

Water Leak: A Big Issue

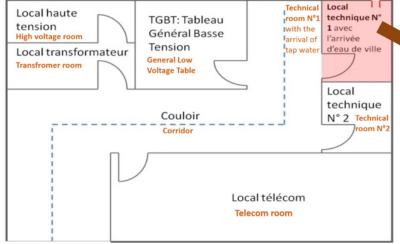
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Abstract

The consequences of Water Leak can be a disaster and cause huge financial losses to companies. It is an absolute necessity to get early and reliable Water Leak Alert. The following article expounds the principle and function of Water Leak Detection Systems, and introduces the latest Water Leak Detection Technology.



Figure 1 Water leak disaster inside an office



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Case study

A French bank - Paris, France, 11th April 2019

A connection on a mains water network is broken during the night. This basement room is adjacent to the high / low-voltage electrical room, the transformer room and the telecom room (see the plan).

Consequence: the basement premises are flooded, the high-voltage electrical room is out of service, and the banking service is interrupted for half a day on the next day.

Financial losses: more than €500,000... plus fees to repair high-voltage electrical room.

Since this disaster, the bank has installed a water leak detection system worth €20,000.

Every year, hundreds of thousands of premises around the world are victims of water damage, like the French bank in this case study, and when it comes to data centres, computer rooms, server rooms or electrical rooms, the consequences can be disastrous. According to the Wall Street Journal, insurance companies rank the risk of water damage in third place on their list of major risks, after theft and fire.

Installing a reliable water leak detection system can greatly decrease this risk. Nowadays, the water leak detection system has become an absolute necessity in data centres, trading floors, laboratories, and other mission-critical infrastructure. It is becoming more commonplace in most new commercial office construction schemes along with museums, galleries and archives.



Figure 2 Floor plan and pipe leak photo inside a bank in France

Water Leak: A Big Issue

The principle and function of water leak detection systems

A common design of a water leak detection system is a point detector or sensing cable that lies flat on a floor and relies on the electrical conductivity of water to decrease the resistance across two contacts.

In detail, the principle is based on the measurement of electrical resistance and its location is linearly related to distance, according to Ohm's law. When water (conductive liquid) comes into contact with the sensing cable, it causes contact between the wires. Changing the measurement of the resistance may detect and locate the leak.

The device then sounds an audible alarm and provides onward signaling in the presence of water. In such a way, it alerts the operator in sufficient time for remedial action to be taken to prevent the disaster.

The evolution of water leak detection systems

The original application of the water detection system was in the floor void of "computer rooms" in the 1960s. The first "water detector" was the simple "point of use" detector. It was replaced by a linear cable which detects water along its entire length and acts as a "barrier" against water, much more appropriate for "raised floors" of large data centres, which started appearing during the 90s. However, inaccurate reporting was common with these analogue-based systems.

Limits of analogue-based leak detection systems & benefits of digital-based systems

The analogue-based systems use "passive cables" without electronic components. One detection line is composed of N sections (sense cables) and controlled by only one electronic (monitoring panel). Result: only one measurable value can be obtained. In case of two leaks occurring on the same detection line (can be a complex network of cables running several kilometres), the measurement obtained is an average value of the 2 alarm points, making it impossible to locate the faults accurately. Even worse, it hides the exact number of alarms on the detection line.

The latest digital technology from France embeds one electronic component in each sense cable. It measures independently, obtaining as many values as the number of connected sections. The embedded microprocessor continuously monitors the cable status and provides instant, real-time communication to the monitoring panel, allowing unique ability to pin-point faults on every individual sense cable simultaneously.



Figure 3 Digital water sense cable with embedded microprocessor and visible LEDs

(The red LED indicates a leak has been detected on this individual cable)

In an environment where condensation and dust are commonly present, water sensing cables are disturbed and as a result, they release leak alarms without the presence of water. These are what facility managers commonly call as "false alarms".

An ingenious cable structure is capable of helping to prevent this kind of undesirable alarm. Instead of making the two conductive spiraling sensing wires both apparent from the cable surface and be short circuited in case of contact with any conductive particles, hide one of them under the insulating materials, so that the bridge can only be built when the conductive liquid penetrates inside the cable core. This ingenious cable structure – design patented in France as well as in many countries - allows the cable to sense water, but not to be disturbed by the presence of condensation, dust or metal. They can therefore be approximately installed at the risk source or lie flat on a metal tray to ensure very early detection.

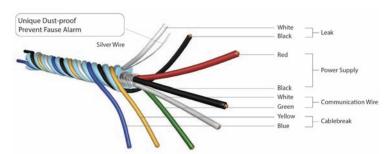


Figure 4 Unique structure of digital water sense cable prevents "false alarm"



Figure 5 Installation of water sense cables on the floor near water pipes

Water Leak: A Big Issue

Characteristics of a digital monitoring panel

The electrical device on which sense cables are connected, which delivers alarms in the presence of water, has largely evolved too – from the first generation simple non-locating alarm panel, to the latest touch screen digital monitoring panel, introduced to the global market in 2010, which can be considered as an outstanding panel in the sector thanks to its versatile functions.

It is capable of monitoring a mix of water, acid and oil sense cables on one panel. In the event of a leak, it pinpