaya Industrial Area, 47000 Sungai Buloh, Selangor, Malaysia.

T +603-6157 7555 | F +603-6157 7666, +603-6157 7595

E enquiry@sunpowerberhad.com.my | W sunpowerberhad.com.my



Competent Persons Registered by Energy Commission

Dato Ir Dr Ali Askar Sher Mohamad

Regulation 45 of the Electricity Regulations 1994 specifies the requirements for a certificate of competency for the various categories as follows:

Regulation 45: Requirement for Certificate of Competency.

1. Any Electrical Services Engineer, Competent Electrical Engineer, Electrical Supervisor, Chageman, Wireman or Cable Jointer referred to in these Regulations shall possess a valid Certificate of Competency appropriate to such category, with restrictions, if any, issued to him by the Energy Commission (EC) under these Regulations.
2. The EC may conduct or cause to be conducted, in such manner as it deems fit, examinations for the purposes of determining whether a person possesses the necessary qualifications to be issued with a Certificate of Competency.

The EC has a list of Competent Persons (for electrical services) as follows:

1. Jurutera Perkhidmatan Elektrik (Electrical Services Engineer)
2. Jurutera Elektrik Kompeten (Competent Electrical Engineer)
3. Pencantum Kabel (Cable Jointer)
4. Pendawai Elektrik (Wireman)
5. Penjaga Jentera Elektrik (Chageman)

The above categories of persons need to go for specified training and pass the required exams before they can be given a certificate to show their particular field of expertise.

All these categories have pre-qualifications before they are allowed to register and require substantial training before they are issued with a Certificate of Competency by the EC. The different categories and their requirements as well as the voltage levels are listed below.

Electrical Services Engineer and Competent Electrical Engineer

Scope of Work

1. Work on, operate and control any electrical work or apparatus according to the approved voltage level, including issuing Permit to Work (PTW) to those working under his/her supervision.
2. Visit and examine, including recording of damages to electrical equipment and propose counter measures to repair or dispose of the said equipment.
3. Prepare plans, drawings and specifications of electrical equipment according to the specified voltage level.

4. For Electrical Services Engineer, works also include testing and calibration of relays and electrical protection equipment.

Pre-requisites for sitting for EC Services Engineer and Competent Engineer Examination

1. Malaysian citizen.
2. Degree in Electrical Engineering from a recognised university.
3. A Professional Engineer Certificate (PE) issued by Board of Engineers Malaysia (BEM) according to Registration of Engineers Act 1967.
4. Not less than five years of experience in handling electrical equipment, including experience in handling live equipment.
5. Able to converse and write in the National Language.
6. Knowledge of modern electrical engineering practice, including principles of operation for generation, transmission, distribution, use, protection, metering, and installation of electrical equipment and the efficient use of electrical power.

7. Sufficient knowledge in First Aid, including revival of breathing and treatment of electric shock.
8. Sufficient knowledge of the Electricity Supply Act 1990 and all the supporting regulations.

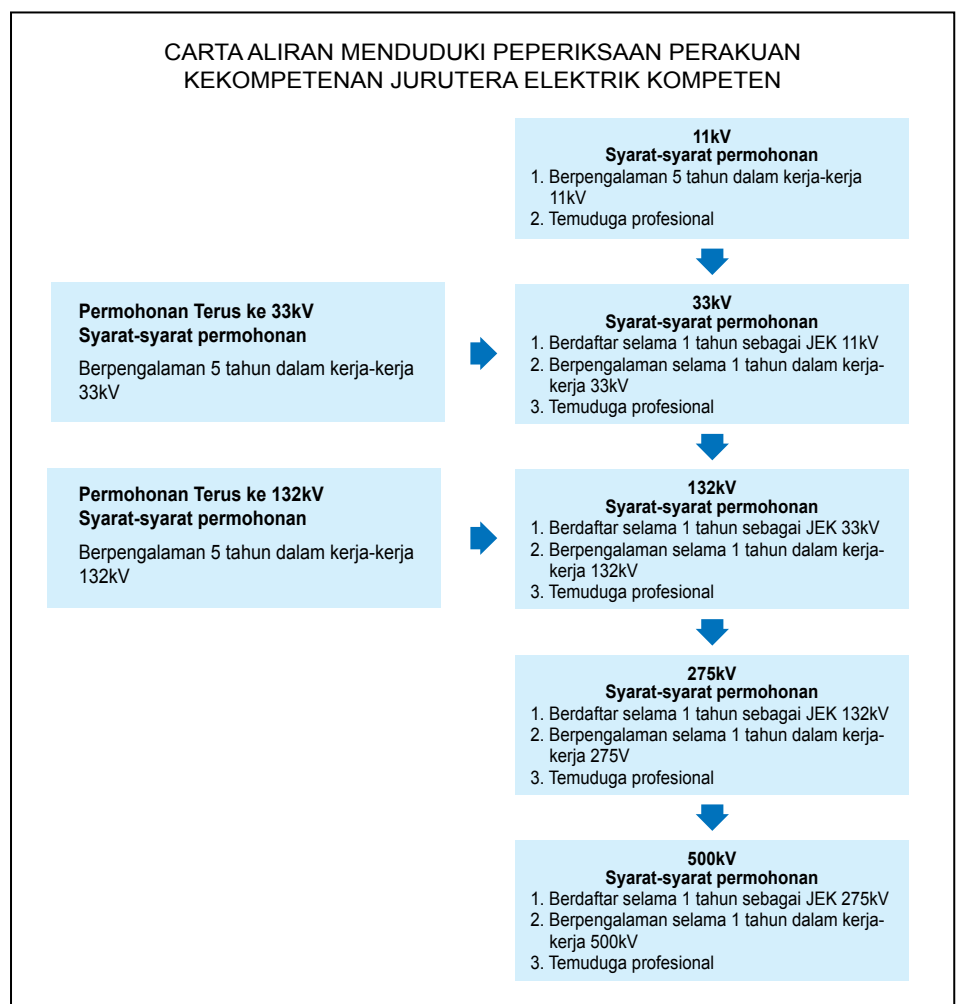
Additional (for Services Engineer only)

9. In possession of Competent Engineer certificate issued by EC.
10. Experience in maintenance and repairs, including servicing, calibration, testing, and locating of cable faults.

New Applications for Competent Engineer

Competent Engineers should have not less than five years of experience in handling electrical equipment and able to understand the basic principles of operating live equipment at the voltage level requested (11kV to 33kV, 33kV to 132kV and, more than 132kV).

For applications to upgrade to higher voltage levels, a minimum of one-year experience at the existing voltage with a certificate issued by EC at the existing voltage.





Service Engineers doing Relay Setting.

Curriculum

Paper 1 – Answer to Questions from EC

Topics covered include:

1. Issues Covered

- Electricity Supply Act 1990 and Energy Commission Act 2001
- Electricity Regulations 1994 and the amendments
- MS IEC 60364: 2003 – Electrical Installations of Buildings
- MS IEC 1979: 2007 – Electrical Installations of Buildings – Code of Practice
- MS 1936: 2006 – Electrical Installations of Building – Guide to MS IEC 60364
- General Principles of Electrical Engineering
- Safety Regulations
- First Aid
- Principles of Modern Electrical Engineering and Applications

2. Electrical Equipment

Basic knowledge, technical safety requirements, operations and maintenance

- Electrical equipment, interrupters, fuses and isolators, rotating machines and starters, power, voltage, current, earthing, transformers, capacitors, resistances, rectifiers and converters, conductors, cables, meters, indicators and protection equipment, lightning arrestors and other related electrical equipment.

3. Electrical Installation

Basic knowledge of circuits, capacity of short circuits, minimum requirements for distances between conductors, operations and maintenance.

- Generators and Distribution Boards, motors, initiators and fuses, main circuits, main incoming and distribution sub-stations, distribution boards, feeder pillars, overhead lines, maintenance, underground cables, concealed wiring, street lighting and compound lighting.

4. Electrical Systems

Basic knowledge of systems, level of faults, voltage drop, losses and transfer of load, safety requirements, operations and maintenance.

- Transmission and Distribution networks, earthing systems and lightning protection, internal wiring, street lighting and compound lighting.

5. Others

Basic knowledge, aspects of safety, operations and maintenance.

- Generator main equipment, on-load tap changer for transformers, fire-fighting equipment, generator busbar and motor excitation field, mobile generators and movable generators.

Paper 2 – Professional Interview

Professional Interview is based on:

- Experience and training undergone by the candidate as well as the written answers provided to Paper 1.

- Knowledge based on Electricity Supply Act 1990, Energy Commission Act 2001 and Electricity Regulations 1994.

Additional Requirements for Services Engineer

- New Applications for Voltages from 11kV to 33kV, 33kV to 132kV, and above 132kV.
 - Must have Competent Engineer Certificate for at least 1 year at the particular voltage level.
 - Experience for at least five years at the particular voltage level, including a minimum of three years in servicing electrical equipment at the particular voltage level.
- Curriculum
 - Paper 1 – Written Answers to Question Prepared by EC
 - a. Same as Competent Engineer
 - b. Additional requirement is work experience and general description, technical characteristics, safety features, maintenance and repair, overhaul and service, calibration, testing and commissioning of any electrical installation or equipment.
 - Paper 2 – Professional Interview
 - As Competent Engineer with additional questions about servicing electrical equipment.
 - Exam fees for Competent Engineer and Services Engineer is RM200 for each exam, whether it is for upgrading or for new application.



HV Cable Jointing.

Non-Engineer Level Competent Persons – Cable Jointer, Wireman and Chargeman

Cable Jointer Scope of Work

- Carry out all cable jointing works, including connections, jointing, and terminations, according to the voltage class and type of cable.

Wireman Scope of Work

- Carry out wiring works as well as testing at both Single Phase and Three Phase supplies from the Distribution Licensee according to the Competency level granted by EC.
- Prepare and submit plans, drawings and specifications of electrical equipment according to the voltage level approved by EC.

Chargeman Scope of Work

- Work on, operate and have control of works of electrical equipment according to the voltage specified, including issuing a Permit to Work (PTW) to those working under his control.

Pre-requisites for sitting for EC Exam for Cable Jointer, Wireman and Chargeman

1. Malaysian citizen
2. Not less than 20 years of age (18 years for Wireman)
3. Have completed at least Form Five
4. Minimum work experience
 - Cable Jointer must have experience not less than three years in jointing and termination of cables.

- Wireman must have minimum two years' experience with a company registered by EC or Private Wireman Unit registered by EC and must have a logbook to prove the experience.

- Chargeman must have minimum three years' experience in handling electrical equipment, including experience in handling live equipment.

5. Able to converse and write in the National Language.

6. Relevant work experience

- Cable Jointer must understand the work of connecting, jointing and terminating the type of cables that he may be required to join, and have an understanding of the jointing techniques.

- Wireman must understand and have practical experience in wiring of electrical equipment.

- Chargeman must have an understanding of the different types of electrical equipment which may be under his control and must have enough knowledge to operate and maintain without danger.

7. Have sufficient knowledge of First Aid, resuscitation of breathing and treatment of electric shock.

8. Have sufficient knowledge of Electricity Supply Act 1990 and all the relevant legislation behind the Act.

Conclusion

The EC has provided Competency tests for both engineers and technologists. There is another category for LV Supervisors, holding Diploma level certificates, but it is not popular. The EC has appointed various technical institutes such as IKBN, Giatmara and others for lower level qualifications such as Wireman and Chargeman. However, the HV Chargeman training is only carried out at TNB ILSAS and Petronas INSTEP.

Many engineers who are not involved directly in TNB/SESB/SESCO or their contractors will like to attend training programmes to build their competency and acquire Service Engineer or Competent Engineer qualifications. The EC should appoint some universities to carry out these tasks. Among the universities that may be considered are Uniten and UTP.

Acknowledgement

TEEAM is deeply grateful to the Board of Engineers Malaysia for granting permission to reprint this article from their publication, THE INGENIEUR Vol 81 January – March 2020 Edition. We would also like to extend our heartfelt thanks to the esteemed Author, Dato Ir Dr Ali Askar Sher Mohamad, Managing Director of Sher Engineering & Consultancy Sdn Bhd, for sharing his valuable research, insights and proposals.

simon

INTRODUCING **E3**

Minimalist and Affordable
A True Meaning of Value for Money

White and Silver Color
Maximising Value
Sirim Approved



 Suruhanjaya Tenaga

Simon Electric Malaysia

Simtone Marketing Sdn.Bhd (638939A)

No. 18, Jalan PPU 3A, Pusat Teknologi Sinar Puchong,
47150 Puchong, Selangor Malaysia.

Tel: +603-8051 4777 Fax: +603-8051 2727

Email: info@simon.com.my

www.simon.com.my



Webinar on Future of LED Lighting Industry Across the ASEAN Region

On 30 September 2020, an online panel discussion was organised by IMPACT Exhibition Management Co, Ltd and MEX Exhibitions Pvt Ltd. Various representatives and LED experts from countries across the ASEAN region participated and talked about the contemporary happenings and trends in the lighting market.

This Webinar on “Future of LED Lighting Industry Across the ASEAN Region” was organised keeping in mind the better future opportunities of LED lighting in the ASEAN region. The session was addressed by a team of panellists from various countries. Dr Chanyaporn Chuntamara Bstieler, Executive Committee of TIEA (Thailand); Dr Rajat Mandal, Honourable General Secretary of ISLE (India); Mr Whiz Chua, Former Chairman - Strategy & Innovation of IFMA (Singapore); Mr Siew Choon Thye, President of TEEAM (Malaysia); and Mr Eduardo A. Manahan, Chairman of BOMAP (Philippines) were amongst the esteemed panellists.

The moderator of the panel discussion was Ms Himani Gulati, Director of MEX Exhibitions Pvt Ltd. The team of experts expressed their concerns over the present condition of the lighting industry in their respective countries. Dr Rajat Mandal from India stated, “The estimated rate at which the LED market is growing and will be growing is around 25 % (CAGR) till 2024. In the last 2-3 years, the market was growing at a rate of 40%. However, we are expecting a sustainable recovery in terms of a healthy percentage which would be more than 25%.”

He was followed by Mr Siew Choon Thye, who said, “The impact of COVID-19 has been felt by the LED market in Malaysia and the business has been impacted by around 30-40% which is related to our construction industry.” He further said that Malaysia, which is one of the top manufacturers of LED semi-conductors, has seen a decline in its market share. However, he said that, “there has been a surge in the horticulture and medical sector.”

In terms of innovation and IOT, Dr Chanyaporn Chuntamara Bstieler said, “To make LED more efficient and smart in terms of lighting, investment is a pre-requisite. In Asia, more research needs to be carried out on topics such as smart lights and human-centric lighting.”

Mr Eduardo A. Manahan from the Philippines spoke about how the Work From Home culture has opened up opportunities for the LED industry. He further said that IoT has evolved even in such trying times and has increased employee productivity without the need for being physically present.

THAILAND LED EXPO 2020 + LIGHT ASEAN
Presents

FUTURE OF LED LIGHTING IN ASEAN REGION - OPPORTUNITIES AHEAD

Join the Upcoming Webinar to Get Insights on the Contemporary Opportunities & Challenges

Speakers:

- Dr. Chanyaporn Chuntamara Bstieler**
Executive Committee Illuminating Engineering Association of Thailand (TIEA)
- Dr. Rajat Mandal**
Hon. General Secretary Indian Society of Lighting Engineers (ISLE)
- Mr. Whiz Chua**
Former Chairman - Strategy & Innovation IFMA Singapore Chapter (2014 - 2020)
- Mr. Siew Choon Thye**
President The Electrical and Electronics Association of Malaysia (TEEAM)
- Mr. Eduardo A. Manahan**
Chairman Building Owners & Managers Association of the Philippines (BOMAP)
- Moderator:**
Himani Gulati
Director MEX Exhibitions Pvt. Ltd.

LIVE WEBINAR
30 September, 2020
12.30PM (INDIA)
2.00PM (THAILAND)
3.00PM (MALAYSIA, SINGAPORE, CHINA, PHILIPPINES)

+91 - 11 - 46464848
info@mexexhibits.com

30 September 2020 – Webinar on Future of LED Lighting Industry Across the ASEAN Region.

When asked about whether companies pulling out of China had great potential for countries in the ASEAN region, here is what Mr Siew Choon Thye from Malaysia had to say: “Due to the COVID-19 outbreak, all the countries have learnt the importance of being self-reliant in order to cope up with the issue that can arise at the national level. Our country has the full support of the Government for the LED lighting industry which was started around 8-10 years back. The global market is expanding and this is a good opportunity for all the other countries to scale up their production and expand their market.”

On being asked about how LED has helped to achieve energy efficiency targets

coupled with smart lighting & IOT, here is what Mr Whiz Chua from Singapore commented: “The pandemic has increased the competition within the country and managers are keen on how to save energy and make it more efficient. The energy-saving initiatives are being driven all across industries.”

Overall, the Webinar proved to be highly enlightening for all the attendees and also proved to be an eye-opener for ideas on how to overcome contemporary challenges in the world of lighting. The main highlight of the discussion was the need to do extensive research in the field of LED, so as to make it human-centric.



旺盛电器电子有限公司 (627660-W)
SB ELEKTRIK & ELEKTRONIK SDN BHD
 No. 48, Jalan BRP 1/2, Bukit Rahman Putra, 47000 Sungai Buloh, Selangor, MALAYSIA.
 Tel: 03-6140 3792 (HL) Fax: 03-6140 1984 E-mail: sbelektrik48@yahoo.com



Ceiling Fan



16" Wall Fan



Wall Exhaust Fan



LED Batten Set



LED Bulb



LED Highbay Light



LED Highbay Light



LED Panel Light



LED Surface Downlight



LED Eyeball



LED Street Light



LED Floodlight



LED Solar Floodlight



LED Motion Sensor Floodlight



LED Track Light

Schneider
Electric

Sino

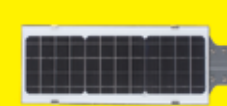
MEGA KABEL

KDK

SB ELECTRICAL

CHINT PHILIPS

SIEMENS EPS



BRANCH:

SB ONE ELECTRICAL SDN BHD (1199139-M)
 No. 48A, Jalan BRP 1/2, Bukit Rahman Putra,
 47000 Sungai Buloh, Selangor, MALAYSIA.
 Tel: 03-6140 3792 (HL) Fax: 03-6140 1984
 E-mail: sb1eletrical68@gmail.com

SB TWO ELECTRICAL SDN BHD (1217570-V)
 Lot 2140D, Jalan Welfare, Kg. Baru Sg. Buloh,
 47000 Sungai Buloh, Selangor, MALAYSIA.
 Tel: 03-6156 6898 Fax: 03-6157 6898
 E-mail: sb2eletrical@gmail.com

SB THREE ELECTRICAL SDN BHD (1240533-H)
 No. 21, Jalan Bulan U5/170, Bdr. Pinggiran Subang,
 40150 Shah Alam, Selangor, MALAYSIA.
 Tel: 03-7831 2332 Fax: 03-7845 9933
 E-mail: sb3adm.eletrical@gmail.com

Our Heartiest Congratulations

to

Datuk Chen Siang Long
Trading & Sports Committee Member

On Being Conferred
Darjah Pangkuan Seri Melaka (DPSM)

By Tuan Yang Terutama Tun Seri Setia (Dr) Hj Mohd Ali Mohd Rustam
Yang Di-Pertua Negeri Melaka on His 71st Birthday
SMN, SPSM, DUNM, PSM SPDK, DGSM, DCSM, DMSM, DSM, PBM



From



The Electrical And Electronics Association Of Malaysia

Improving Vertical Transportation Systems Safety

Ir Ke Geok Chuan

Vertical transportation systems which include lifts and escalators are ubiquitous in our modern living environment. With advancements in their operational controls and technologies come new risks if the regulatory regime does not keep pace with such changes. Proposals are made in this article to provide for continuous improvement for the safety and efficiency of such systems and the comfort of users. The article makes reference to the recent falling lift car incident in one of the public high-rise apartment blocks.

Vertical transportation systems (VTS) that include lift and escalator machines are critical building facilities in today's modern built environment. They enable the movement of passengers from one floor to another with optimal ease and safety. Continual advancement and development of their operational controls, instrumentation and technology have facilitated the growth of massive ultra-tall buildings and structures spanning the global landscape.

Current Development

Vertical transportation systems nowadays are made to travel at very much higher speeds but are safer, more efficient and comfortable. The control of their operations by microprocessors make for quieter and smoother machines. In Malaysia, they have to be designed and manufactured to comply with the local regulatory laws and regulations, and also with the requirements of recognised international codes such as EN 81-20 and EN 81-50: 2018.

The number of lifts and escalators that have been installed and in operation have also increased manifold in recent years with the property sector's robust double digit growth. As a result, governing authorities such as the Department of Occupational Safety and Health are encumbered with a heavy backlog of the inspection of lifts and escalators. For example, as reported in the press recently, there are 6,000 lifts in operation in Kuala Lumpur, without valid certificates of fitness.

Lift Incidents

With reference to the latest high profile incident involving a lift car falling from a high level to the ground level at the PPR Kerinchi Pantai Permai public housing flats, I was reassured by my own observations at the scene that the flats are of good design and the lift facilities are suitable for residents' use. I spoke with a number of residents of the flats and deduced that the underlying issues were related specifically to breakdowns, maladjustments and maintenance of the lift machinery. The approved lift model is



Figure 1: A typical lift arrangement in a modern building complex.

imported from overseas and installed by a registered lift company.

The machines were supplied, installed, commissioned by a registered lift VTS company, and are inspected, examined and repaired by the installer's service and maintenance workers. To avoid future serious incidents, registered lift companies must be required to have an adequate number of trained, skilled and competent workers, and qualified engineers to undertake the jobs.

It is systemic technical problems that regulators, owners, and the vertical transportation industry have to manage, together with proper mitigation measures put in place.

Way Forward

The following measures need to be taken to address the problems besetting the local lift (VTS) industry sector:

Regulatory Authorities

The various authorities responsible should jointly streamline and modernise the existing laws and inspection regime for VTS to keep pace with the latest technological changes and development. If feasible, the authorities should examine the possibility of rationalising the VTS enforcement and inspection regime and placing them under the responsibility of the Ministry of Housing and Local Government as they (the VTS enforcement and inspection regime concessionaire holders appointed by the Government) are in France and the Netherlands.

A policy mandate overhaul should be made to overcome the lift inspection backlog by the Department of Occupational Safety and Health (DOSH) that has been in existence for many years. There is a crucial need for lift inspection to be outsourced to independent inspection parties as is the case in Singapore,

to solve the lack of manpower. Under this inspection model, Professional Engineers conduct the statutory lift inspection before the issuance of the certificate of fitness by the Ministry of Manpower (MOM). This would be a better option than having the inspection regime on lifts and escalators being undertaken by concessionaire holders appointed by the Government.

Lift machines that are in operation but have not been inspected by the regulator on expiry of the certificates of fitness, can pose a hazard, risk and danger to the public. Thus the non-resolution of the lift inspection backlog is untenable.

Strictly enforcing the existing laws on recalcitrant owners and registered VTS companies and their competent persons by the authority is essential. Strong and punitive action should be taken against any owner or registered lift company that flagrantly flouts the laws and licensing conditions. Where public safety is concerned, no favour should be shown to any party that commits an infraction.

Building Owners

Building owners of VTS need to take ownership to ensure the machines that are in operation within their premises comply with the laws to ensure that they are properly maintained, and are safe and efficient. Every reasonable effort also has to be made by the owner or his representative to ensure that the servicing, inspection and examination and maintenance of the machines by their appointed lift registered company are regular and properly completed.

Proper inspection and examination records for the machinery must be properly maintained for the examination by the relevant authority's officers when requested.



Figure 2: The Block C, PPR Kerinchi Pantai Permai flats where the lift accident was reported.

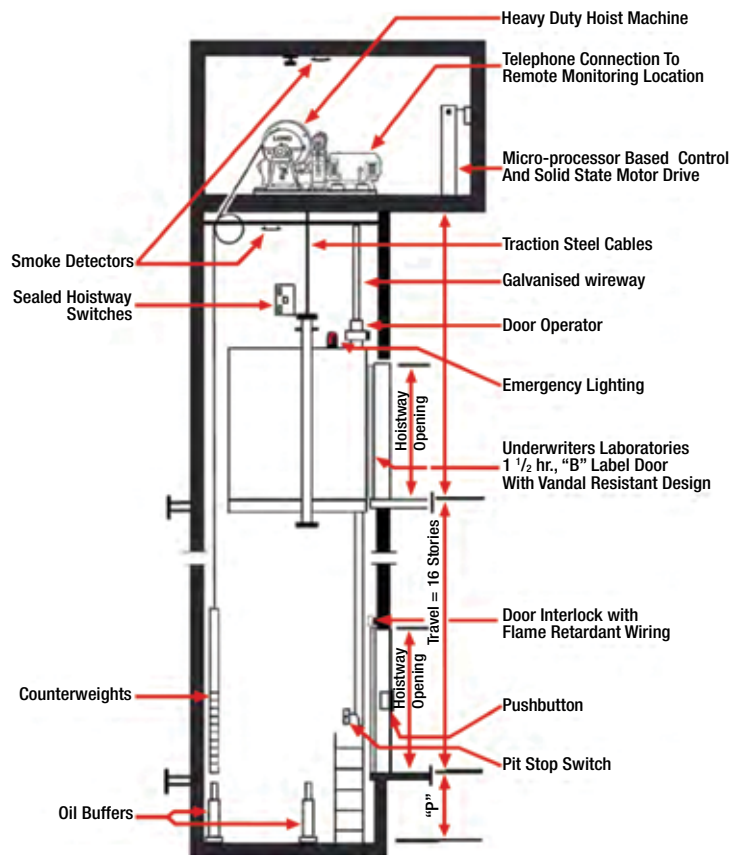


Figure 3: The typical arrangement in a lift system.

Registered Lift (VTS) Companies

Accountability and responsibility shouldered by registered lift companies and their lift competent persons need to be enhanced and enforced fully to ensure that they undertake the work diligently, professionally and in accordance with the existing laws and high engineering standards.

Their sub-contractors need to be similarly qualified and registered with the enforcing and regulatory authority. All of them need to demonstrate to the regulators that they have in their employment the requisite number of trained, skilled and knowledgeable workers, technicians, lift mechanics and lift engineers as detailed in their official submissions. Technical personnel employed by VTS companies should complete their work volumes as laid down by their management and supervisors.

The company's duty holders shall be held fully responsible for any accident or mishap occurring with lifts under their maintenance and the burden of proof will fall upon them to show that they have discharged their duty with care in accordance with the required standards as far as reasonably practicable. The duty of care will require them to show proof that the jobs have been properly and safely undertaken on the machines if any doubts are raised by the authority during an inspection concerning poor installation, poor quality maintenance and servicing, and use of sub-standard parts.

Workers in the Lift Industry Sector

In the US, for example, a worker in the VTS industry needs to start off as a journeyman. During a four-year mandated period, he has to undergo a combination of classroom training, attend courses with a standard curriculum and complete a period of on the job training (OJT). At the end of the fourth year, a skills assessment is made and once completed he is viewed as a certified journeyman (skilled lift mechanic).

In Malaysia, most of the workers are trained in-house by the registered lift firms and not to the degree and depth commensurate with the level of skill and knowledge required to undertake proper servicing, adjustment, repair and maintenance work on lift and escalator machinery. Thus the authority needs to bring into effect a regulation requiring all workers in the VTS industry to undergo suitable, proper, and systematic skills training. Certification of their skills should only be made by the Construction Industry Development Board.

Vertical transport machines are only really safe if the proper standard of maintenance have been undertaken on them. Nowadays, modern lift machines come with microprocessor and computer controls, and advanced technology features. Consequently, the skill levels of the workers has to be improved and continually enhanced at regular intervals to keep pace with the technological changes and developments.

Conclusion

Such timely and important remedial measures as proposed can further help to continually improve and develop the VTS industry. It is essential that only workers with proper skills training and knowledge are employed and their workers' earnings are commensurate with their skills certification level.

Duty holders and stakeholders should remind themselves about the preventable falling lift incident and ensure proper and safe measures are taken to prevent a similar occurrence, including the appropriate operation, inspection, examination and maintenance of such systems on their properties at all times.

Reference

Factories and Machinery Act 1967
Factories and Machinery (Electric Passenger and Goods Lift) Regulations 1970
Occupational Safety and Health Act 1994
EN 81: 20 and EN 81: 50 - Lift Standards (Amendments):2018
Uniform Building By-laws
Street, Drainage and Building (Amendment) Act 1974

Acknowledgment

TEEAM is deeply grateful to the Board of Engineers Malaysia for granting permission to reprint this article from their publication, *THE INGENIEUR* Vol 81, January – March 2020 Edition. We would also like to extend our heartfelt thanks to the esteemed Author, Ir Ke Geok Chuan, for sharing his valuable research, insights and proposals.



Portable Socket, Switch, LED Lighting



Long life span with
15,000 cycles insertion



10,000 cycles ON/
OFF button switch



Safety shutter;
less misplay, much safer



Integrated brass bar structure
ensures reducing fire hazards



Lightning Protection with Ultra-high
voltage and thermal suppression



Fire Resistant to 750°C
by using pure plastic

PORTABLE SOCKET



Model No.: E303T

Cable Length: 1.8M
3 way Portable Socket
C/W SURGE PROTECTOR



Model No.: E304T

Cable Length: 1.8M / 3M
4 way Portable Socket
C/W SURGE PROTECTOR



Model No.: E305T

Cable Length: 1.8M / 3M
5 way Portable Socket
C/W SURGE PROTECTOR



Model No.: E3030

Cable Length: 1.8M / 3M
/ 5M
3 way Portable Socket



Model No.: E3040

Cable Length: 1.8M / 3M
/ 5M
4 way Portable Socket



Model No.: E3050

Cable Length: 1.8M / 3M
5 way Portable Socket



ARC POWER MARKETING SDN BHD (905103-W)

Lot 830-C&D, Jalan Kusta, Kawasan Perindustrian Kampung Jaya, 47000 Sungai Buloh, Selangor D.E, Malaysia

For more information call Tel: (603) 6142 8177

Fax (603) 6141 8177

Website: www.arcpower.com.my



Portable Socket, Switch, LED Lighting



Super Bright



Lower Light Decay



Long Life Cycle



No Visible Flicker



LED LIGHT



LED T5

8W / 4W / 12W / 14W
17W
3000K / 4000K / 6500K
0.3m / 0.6m / 0.9m
1.0m / 1.2m



LED T8

9W / 12W / 18W / 28W
3000K / 4000K / 6500K
0.6m / 0.9m / 1.2m / 1.2m



Stick Bulb

6W / 9.5W
3000K / 6500K



MQ-A20341

3W / E27
3000K / 6500K



MQ-A20551

5W / E27
3000K / 6500K



MQ-A207

7W / E27
3000K / 6500K



MQ-A20911

9W / E27
3000K / 6500K



MQ-A21221

12W / E27 / 6500K



MQ-A21631

16W / E27 / 6500K



MQ-C020A-BS

20W / E27 / 6500K



MQ-C030B-AS

30W / E27 / 6500K



MQ-C040B-AS

40W / E27 / 6500K



MQ-C050B-AS

50W / E27 / 6500K



MQ-B11531

15W / E27 / 6500K



MQ-B12041

20W / E27 / 6500K



MQ-B13051

30W / E27 / 6500K



MH-A0032R5A-AS

3W / Φ2.5inch
3000K / 4000K



MH-A003003A-AS

3W / Φ3inch
3000K / 4000K



MH-A005003A-AS

5W / Φ3inch
3000K / 4000K



Flood Light

30W / 50W / 100W
150W / 200W
6500K

Maxguard®



(467568-W)

SAFE AND SAVE *Since 1998*

"If it's not good, we don't sell it, if it's not perfect,
we will replace it and if it's not with a guarantee,
it's not MAXGUARD"

ELECTRICAL SWITCHGEAR

LOW VOLTAGE

Established in 1998, **MAXGUARD** is now a major player in the Low Voltage Switchgears Industry in Malaysia, specializing in distribution boards with a comprehensive range of circuit breakers. Our main objective is to meet the standards of the highly competitive market. Under our **SAFE** and **SAVE** motto, **MAXGUARD** is the first in the Country to invest in a range of comprehensive testing equipment for greater quality control to ensure the highest quality of products and to meet customer's budget.

MAXGUARD products are fully type tested to IEC Standards, by ETL Semko of Sweden, approved by Suruhanjaya Tenaga, Government Departments and annual Product Certification Audit by SIRIM QAS International Sdn. Bhd, Malaysia.



PRODUCT LIABILITY
* Terms & Conditions Apply *
RM2,000,000.00



www.maxguard.com.my



Suruhanjaya Tenaga

Approved for
Government Projects

Challenges and Opportunities in the Electrical Industry – Part 37

Ir Chew Shee Fuee KMN, TEEAM Past President

A) Instant Water Heater Fatal Incidents and Self-Test of RCDs

The recent fatalities in Singapore stirred up the question of Residual Current Device (RCD) Self-Tests. There was also the suggestion that efforts must be made to produce RCDs that can indicate if they are defective.

It took us some years to determine and confirm that most water heater incidents were not due to failures of the heater but defective wiring causing live voltage leakages to the water hose.

Therefore, we can list out some measures that can mitigate the occurrence of such fatalities. They are:

- 1) Basic requirements of good wiring with individual 10mA RCD for each water heater, non-metallic hose or insulator for the hose,
- 2) Periodic checks and tests on the water heater, and
- 3) Periodic self-tests of RCDs.

Items 1 and 2 will require the work of competent persons. The frequency of carrying out checks and tests have to be determined by the industry players. Once it is determined, a public broadcast and targeted programme to inform has to be effectively implemented.

Item 3 is the most important one that any individual can do to ensure safety. TEEAM had carried out many Public Awareness Campaigns to educate the public but we are also aware that not everyone has been reached in the country as a whole.

What else can we do to ensure the safe use of water heaters?

We can continue to inform the public on RCD Self-Tests through campaigns and via the internet.

It will be necessary to provide basic information on electrical safety, which includes RCD Self-Tests being adopted into the school curriculum.

B) TNB Connected Load Charge

A new condo recently was slapped with Connected Load Charge (CLC) by TNB. The owner requested me to find out what was this

extra charge to their bills. The following is TNB's explanation.

CLC is a mitigating tool to discourage consumers from over-declaring their load requirement. Over-declaration will lead to over-plant-up and waste of resources, and increase in reserve margins. Without CLC, other consumers have to also pay for the unnecessary higher cost of electricity due to wastage and this is unfair to those who properly declare.

Other Utility providers who do not impose CLC penalty, recover their demand component or fixed cost via imposing a contract capacity charge through their tariff rate, based on consumer declaration.

CLC is applicable when the actual Maximum Demand (MD) recorded on any month is less than 75% of the declared maximum demand during the said period.

CLC is imposed based on the shortfall between the 75% of the declared maximum demand and maximum demand recorded in a month. CLC rate charges are RM8.50 per kilowatt and subjected to prevailing changes from time to time.

Nevertheless, for the first three years, the CLC will be based on staggered percentage to assist the consumers during the initial stage of their operation.

The method in determining "Reference Maximum Demand*" for calculating CLC" are as follows:

Year	Reference Maximum Demand (RMD)*
1	0% x 75% x Declared MD (CLC exempted for the first year only)
2	50% x 75% x [Declared MD or Highest Recorded MD, whichever is higher]
3	75% x 75% x [Declared MD or Highest Recorded MD, whichever is higher]
4	100% x 75% x [Declared MD or Highest Recorded MD, whichever is higher]
5	100% x 75% x [Declared MD or Highest Recorded MD, whichever is higher]
6	100% x 75% x [Declared MD or Highest Recorded MD, whichever is higher]

Note : CLC is applicable when MD recorded < Reference MD.

A penalty of RM8.50/kW will be charged for every kW shortfall between the actual MD used compared to the RMD.

CLC is calculated monthly and the CLC penalty of RM8.50 is well below the MD rate.

As far as I can see, the CLC is going to be an additional expenditure to the condo owners for the next few years. The condo is unlikely to consume more electricity in these next few years. So it now occurs to me as to how we can prevent this from happening to the new condos. We'll seek the consultants' help regarding this matter. We'll re-visit this arising issue in due time.

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 was the President of the ASEAN Federation of Electrical Engineering Contractors (AFEEC) for 2016-2018. He is the Immediate Past 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 specialised 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 was Vice-Chairman of MyENC (Malaysian Electro-Technical National Committee) and is a Member of Technical Committees (TCs) and Working Groups (WGs) in Standards Development. He can be reached at E-mail: sfchew@ghliew1990.com.



INDOOR & OUTDOOR LIGHTING LUMINAIRES MANUFACTURER



LED OFFICE LUMINAIRES (Cat.2)

LED DOWN LIGHT

LED BATTEN

LED LOW BAY

LED STREET LANTERN

LED GARDEN LIGHT

LED HIGH BAY

T5 OFFICE LUMINAIRE

LED EMERGENCY LIGHTS

LED KELUAR SIGN

T5 BATTEN

ID LUMINAIRES

PCO[®]
Lighting Solutions
for your future

PCO LITE ELECTRICAL SDN. BHD.

(Reg.No: 319183-D)
Lot no. 157880 (PT 1283),
Off Jalan Degong,
31900 Kampar, Perak,
Malaysia.

Tel: +605-466 5313 / 465 1020

Fax: +605-465 1310

Email: enquiry@pcolite.com (Local sales)

: k.s.yam@pcolite.com (Oversea sales)



CIE Position Statement on the Blue Light Hazard

April 2019

There have been a number of reports in the media about the risk to human health following exposure to light from sources such as light emitting diodes (LEDs), referring to the term “blue light hazard” (BLH). This term has been inaccurately used to represent the risk of actual eye damage and the influence on general well-being. The term “blue light hazard” should only be used when considering the photochemical risk to the retinal tissues of the eye (technically referred to as “photomaculopathy”), usually associated with staring into bright sources, such as the sun or welding arcs. “Blue” is included in the term because the risk of photochemical injury is wavelength-dependent, peaking in the blue part of the optical radiation spectrum, around 435 nm to 440 nm. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has published the “blue light hazard function”, a wavelength-dependent weighting function, and guideline exposure limits [1]. The CIE has standardised this function as part of the CIE S 009:2002 “Photobiological safety of lamps and lamp systems”, now published as IEC 62471:2006/CIE S 009:2002 [2]. There is no evidence in humans of any adverse health effects from occasional exposure to optical radiation at the exposure limits. Lamps, including LEDs, which emit primarily white light, will usually contain a proportion of light at wavelengths that are relevant to the assessment of the blue light hazard. Lamps that are “cooler”, or attributed to a high colour temperature, are likely to contain a higher proportion of blue light than sources that are “warmer” or of a lower colour temperature. Indeed the blue light hazard exposure limit from incandescent and LED lamps for general lighting is similar for similar colour temperatures. Practical assessments have shown that the blue light hazard exposure limits are not exceeded under all reasonably foreseeable use conditions. Furthermore, the exposure levels are often lower than experienced from viewing a blue sky. It is also important to consider eye exposures in practice [3]. A number of studies have been published, with associated media coverage, which claim adverse effects from white-light sources. Most of these studies have unusual conditions, including:

- long-term exposure,
- high colour temperature LEDs (i.e. a very high blue component),
- exposures significantly in excess of the ICNIRP exposure limit,

- fixation on the light source,
- the use of nocturnal animal models or human cells in-vitro.

It is fundamental to appreciate that a white-light source emitting blue light at levels sufficient to approach the blue light hazard exposure limit would be extremely bright, thus producing discomfort glare, and that to stare into such sources would be considered unusual behaviour. Also, very high colour temperature lighting is perceived by most people as unpleasant and uncomfortable, particularly for lighting of homes. It is recognised that during normal behaviour, we experience transient exposures to high light levels, and may get many such exposures per day. However, accumulation of these exposures over the day will not result in the exposure limits being exceeded. Whilst the CIE considers that the “blue light hazard” is not an issue for white-light sources used in general lighting, even for those that are blue-enriched, caution is suggested for circumstances occurring over many days with continuous exposure to optical radiation, at levels that approach the blue light hazard exposure limit. Indeed such exposure should be avoided. Such exposure is unlikely for white-light sources but may be possible with sources that primarily emit blue light. It should also be recognised that the use of sources emitting primarily blue light are a cause of concern for exposure to children’s eyes. Even if the blue light hazard exposure limit is not exceeded, such sources may be dazzlingly bright to youngsters. For this reason, the use of blue indicator lamps is not recommended for toys and other devices that may be viewed by children. Where blue-light sources are used in such products, the blue light hazard exposure limit should be reduced by a factor of 10. This is even more important for light sources emitting violet and deep-violet radiation. There have been claims that exposure to blue light may be linked to the risk of age-related macular degeneration. Such claims are currently speculative and are not supported by peer-reviewed literature. The term “blue light hazard” should not be used when referring to circadian rhythm disruption or sleep disturbance. However, the CIE recognises that there is public concern over the non-visual influences of blue light on human health and has previously issued a Position Statement on this [4]. An update on this will be issued in due course, taking into account, for example, the new international standard CIE S 026:2018 [5].

References

- [1] ICNIRP Guidelines on Limits of exposure to incoherent visible and infrared radiation. Health Physics. 105(1):74-96; 2013 (available from www.icnirp.org).
- [2] IEC 62471:2006/CIE S 009:2002 Photobiological safety of lamps and lamp systems (bilingual edition) / Sécurité photobiologique des lampes et des appareils utilisant des lampes.
- [3] Sliney, D H, Bergman, R and O’Hagan, J. Photobiological Risk Classification of Lamps and Lamp Systems—History and Rationale. LEUKOS, 12:4, 213-234, 2016, DOI: 10.1080/15502724.2016.1145551.
- [4] CIE Position Statement on Non-Visual Effects of Light – Recommending Proper Light at the Proper Time, June 28, 2015.
- [5] CIE S 026/E:2018 CIE System for Metrology of Optical Radiation for ipRGC-Influenced Responses to Light.

About the CIE and its Position Statements

The International Commission on Illumination – also known as the CIE from its French title, the Commission Internationale de l’Eclairage – is devoted to worldwide co-operation and the exchange of information on all matters relating to the science and art of light and lighting, colour and vision, photobiology and image technology. With strong technical, scientific and cultural foundations, the CIE is an independent, non-profit organisation that serves member countries on a voluntary basis. Since its inception in 1913, it has been accepted as representing the best authority on the subject matter of its scope. As such, the CIE is recognised by ISO as an international standardisation body, publishing global standards on the fundamentals of light and lighting. CIE position statements are approved by the CIE Board of Administration, which includes the Directors of all the CIE Divisions (the bodies that carry out the scientific work of the CIE), after first ensuring agreement with the relevant CIE Technical Committees.

For further information, please contact:
CIE Central Bureau
Kathryn Nield, General Secretary
Babenbergerstraße 9/9A,
A-1010 Vienna, Austria
Phone: +43 1 714 31 87
Email: kathryn.nield@cie.co.at
Website: <http://www.cie.co.at>

MASTER TEC WIRE & CABLE SDN BHD

**MALAYSIA'S LEADING WIRE & CABLE
MANUFACTURER**



Master Tec Wire & Cable is a Malaysian independent cable company established in 2005, dedicated to manufacturing high quality cables for our reputable client across various industries in the Asia Pacific (Thailand, Cambodia, Myanmar, Brunei, & Singapore) region.

OUR PRODUCT

**Power
Cable**

**Housing
Cable**

**Control
Cable**

**Instrumentation &
Communication
Cable**

**Fire Resistance
& Flame Retardant
Cable**

Conductor

**Branch Cable
& Fiber Optics**

Master Tec Wire & Cable Sdn Bhd (705279-P)
RM 1299-A, Kawasan Perindustrian Rembia,
78000 Alor Gajah Melaka, Malaysia.
Tel : +6 06 316 1111 | Fax : +6 06 316 2887
E-mail : sales@mastertec-wirecable.com

A member of



LED Expo Thailand + Light ASEAN 2020 Virtual Edition

The virtual edition of LED Expo Thailand + Light ASEAN 2020 concluded successfully from 18 to 20 November 2020 in cyber-sphere. This digital version received good responses from both buyers and exhibitors with the conclusion of many business deals, partnerships, interactive product demonstrations, knowledge exchanges and networking, all done virtually over the course of 3-days. This virtual exhibition was organised by Impact Exhibition Management Co Ltd and MEX Exhibitions Pvt Ltd. TEEAM and Malaysia CIE were amongst the Supporting Organisations.

A total of over 1,757 business visitors, including 78 VIP buyers from over 51 countries attended this 3-day event. Over 241 one-to-one business meetings were concluded through a series of Business Matching Programmes. Apart from digital showcases of innovative LED and lighting products and solutions by exhibiting companies, attendees also joined over 17 E-conferences and Webinars that were conducted by international and local key industry players and experts. A wide range of topics were discussed. These included designs, trends, future technology, sustainability and digitalisation to name a few. A total of 17 sessions were conducted by leading industry players. A few of the prominent ones were Mr Martin Klaasen (Lighting Design & Lighting Design of Things), Mr Amardeep M. Dugar (Lighting Research & Design), Mr Thanakorn Therdchitpaisarn (Signify Commercial Thailand Co Ltd.), Dr Chanyaporn Chuntamara Bstieler (TIEA – Illuminating Engineering Association of Thailand), Mr Siew Choon Thye (TEEAM - The Electrical and Electronics Association of Malaysia) and distinguished speakers from Tuya Smart who spoke on the following topics:

- Latest Trends in Lighting Design
- The Past, Present and Future of Architectural Lighting
- LED & Well Being Innovation
- Connected Lighting for A Future Workspace
- Energy Efficiency & Digitalisation
- Smart and Connected Lighting Solution in no time

TEEAM President, Mr Siew Choon Thye was honoured to be invited as one of the Panel Speakers. He shared his insights on “Energy Efficiency & Digitalisation - Enabling Greater Control, Optimisation and Analytics”. While the COVID-19 pandemic put many investment plans on hold, it also pushed many national and local Governments, as well as many companies to think about how to build better future, and make a more intelligent use of natural resources. Since the onset of the COVID-19 crisis, internet usage has risen by 70%, the use



LED Expo Thailand + Light ASEAN 2020 – The 1st virtual edition in cyber-sphere.



Virtual exhibitors – TEEAM was amongst the virtual exhibitors.



Webinar on 19 November 2020 – Mr Siew Choon Thye (TEEAM President) was honoured to be invited as one of the Panel Speakers. He shared his insights on “Energy Efficiency & Digitalisation - Enabling Greater Control, Optimisation and Analytics”.

of communication apps has doubled, and some video streaming services have seen daily usage rise 20-fold. The number of connected IOT devices is forecasted to grow from 8.4 billion in 2017 to over 20 billion by end of 2020. Digitalisation improves energy efficiency through technologies fitted with sensor, meters and interfaces to analyse data by algorithms, AI and digital simulation, and put into automation, controls and interface action to effect real world changes. Digitalisation reduces power system costs in at least four ways, i.e. :

- by reducing operations and maintenance costs,
- improving power plants and network efficiency,
- reducing unplanned outages and downtime, and
- extending operational lifetime of assets.

Overall, this event was an important accelerator of the lighting industry’s transformation, helping stakeholders to keep abreast of change and facilitating their evolution. LED Expo Thailand + Light ASEAN 2020 has an extension of 3-month online Business Matchmaking Programme. It offers fabulous business opportunity for Buyers and Sellers to meet and expand their network and build strategic alliances from December 2020 to February 2021.

The next edition of LED Expo Thailand + Light ASEAN 2021 will be held from 1 to 3 September 2021. Prominent players from the Lighting & LED industry will gather to showcase their best for a bright future. The Organisers promise the same excitement and enthusiasm from everyone in the 2021 expo! Hope to see you there!



- Full range of Low Voltage 440V & 525V capacitor
- Available size : 1, 1.5, 2, 2.5, 5 kVAR
10, 15, 20, 25, 30, 40, 50 kVAR
- Medium voltage 3.3kV up until 33kV capacitor also available



- Type 1 to Type 3 Surge Protective Devices
- Up to 100KA available
- 7 mode Surge Arrestor
- Made in EU



- Full range of LV & MV products
- Including SPAJ140C & RED615 relay



- Industrial relays & sockets
- All models comes with LED indicator & manual test button



- Variable speed drive
- Altivar 212 Drive
- Altivar Process ATV630



Understanding Grid-Connected Solar Photovoltaics (PV) Impact on your Power Factor (PF)

Alex Looi Tink Huey, Ir Tay Siang Hui & Ir Mohammad Rhaiz Bin Abdul Aziz

With the rise of grid-connected solar PV systems, issues on PF have become more prevalent. It is hoped that this technical article will be able to shed some light to TEEAM Members as to why these problems can arise and how to mitigate them.

In 2001, Malaysia had introduced the Fifth Fuel Policy by adding Renewable Energy (RE) in addition to the country's four fuel energy, namely, oil, gas, coal, and hydro. With the ever-increasing demand for energy, it is essential to have strategic planning for sustainability and to supplement the supply from conventional energy sources [1]. The introduction of Feed-in Tariff (FiT) mechanism under the Renewable Energy Act (REA) in 2011 has spurred RE development in Malaysia which the Government made it mandatory for Distribution Licensees (DLs) such as Tenaga Nasional Berhad, NUR Distribution Sdn Bhd, and Sabah Electricity Sdn Bhd to purchase electricity from Feed-in Approval Holders (FIAHs) at a predetermined tariff rate and duration that ranges from 16 to 21 years. Today, solar energy generation is no longer available under the FiT mechanism as it has achieved grid parity with more matured solar Photovoltaic (PV) technology and more competitive cost [2]. The FiT mechanism is replaced with Net Energy Metering (NEM) scheme which allows prosumers (consumers that consume and produce electricity) to sell excess solar energy produced, to DLs on a one-on-one offset basis. The prosumers will be given credit for every 1kWh of solar energy exported to the utility grid. This credit will be offset against the electricity consumed by the prosumer. Commercial, industrial and agricultural consumers' allowable maximum capacity of the solar PV system installed shall be 75% of the Maximum Demand (MD), or 60% of the fuse-rating or 60% of the Current Transformer (CT) rating of the consumer's existing installation [3].

For NEM scheme, the solar PV system has the option to connect direct and indirect feed to the utility grid. Typically, it is connected as indirect feed, that is, at the prosumer's side (load side). To ensure maximum solar energy generation which also leads to maximum savings, most inverters are configured to run at unity Power Factor (PF = 1). What this means is that the inverter only exports active power as a form of active energy (kWh) to fully offset the electricity bill and doesn't supply reactive energy (kvarh).

So, what is Power Factor (PF)?

In layman's terms, PF can be described as the ratio of "useful" over the total energy drawn. Total energy comprises active [Wh] ("useful") and reactive energy [varh]. The index is measured from 0 to 1. A higher index simply means less reactive power consumed than active power and a lower index means vice-versa. For Malaysia's non-domestic consumers, it is required to have a PF higher than 0.90 (for electricity supply of 132kV and above) or higher than 0.85 (for electricity supply below 132kV) to avoid PF penalty charges from the DLs. PF penalty charges for non-domestic consumers with electricity supply below 132kV is calculated as follows [4]:

- 1.5% surcharge of the current bill – for every 0.01 less than 0.85 power factor.
- 3% surcharge of the current bill – for every 0.01 less than 0.75 power factor.

Example:

Current bill: RM 10,000.00 (based on kWh consumed)

Recorded PF = 0.65

Calculated Surcharge from low PF = $(((0.85-0.75)/0.01) \times 1.5\% \times \text{RM } 10,000.00) + (((0.75-0.65)/0.01) \times 3.0\% \times \text{RM } 10,000.00) = \text{RM } 4,500.00$

How is PF calculated?

DLs use accumulative readings from the meter to calculate the PF by using the formula below:

$$PF = \frac{kWh}{\sqrt{(kWh^2 + kvarh^2)}}$$

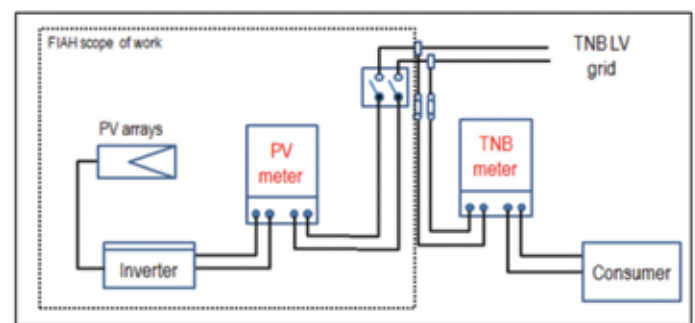
where,

kWh is the real power multiplied by the usage hours, and

kvarh is the reactive power multiplied by the usage hours.

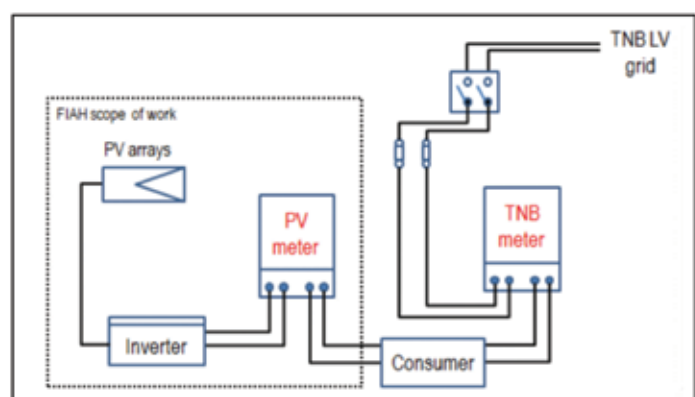
Connection Schemes of Solar PV System

According to "TNB Technical Guidebook on Grid-interconnection of Photovoltaic Power Generation System to LV and MV Networks" [5], for Type 1 (Single Phase) or Type 2 (Three Phase) of the Low Voltage (LV) system, the utility allows 2 types of connection methods: Direct Feed (direct connection to utility grid) and Indirect Feed (connection point at prosumer's load) as illustrated in Figures 1 and 2.



PV direct connections diagram for LV

Figure 1: Direct Connection of Solar PV System [Source: TNB Technical Guidebook on Grid-interconnection of Photovoltaic Power Generation System to LV and MV Networks].



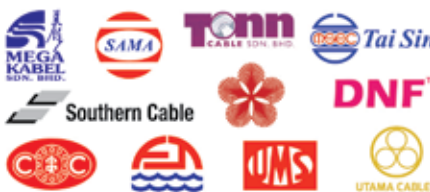
PV indirect connections diagram for LV

Figure 2: Indirect Connection of Solar PV System [Source: TNB Technical Guidebook on Grid-interconnection of Photovoltaic Power Generation System to LV and MV Networks].

There is a trade-off between the direct connection and the indirect connection. The advantages of direct connection are that the solar PV system is seen as an independent alternative source of supply that can complement the utility supply, and has the least impact on the sizing of the existing reactive compensation system. The issues and impact of the solar PV system to the PF penalty on the prosumer's side does not arise from this configuration. However, the main disadvantage of grid-connected solar PV system is that during a power outage (loss of mains)



Tel: 603-9223 9818 Fax: 603-9223 7818

		
Cables & Wires	Copper Strips	DB, MB, SB, & MCB
		
Emergency Lights & Keluar Signs	Fans & Water Heaters	Fittings
		
Floodlights & Street Lanterns	GI & PVC Pipes	Isolators & Change Over Switches
		
Joints & Termination Kits	Lamps	Lighting Columns
		
Switches	Testers	Trunking & Cable Trays
		



on the utility side, the prosumer will also experience an outage on the solar PV side as the grid-connected solar inverters have to operate in anti-islanding mode [5].

For economical and convenience reasons, the indirect connection method is commonly implemented where the solar PV system is connected at one of the spare outgoing circuits as depicted in Figure 3. This connection method utilises the spare circuit-breaker for the solar energy to feed to the prosumer's main switchboard, thus saving installation cost and space. However, this connection method may have a few consequences which will be discussed in the following sections.

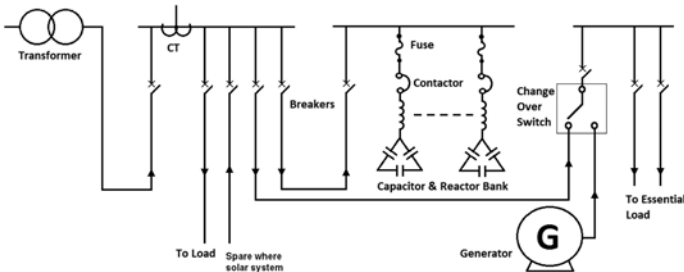


Figure 3: Electrical Single-Line-Diagram of a Grid-Connected Solar PV System.

Impact of Grid-Connected Solar PV System on PF

Now that we understand what PF is and how the solar PV system is connected, the next question is: how does the grid-connected solar PV impact our PF?

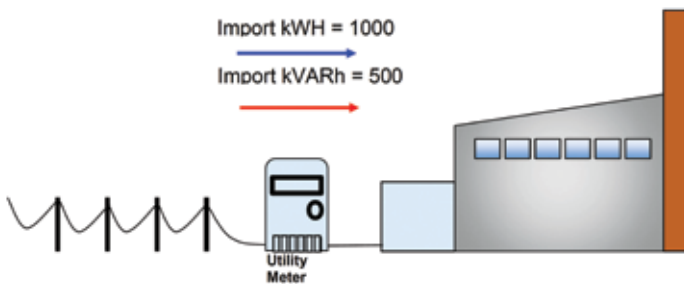


Figure 4: Active and Reactive Energy Consumption Before Solar PV.

In Figure 4, we can see that the consumer is consuming or importing 1,000kWh of active energy and 500kvarh of reactive energy before the installation of the solar PV system. By using the PF formula, we can calculate the PF, and the resulting PF is 0.89 lagging.

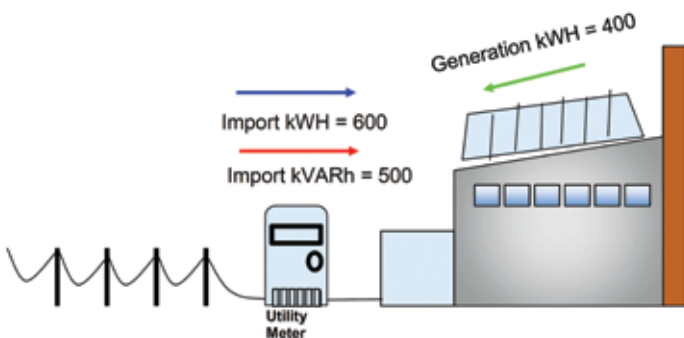


Figure 5: Active and Reactive Energy Consumption After Solar PV.

When the solar PV system is installed as depicted in Figure 5, we can see that the solar PV is generating 40% of the required active energy (kWh) and 60% is imported from the grid. To maximise the Return on Investment (ROI), solar inverters are set to only produce active power which is used to offset the electricity bill at unity PF. In effect, this will reduce the active energy (kWh) drawn or imported from the utility. On a side note, reactive energy (kvarh) is still required to support inductive loads such as motors (fans, pumps, etc.), fluorescent ballasts, transformers, arc welders, induction heaters, etc. The reactive energy (kvarh) of 500kvarh is still being imported from the utility. Hence, the PF factor value decreases as a result. By using the PF formula, we can derive that the PF is 0.76 lagging, and the prosumer will be charged by the DLs for PF penalty.

This is one of the reasons why a premise which doesn't have a PF problem prior to the installation of a solar PV system, may have problems after the installation of the solar PV system through the indirect connection method. The dynamic range of the operating active power (kW) drawn from the utility decreases during peak solar energy generation. What this means is that less active power will be drawn from the utility causing the existing sizing of the electrical equipment such as transformers, CTs, cables, and perhaps capacitor banks to be oversized during that period.

Secondly, the PF correction panel which is supposed to provide reactive power compensation may not be able to function as required because the premise now imports and exports electrical energy. Thirdly, the impact of Power Quality (PQ) due to harmonics injection from solar inverters may cause parallel resonance with the PF capacitor bank or sensitive residual current devices (RCDs) to mal-operate.

Recommendations when Integrating Solar Energy Generation with Existing Reactive Power Compensation for Indirect Connection Method

1. Ensure that the Power Factor Regulator (PFR) is set to Four-Quadrant operational mode as the PFR now needs to control the PF correction panel at both import and export power quadrant with CT installed in the correct position and correct polarity.
2. Configure the solar inverters to either:
 - a. not regulate the reactive power (recommended for maximum ROI); or
 - b. regulate the PF (setting above the PF penalty level of 0.85) and co-ordinate it to have the same target PF as the PF correction panel. Users will also need to check the sensitivity timings of both PFR and solar inverters to avoid a race condition or race hazard.
3. Ensure that during peak solar energy generation and trough load condition, the CT is able to accurately sense the reactive power (var) drawn by the load and that the smallest capacitor size at the PF correction panel is able to adequately compensate the reactive power.
4. Check if any harmonics interfere with the electrical system from the solar inverters (especially to the PF capacitor banks). If so, mitigate harmonics with the installation of active or passive harmonic filters due to the solar inverter harmonics emission. Note: to conduct proper PQ modelling and analysis of harmonic distortion from grid-connected solar PV inverters to select the most suitable and effective harmonics filter solution.

References

1. K. Roohbe, Y. Sumiani, and K. Fatimah, "Barriers to Renewable Energy Development: Five Fuel Policy in Malaysia", *Energy & Environment*, Vol. 26, No. 8., 2015 Accessed on: December 1, 2020. [Online]. Available: https://umexpert.um.edu.my/public_view.php?type=publication&row=NTAwNjU%3D
2. A. Aziz, *Beginning 2019, No Price Difference Between Solar Generation and Consumption Tariff*, *The Edge Markets*, October 22, 2018. [Online]. Available: <https://www.theedgemarkets.com/article/beginning-2019-no-price-difference-between-solar-generation-and-consumption-tariff>
3. Sustainable Energy Development Authority, *Net Energy Metering (NEM) FAQ*, SEDA, 2019. [Online]. Available: <http://www.seda.gov.my/misc/frequently-asked-questions/net-metering-nem-faq/>
4. Tenaga Nasional Berhad, *Power Factor Surcharge*, TNB, 2020. [Online]. Available: <https://www.tnb.com.my/commercial-industrial/charges-penalties>
5. Tenaga Nasional Berhad, *TNB Technical Guidebook on Grid-Interconnection of Photovoltaic Power Generation System to LV and MV Networks*, TNB. [Online]. Available: <http://www.seda.gov.my/download/seda-guidelines/tnb-pv-interconnection/>



H₂b

ANALYTICAL SERVICES
SDN BHD



Worldwide High Voltage Equipment Oil and SF₆ Gas Testing

Reliability

Over 45 years of experience in testing insulating materials and diagnosing high voltage equipment.

Test reports include Condition Codes with comments and recommendations based on IEEE, IEC, ASTM standards, and relevant limits where appropriate.

Accreditation & Certification

ISO 17025:2017
ISO 9001:2015
ISO 14001:2015
OHSAS 18001:2007

Research and Development

Continuous Research and Development focused on electrical equipment and insulating systems.

Value Added Service

Consultant provides general discussion and assistance in interpretation of reports.

Provides technical updates and training seminars.

Analytics You Rely On

TJH2B Analytical Services Sdn. Bhd. (823336-T)

16, Jalan Industri USJ 1/6,
Taman Perindustrian USJ 1,
47600 Subang Jaya, Selangor

Tel: +603-8023 6408 / 6409

Email: sales@tjh2b.com.my

Website: www.tjh2b.com.my

Virtual Seminar on Malaysian Standards for Lighting

Malaysian Standards (MS) for Lighting was an Online Seminar organised by the Department of Standards Malaysia (DSM) in collaboration with the Electrical Engineering Technical Division of The Institution of Engineers, Malaysia (IEM) and The Electrical and Electronics Association of Malaysia (TEEAM). The Virtual Seminar successfully took place on 17 November 2020 via the GoToWebinar digital platform.

The Seminar started with a welcoming remarks by Mr Shaharul Sadri Alwi, Director General of DSM. The esteemed speakers were Mr Ahmad Hilmi Yusof from the Energy Commission - ST; Mr Muhammad Khairul Nizam Mardi from the Fire & Rescue Department Malaysia - JBPM, Ir Ana Salmi Ahmad Salman from the Public Works Department - JKR; Ms Sharifah Jusoh from SIRIM QAS International Sdn Bhd; Mr Lim Sai Seong from TEEAM; Ms Hazirawati Hashim from Tenaga Nasional Berhad - TNB; Mr Abu Bakar Hashim from the Malaysia Highway Authority - LLM and Mr Narendren Rengasamy from MyCIE.

The experienced speakers shared a very comprehensive presentations on technology, fundamentals, requirements and specifications of lighting whilst the Regulators shared on their respective requirements, regulations, specifications, testing (safety & performance) and certification. Ir Nooraini Ibrahim, Senior



Virtual Seminar – (from top left) Ir Ana Salmi Ahmad Salman (JKR), Ms Sharifah Jusoh (SIRIM QAS International Sdn Bhd), Ir Nooraini Ibrahim (JKR), Mr Ahmad Hilmi Yusof (ST). (from bottom left) Mr Lim Sai Seong (TEEAM), Mr Muhammad Khairul Nizam Mardi (JBPM), Mr Rajasegaran (TEEAM) and Mr Abu Bakar Hashim (LLM).

Engineer in the Certification & Standard Unit of JKR, moderated the panel's response to questions raised by the attendees during the enlightening Q&A session. The Construction Industry Development Board (CIDB) and the Board of Engineers, Malaysia (BEM) had approved the Seminar

with ten CCD points and six CPD hours respectively. The Virtual Seminar attracted an overwhelming online participation of 141 people comprising consultants, engineers, contractors, competent personnel, importers and manufactures. Overall, it was highly informative and refreshing.



..... Continue Understanding Grid-Connected Solar Photovoltaics (PV) Impact on your Power Factor (PF)

Mr Alex Looi Tink Huey has two Bachelors' Degrees - in Electrical & Electronics Engineering and Software Engineering. He is the Head of Projects for Malim Consulting Engineers Sdn Bhd providing



M&E consultancy services and turnkey project management for renewable energy power plants, commercial, and industrial developments; and Head of Projects for LAJ Engineering Sdn Bhd providing electrical service contracting services: electrical installation inspection, T&C of high voltage & low voltage electrical equipment, power system studies, power quality analysis, efficient energy management, and preventive maintenance programme. He is currently the elected Committee Member of the IEM Electrical Engineering Technical Division (EETD) and Chairman of the Activities Organising Committee. He is also an IEC (International Electrotechnical Commission)

Young Professional and serves in the IEC SEG 10: Ethics in Autonomous and Artificial Intelligence Applications Committee. He is an AFEO Honorary Member, a Registered Electrical Energy Manager (REEM) with the Energy Commission, an Associate ASEAN Engineer (AAE), and a Certified Infrared Thermographer. He is also a TEEAM Member.

Ir Tay Siang Hui is currently working as a Technical Marketing Manager in Mikro Sdn Bhd. He obtained his BEng (HONs) Degree from Sussex University, UK; MSc. Eng from Multimedia University Malaysia, and MBA from Universiti Malaya with more than 20 years of experience in the electronics and electrical industry. Prior to joining Mikro, he worked at the O.Y.L. Research and Development Centre developing inverter-type air-conditioning system for



variable speed control of induction and permanent magnet brushless DC compressor. In Mikro, he developed

Ir Mohammad Rhaiz Bin Abdul Aziz graduated with a Bachelor's Degree in Electrical & Electronics Engineering and Master of Electrical Engineering from Universiti Tenaga Nasional (UNITEN). He is a certified Professional Engineer with Practising Certificate from the Board of Engineers Malaysia (BEM). He is also a member of the Institution of Engineers, Malaysia (IEM).



Currently, he is working as a Manager (Distributed Generation) at Tenaga Nasional Berhad (TNB). His responsibilities include conducting confirmation connection check study, reviewing technical drawings, and managing testing and commissioning (T&C) application for RE application to TNB.





OK-IN®



We are specialized in all types of
 nylon & stainless steel cable tie, security tie,
 cable clip, cable cleat, cable clamp, cable
 gland and laser & emboss label strips

Email: sales@epimkt.com.my

Website: www.epimkt.com.my

Facebook: EPIMarketing



EPI Marketing Sdn Bhd (304750-D)
 EPI Plastic Industries (IP0304342-A)

HEADQUARTER & FACTORY:

No. 3, 5 & 7, Lalan Perusahaan Kledang 5,
 Tmn Perindustrian Chandan Raya,
 Menglembu 31450 Ipoh, Perak.

Tel: +605-2812012
 Fax: +605-2822013

KL BRANCH:

No. 25 & 27, Jalan Rajawali 3,
 Bandar Puchong Jaya,
 47100, Puchong, Selangor

Tel: +603-80807268
 Fax: +603-80824268



IP44 provide protection  IP67 provide protection			INDUSTRIAL PLUG & SOCKET (IP44 & IP67) WEATHER PROOF ISOLATOR INDUSTRIAL DISTRIBUTION BOX
AUTOMATION CONTROL COMPONENT SELECTOR SWITCH DOOR-INTERLOCKED SELECTOR SWITCH WITH BOX			
			INSULATED & NON-INSULATED TERMINAL TERMINAL BLOCK CABLE LUG & LINK PVC WIRE TAPE & WIRE END CAP BUSBAR TRAILING SOCKET



We are specialized in all types of

Industrial Plug & Socket (IP44 & IP67), Weather Proof Isolator, Cable Lug, Cable Link, Insulated & Non Insulated Terminal, Connector, Trailing Socket, Busbar, PVC Wire Tape, Wire End Cap and Automation Control Components.

Email: sales@epimkt.com.my

Website: www.epimkt.com.my

Facebook: [EPIMarketing](https://www.facebook.com/EPIMarketing)



EPI Marketing Sdn Bhd (304750-D)
EPI Plastic Industries (IPO304342-A)

HEADQUARTER & FACTORY:

No. 3, 5 & 7, Laluan Perusahaan Kledang 5,
Tmn Perindustrian Chanden Raya,
Menglembu 31450 Ipoh, Perak.

Tel: +605-2812012
Fax: +605-2822013

KL BRANCH:

No. 25 & 27, Jalan Rajawali 3,
Bandar Puchong Jaya,
47100, Puchong, Selangor

Tel: +603-80807268
Fax: +603-80824268

Accessories



Connector, Multi Range Line Tap, Phase Distribution Block.

Protector Trip Relays.



hager

ABB

STANTRIC SDN. BHD. (218406-P)

No. 8 & 10, Jalan Perdana 2/3A
Pandan Perdana, 55300 Kuala Lumpur
Tel: 603-9281 0688 (4 Lines)
Fax: 603-9281 0689 / 9287 9482
E-mail: stantric68@gmail.com

Malaysia Trade Statistics Review

Volume II/2020

The Malaysia Trade Statistics Review (MTSR) Vol II/2020 has just been released by the Department of Statistics Malaysia (DOSM) on 31 December 2020. The MTSR brings a comprehensive and well-organised information on Malaysia's international trade and its relationship with other Malaysia statistical indicators, in order to give useful information for the users to see a more holistic picture of its economy. The aim is to bring official statistics to life through reviews and features that highlight the trends in trade performance, foreign direct investments and other related issues through impartial commentary and analysis. It is one of DOSM's initiatives to produce statistics that incorporate several key indicators through different perspectives.

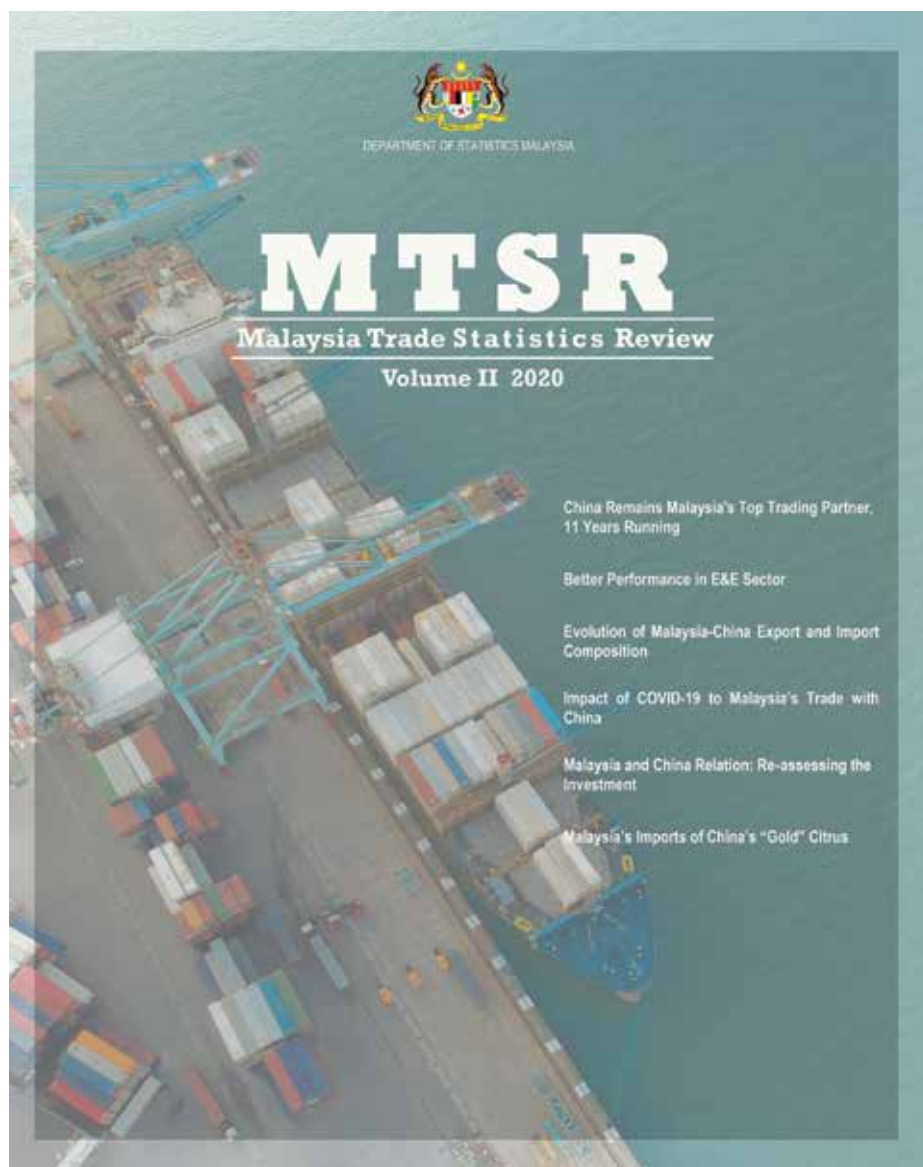
The first volume of MTSR provided information on Malaysia's Merchandise Trade Performance, Impact of COVID-19 on Malaysia's Trade, Exports by SMEs, Major Imports of Selected Consumer Goods, Exports by State, Foreign Direct Investment Performance in Malaysia and trade performance links with other statistics produced by DOSM.

This second volume of MTSR highlights Malaysia's bilateral merchandise trade performance with its biggest partner, China. This volume documented on the Time-sequential Statistics of Trade Performance between Malaysia and China; Electrical & Electronics (E&E) products and their relation with the Manufacturing Sector and Employment & Labour Productivity; Changes of Composition in Malaysia-China Trade; Impact of COVID-19 and Investment between both countries.

The MTSR is a good reference source for policy-makers, academicians, economists, researchers and other users of interest, in studies related to international trade.

Key Reviews

- China has become Malaysia's largest trading partner since 2009 and has retained its position until now. In the third quarter (Q3) of 2020, Malaysia's trade with China amounted to RM88.0 billion and constituted 19.1 per cent of Malaysia's total trade.
- Malaysia's major exports to China in Q3 2020 was Electrical & Electronics (E&E) products with a value of RM16.4 billion, or 36.4 per cent of Malaysia's total exports to China. Similarly, E&E products also held the highest share of imports from China in the same period with 40.2 per cent (RM17.2 billion). E&E products have dominated Malaysia's trade with China since decades ago in line with the performance of the manufacturing sector and the E&E sub-sector. Due to the pandemic, the Manufacturing index recorded the biggest



A copy of the Review can be downloaded from our TEEAM website at www.teeam.org.my

decline in history in Q2 2020 at 18.1 per cent. In Q3 2020, the Manufacturing index regained a recovery of 3.1 per cent year-on-year which was driven by stronger growth of the E&E sub-sector. The number of employment for the sub-sector of Electrical, Electronics and Optical products in Q3 2020, increased from 570,000 people in Q2 2020 to 579,000 people. Labour productivity per sub-sector rebounded to 9.0 per cent during the quarter with a value of RM40,795 per person.

- Over the 1990-2019 period, the composition of trade between Malaysia and China experienced changes. In 1990, Malaysia's top exports to China were animal and vegetable oils plus fat, while Manufactured goods dominated imports. Machinery and transport equipment appeared to be the highest contributor for exports in 2009 and imports in 2005, with a share of 56.9 per cent and 69.8 per cent respectively. This product

category also registered the biggest annual growth rate of exports (26.2%) and imports (24.2%) for the period of 1990-2019.

- The COVID-19 outbreak impacted social and economic paradigms, which resulted from mitigation measures to halt the spread of the virus. However, for the first 10 months of 2020, Malaysia's trade with China remained in positive growth. The outbreak has boosted the demand of medical supplies by both countries and has contributed to a significant increase of exports and imports of selected products between the countries.
- Malaysia received investments from China amounting to RM0.6 billion and RM0.5 billion in 2018 and 2019 respectively. In 2019, Malaysia's investment flows to China recorded a higher value of RM0.54 billion, from RM0.5 billion in 2018.

Source: Department of Statistics Malaysia

No. 90, Jalan Penyair U1 / 44, Temasya Industrial Park, off Jalan Glenmarie,
40150 Shah Alam, Selangor.

Website: www.streamtec.com.my  Stream Tech Engineering & Trading
& Streamtec Industrial Sdn. Bhd.

Tel : (603) 5569 2841

H/P : 019 - 3588 457

Authorised Distributor *mimilec*



RoHS



Motor Pump / Protection Relays



S2 CMR1

S2 CTS1

S2 WTR1

F3 MPR1

D3 MPR1

D5 MPR1

Phase Failure, Phase asymmetry, Phase sequence, Overloading and dry running (Under Current)
Microcontroller based design, SMD technology, Auto/Manual Reset, Adjustable current trip
settings, selectable overload characteristics, 2CO output relay.

Phase Failure Relays

Earth Fault Monitoring Relays



P1 PFS2

ALV D2

S2 VMR3

S1 VSP1

S2 ELR2

F3 EFR1

CBCT

Liquid Level Controller / Latching Relay

Microfacia



P1 LCW1

S2 WLC1

S2 ALT1

F3 BPC1

F5 BPC1

MF955

Our Other Product :

Voltage / Current / Frequency / Power Monitoring Relays, Transducer, Microfacia
Timer, Pump Automation Products

Protection Relays

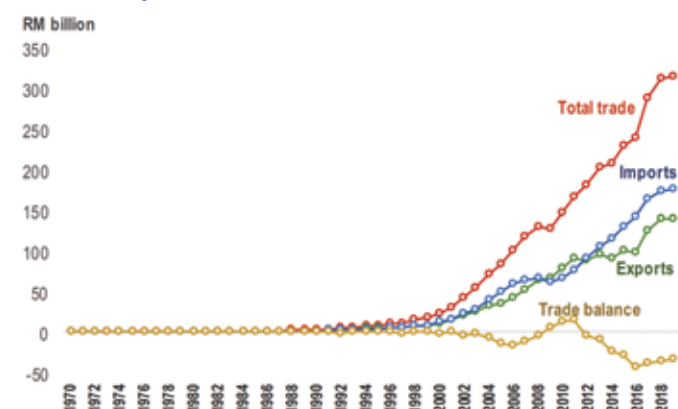
Better Performance in E&E Sector

The Malaysia Trade Statistics Review (MTSR) Vol II/2020 has just been released by the Department of Statistics Malaysia (DOSM) on 31 December 2020. Better performance in the Electrical & Electronics (E&E) sector is highlighted in the Review. The positive performance of trade of E&E products to China was in line with the performance of Malaysia Manufacturing Sector, especially the E&E sub-sector.

Introduction

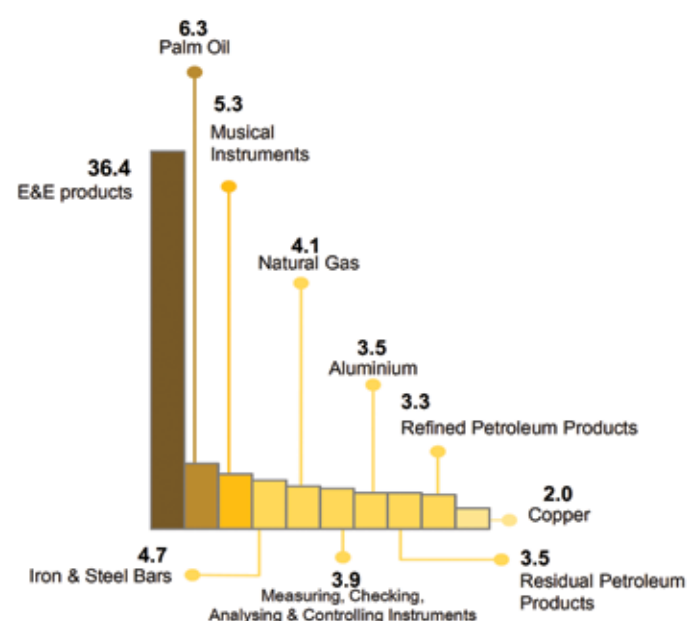
Malaysia has 47 years of trade relationship with China in 2020 since both countries established diplomatic relationship in 1974. Malaysia and China have established good trade relationship over the years and China has been our largest trading partner since 2009. Our major imports and exports with China are still dominated by electrical and electronics (E&E) products with a share of more than 30 per cent of total imports and exports with China for 2010-2020.

Chart 1: Malaysia's Trade with China, 1970 - 2019



Source: Department of Statistics Malaysia

Chart 2: Top 10 Exports to China, Q3 2020 (Percentage Contribution)



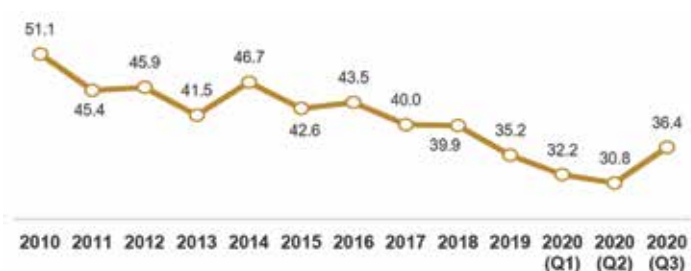
Source: Department of Statistics Malaysia

Major Exports and Imports to/from China

In Q3 2020, our major exports to China was E&E products which was valued at RM16.4 billion or 36.4 per cent of total exports to China. E&E products was dominated by electronic integrated circuits and piezo-electric crystals & parts with a share of 69.1 per cent and 7.8 per cent respectively to total exports of E&E products.

It was followed by palm oil (share: 6.3%), musical instruments and parts and accessories (5.3%), iron and steel bars, rods, angles, shapes and sections (4.7%), natural gas (4.1%), measuring, checking, analysing and instruments and apparatus (3.9%), aluminium (including alloys) (3.5%), residual petroleum products (3.5%), refined petroleum products (3.3%) and copper (including alloys) (2.0%). These top ten exports consist of 73 per cent of total exports to China.

Chart 3: Malaysia's Exports of E&E Products to China, 2010 - 2020 (Percentage Contribution)

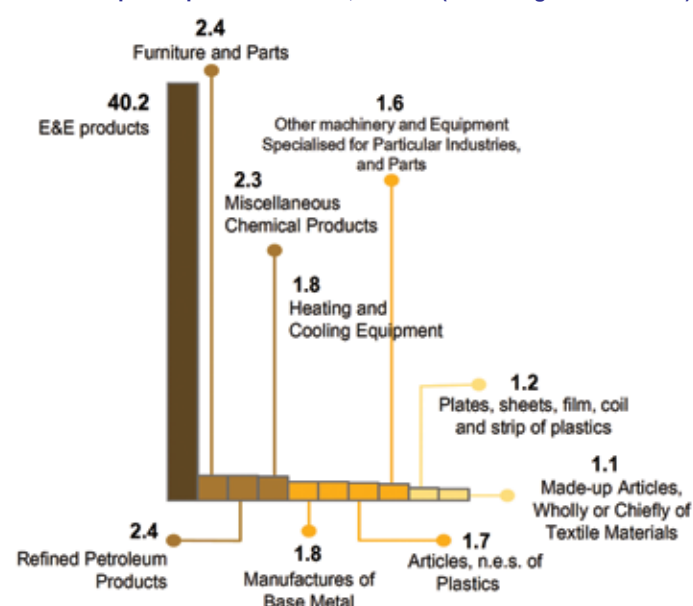


Source: Department of Statistics Malaysia

Shipments of E&E products to China increased 23.8 per cent to RM16.4 billion in Q3 2020 when compared with Q3 2019. For the period of 2010-2020, E&E products have been our major exports to China with a share of 51.1 per cent of total exports to China in 2010 and it reduced gradually to 36.4 per cent in Q3 2020. Malaysia has diversified exports to China by not solely depending on E&E products.

Top ten major imports from China in Q3 2020 were E&E products (share: 40.2%), furniture and parts (2.4%), refined petroleum products (2.4%), miscellaneous chemical products (2.3%), manufactures of base metal (1.8%), heating and cooling equipment and parts (1.8%), articles, n.e.s. of plastics (1.7%), other machinery and equipment specialised for particular industries, and parts (1.6%), plates, sheets, film, coil and strip of plastics (1.2%) and made-up articles, wholly or chiefly of textile materials (1.1%). These products consisted of 56.5 per cent of total imports from China.

Chart 4: Top 10 Imports from China, Q3 2020 (Percentage Contribution)



Source: Department of Statistics Malaysia

As for imports in Q3 2020, E&E products was also dominated by electronic integrated circuits which accounted for 21.4 per cent of its total imports and followed by telecommunication equipment, parts and accessories (share: 20.7%), electrical apparatus & parts (14.0%) and piezo-electric crystals & parts (6.1%).



旺电器木料有限公司

(6943-D)

WONG ELECTRICAL & TEAK WOOD SDN. BHD.

8, Lorong Yap Hin, Pudu, 55100 Kuala Lumpur, Malaysia.

Tel: 603-2142 5822 (Hunting Lines), 603-2142 9218/2148 4742 Fax: 603-2142 4523/2142 2846

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



Winston 18" - 35"
Stand / Wall Fan



Winston Exhaust Fan
12", 15" 18", 24", 30", 36"



Cable Lug



Bi-Metal Lug



NPC 3.1-3.4



160A Black Box
160A TPN Cut Out



1KV Termination Kit



11KV Termination Kit



Time Switch



Fibre Glass Wire



Plug & Socket
16A - 125A



Henly KWH Meter
(10/60A 240V, 15/60A 415V,
30/100A 415V, /5 415V)



Wire Grip & Puller



Weather proof flexible
conduit & adaptor



Shinohawa Metal
Enclosure Box



Shinohawa Cable Joint
SM0 1.5mm - 6mm x 4 core
SM1 1.5mm - 16mm x 4 core
SM3 10mm - 50mm x 4 core



JEC 20A-63A
Weatherproof
Isolator



25-160A
Weatherproof
Isolator



Copper Bus Bar



Copper Strips

Wong Electrical & Teak Wood
(Pg) Sdn. Bhd. (30263-T)
No. 13 Jalan Pantai
10150 Pulau Pinang
Tel: 604-229 2571, 2519, 3996, 3686
Fax: 604-229 3613

Branch: 28, Lengkok Kikik 1
Taman Inderawasih
13600 Prai Pulau Pinang
Tel: 604-398 0720
Fax: 604-398 0855

Wong Electrical & Teak Wood
(Sel) Sdn. Bhd. (75423-D)
No.33 Jalan 20/14
Paramount Garden
46300 Petaling Jaya Selangor
Tel: 603-7874 8355(HL), 8251, 8135, 7876 2676
Fax: 603-7876 7175

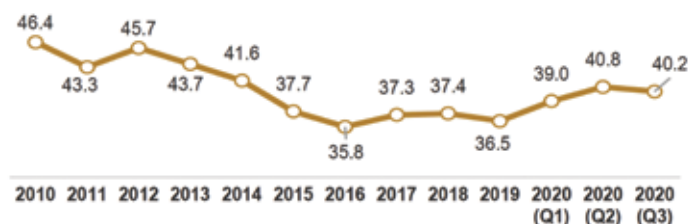
Soon Fay Sdn. Bhd. (50058-U)
No.13, Jalan Kalong
Off Jalan Sungai Besi
55200 Kuala Lumpur
Tel: 603-9221 6011(HL), 3313,
6759, 7036, 1264, 1262
Fax: 603-9221 0743

Wong Lighting (M) Sdn. Bhd. (72038-P)
No 17 & 19, Lorong Yap Hing
Off Jalan Pasar, Pudu 55100 Kuala Lumpur
Tel: 603-2145 6788(HL), 2145 0591
2145 0590
Fax: 603-2145 6799

Branch: No. 34 Jalan 20/16A
Paramount Garden
46300 Petaling Jaya Selangor
Tel: 603-7876 5022(HL), 7874 2409,
7876 0879, 7874 2452
Fax: 603-7876 5057

Imports of E&E products from China in Q3 2020 increased marginally by 1.6 per cent to RM17.2 billion compared to the same corresponding period last year. For 2010-2020, E&E products have been our major imports from China however, the share of total imports from China (46.4%) in 2010 reduced to 40.2 per cent in Q3 2020.

Chart 5: Malaysia's Imports of E&E Products from China, 2010 - 2020 (Percentage Contribution)



Source: Department of Statistics Malaysia

Manufacturing Sales of E&E Products

The positive performance of trade of E&E products to China was in line with the performance of Malaysia Manufacturing Sector, especially the E&E sub-sector.

Malaysia's Manufacturing sales in third quarter 2020 stood at RM358.8 billion; which posted a positive growth of 2.4 per cent from an abysmal rate of negative 16.5 per cent in Q2 2020. Despite the pandemic of COVID-19, E&E Products still accounted for the highest value of sales with RM118.1 billion (32.9%) compared to the previous quarter in 2020, which was valued at RM86.5 billion (30.7%).

Chart 6: Manufacturing Sales by Sub-sector, Q3 2020



Source: Department of Statistics Malaysia

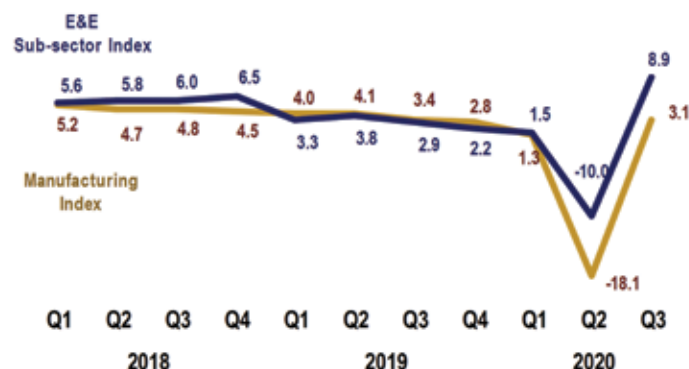
In the context of GDP, the contribution of the Manufacturing sector was the second-highest, with 23.5 per cent share or RM82.6 billion in Q3 2020. E&E sub-sector accounted for a notable 6.7 per cent share of the country's GDP and 28.6 per cent to GDP of Manufacturing. E&E also recorded the highest approved investments in 2019, totalling some RM25.7 billion or 31 per cent of total approved investments.

Manufacturing Index of E&E Sub-sector

Based on the Index of Industrial Production (IPI), Manufacturing, which is the biggest share, recorded the highest decline in Malaysian history in the second quarter 2020 at 18.1 per cent. In April 2020, the Manufacturing sector shrank to the lowest growth of negative 37.2 per cent year-on-year and the number of employees registered a decrease of 3.2 per cent to 2.17 million persons (April 2019: 2.24 million persons). In Q2 2020, E&E sub-sector declined 10.0 per cent after recording deterioration for two consecutive months in April 2020 (-34.1%) and May 2020 (-11.2%). Meanwhile, in June 2020, the E&E sub-sector rebounded to 13.2 per cent.

In Q3 2020, the Manufacturing index regained a recovery of 3.1 per cent over the same quarter in the previous year. The increase was driven by the stronger growth of the E&E sub-sector by 8.9 per cent.

Chart 7: Manufacturing and E&E Sub-sector Index (Year on Year Changes), Q1 2018 - Q3 2020



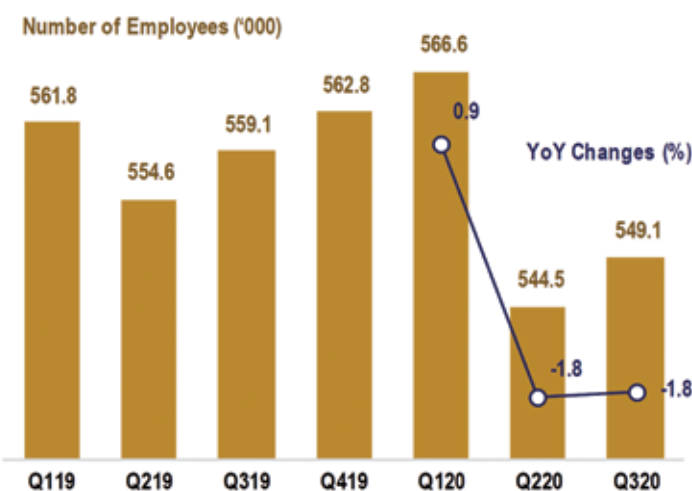
Source: Department of Statistics Malaysia

Within the E&E sub-sector, Manufacture of computer, electronics and optical products recorded a growth of 9.6 per cent (Q2 2020: -11.4%), Manufacture of electrical equipment accelerated by 8.8 per cent (Q2 2020: -8.4%) and Manufacture of machinery and equipment n.e.s. increased 4.5 per cent; (Q2 2020: -2.6%). The main products that led to the E&E sub-sector recovery were Printed circuits and Integrated circuits.

Number of Employees of E&E Sub-sector

However, number of employees of E&E sub-sector declined by 1.8 per cent to 549.1 thousands for Q3 2020 workers as compared with the same quarter of the previous year (Q3 2019: 559.1 thousand employees). Manufacture of computer, electronics and optical products contributed the highest number of employees in E&E sub-sector; it stood at 360.6 thousand persons, declined by 3.7 per cent as compared to Q3 2019. Meanwhile, Manufacture of electrical equipment (97.2 thousand persons) and Manufacture of machinery and equipment n.e.s. (91.3 thousand persons) grew by 2.4 per cent and 1.9 per cent respectively.

Chart 8: Number of Employees of E&E sub-sector Q1 2019 - Q3 2020



Source: Department of Statistics Malaysia

The E&E sub-sector in Q4 2020 is expected to continue its positive momentum albeit the downside risks to global demand due to the rising number of new COVID-19 cases and implementation of tighter measures to curb the virus. For the manufacturing sector, establishments with China equity holdings recorded an increase in Sales Value in Q3 2020 by 4.0% after experiencing a fall of (-8.7%) in Q2 2020. This indicates that the organisation's performance has improved after the MCO recovery phase.

Employment and Productivity for Electrical, Electronic and Optical Products Sub-sector

The total of employment for Electrical, electronic and optical products was 579 thousand persons in Q3 2020 (Q2 2020: 570 thousand persons),

Surge Protection Devices



Model-DV M TT



**5 YEARS
WARRANTY**

**Protection against lightning
current amplitude 200 kA (10/350μs)**



Section of DEHNventil®
spark gap

- **Combine Type I & II** - encapsulated (non-exhausting) triggered spark - gap technology
- Extremely low voltage protection level (U_p) $\leq 1.5\text{kV}$ for terminal equipment
- Type tested for Easy Coordination to equipment Type 1 + Type 2 + Type 3 ($\leq 5\text{m}$)
- High short - circuit current withstand capability (I_{SCCR}) of 50kA_{rms} to $100\text{kA}_{\text{rms}}$
- Type tested by **KEMA** to the latest IEC61643 -1/-11

Power Factor Capacitor



**5 YEARS
WARRANTY**

**Impregnated with a dielectric fluid,
non hazardous, bio-degradable vegetable oil.**

- Higher partial discharge appearance level (Added Insulation)
- Excellent corona protection
- Higher dielectric resistance to transient current & voltage
- A greater gas absorption capacity
- A moisture barrier
- Low thermal resistance to overcome HIGH loads

TUV certified to IEC60831-1 & -2

**Protection Against Case Rupture Even Without
Series Reactor in HIGH HARMONIC distortion conditions
Proven "Long Life Expectancy" Projects > 10Years**

Epson Toyocom, Taiyo Uden, Penfibre, Hospital Besar, New Strait Time, Telekom Exchange, NSCC, Compound, Mid-Valley, Jaya Jusco, Western Digital, P.U.B. Johor River, Mines Mall, Kaneka, Maltrad, Sirim, UiTM, Mimos, Ajinomoto, SamLing Plywood Factory, Wisma UOA, Lot 10, etc.



Model-RG2
(1.5mm T Steel Case)



Wise Pro Sdn Bhd 199601008707
(NO.381055P)

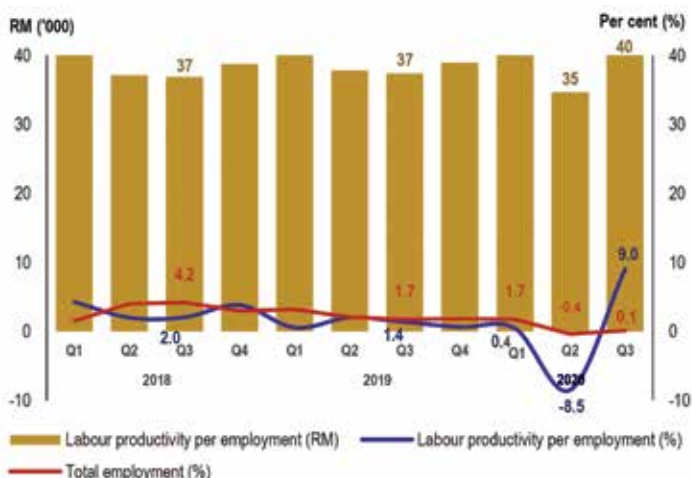
No.8, Pusat Teknologi Sinar Meranti, Jalan IMP 1/3, Taman Industri Meranti Perdana, 47120 Puchong, Selangor
Tel : +603-8066 6491/6492/6493 Fax : +603-8052 6649 (Sales) Mobile No. +6017 - 492 1474, +6012 - 543 5515

E-mail : info@wiseprocorsa.com.my

www.wiseprocorsa.com.my

increased marginally 0.1 per cent (Q2 2020: -0.4%). Labour productivity per employment in this sub-sector rebounded to 9.0 per cent during the quarter with a value of RM40,795 per person after recorded negative 8.5 per cent in the preceding quarter (Q2 2020: RM34,655 per person).

Chart 9: Labour productivity per employment for Electrical, Electronic and Optical Products Sub-sector, Q1 2018 – Q3 2020



Source: Labour Productivity, Malaysia, Q3 2020, DOSM

When looking at the total hours worked for this sub-sector, it declined 2.2 per cent (Q2 2020: -32.5%) in Q3 2020 to 345 million hours (Q2 2020: 234 million hours). During this quarter, this sub-sector posted the highest growth of labour productivity per hour worked in Manufacturing sector with a growth of 11.6 per cent in Q3 2020 (Q2 2020: 35.2%). The value added per hour worked was RM68 per hour in Q3 2020 (Q2 2020: RM84 per hour).

Chart 10: Labour Productivity Per Hour Worked for Electrical, Electronic and Optical Products Sub-sector, Q1 2018 – Q3 2020



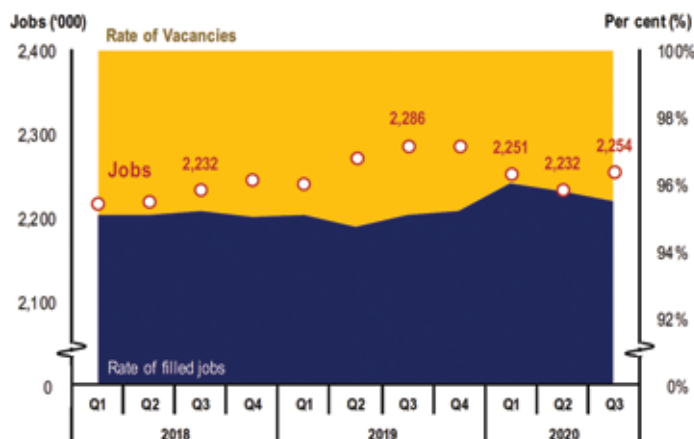
Source: Labour Productivity, Malaysia, Q3 2020, DOSM

Labour Demand in Manufacturing Sector Improves This Quarter

Labour demand statistics based on the Quarterly Employment Survey conducted on formal private sector establishment that consist of jobs, filled jobs, vacancies and jobs created. The number of jobs in the Manufacturing sector accounted for 2.25 million jobs in Q3 2020; recorded a decrease of 32 thousand jobs as compared to same quarter of the previous year. The rate of filled jobs increased by 0.4 percentage points to record 2.15 million filled jobs while the vacancies rate was 4.5 per cent (100 thousand jobs vacancies); decreased by 0.4 percentage points as compared to the third quarter of 2019.

The largest share in this sector was the sub-sector of Electrical, electronics and optical products with a share of 26.2 per cent (591 thousand jobs). The rate of filled job in this sub-sector was 94.6 per cent or equivalent to 559 thousand filled jobs while vacancies rate was 5.4 per cent (32 thousand jobs vacancies).

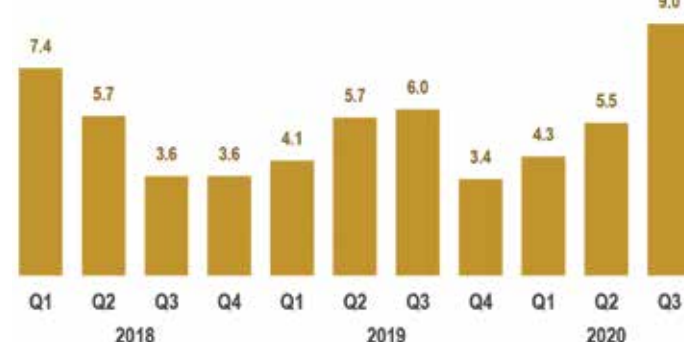
Chart 11: Jobs, Filled Job and Vacancies for Manufacturing Sector, Q1 2018 – Q3 2020



Source: Employment Statistics, Malaysia, Q3 2020, DOSM

Jobs created in Q3 2020 was 9 thousand compared to 6 thousand in Q3 2019. The number of jobs created registered an upward trend since Q1 2020 after a decline in Q4 2019. Meanwhile, the Electrical, electronics and optical products sub-sector recorded 3 thousand jobs created in the third quarter of 2020.

Chart 12: Jobs Created for Manufacturing Sector, Q1 2018 – Q3 2020



Source: Employment Statistics, Malaysia, Q3 2020, DOSM

Conclusion

China has managed to contain the COVID-19 pandemic effectively and its economy grew 4.9 per cent in Q3 2020; from 3.2 per cent in Q2 2020 after a contraction of 6.8 per cent in Q1 2020. Hence, as our major exports to China, the shipment of E&E products to China has recovered in Q3 2020; which increased 37.9 percent and is in line with the increase of manufacturing sales of E&E products of 36.5 percent, quarter-on-quarter.

Besides, manufacturing index in IPI also regained a recovery of 3.1 per cent (yoy) which was driven by the stronger growth of the E&E sub-sector.

As part of the global supply chain, the recovery in China will increase both countries' bilateral trade. Malaysia is expected to further enhance the bilateral trade with China, particularly E&E products in the near future.

References

1. Department of Statistics Malaysia, (2020). Malaysia External Trade Statistics.
2. Malaysian Investment Development Authority, MIDA (2020).
3. Department of Statistics Malaysia, (2020). Manufacturing Statistics, Malaysia.
4. Department of Statistics Malaysia, (2020). Labour Productivity, Malaysia
5. Department of Statistics Malaysia, (2020). Employment Statistics, Malaysia

Contributors

Noraliza Mohamad Ali, Ab. Rahman Mohamad, Liang Hung Shan, Halina Abdul Halim, Mohamad Luqman Humaidi, Amiirah Zolkefli and Nurul Syahirah Mohd Ali.

Source: Department of Statistics Malaysia



A **Complete System** in circuit protection



UTAMA

SWITCHGEAR SDN BHD

UTAMA SWITCHGEAR SDN BHD (416650-H)

No. 3, Jalan USJ 19/4A, USJ 19, 47630 Subang Jaya, Selangor Darul Ehsan, Malaysia

Tel 603-8024 1215 Fax 603-8024 1796 Email utamasb@ussbeeps.com Website www.ussbeeps.com

State Associations News



**Persatuan Kekompetenan Penjaga
Jentera & Pendawai Elektrik Perak (PKPPE)**
13B, Medan Bendahara 2, Medan Bendahara,
31650 Ipoh, Perak
Email: pkppe.2001@gmail.com



Technical Visit to PMW Industries Sdn Bhd

PMW Industries Sdn Bhd hosted a talk during PKPPE's Technical Visit to their factory launching on 15 September 2020. PMW's presentation covered Evaluation of Poles Conductivity by comparing concrete pole with steel pole. Pole conductivity test was performed on steel poles and spun decorative concrete poles. The objective of the test was to observe the electrical conductivity and evaluate safety between spun decorative concrete poles and steel pole.



For the album – (3rd from left) Mr Tony Leong, President of PKPPE and Mr Wan Kam Weng, President of PEA (2nd from right) posing with other participants before the pole test is conducted.



Educational – Various types of spun decorative concrete poles.



Interesting – Preparation for Pole Testing.

Swearing-in Ceremony

PKPPE Committee Members for the year 2020-2021's Swearing-in Ceremony took place on 18 September 2020 at the East Ocean Restaurant, Menglembu. The Ceremony began with PKPPE President, Mr Tony Leong's speech and followed by the recognition of PKPPE's Incoming Board Committee.

Affidavit of the New Committee Members for the year 2020-2021 was successfully held under the witness of PKPPE Founder, Mr Cheah Koon Yeong and Electrical Advisors, Ir Lee Cheow Tong and Ir Fong Chin On.

Group photos of the new term Committees were taken together with the Association's Founder, Advisors, Honorary Presidents and outgoing Committees. The event ended with a special recognition and appreciation ceremony to the outgoing Committees.



Mr Tony Leong Kwong
How – Newly-elected
President of PKPPE for
the year 2020 - 2021.

PKPPE Office Bearers for the year 2020-2021

President	Tony Leong Kwong How
Deputy President	Stanley Wong Chen Yu
Vice President	Nick Liew Kar Hoe
	Tan Soo Choy
	Steven Kong Kean Wei
	Ong Kean Seng
	Quah Hoo Kooi
Secretary	Andrew Lee Chan Wah
Vice Secretary	Khoo Choo Boon
Treasurer	George Tan Thow Keen
Committee Members	Kelvin Khoo Soon Seng
	Gan Si Mia
	Leaw Chee Khen
	Lam Meng Yang
	Kong Chee Yuen
	Law Kah Ching
	Edmund Teh Choon Kiang



Group photo for the album – PKPPE New Committee Members for the year 2020-2021 posing with PKPPE Founder and Electrical Advisors.



All smiles – PKPPE New Committee Members for the year 2020-2021 posing with PKPPE Founder, Advisors and Honorary Presidents.

The Perak Electrical Association's 57th Anniversary Lunch

The Perak Electrical Association (PEA) held its 57th Anniversary Lunch on 18 October 2020. PKPPE and PERDA were invited to the lunch. The President of PEA, Mr Wan Kam Weng expressed his gratitude to all guests who attended the lunch. The lunch session was filled with laughter and it was a great opportunity to catch up with old members.



Happy meal – PKPPE Members enjoying the delicious dish.



Cake-Cutting Ceremony – To mark the 57th Anniversary of PEA.



Penang Electrical Merchants' Association

No. 171A, Malacca Street, 10400 Penang.

Tel: +604 - 229 0195 Fax: +604 - 228 4233

E-mail: pema_pg@yahoo.com Website: www.pema.org.my

PEMA 72nd AGM & Election of Office Bearers

The 72nd Annual General Meeting (AGM) & Election of Office Bearers of the Penang Electrical Merchants' Association (PEMA) was held at the Association premises on 9 August 2020. The General Meeting unanimously confirmed the minutes of the previous AGM which was held on 14 April 2019. This was followed by the adoption of the Annual Report for the year 2019 which was tabled by the then Honorary Secretary, Ir Darren Lee Weng Keen. The Honorary Treasurer, Mr Neoh Boon Tong tabled the audited accounts for the year ended 31 December 2019 which was duly adopted by the General Meeting. The Election of new Office Bearers was later carried out.



Ir Darren Lee Weng Keen – Newly-elected PEMA President for the year 2020-2021.

PEMA Office Bearers for the year 2020-2021

Trustees	Lee Boon Hoe Dato' Seri Hong Yeam Wah Dato' Ooi Kok Kee Choo Kwang Wah Dato' Seri Hong Yeam Wah
Executive Advisor	Lai Chang Hun
Association Advisors	Foo Sing Tatt Ir Chen Chin Peng Chiem Boon Kooi Ir Darren Lee Weng Keen
President	Lee Kuan Meng
Deputy President	Khaw Tatt Siew
Immediate Past President	Yeap Kim Poh
Honorary Secretary	Kevin Nia Jun Hau
Asst Honorary Secretary	Neoh Boon Tong
Honorary Treasurer	Teoh Yew Yean
Council Members	Dato' Ooi Kok Kee Choo Kwang Wah Lim Kim San Tang Keem Hoong Thi Chaw Hock Neoh Yee Chuan Cheah See Yeong Steve Koh Cheang Shern Ong Beng Siong Teoh Yew Yean Chu Kerd Yee Steve Koh Cheang Shern Ong Beng Siong Choo Kwang Wah Cheah See Yeong Lim Kim San Neoh Yee Chuan Khaw Tatt Siew Tang Keem Hoong Thi Chaw Hock Dato' Ooi Kok Kee Kevin Nia Jun Hau Ir Beh Hong Pin Ir Chen Chin Peng Ir Thean Kah Kong Ir Tan Yeow Joo Ir Tan Tea Hwa Mr Oh Han Loon Kang Hong Jie Koh Ah Tee Foo Sing Tatt Lai Chang Hun Ong Choong Siang
Contractors' Committee	
Manufacturer's Committee	
Supplier's Committee	
Technical Committee	
Disciplinary Committee	
Constitution/By-Law Committee	
Welfare Committee	
External Affairs Committee	
Property Committee	
Recreation Committee	
Membership & Recruitment Committee	
Education Fund Committee	
IT & Multimedia Committee	
Technical Advisors	
Legal Advisor	
Honorary Auditor	
Honorary Member	



Attentive – PEMA AGM in progress.



Election Committee – (from left) Mr Kevin Nia Jun Hau, Mr Ong Chong Siang, Ir Darren Lee Weng Keen and Mr Steve Koh Cheang Shern checking the election ballot papers.



The Perak Electrical Association

No. 12-A, Jalan Datuk Mahmud,
31650 Ipoh, Perak Darul Ridzuan.
Tel: +605 - 254 1502 Fax: +605 - 250 9145
E-mail: multipower99@gmail.com / peaipoh@gmail.com

PEA Annual General Meeting

The Perak Electrical Association (PEA) held its Annual General Meeting (AGM) on 10 March 2020 at the PEA premises. There was an election of new Office Bearers for the year 2020-2021. The Presidency was succeeded by Mr Wan Kam Weng.

PEA Office Bearers for the term 2020-2021

President	Wan Kam Weng
Deputy President	Kong Wan Fook
Vice Presidents	Richard Wong Ngen Wah Cheah Koon Yeong Au Wai Yeen Wong Kok Mun
Secretary	Chong Kwong Yuen
Vice Secretary	Chung Chun Heng
Treasurer	Lau Sin Leong
Vice Treasurer	Lai Koon Loy
Correspondence (Chinese)	Ngeow Khong Seng
Correspondence (English)	Cheah Kong Yew
Correspondence (B. Malaysia)	Low Chi Men
Social Secretaries	Tiew Kah Wei Ngoi Ah Tee
Welfare Officers	Fook Chee Ming Chin Hoo Keat
Info & Technology Officers	Ong Kean Seng Hew Tai Seac
Committee Members	Hong Meow Keong Hoo Chon Kee Ng Yew Cho Foo Ken-Khuan Wong Seng Yin Low Kam Yoong Kan Kok Meng Lee Khar Seng Law Kah Ching Jerry Poon Nik Zen

Swearing-In Ceremony of New PEA Office Bearers

The Swearing-in Ceremony of PEA Office Bearers for the 34th Executive Committee Term (2020-2021) was held at the Super HLT Restaurant. The oath-taking event was held under the witness of PEA Honorary Presidents-cum-Advisors, Mr Khaw Chin Hong AMP, Mr Lee Kai Beng, Mr Leong Wa Sing PMP; Honorary Presidents, Mr Chan Kaim Sam and Mr Teoh Kim Fong. The ceremony was jointly witnessed by PEA Legal Adviser, Mr Andrew Soong; Electrical Adviser, Ir Joe Cheng Kok Jo; Medical Adviser, Dr Yek Sing Chee; Accounts Adviser, Mr Wai Ah Kau and Auditor, Mr Kan Kim Weng.



Mr Wan Kam Weng – PEA President for the year 2020-2021.

In his speech, PEA President, Mr Wan Kam Weng encouraged everyone to foster positivity amid COVID-19 challenges while adapting to the new norms, including the adoption of new business models in response to the change of consumption pattern in this coronavirus pandemic times. He also advocated the use of multimedia to improve personal technology skills, business knowledge in marketing, operation and management skills. Additionally, he promised to enhance the current system, to recruit more members, to safeguard and fight for the rights of the industry. Due to the coronavirus pandemic, the Association's hall could not operate as usual as a result of not receiving donation from members. Thanks go to PEA President Mr Wan Kam Weng who had generously sponsored the full cost of photography for the inauguration ceremony.



Swearing-in Ceremony – PEA New Office Bearers for the term 2020-2021 posing a group photo.



Inked – PEA President, Mr Wong Kam Weng and his Committee pledging to serve PEA.



Pledging-to-Serve – PEA Vice President Mr Richard Wong signing the Affidavit of Inauguration.

33rd PEA Academic Award Ceremony

The 33rd Academic Awards Review Team held their fifth meeting in accordance with the Standard Operating Procedures (SOP) of the Recovery Movement Control Order (RMCO). The team discussed the seating arrangements and layouts as specified under the RMCO SOP and ensured that the air-conditioning equipment were well-inspected, and also replaced multiple light bulbs and downlights. PEA sincerely thanked its President, Mr Wan Kam Weng for sponsoring the light bulbs and downlights. PEA also greatly appreciates the efforts of its Vice Treasurer, Mr Lai Koon Loy for sponsoring the disinfection work and prevention measures for the Association. A big thank you too goes to Committee Member, Mr Law Kah Ching for his tireless efforts to examine and replace the lighting equipment.

The 33rd Academic Awards Ceremony was later held at the “Choo Swee Yoong” Conference Room of the Association. A total of 37 applications were reviewed and approved with four Merit Awards in each level of public examination. The total award amount of RM7,470 was sponsored by PEA Deputy President, Mr Kong Wan Fook. Meanwhile, a big thank you to PEA President, Mr Wan Kam Weng and Educational Affairs Officer, Mr Wong Seng Yin for inviting Panasonic Malaysia Sdn Bhd, Joven Marketing Sdn Bhd and Sun Power Automation Sdn Bhd to sponsor some gifts for the award-winning students.

In his speech, PEA President, Mr Wan Kam Weng mentioned that the students nowadays are not only competing among their peers within the country, but also facing challenges at international levels. Therefore, they are strongly encouraged to learn new knowledge and master new technology to be more competitive in the future. The purpose of this award is to encourage students to work hard, and hope that the children will develop good character and to always bear in mind the moral obligations of fidelity to the family, friends and society, plus the sense of propriety, justice, integrity and honour.

Next in line, PEA Deputy President, Mr Kong Wan Fook hoped that the students would continue to uphold positive attitudes and be brave to accept challenges. Educational Affairs Officer, Mr Wong Seng Yin also delivered a speech. He encouraged students to keep up their efforts in gaining new knowledge along the road of achieving success. Meanwhile, he thanked Mr Wan Kam Weng for sponsoring the photo-journalists' expenses. He also thanked the Education Affairs Committee Members, Mr Wong Seng Yin, Mr Chung Chun Heng, Mr Tiew Kah Wei, Mr Ng Yew Cho, Mr Foo Ken Khuan, Mr Low Kam Yoong, Mr Lee Khar Seng, Mr Law Kah Ching, Mr Jerry Poon Nik Zen and others who had helped out in this event. The Ceremony was held smoothly under the comprehensive pandemic prevention procedures and with the assistance and co-operation from all the Committee Members.



Welcome Address – PEA President, Mr Wan Kam Weng delivering the Welcome Address.



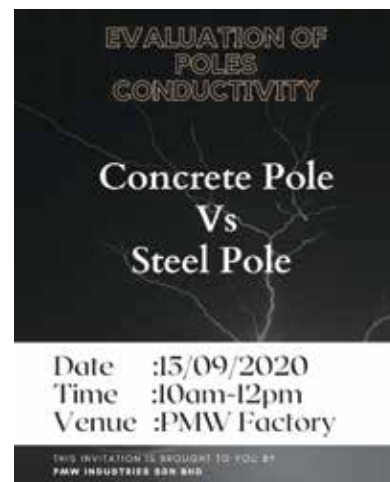
Token of appreciation – (right) PEA President, Mr Wan Kam Keng presenting a souvenir to the Sponsor, PEA Deputy President, Mr Kong Wan Fook



Bravo! – (right) PEA Deputy President, Mr Kong Wan Fook presenting a certificate to the top student of the PT3 category.

Technical Visit to PMW Industries Sdn Bhd

On 15 September 2020, PEA Members were invited for a Technical Visit to PMW Industries Sdn Bhd's factory launching. PMW specialises in the manufacturing of Pre-stressed Spun Concrete Pole & Pile since its establishment. The company has over 20 years of expertise in concrete poles manufacturing. PEA Members had the opportunity to learn about the difference between concrete poles and steel poles, and enjoyed the networking opportunity. The Technical Visit was attended by some 20 members. It was a very good exposure for the PEA Members who attended.



For the album – Group photo taken after the PMW factory visit.



Briefing – Participants were given an introduction before the visit proper.



Johor Bahru Electrical & Electronics Association

No.7-01, Jalan Bentara Luar, Taman Iskandar,
80050 Johor Bahru, Johor Darul Takzim.
Tel: +607 - 333 8174 Fax: +607 - 224 1923
E-mail: info@jbeea.com.my
Website: www.jbeea.com.my

Donation of Equipment to Hospital Sultanah Aminah, Johor Bahru – A Dahua Thermal Human Temperature Measurement Solution

At the Johor Bahru General Hospital's Polyclinic during the Movement Control Order (MCO) period, the average number of visitors to the hospital was about 1,000 people a day. Following that the number increased to 2,000 to 3,000 people daily during the Conditional Movement Control Order (CMCO) period. While entering into the Recovery Movement Control Order (RMCO) period, the number substantially increased to 5,000 people consisting of visitors, patients and staff per day, at its peak. During the heavy single day flow, more than 30 medical staff needed to be stationed at the entrance of the polyclinic to check on everyone's body temperature before they entered the hospital.

The above statistics were provided by the Director of Hospital Sultanah Aminah, Johor Bahru (Johor Bahru General Hospital), Dr Hj Mohtar Pungut @ Hj Ahmad during an interview after the handing-over ceremony of a set of Dahua Thermal Human Temperature Measurement Solution donated by the Johor Bahru Electrical & Electronics Association (JBEEA) and Matrolink Sdn Bhd /Teletouch Technologies Sdn Bhd.

The equipment cost of about RM75,000 was borne by Matrolink Sdn Bhd/Teletouch Technologies Sdn Bhd. The presentation ceremony of the Dahua Thermal Human Temperature Measurement Solution was held on 21 June 2020 at the Hospital Sultanah Aminah, Johor Bahru. The handing-over of the said equipment was by Mr Lee Chee Hao, Honorary Secretary of JBEEA, who is also the Director of Matrolink Sdn Bhd/Teletouch Technologies Sdn Bhd. Receiving on behalf of Hospital Sultanah Aminah, Johor Bahru was its Director, Dr Hj Mohtar Pungut @ Hj Ahmad. Others who were present at the ceremony were Dr Srazali Aripin, Chairman of the Hospital Visitors Board and his team; Matrolink Sdn Bhd's personnel and some members of the Media.

With the donation of the Dahua Thermal Human Temperature Measurement Solution to Hospital Sultanah Aminah, Johor Bahru, JBEEA sincerely hopes that the contribution will support and ease the workload of the front-liners and also help to combat the outbreak of the COVID-19 pandemic.



For a noble cause – Mr Lee Chee Hao (right) handing over the Dahua Thermal Human Temperature Measurement Solution set to Dr Hj Mohtar Pungut @ Hj Ahmad.



Attentive – Dr Hj Mohtar Pungut @ Hj Ahmad (left) listening to Mr Lee Chee Hao's explanation on the functions of the Dahua Thermal Human Temperature Measurement Solution equipment.

JBEEA 2020 Annual General Meeting

JBEEA successfully held its 2020 Annual General Meeting on 18 July 2020 at the JBEEA premises in Johor Bahru, and subsequently elected the new term of Office Bearers for the year 2020-2022.



Mr Steven Lim Kee Teck
– Newly - elected Chairman of JBEEA for the year 2020-2022.

JBEEA Office Bearers for the year 2020-2022

Chairman	Steven Lim Kee Teck
Vice Chairman	Javy Kam Choon Wah
Immediate Past Chairman	Lee Chee Boon
Honorary Secretary	Lee Chee Hao
Assistant Honorary Secretary	Kelvin Yap Tai Sin
Honorary Treasurer	Lee Hai Soon
Assistant Honorary Treasurer	Ngoe Wee Min
Committee Members	Tiow Yok Seng Lim Kia Seng Wong Chen Choy Chua Kian Kok Lee Boon Kim Mohd Razali Rohani Tan Lian Hua Chor Chin Min Wong Jiunn Shyong
Internal Auditor	

Other State Association Members' contacts:



Sarawak Electrical Association

Lot 412, (2nd Floor), Lorong 11D,
Off Jalan Ang Cheng Ho, 93700 Kuching, Sarawak.
P. O. Box 1494, 93730 Kuching, Sarawak.
Tel: +6082 - 346 188 Fax: +6082 - 345 118
E-mail: sea.kchsarawak@gmail.com



Malacca Electrical Contractors and Traders Association

No. 389-G1, Taman Pringgit Jaya,
Jalan Mata Kuching, 75400 Melaka.
Tel: +606 - 283 8688 Fax: +606 - 781 1466



Negeri Sembilan Electrical Engineering Association

c/o No. 194, Jalan Pantai, 71000 Port Dickson,
Negeri Sembilan Darul Khusus.
Tel: +606-647 1105 Fax: +606-647 4728



Sabah Electrical Association

Lot No. 3-3-R, Beverly Hills Plaza, Jalan Bundusan,
88300 Kota Kinabalu, Sabah.
Tel: +6088 - 712 358 Fax: +6088 - 717 358
E-mail: pes233sabah@gmail.com Website: www.pes-sabah.org

Sandakan Electrical Engineering Association, Sabah

Block B-2, Lot No. 25, Bandar Utama,
Batu 6, Jalan Utara, 90000 Sandakan, Sabah.
Tel: +6089 - 666 963 Fax: +6089 - 669 936
E-mail: seschin@hotmail.com



Electrical Association of Sarawak & Sabah

No. 2A/F, 2nd Floor, Hardin Road, 96000 Sibul, Sarawak.
Tel: +6084-319 949 Fax: +6084-325 112, 346 114
E-mail: sibuccci@gmail.com

Flexible Illuminations for Architectural Brilliance – Incorporating Professional Truly-Outdoor Lighting



Beijing Daxing International Airport, China

OSRAM, established in 1919 and headquartered in Munich, Germany, is one of the leading lighting manufacturers in the world. A global enterprise with presence in over 120 countries, OSRAM envisions “Light for a Better World”, by using light to improve Health & Well-being, Mobility, Safety & Security, and Connectivity.

The Professional Truly-Outdoor Lighting constitutes commercial lighting and residential lighting, making the adjustable professional truly-outdoor lighting market size to hit approximately USD18 Billion. To cater to this versatile segment, OSRAM brings together a complete one-stop solution with compatible high-tech components and controls.

The commercial lighting genre trending in current times is much more futuristic and also dynamic-focusing on the aesthetic and contemporary appeal, along with high functionality. The world-famous architect, the late Ar. Zaha Hadid, played a pivotal

role in shaping the world of architecture in the 21st century by incorporating her revolutionary, dynamic curvy structures. For such dynamic forms, lighting needs to be embedded within the design to emphasise the highly intricate details.

With the newly-introduced GinoLED Flex module series, in addition to the LINEAR light outdoor portfolio, and in combination

with the OPTOTRONIC constant voltage drivers plus DALI PROFESSIONAL lighting control system, OSRAM aims to breathe new life into the site with a visually identifiable focal point, whether in white, tunable white and/or dynamic colour light. The Line Area Arc shape application enables to follow and fit the curves and arcs smoothly in the current times of architectural landscape integration.



Changsa Meixihu International Culture & Art Centre in Hunan, China

Advertorial

The professional truly-outdoor market demands different levels of lighting control requirements for truly outdoor solutions, namely :

A Premium Level scheme for large building clusters require a dynamic graphic display. The core values of these applications are landscape integration, enhancement of the building value and information transfer. For example: The LED façade lighting and media solution for the Zhuhai Grand Theatre, China.

An Advanced Level scheme for independent buildings, wherein a group of light units are specified together. These applications are essentially focused towards enhancing the architectural style along with elevating the building value. For example: The façade lighting for the National Theatre in Munich, Germany.

The Basic Level scheme for independent buildings or open areas, requiring a straightforward form of illumination. The focus of this application type is to achieve architectural style display, creative ambience and guiding lighting. For example: The Art lighting in Bishop's Palace House in Kingston upon Thames, UK.

OSRAM ensures robust solutions, based on high quality standards, compatible, and connected control systems. For all the application levels, the product quality (material type, over IP67 rating, etc.) is important for the longevity and durability of the installations. This reduces the maintenance requirement, specifically in cases of special architectural forms and installation locations, where the maintenance is not possible. Control systems such as DALI, 1-10V, ON/OFF and DMX substantiate the control function.

OSRAM fulfills the special requirements of the professional truly-outdoor lighting with applications such as diffuse for soft light, robust for installation, UV/chlorine/salt/mist-proof, colour consistency, beam-angle control, RGBW addressable, IP rating, long lifetime of low maintenance, along with the added re-assurance of a comprehensive pre-contract and after-sales support.

OSRAM (Malaysia) Sdn Bhd

Contact person:-

David Khong - David.Khong@osram.com

Danny Kaw - Poh-Fun.Kaw@osram.com

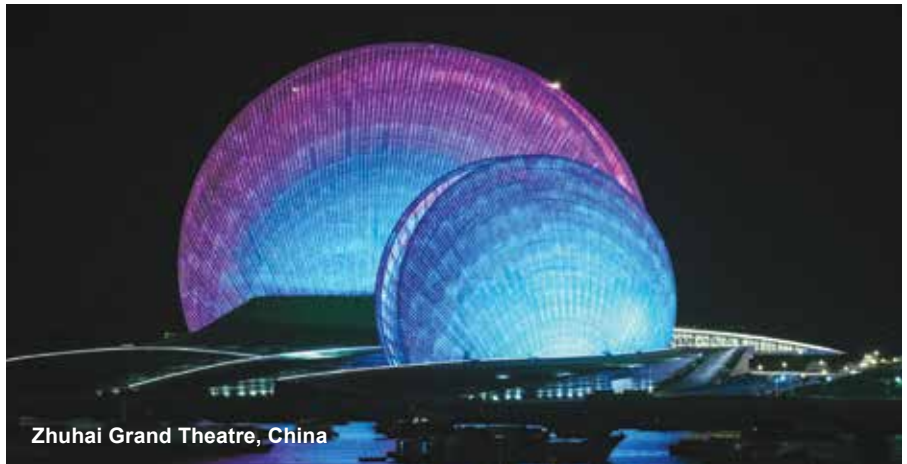
Hunting Line: +603-7959 0000

Website:-

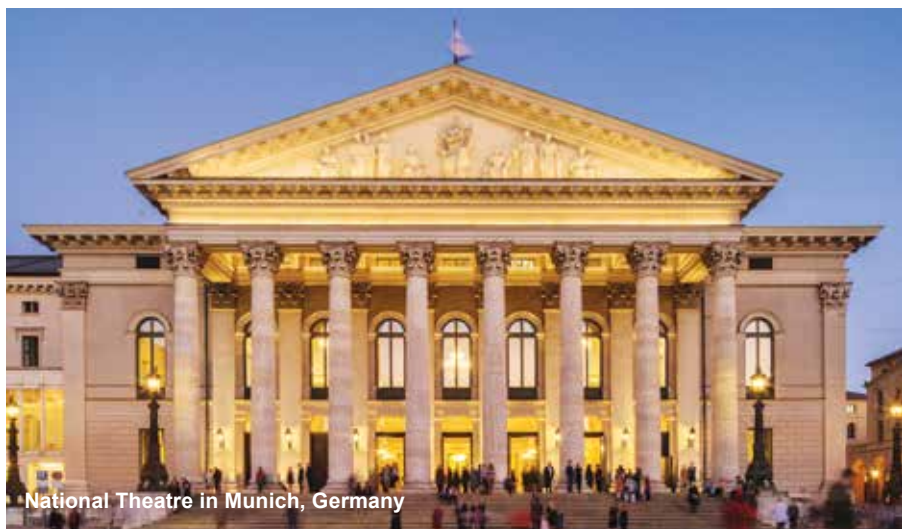
<https://www.osram.asia/di/>

<https://www.osram.com/launch-window>

<http://www.osram.asia/launch-window>



Zhuhai Grand Theatre, China



National Theatre in Munich, Germany



Bishop's Palace House in Kingston upon Thames, UK



GinoLED Diffuse Flex TOP RGB



VALUE Flex G3 Plus



OT CV 24V DALI DIM P Driver - DALI DIM



DALI PRO Control System

Digitalisation & COVID-19: Today & A Better Tomorrow? – Part 2

Alex Looi Tink Huey & Ir Dr Siow Chun Lim

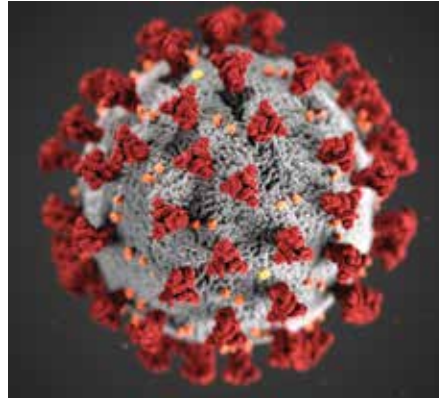
Part 1 of this article was written back in June 2020. Six months later, we are still grappling with our biggest invisible enemy, that is, COVID-19.

To briefly recap, the Movement Control Order (MCO) was initiated on 18th March 2020. The impact? The economy was only operating at 45 percent capacity [1]. The MCO was then succeeded by the Conditional MCO (CMCO) on 4th May 2020. Subsequently, on 7th June 2020, Malaysia announced that the nationwide CMCO scheduled to expire on 9th June 2020, would be replaced with the Recovery MCO (RMCO) beginning 10th June up till 31st August. The RMCO will allow re-opening of the economy in stages and reviving the economy, as part of the economic recovery plan. Malaysia was declared to have had successfully contained the spread of the pandemic and would now enter the recovery phase. Nevertheless, we all knew that the RMCO was then extended until the New Year's eve.

Today, the CMCO has, however, been re-enforced in certain parts of the country, starting with Kuala Lumpur, Selangor, Putrajaya, and Sabah, due to the stark rise of new COVID-19 cases. It has been touted as the third wave to hit the country. On 6th November, Malaysia reported 1,755 new COVID-19 infections, the highest daily spike since the outbreak began in March, bringing the national cumulative case to 38,189 [2]. On 7th November, Malaysia placed all but three states in the Peninsular under CMCO, from 9th November to 6th December.

According to the World Bank [3], Malaysia's Gross Domestic Product (GDP) is projected to contract sharply from 3.1%, an earlier estimate, to 4.9% following the decline in output and slow global economic recovery [4]. The World Bank Group lead economist Richard Record also said, "The health of the population and the health of the economy are two sides of the same coin, so an economic recovery is only possible if the pandemic continues to be suppressed and contained". Though the travel, retail, leisure, hospitality, and tourism sectors are still severely suppressed, the other economies are seeing movement towards growth comeback, assuming continued pandemic containment efforts within Malaysia and gradual recovery of the global economy are on track.

On the global scale, the COVID-19 pandemic has caused tragic loss of lives, as well as the lockdown of billions of people, crippling the global economy. Nations with weaker health systems, densely populated cities



Source: Public Health Image Library of the Centres for Disease and Prevention.

and poverty-stricken neighbourhoods, are faced with super-inflated risk, challenge, and pressure in combatting the virus. The decisions and actions that the Government takes now will impact and determine the speed and strength of the nation's recovery phase. The International Monetary Fund (IMF) proposed a 4-point plan for a nation's economic recovery [5]:

1. Continuous efforts on essential containment measures and support for health systems and frontliners (prioritise health spending for testing and medical equipment; pay doctors and nurses; make sure hospitals and makeshift clinics can function);
2. Shielding affected people and firms with large, timely, targeted fiscal and financial sector measures (tax deferrals, wage subsidies, and cash transfers to the most vulnerable; extending unemployment insurance and social assistance; temporarily adjusting credit guarantees and loan terms);
3. Reducing stress to the financial system (enhancing Central Bank co-operation, additional liquidity swap lines); and
4. Planning for recovery (diligent consideration when to gradually ease restrictions, based on clear and convincing evidence that the pandemic is retreating; measures to stabilise the economy and boosting demand; co-ordinated fiscal stimulus).

During normal times, organisations deal with challenges by relying on established systems, structures, and processes. The COVID-19 crisis, however, caused uncertainties at extreme levels, and the traditional management operating models quickly found themselves becoming inadequate and no longer effectively addressing the challenges this crisis presented. Organisations continue to scramble to internalise rapidly developing

changes in the public-health environment, public policy, and also in customer behavior. Moreover, there are also the local and global economic uncertainties. Uncertainty can be measured in terms of both magnitude and duration. Hence, the management operating models today must enable continuous learning and flexible responses as situations evolve. According to McKinsey [6], the earlier organisations determine that they are in a crisis, the faster and more effectively they can respond, supported by three fundamental elements as shown in Figure 1.

Early Warning System	Integrated Nerve Centre	Transparent Operating Principles
• allows early detection of potential crisis	• empowers leaders to make rapid decisions	• enhances the decision-making process

Figure 1

As discussed in our earlier article (Part 1), the pandemic crisis has pushed organisations to accelerate their digital transformation to survive the new normal. Today, manufacturers must re-think Industrial Revolution 4.0 (IR4.0) adoption in a more cost-effective approach, in areas of customer engagement, supply chain, production, and operation strategies [7]. Due to the prolonged CMCO and Work From Home (WFH) requirements imposed, organisations are putting Automation, and Artificial Intelligence (AI) as priorities of investment. Technology-enablers such as Industrial Internet of Things (Industrial IoTs), Big Data Analytics (BDA), cloud computing, smart sensors, robotics, and Augmented Reality (AR) are also required to catalyse the adoption of IR4.0. IR4.0 will play a vital role in today's businesses to streamline processes with smarter and more sustainable ways to operate. To support these technology-enablers, 5G networks are being rolled out in every major city with huge upgrades in speed, data volume and low lag-time to allow billions of connected devices to continuously communicate among one another; and data centres to provide the capacity for more and more data that need to be computed and stored, ranging from healthcare, government and financial institutions, to virtual meeting platforms, e-commerce, manufacturing, and facilities management.

Data centres are power-hungry, huge consumers of electricity, and generate large amounts of heat. To perform optimally, they also require more power to run the air-conditioning and ventilation systems. As more and more data centres continue to grow and expand, it is critical to develop more energy-

efficient and less power-hungry data centers to combat global carbon emissions and climate change. The International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC) have set up a Joint Technical Committee and established a sub-committee (SC39) to develop specifications on sustainability for and by Information Technology (IT) [8]. SC 39 is currently developing the ISO/IEC 21836 standard to enable stakeholders to measure the energy effectiveness of data centres' servers before procurement and installation for use in global server energy effectiveness regulations and programmes.

Referring to the World Economic Forum [9], COVID-19 pandemic and lockdown measures have brought the global energy demand down by 6% and energy-related emissions decreased by 8% in 2020. Oil and coal demands are expected to drop by 9% and 8% respectively. With the fall in fossil fuel demand, Renewable Energy (RE) sources saw their share in the generation mix, substantially increase in many countries. The United States of America (USA) and India saw its RE consumption increased to nearly 40% and 45% respectively. However, it is to note that the on-going increase in RE results from a combination of past energy policies, regulations, incentives, and innovations in the power sector. The World Economic Forum also reported that as the crisis hit, grid operators have had to seek for the cheapest and cleanest fuel to offset the lower energy demand [9]. The WFH economy has also shifted the peak demand as millions of people no longer commute to work, and changes in routines changes the intensity of peak times. A flatter peak time curve shows that there was less need for non-renewable backup and storage.

While a higher share of renewables is increasing, it also poses challenges to grid operators. A higher and unexpected percentage of variable RE sources and the intermittent nature of wind and solar RE can stress the power grid system [10]. The state of the grid network and infrastructure have to be more flexible, efficient, and smarter to allow for more inter-connected RE and Distributed Energy Resources (DERs) plants and fewer bottlenecks. Re-directing investment and increasing innovation in Battery Energy Storage System (BESS), digital markets, and blockchain also play a role in clean energy transition. The COVID-19 pandemic has had a game-changing effect in accelerating digital transformation, renewable energy, and energy efficiency which are the keys to a sustainable future.

Virtual meetings, online classrooms, e-conferences and exhibitions are the new norms. Universities are conducting teaching and learning activities online. Corporates are meeting virtually to make decisions and ensure continuity of businesses. Governments are fully leveraging on social media to disseminate public information. Learned institutions and representative bodies such

as the Institution of Engineers Malaysia (IEM) and The Electrical and Electronics Association of Malaysia (TEEAM) have been actively organising virtual seminars and conferences for the benefit of their members. The days of physical classes, face-to-face meetings and mega exhibitions in decorated halls and ballrooms seem to be a thing of the yesteryears. This 180° paradigm shift is unthinkable, surreal, yet so real!

The recent announcement made by Pfizer and BioNTech has injected a huge dose of hope into our network of humanity. Stock markets reacted bullishly across the globe. Suddenly, flashes of dreams of flying and travelling have re-appeared post-bedtime. Although the vaccine is still undergoing clinical trials, we are hopeful that the day when our invisible enemy shall become non-existent will soon come to pass. Let us continue to faithfully adhere to the social distancing measures so that the day can come sooner than we can think of.

References

1. Bernama, *The Edge Markets*, August 28, 2020 [Online]. Available: <https://www.theedgemarkets.com/article/nations-economy-showing-positive-signs-toward-recovery-%E2%80%94-muhyiddin>
2. T. Athira Yusof, *Highest Number of Covid-19 Cases Today at 1,755*, *New Straits Times Press (M) Bhd*, November 6, 2020 [Online] Available: <https://www.nst.com.my/news/nation/2020/11/638807/highest-number-covid-19-cases-today-1755>
3. *The World Bank*, *Malaysia's Economy Expected to Contract Sharply Due to COVID-19 in 2020; Growth to Rebound in 2021*: World Bank, June 24, 2020 [Online] Available: <https://www.worldbank.org/en/news/press-release/2020/06/24/malysias-economy-expected-to-contract-sharply-due-to-covid-19-in-2020-growth-to-rebound-in-2021-world-bank>
4. E. L. Wong, *Tough for Malaysia to go Through Another Lockdown – World Bank*, *The Edge Markets*, September 29, 2020 [Online] Available: <https://www.theedgemarkets.com/article/tough-malaysia-go-through-another-lockdown-%E2%80%94-world-bank>
5. K. Georgieva, *Confronting the Crisis: Priorities for the Global Economy*, *International Monetary Fund*, April 9, 2020 [Online] Available: <https://www.imf.org/en/News/Articles/2020/04/07/sp040920-SMs2020-Curtain-Raiser>
6. P. Finn, M. Mysore, and O. Usher, *When Nothing is Normal: Managing in Extreme Uncertainty*, *McKinsey*, November 2, 2020 [Online] Available: <https://www.mckinsey.com/business-functions/risk/our-insights/when-nothing-is-normal-managing-in-extreme-uncertainty>
7. P. Subramaniam, *4th Industrial Revolution – Urgency to Fast Track 4IR*, *The Edge Malaysia*, August 17, 2020 [Online] Available: <https://www.theedgemarkets.com/article/4th-industrial-revolution-urgency-fast-track-4ir>
8. *International Electrotechnical Commission (IEC)*, *New Standard to Measure Energy Efficiency of Servers*, IEC, December 12, 2019 [Online] Available: <https://blog.iec.ch/2019/12/new-standard-to-measure-energy-efficiency-of-servers/>
9. N. Mojarro, *COVID-19 is a Game-Changer for Renewable Energy. Here's Why*, *World Economic Forum*, June 16, 2020 [Online] Available: <https://www.weforum.org/agenda/2020/06/covid-19-is-a-game-changer-for-renewable-energy/>
10. M. Fachot, *Pandemic Disrupting Global Energy Markets and Systems*, *the International Electrotechnical Commission (IEC)*, October 16, 2020 [Online] Available: <https://etech.iec.ch/issue/2020-05/pandemic-disrupting-global-energy-markets-and-systems>

Mr Alex Looi Tink Huey

has two Bachelors' Degrees, one in Electrical & Electronics Engineering and the other in Software Engineering. He is the Head of Projects for Malim Consulting Engineers Sdn Bhd, providing M&E Consultancy Services and Turnkey Project Management for renewable energy power plants, commercial, and industrial developments; and Head of Projects for LAJ Engineering Sdn Bhd, providing electrical service contracting services: electrical installation inspection, T&C of high voltage and low voltage electrical equipment, power system studies, power quality analysis, efficient energy management, and preventive maintenance programme. He is currently the elected Committee Member of the IEM Electrical Engineering Technical Division (EETD) and Chairman of the Activities Organising Committee. He is also an IEC (International Electrotechnical Commission) Young Professional and serves in the IEC SEG 10: Ethics in Autonomous and Artificial Intelligence Applications Committee. He is a Registered Electrical Energy Manager (REEM) with the Energy Commission, Associate ASEAN Engineer (AAE), and a Certified Infrared Thermographer. He is also a TEEAM Member and can be reached at alex.looi@live.com.my



Ir Dr Siow Chun Lim

is currently the elected Secretary and Treasurer of the IEM Electrical Engineering Technical Division (EETD). He is an IEC (International Electrotechnical Commission) Young Professional and serves in the IEC TC 81: Lightning Protection Committee. Professionally, he is a Senior Lecturer at the Faculty of Engineering, Multimedia University (MMU) and is also actively involved in the Lightning Protection Risk Assessment sector. He can be reached at chunlim87@gmail.com



Automatic Transfer Switch (ATS) with Smart Transfer Controller



MS IEC 60947-6-1

	ATS 2 pole, 3 pole, and 4 pole			
Aichi	W2/WN	WN	HPTS/WS	WP
VITZRO TECH	W/WN	WN	-	CTTS
Transfer speed	$\geq 55\text{ms}$	Delay adjustable	$\leq 20\text{ ms}$ *To CBEMA /ITIC Curve	7-50ms

*For Data Centre Application - Parallel Redundancy / E-T1 $\leq 5\text{ms}$

- ATS with micro processor based controller
- Double-throw mechanism for dedicated source switching
- Solenoid operated for quick transfer
- Inherent mechanical interlock
- Mechanically held contacts
- High Electrical operation
- High Mechanical operation
- High withstand short time current ratings



Wise Pro Sdn Bhd 199601008707
(NO.381055P)

No. 8, Pusat Teknologi Sinar Meranti, Jalan IMP 1/3, Taman Industri Meranti Perdana, 47120 Puchong, Selangor
Tel : +603-8066 6491/6492/6493 Fax : +603-8052 6649 (Sales) Mobile No. +6017 - 492 1474, +6012 - 543 5515

The Regional Comprehensive Economic Partnership (RCEP): What this means for ASEAN and Malaysia

Dr Juita Mohamad & Calvin Cheng

November 2020

1.0 Introduction and background

The Regional Comprehensive Economic Partnership (RCEP) Free Trade Agreement (FTA) was signed on 15 November 2020 at the 2020 ASEAN Summit. The RCEP trade agreement comprises 15 member countries: all 10 ASEAN member states (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam), and 5 of ASEAN's existing FTA partners (Australia, China, Japan, New Zealand, and South Korea).

RCEP negotiations were formally launched in November 2012 at the 21st ASEAN Summit, where the ASEAN+61 leaders endorsed the RCEP framework and agreed to begin negotiations the following year. In 2019, and after 28 rounds of negotiations, India opted out of the deal for the time being, amidst domestic political pressures. The remaining 15 countries completed text-based agreements in November 2019, and proceeded to signing without India, in 2020.

The RCEP will be the second mega-regional FTA to involve the Asia-Pacific region after the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Nonetheless, RCEP will only come into force after 9 signatory countries (minimum of 6 ASEAN, 3 non-ASEAN) have ratified the agreement—which may take more than a year.

Altogether, the 15 RCEP member countries have an estimated GDP of US\$25.8 trillion, accounting for about 29 percent of world GDP and making up 30 percent of the world's population. This makes RCEP the largest trading bloc in the world by GDP size—even larger than the 1 ASEAN+6 includes all 10 ASEAN member states plus its 6 FTA partners: China, Japan, Korea, Australia, New Zealand, India United States-Mexico-Canada Agreement (USMCA) and more than the size of European Union (see Fig 1) and CPTPP combined.

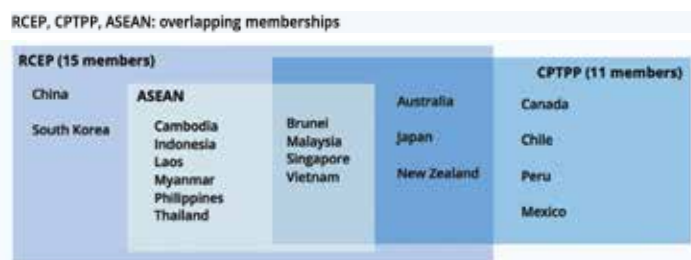
Fig 1. Relative size of RCEP vs other FTAs



2.0 RCEP comparisons with CPTPP

RCEP and CPTPP are both mega-regional FTAs involving the Asia-Pacific region, and there are large overlaps in membership between the two trade agreements. A notable difference is that RCEP is ASEAN-centric, and thus includes the least-developed countries such as Laos and Cambodia—while the CPTPP involves mostly upper-middle and high income economies including North and South American countries such as Canada, Mexico, Chile and Peru.

Fig. 2 Member countries of RCEP vs CPTPP



Given RCEP's inclusion of lesser-developed economies, RCEP has always been less ambitious than the CPTPP in scope, depth, and speed of implementation of both tariff elimination as well as on behind-the-border issues such as labour and environmental standards. Put differently, despite RCEP being twice as large as the CPTPP (see Fig. 1)—RCEP is both wider and more shallow, while the CPTPP is narrower but deeper. Indeed, the CPTPP agreement consists of about 30 different chapters including chapters that aim to set a high-level standard on labour, the environment, state-owned enterprises, transparency and anti-corruption—while RCEP's 20 chapters are heavily focused on harmonising barriers and procedures in regional trade, and setting “lowest common denominator” standards between member countries (see Fig. 3).

Nonetheless, given RCEP's coverage of a large proportion of world GDP, trade and regional supply chains, it is expected to still provide tangible benefit to both RCEP economies as well as manufacturers and businesses in the region. As RCEP enters into force within the next two years, past experience with other existing ASEAN-related FTAs suggest that existing RCEP provisions will continue to be improved, upgraded, and deepened over time as RCEP economies continue to mature. In the future, CPTPP will represent a gold standard for a high-quality FTA that RCEP member countries may want to look towards.

Fig. 3 Key issues in CPTPP not covered by RCEP

Key issue	CPTPP chapter	RCEP
Trade in Services	10,11,13	Limited coverage
Investment	9	Limited coverage
E-commerce	14	Limited coverage
Labour	19	Not covered
Environmental	20	Not covered
State-owned enterprises (SOEs)	17	Not covered
Transparency and anti-corruption	26	Not covered

Source: Adapted from ITC (2020), WTO (2020)

3.0 RCEP, ASEAN centrality, and the role of China

Contrary to the speculation of ASEAN centrality being eroded by the presence of a major economy like China in such an agreement, RCEP is expected to further strengthen the fourth pillar of the ASEAN Economic Community (AEC) Blueprint of committing ASEAN to be a region fully integrated into the global economy, in addition to it being (i) a single market and production base; (ii) a highly competitive economic region; as well as (iii) a region of equitable economic development.



(165757-H)

發佳電纜有限公司

FAJAR CABLES SDN BHD



Reliable • Safe • Eco - Friendly



Auto Cable



Speaker Cable



PVC/PVC Twin Flat Cable



Twin Flat Power Cable



PVC Flexible Power Cable (0.5 to 240mm²)



PVC Welding Cable (10 to 240mm²)



Synthetic Rubber Welding Cable
(10 to 240mm²)



Alarm Cable (Tinned / Pure Copper)



PVC/PVC Flexible Cord (0.5 to 6.0mm²; 2 to 5 Cores)



S. Rubber Flexible Cord (0.5 to 6.0mm²; 2 to 5 Cores)



Trailer Cable



PVC Multicore Control Cable (Max: 40 Cores)



Our factory is equipped with latest advanced machinery from Germany

Other Wires and Cables

• Battery cable • Automotive cable • Jumper Cable • Blasting Cable • PVC Insulated Cable

Custom Made Cables

A member of MCMA & TEEAM



Lot 12, Jalan CJ 1/2A, Kawasan MIEL, Batu 11, Jalan Balakong, P. O. Box 28, 43200 Cheras, Selangor Darul Ehsan, Malaysia.

Tel: +6 03- 9075 7999 (Hunting Line) Fax: +6 03 9075 7488 Website: www.fajarcables.com.my Email: contact@fajarcables.com.my

Even before the pandemic, China has been one of ASEAN's biggest trading partners. ASEAN and China have had strong trade relations for the past decade in part due to the establishment of the China-ASEAN Free Trade Area. It is through this platform that trade liberalisation was implemented and investments between China and ASEAN flourished, strengthening economic and trade co-operation between China and ASEAN. Amid the backdrop of the pandemic, from January to August 2020, total trade between China and ASEAN increased by almost 4 percent compared to the same period last year, amounting to USD 416.5 billion and accounting for almost 15 percent of China's total trade. In terms of investments, FDI outflows from China into ASEAN grew by about 53 percent.

In the next few years as the RCEP enters into force, trade between ASEAN and China is projected to increase in the medium term, as the RCEP serves as an upgrade to the existing FTA which only included areas of Trade in Goods, Trade in Services and Investments. With further co-operation in new areas such as Intellectual Property and E-Commerce between China and ASEAN, regional and global value chains in the region can be repaired and bolstered, and the Asia-Pacific may emerge once again as the engine of growth for the region and the world.

4.0 What RCEP means for trade reforms and its outlook

With the rise of protectionism and trade tensions in the past few years compounded by the spread of the pandemic, the finalisation and signing of RCEP was a strong signal by member countries to continue their commitment towards further regional integration and trade reforms in the Asia-Pacific region. Such an effort is very timely to offset the inward-looking policies adopted by certain countries in the region in the midst of curbing the spread of the virus.

Yet, to move forward with further trade integration, lowering of tariffs is not enough. Non-tariff barriers need to be eliminated especially in the time of emergencies like we are facing now. It was unfortunate yet inevitable to observe that the spread of the COVID-19 virus across the globe has resulted in countries to close their borders and restrict physical economic activities, consequently disrupting the smooth flow of international trade. This was clear with the trade in PPE products among RCEP member countries due to the disruption of value chains of the essential products. As highlighted in the figure below, various trade measures have been imposed by the RCEP members in response to the pandemic shock before the signing of the FTA last Sunday.

In a data set compiled by the International Trade Centre (ITC) from February to October 2020, a total of 66 trade measures both on exports and imports were implemented by RCEP countries during the initial months of the spread of the COVID-19 virus (see Fig. 4). To break it down further, Fig. 5 highlights the type of restrictive measures imposed by RCEP members related to Covid-19 goods such as medical equipment. Export prohibitions represented a total of 19 measures out of 35 was the main policy implemented by the RCEP governments. As of 15 October 2020, India and ROK introduced the highest number of export restrictions with five measures each. Both India and ROK also imposed the highest number of restrictive trade measures from February to October 2020 with a total of seven and nine measures respectively.

Although the restrictive trade measures are mainly imposed as temporary measures in response to the pandemic, the uncertainty of the COVID-19 pandemic resulted in the RCEP members having to implement an unknown-termination-date trade measures. From February to October 2020, only nine restrictive trade measures were terminated out of 35, and eight of them were termination of export restrictions.

Fig. 4: Trade measures imposed by RCEP members on COVID-19-related goods

Trade measures	Liberalising	Restrictive
Export measures	1	27
Conformity assessment	0	1
Export prohibition	-	21
Licensing/permit requirements	1	5
Import measures	30	11
Import ban	1	8
Quarantine requirements	0	1
Tariff increase	0	1
Tariff reduction	21	0
Trade facilitation	8	1
Total	31	38

Source: Adapted from ITC (2020), WTO (2020)

Fig. 5: Breakdown of trade-restrictive measures imposed by RCEP members on COVID-19-related goods

RCEP member country	Type of trade restrictive measure					Total
	Export restriction	Import ban	Export Quota	Technical Barrier	Sanitary	
Brunei	-	-	-	-	-	0
Cambodia	2	-	-	-	-	2
Indonesia	2	-	-	1	-	3
Lao PDR	-	-	-	-	-	0
Malaysia	1	-	-	-	-	1
Myanmar	1	-	-	-	-	1
Philippines	1	1	-	1	-	3
Singapore	-	-	-	-	-	0
Thailand	2	-	-	-	-	2
Vietnam	1	1	1	1	-	4
Australia	1	-	-	-	1	2
China	-	2	-	1	1	4
India	5	1	-	1	-	7
Japan	-	-	-	-	-	0
South Korea	5	3	-	1	-	9
New Zealand	-	-	-	-	-	0

Source: Adapted from ITC (2020), WTO (2020)

With the signing of the RCEP, it is hoped that further collaboration in fighting the spread of the virus would translate into the eradication of non-tariff measures (NTMs) and non-tariff barriers (NTBs) for essential goods as well as non-essential goods. In the past, we have seen that intra-ASEAN trade has not increased beyond the 35 percent threshold due to the existence of NTMs and NTBs in the backdrop of drastic reduction of tariffs over the years.

For RCEP members to be able to optimise this newly-established trade bloc to intensify trade activities post-pandemic, it is imperative that unjustified NTMs and NTBs are eliminated. If NTMs continue to rise while tariffs are cut, inter-trade activities will be stunted in the medium to long-term. Additionally, if RCEP were to be upgraded in the future, which it has room to do so, discipline chapters such as on the State-Owned Enterprises, Labour and Environment will only strengthen co-operation among members in areas not only limited to trade but also to the sustainability agenda championed by the Sustainable Development Goals (SDGs).

Acknowledgment

TEEAM is deeply grateful to the Institute of Strategic and International Studies (ISIS) Malaysia for granting permission to reprint this article from their publication, Policy Brief Issue #6-20.

We would also like to extend our heartfelt thanks to the esteemed Authors, Dr Juita Mohamad and Mr Calvin Cheng, for sharing their valuable research and insights.

Dr Juita Mohamad is a Fellow of ISIS and she can be reached at juita@isis.org.my whilst Mr Calvin Cheng is an Analyst at ISIS and he can be reached at calvin.ckw@isis.org.my

MS IEC 62305

Easy and Safe

Maxi MV clamp with tear-off screw



Saves time : compared to welding, the mounting time of the Maxi MV clamp is considerably reduced.

The clamp with tear-off screw can be mounted easily without using any torque wrench. The tear-off head indicates accurate installation with a defined clamping force. Marking of correctly installed clamps is not necessary. This saves times and simplifies documentation.

The clamp with tear-off screw can be used for high requirements in industrial buildings, in nuclear power plants and for military applications. It fulfills international standards according to IEC 62561.



Benefits :

- Reliable mounting quality by constant torque and defined clamping force
- Easy mounting, no torque wrench needed
- Huge time savings compared to exothermic welding
- No risk for the installer by harmful welding fume
- Established technique (e.g. French nuclear power plants)
- No environmental hazard



	Standard clamp	Welding	Clamp with tear-off screw
Permanent Connection	—	✓	✓
Mounting time	✓ (60 sec) *	— (60 sec)	✓ (30 sec)
Constant installation quality	✓ *	—	✓
Environment-friendly	✓	—	✓
No specific mounting equipment needed	—	—	✓
No preparation of the connection necessary	✓	—	✓
No welding expert needed	✓	—	✓
No risk for the operator by harmful welding smoke	✓	—	✓
Mounting during rain	✓	—	✓
Corrosion-resistant	✓	✓	✓

* when using a torque wrench

Our distributor :

DEHN + SÖHNE GMBH + Co.KG.
www.dehn.de

Wise Pro Sdn Bhd 199601008707 (NO.381055P)
No. 8, Pusat Teknologi Sinar Meranti, Jalan IMP 1/3,
Taman Industri Meranti Perdana, 47120 Puchong, Selangor
Tel : +603-8066 6491/6492/6493 Fax : +603-8052 6649
(Sales) Mobile No. +6017 - 492 1474, +6012 - 543 5515

E-mail : info@wiseprocorsa.com.my

www.wiseprocorsa.com.my



Showcase – ASEAN Electro-Technical Virtual Exhibition from industry stakeholders.

ASEAN Electro-Technical Virtual Symposium & Exhibition 2020

The third edition of the ASEAN Electro-Technical Symposium & Exhibition 2020 was moved to a virtual platform due to the effects of COVID-19, which includes travel restrictions, health risks and constraints on large gatherings or meetings. The Institution of Engineers, Malaysia (IEM), in collaboration with the Department of Standards Malaysia (Standards Malaysia) and the Energy Commission, successfully organised the Virtual Symposium and Exhibition on 23 September 2020.

The Virtual Symposium featured keynotes and informative presentations by local and ASEAN experts that revolved around the topics related to the theme which was “Standards Drive Electro-Technical Safety & Innovation”. As a tradition, the ASEAN Electro-Technical Symposium also paved the way for a Virtual Exhibition from various industry stakeholders, which allowed participants to gain direct access to engineering technology, product & services, and also business networking opportunities with both local and ASEAN manufacturers, traders, including construction and services contractors.

This highly significant Virtual Symposium and Exhibition drew strong participation from domestic and ASEAN countries. They comprised Engineering-Competent Professionals, Consultants, Government Officials, Policy Makers, Standards Organisations, Contractors, Manufacturers, Suppliers, and also Engineering Students from learning institutions. TEEAM was one of the Supporting Organisations.

TEEAM congratulates IEM, Standards Malaysia and the Energy Commission for this tremendously successful event which

drew an overwhelming crowd of some 159 participants. Congratulations and well done!



Fully virtual – ASEAN Electro-Technical Symposium & Exhibition 2020 was hosted on the GoToWebinar platform.



Opening – Welcome and Opening Speech by Ir Ong Ching Loon (IEM President).

Little actions can make a world of difference



As the ongoing situation brings a shift in everyone's life, we understand that things are not easy during such a time. We care for you and assure you that we are in this together.

Staying home for longer hours, whether working or learning from home, definitely consumes more electricity to power our everyday necessities. Hence, we need to be smart about our energy consumption. From switching off idle appliances to setting the air conditioners at the ideal temperature of 24 degree Celsius; these small changes in our daily routine go a long way in better savings. No matter how insignificant these efforts may seem, but if all of us do our part, imagine the power of good we can achieve together.

For more smart energy tips, visit www.tnb.com.my
Log on to **myTNB app** or **portal** at www.mytnb.com.my to monitor and manage your energy consumption.

Virtual IGEM 2020

Ushering a new paradigm to effectively address the global challenges of economic uncertainties and COVID-19 pandemic; the Prime Minister of Malaysia, Yang Amat Berhormat (YAB) Tan Sri Dato' Haji Muhyiddin Haji Mohd Yassin, officiated the first online edition of the 11th International Greentech & Eco Products Exhibition & Conference Malaysia (IGEM 2020) on 19 October 2020 at the Ministry of Environment & Water, Putrajaya. The theme for IGEM 2020 was “Energising Sustainability” and this prestigious event, which was staged from 19 to 23 October 2020, was set to target RM1.6 billion in business leads and 10,000 online visitors to its web portal at virtual.igem.my.

Organised by the Ministry of Environment and Water (KASA) through its agency the Malaysian Green Technology and Climate Change Centre (MGTC), IGEM 2020 was a multiplier of business opportunities. IGEM served as an integrator of diverse possibilities and accelerator of impactful change, emphasising IGEM's powerful and decisive role in accelerating a global green economy.

In his virtual keynote address, YAB Tan Sri Dato' Haji Muhyiddin said, “Lockdowns across the world made us reflect, made us think and we started to realise we need to change our ways. We need to re-think our relationship with the planet and we need to build back better.”

“COVID-19 challenges us to build resilience as we wade through this pandemic, and the road ahead has to be on a green recovery pathway. A green recovery approach would not only spur the economy and social well-being, it will also drive the nation's development trajectory on a low carbon and climate resilience pathway,” he added.

IGEM 2020 was a major channel to convene Governments, policymakers, corporations, and individuals onto a single platform, opening up new avenues and introducing innovative solutions to meet the escalating global economic and climate change scenarios. The virtual exhibition encompassed a wide range



Virtual Opening.



IGEM 2020 Virtual Lobby.

of sectors including renewable energy and energy efficiency efforts, green infrastructure, sustainable transportation, green waste and water, green manufacturing, science and technology, environment, climate change, information & communications technology, forestry, agriculture and many more.

IGEM 2020 attracted 161 booths and hosted a total of 45 virtual conference sessions on topics such as energy, green technology, green finance, climate action, waste management, policy analysis and women empowerment. The virtual event also successfully hosted over 500 networking sessions including curated group and personal business-matching sessions between leading and emerging

organisations from various industries, to pave the way for greater green investments across the region.

IGEM 2020 was a programme funded by the Government of Malaysia with its main sponsors being PETRONAS, Solarvest Holdings Bhd and the British-Malaysian Chamber of Commerce. Strong strategic partner was the Malaysian Investment Development Authority (MIDA), and business matching partner was the Malaysia External Trade Development Corporation (MATRADE). TEEAM took part as a virtual exhibitor to pro-actively promote the Association's activities and introduce members' products and services. It was certainly a highly beneficial exposure for TEEAM.



VIPs at the Opening Ceremony.



TEEAM's Virtual Booth.

New Members

The following new members have been approved and accepted by the TEEAM Council from July – December 2020. 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 your highly esteemed Companies!

Jati Tinggi Holding Sdn Bhd No. 23 & 25, Jalan Temenggung 13/9, Bandar Mahkota Cheras Sek 9, 43200 Cheras, Selangor Darul Ehsan. Tel: +603-9011 9998 Fax: +603-9010 9090 E-mail: contact@jatitinggi.biz Website: www.jatitinggi.com Contact Person: Mr Danny Teo Swee Hing <i>Business: Infrastructure, power/telecommunication cabling and project management contractor.</i>	Simtone Marketing Sdn Bhd No. 18, Jalan PPU 3A, Pusat Teknologi Sinar Puchong, 47150 Puchong, Selangor Darul Ehsan. Tel: +603-8051 4777 Fax: +603-8051 2727 E-mail: kit.wong@simon.com.my Website: www.simon.com.my Contact Person : Mr Kit Wong <i>Business: Trading in electrical switches, LED lightings, smarthome and smart controls.</i>
Rectifier Technologies (M) Sdn Bhd Setia Business Park, No. 5, 7 & 9, Jalan Laman Setia 7/8, Taman Laman Setia, 81550 Gelang Patah, Johor Darul Takzim. Tel: +607-522 6006 Fax: +607-522 6060 Email: sb.lee@rtl-corp.com Website: www.rectifiertechnologies.com Contact Person: Mr Lee Seong Bow <i>Business: Manufacturing of rectifier & EV Charger.</i>	R.R.G. Mercantile Enterprise No. 4, Solok Sungai Keramat 10C, Taman Klang Utama, 41200 Klang, Selangor Darul Ehsan. Tel: +603-3291 2569 Fax: +603-3291 3741 Email: rrg.elec@gmail.com Contact Person: Ms Gloria Choo Phek Yuet <i>Business: Industrial control panel, wiring, motor rewinding, electrical maintenance, TNB meter application, fire fighting, control wiring and any electrical works for commercial and residential.</i>
Novaris Technologies (M) Sdn Bhd No. 15, 2nd Floor, Jalan Tembaga SD 5/2, Taman Sri Damansara, 52200 Kuala Lumpur. Tel: +603-6273 1599 Fax: +603-6272 2599 E-mail: sales@novaris.com.my Website: www.novaris.com.au Contact Person: Mr Foong Wei Pien <i>Business: Manufacturer and provider of surge protection solutions in power, process automation, network and data, railways, telecommunications and defence industries.</i>	CLLS Power System Sdn Bhd Lot 530, Persiaran Subang Permai, USJ 1, 47600 Subang Jaya, Selangor Darul Ehsan. Tel: +603-5632 1577 Fax: +603-5632 3126 E-mail: YewChai.Pek@clls.com Website: www.clls.com Contact Person: Mr Yew Pek Chai <i>Business: Trading & services of genset 50kVA - 2000 kVA & above.</i>
EAM Electrical Engineering Sdn Bhd No. 7, Lorong Industri Ringan Permatang Tinggi 14, Taman Industri Ringan Permatang Tinggi, 14100 Simpang Ampat, Pulau Pinang. Tel: +604-588 6075, 588 6085 Email: eamelectrical.eng@gmail.com Website: www.eamee.com.my Contact Person: Mr Parthivan Shanmugam <i>Business: Electrical contractor.</i>	Transsystem Continental Sdn Bhd No. 41, Jalan Serendah 26/39, Seksyen 26, 40700 Shah Alam, Selangor Darul Ehsan. Tel: +603-5103 8181 Fax: +603-5103 8800 E-mail: transsyst@gmail.com Contact Person: Ir Leong Kee Chan <i>Business: 132/275/500kV transmission substations contractor.</i>



MATRADE MDG - Support Initiatives for Malaysian SMEs Affected by COVID-19

The Market Development Grant (MDG) is a support initiative in the form of a reimbursable grant. MDG was introduced in 2002 with the objective of assisting exporters in their efforts to promote Malaysian made products or services globally. The **lifetime limit of MDG is RM300,000** and it is specifically formulated for Malaysian SME Companies, Professional Service Providers, Trade and Industry Associations, Chambers of Commerce, Professional Bodies and Co-operatives

In 2020, export initiatives under MDG was further expanded to include:

1. Recognised international **Virtual Events**, including virtual trade exhibitions and virtual trade missions, where business-to-business (B2B) meetings are an integral part of these virtual events,
2. **Reimbursements on logistics costs** of sending Malaysia's products overseas, that is, those products which are affected by COVID-19 global shutdowns, and

3. Financial compensation for **postponements or cancellations** of Trade Promotion Events

MDG reimbursements are subject to the availability of the Government funds.

A copy of the Guidelines for MDG Virtual Events 2020, can be downloaded from our TEEAM website at www.teeam.org.my

All enquiries can be sent to:

Market Development Unit (MDG)

MATRADE

8th Floor, East Wing, Menara MATRADE

Jalan Sultan Haji Ahmad Shah, 50480 Kuala Lumpur, Malaysia.

Tel: +603-6207 7593 Fax: +603-6203 7252

E-mail: mdg@matrade.gov.my

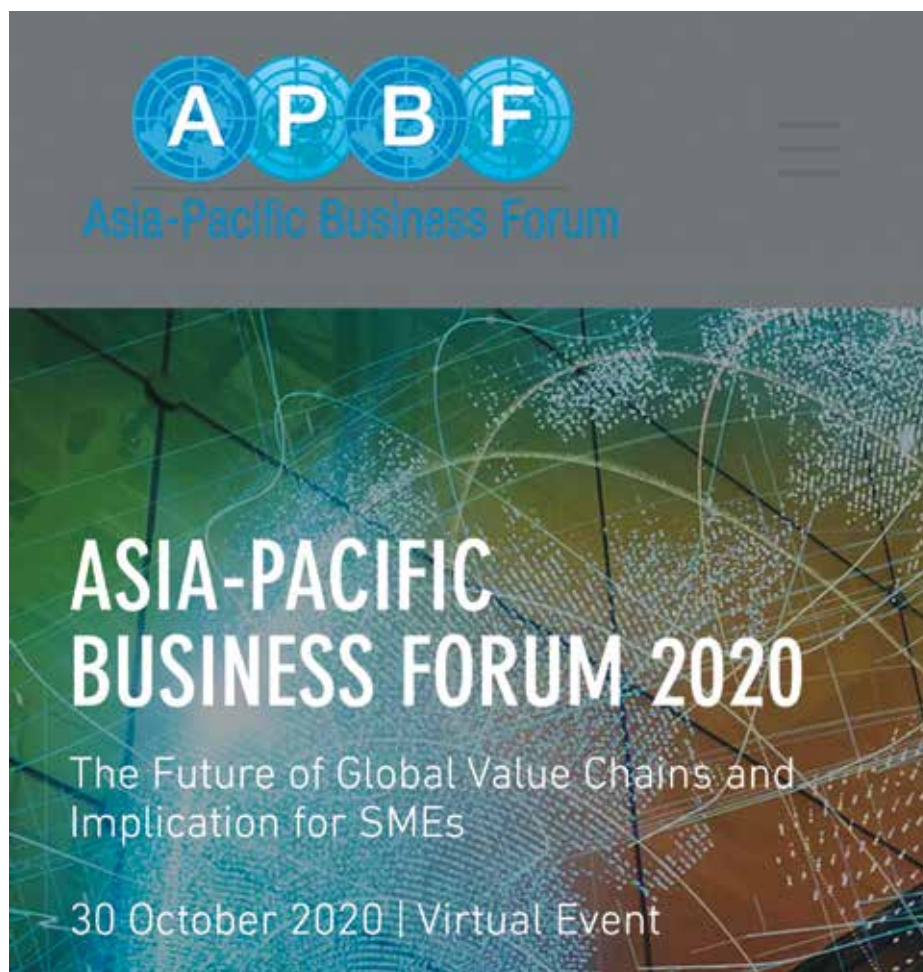
Website: www.matrade.gov.my

Asia-Pacific Business Forum 2020

The annual Asia-Pacific Business Forum 2020 (APBF 2020) was held virtually on 30 October 2020. The theme of the Forum was “Future of Value Chains and Implications for SMEs”. This Forum was the flagship regional business forum organised by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in co-operation with the ESCAP Sustainable Business Network (ESBN).

The Forum witnessed the participation of more than 300 multi-stakeholders, in particular the Government sector, business communities, civil societies and academics from all over the region. The Forum aimed to foster dialogue and identify innovative solutions and recommendations to address various challenges and also to utilise the opportunities for business, in particular SMEs, to recover from the COVID-19-induced crisis and global trade tensions, restore global trade, while at the same time emphasised the need for sustainability in a changing world.

TEEAM President, Mr Siew Choon Thyne was honoured to be invited as one of the Featured Panel Speakers. He shared his valuable knowledge and insights on the Forum theme. For more information on APBF 2020, you may visit <https://www.apbf2020.com/>



30 October 2020 – Virtual APBF 2020.



Virtual Meeting with the Uzeltechsanoat (Electro-Technical) Association of Uzbekistan

On 29 August 2020, TEEAM had a fruitful Zoom meeting with the Uzeltechsanoat (Electro-Technical) Association of Uzbekistan and the Trade & Economic Affairs Counselor of the Embassy of Uzbekistan, Malaysia. The meeting explored possible collaboration between members of both organisations. Uzeltechsanoat Association has 85 manufacturers of electro-technical products consisting of home appliances, cables & wires and electric power products, etc.

Representing Uzeltechsanoat Association were Mr Gayrat Tashmatov and Mr Kadirov Nodirjon. In attendance was Mr Mahmud Mahmudov, Trade & Economic Affairs Counselor of the Uzbekistan Embassy in Malaysia.

TEEAM was represented by Mr Suresh Kumar Gorasia (Past President), Mr

Rajasegaran (Vice President), Ir Dr Ng Kok Chiang (Assistant Honorary Secretary), Mr Stan Lim (Assistant Honorary Treasurer) and

Ms Winnie Khong (Executive Secretary). Overall, it was a very fruitful business-enhancing virtual meet.



Interactive virtual meeting – Uzeltechsanoat (Electro-Technical) Association of Uzbekistan, the Trade & Economic Affairs Counselor of the Embassy of Uzbekistan, Malaysia and TEEAM.



(753789-W)

KYODO PIPE Standard Galvanised Steel Conduit
BS 31 CLASS B (SCREWED) / MANUFACTURER'S STANDARD

NOMINAL SIZE	OUTSIDE DIAMETER				WALL THICKNESS				CALCULATED WEIGHT WITH COUPLER	NUMBERS OF THREADS	LENGTH OF THREADS					
	MINIMUM		MAXIMUM		MINIMUM		MAXIMUM				MINIMUM		MAXIMUM			
	in	mm	in	mm	in	mm	in	mm			in	mm	in	mm		
¾	18.76	0.7387	19.05	0.7500	1.52	0.060	1.63	0.064	0.713	0.217	0.479	16	12.70	0.5000	14.29	0.5625
1	25.11	0.9887	25.40	1.0000	1.52	0.060	1.63	0.064	0.972	0.296	0.653	16	15.88	0.6250	17.46	0.6875
1¼	31.46	1.2387	31.75	1.2500	1.52	0.060	1.63	0.064	1.240	0.376	0.830	16	17.46	0.6875	19.05	0.7500
1½	37.80	1.4880	38.10	1.5000	1.73	0.068	1.83	0.072	1.680	0.511	1.130	14	19.05	0.7500	20.64	0.8125
2	50.50	1.9880	50.80	2.0000	1.93	0.076	2.03	0.080	2.510	0.765	1.690	14	22.23	0.8750	23.81	0.9375

MS 275 / BS 4568 CLASS 3 (SCREWED) / MANUFACTURER'S STANDARD

NOMINAL SIZE	OUTER DIAMETER		WALL THICKNESS	CALCULATED WEIGHT WITH COUPLER		PITCH	LENGTH OF THREADS	
	MINIMUM	MAXIMUM		MINIMUM	MAXIMUM		MINIMUM	MAXIMUM
mm	mm	mm	mm	kg/m	kg/m	mm	mm	mm
20	19.7	20.0	1.6 ± 0.15	0.643	0.783	1.5	13	15
25	24.6	25.0	1.6 ± 0.15	0.811	0.995	1.5	16	18
32	31.6	32.0	1.6 ± 0.15	1.069	1.301	1.5	18	20

MS IEC 61386-1 / MS 61386-21 Conduit Systems for Cable Management.

NOMINAL SIZE	OUTER DIAMETER		INSIDE DIAMETER	EXTERNAL THREAD LENGTHS
	MINIMUM	MAXIMUM		
mm	mm	mm	mm	mm
20	19.7	20.0	16.2	14.0
25	24.6	25.0	21.1	17.0

Advantages:

- Made of hot-dip galvanised steel with weld zone zinc coating restored.
 - Kyodo pipe are colour coated with oven baked painted and of high fastness quality.
 - Inside bead minimized to enable easy wire pulling.
- Come with any colour as per your requirement



(75-2720) WV

Plot 322, Jalan PKNK 3/2,
Kawasan Perusahaan Sungai Petani,
08000 Sungai Petani, Kedah Darul Aman, Malaysia.
Tel: +604-444 5178 Fax: 04-440 0521
E-mail: sm53james@yahoo.com

E-mail: sm53james@yahoo.com

IECEX National Virtual Conference 2020

The Institution of Engineers, Malaysia (IEM), Standards Malaysia and Petronas successfully organised the IECEX National Virtual Conference 2020 on 20 October 2020. The Conference was held virtually via the GoToWebinar platform with the theme “Advancing Safety Standards in Explosive Atmosphere & Covid-19: The New Norms towards Digitalising and Strategising”. The IECEX National Virtual Conference 2020 provided opportunity to the participants to gain insights on the latest electro-technical standards, technology, products & services, and engineering challenges & opportunities in the Asia Pacific region. It also provided an effective platform to drive cross-border flows and mobility of engineering technology and services, to share and exchange knowledge and experiences, as well as practical challenges encountered, including solutions adopted in the fields of electrical equipment and installations in hazardous, flammable, or explosive atmosphere which include gases, vapours, mists and dusts.

The Virtual Conference featured keynotes and presentations on the following themes: IECEX Global Certifications & Current Trends; IECEX Electrical Installation Designs and Selection; MRO of Ex Equipment; Area Classification & Protection Techniques; and IECEX Certification of Personnel Competence. TEEAM was one of the Supporting Organisations.

One of the important highlights of the Virtual Conference was the panel discussion on “IECEX Global Supply Chains, COVID-19 Impact on the Energy Sector, Opportunities & Challenges”, which was designed to create an impact to connect the participants with industry experts in an interactive and



The poster for the IECEX National Virtual Conference 2020 features a purple and blue background with industrial imagery. At the top, logos for PETRONAS, STANDARDS MALAYSIA, IEM, and IEC/IECEX are displayed. The main title reads "IEM-STANDARDS MALAYSIA-PETRONAS IECEX NATIONAL VIRTUAL CONFERENCE 2020". Below this, the theme is stated: "ADVANCING SAFETY STANDARDS IN EXPLOSIVE ATMOSPHERE & COVID-19 : THE NEW NORMS TOWARDS DIGITALISING AND STRATEGISING". The date and time are listed as "20 OCTOBER 2020" and "8:30 a.m. - 5:00 p.m. (GMT +8)". It also mentions "BEM APPROVED CPD / PDP HOURS 6". A section titled "Supported by" lists logos for MOGEC, AFEO, IET, ACMM, IEEE, and ASEAN ENGINEERING REGISTER. At the bottom, contact information for The Institution of Engineers, Malaysia (IEM) is provided, including the address, phone number (603) 7968 4001, and email addresses alex.looi@live.com.my, valli@iem.org.my, and sitiaisyah@iem.org.my.

IECEX National Conference 2020 – Virtual via the GoToWebinar platform.

engaging environment. A good crowd of 234 participants comprising engineering professionals, Government officials, policy-makers, standards organisations,

manufacturers, suppliers & solution providers, owners & operators, from both domestic and APAC countries attended this highly informative Virtual Conference.



Malaysian Economic Statistics Review Volume 8/2020

The Department of Statistics Malaysia (DOSM) has released the Malaysian Economic Statistics Review (MESR) Volume 8/2020 on 24 December 2020. The Review focuses primarily on the economic performances based on the recent statistics released by DOSM. The Review encompasses two articles entitled “FDI Inflows in Malaysia’s Economy: The Role and Impact” and “The Impact of COVID-19 on Malaysia’s Environment”.

The MESR will assist users to have the latest information on the economic performance in greater detail. A copy of the Review can be downloaded from our TEEAM Website at www.teeam.org.my



POWERDUCT SERIES

Extruded Aluminium Housing With Cooling Fin

FULLY TYPE TESTED BUSDUCT UNIT SYSTEM
IEC 61439-6



ISO 9001:2005
Certificate



ISO 14001:2015
Certificate



DEKRA
Certificate



SINGAPORE GREEN BUILDING
Certificate



Award



LIGHTING SERIES



COMPACT BUSWAY



POWER PLUG BUSDUCT SDN BHD (545918-D)

No.17, Jalan SiLC 1/4,
Kawasan Perindustrian SiLC,
79200 Iskandar Puteri, Johor, Malaysia.
Johor Darul Ta'zim, Malaysia.



+607-532 1988



+607-532 1922



+607-532 1177

www.ppbc.com.my



ASTA

CCA

KEMA

DEKRA

KEMA



IESS 2020, India

The 9th International Engineering Sourcing Show, IESS 2020, an Engineering Sourcing Show for international business visitors, was successfully held from 4 to 6 March 2020 at the Codissia Trade Fair Complex, Coimbatore, India. Over 500 Overseas Delegates defined IESS as their important sourcing platform. B2B meets, exclusive country and technical sessions, vendor development meets, global sourcing meets, and also bilateral business forums at IESS provided ample opportunities to generate business opportunities. IESS also facilitates SMEs to explore local opportunities in terms of networking, collaboration and sourcing of products and technology. Organised by the India Engineering Export Promotion Council (EEPC), IESS is home to one of the largest-hosted buyer-seller meets in India, with over 700 highly focused B2B Meetings. Overseas buyers can register for the IESS-hosted Buyers Programme which offers an attractive incentive package.

TEEAM's Delegates, Mr Suresh Kumar Gorasia (Past President), Mr Subramaniam Karuppan (Manufacturing Committee Member), Mr Darakamaran Rasakannu Chetteer (Member) and Mr Sunderan Rajakannu (Member) attended IESS 2020. The 50-member Malaysian Delegation was led by the Small and Medium Enterprises Association (SAMENTA) and the Malaysia Automotive, Robotics and IoT Institute (MARII). Members from the Kuala Lumpur & Selangor Indian Chamber of Commerce & Industry (KLSICCI) and Officials from the Malaysia External Trade Development Corporation (MATRADE) and Malaysian Investment Development Authority (MIDA) were part of the delegation too.

MARII, an agency under the Ministry of International Trade and Industry (MITI), continued its role as a Partner to IESS for the second year running, hosting around twenty Malaysian companies, exhibitors and non-exhibitors. They showcased the capabilities, products, and technologies of



Strong Contingent – Part of the Malaysian Delegation at the IESS 2020 fairground.



Fruitful Mission for B2B Meetings – Malaysian Delegation and IESS 2020 Organisers at the fairground.

the Malaysian mobility sector to over 10,900 international industry stakeholders. IESS serves as a platform for further international partnerships and collaboration between Malaysia and India's automotive industries as both nations are moving towards a future mobility-driven automotive industry equipped with Industry 4.0 technologies, Next-Generation Vehicles (NxGVs), and Mobility-as-a-Service (MaaS).

Overall, it was a very fruitful and eye-opening mega event for B2B Meetings.



Casual Networking – Dinner reception hosted by EEPC.



Special Hotel Room Rates for TEEAM Members

We in TEEAM care for our members' interests! One of the benefits for our members is that the TEEAM Secretariat had obtained discounts on room rates from selected hotels. Whether you are on a business trip, family holiday or organising seminar, TEEAM will always be happy to assist you. Call us for details on the discounts available.

Tel: +603-9221 4417, 9221 2091

E-mail: teeam@teeam.org.my; teeam52@gmail.com

Advertisers' Index

<i>Company</i>	<i>Page</i>	<i>Company</i>	<i>Page</i>
Alpha Automation (Selangor) Sdn Bhd	24	SB Elektrik & Elektronik Sdn Bhd	36
Arc Power Marketing Sdn Bhd	14, 40, 41	Schirtec (Malaysia) Sdn Bhd	IBC
Ben Ling Sdn Bhd	88	Schneider Electric Industries (M) Sdn Bhd	12
Chi-Tak Electrical (Selangor) Sdn Bhd	4	Simtone Marketing Sdn Bhd	34
DESEA Sdn Bhd	20	Stantric Sdn Bhd	56
EPI Marketing Sdn Bhd	54, 55	Success Electronics & Transformer Manufacturer Sdn Bhd	22
Fajar Cables Sdn Bhd	76	Sun Power Automation Sdn Bhd	IFC, 30
Furutec Electrical Sdn Bhd	1	Streamtec Industrial Sdn Bhd	58
Fuseline Electric & Engineering Sdn Bhd	48	Terasaki Electric (M) Sdn Bhd	16
Gruppe Lighting Solution Sdn Bhd	10	TJH2B Analytical Services Sdn Bhd	52
KYODO Pipe Sdn Bhd	84	Tenaga Nasional Berhad	80
Lysaght Marketing Sdn Bhd	OBC	Tonn Cable Sdn Bhd	2
Mal-Autonics Sensor Sdn Bhd	8	United MS Cables Mfg Sdn Bhd	18
Master Tec Wire & Cable Sdn Bhd	46	Utama Switchgear Sdn Bhd	64
Maxguard Switchgear Sdn Bhd	42	Wise Pro Sdn Bhd	6, 62, 74, 78
OSRAM (Malaysia) Sdn Bhd	26, 27, 70, 71	Wong Electrical & Teak Wood Sdn Bhd	60
Power Plug Busduct Sdn Bhd	86		
PCO Lite Electrical Sdn Bhd	44		
Samajaya Electrical Trading Sdn Bhd	50		

Remarks : IFC-Inside Front Cover
IBC-Inside Back Cover
OBC-Outside Back Cover



Introduction to Easy Entry Terminals

Easy Entry Terminals (Japan Brand)



- Works faster & good contact

Normal Terminals (China & Taiwan Brand)



Our products :

Cable lugs & link, Terminals (Easy Entry with UL) , Tools , Control Components, Cable Accessories etc

Ben Ling Sdn Bhd (Co. No. 463457-U)

14-1 , Jalan Awan Makmur , OUG Square , 58200 Kuala Lumpur

Tel : 03-77850772 Mobile : 019-2257451 Fax : 03-77850776

Website : www.benling.com.my

Email : sales@benling.com.my



SCHIRTEC®

**LIGHTNING PROTECTION SYSTEMS
SURGE PROTECTION DEVICES
EARTHING MATERIALS**

SCHIRTEC (MALAYSIA) SDN BHD

"Our lightning protection system can be used as hybrid system which is combination of conventional & ESE system".

**YOUR
STOCKIST
IN
MALAYSIA**



SCHIRTEC (MALAYSIA) SDN BHD
(1254825-W)

No. 17-01, Jalan Sagu 15
Taman Daya
81100 Johor Bahru
Johor, Malaysia

+6012 772 3478, +607-351 5801

+607-351 5802

info@schirtec.my

www.schirtec.at



ICMET



TÜV
ÖSTERREICH

tgm

Staatliche Versuchsanstalt



LYCORPOLE®



- Street Lighting Poles
- Decorative Lighting Poles
- Park Lighting Poles
- Mono Poles
- Antenna Poles
- CCTV Poles
- High Masts
- Stadium Floodlighting Masts
- Floodlighting Poles
- Mid-Hinged Columns
- Hydraulic Hinged Poles
- Flag Masts/Flag Poles
- Advertising High Masts
- Traffic Signal Masts
- Traffic Light Poles
- Traffic Sign Gantry
- Power Transmission Poles
- Power Distribution Poles
- Telecommunication Poles

STANDARDS

LYCORPOLE® Hot Dip Galvanized columns, masts and poles are designed and manufactured in accordance with BS EN 40, BS 6399-2, BS EN 10025, BS EN 1011-1, 2, Institution of Lighting Engineers Technical Report No. 7, AS 4100, AS 1170.2, AS 1798, AS 2979, AS/NZS 4676, AS/NZS 4677, AWS D1.1 and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

Hot Dip Galvanized to BS 729, BS EN ISO 1461, ASTM A123, ASTM A153 or AS/NZS 4680 is a standard feature. Where specified upon request, our Hot Dip Galvanized products can be enhanced with additional Powder Coating with oven baked PE-F polyester based powder to BS EN 13438 to withstand weather and UV resistance for anti-chalking and colour stability.



No. 11, Jalan Majistret U1/26, Seksyen U1, Hicom-Glenmarie Ind. Park, 40150 Shah Alam, Selangor Darul Ehsan, Malaysia.

Tel: [603] 7880 3750 **Fax:** [603] 7880 3720 **Email:** lysaght_sales@lysaghtmarketing.com.my

IPOH – **Tel :** [605] 546 8278 **Fax :** [605] 546 3589 **Email :** lysaghtipoh@lysaghtmarketing.com.my

SABAH / SARAWAK

Tel : [603] 7880 3750
Fax : [603] 7880 3720
Email : lysaght_sales@lysaghtmarketing.com.my

SINGAPORE

Tel : [65] 6861 7122
Fax : [65] 6862 1242
Email : lysaght@singnet.com.sg

www.lysaghtmarketing.com.my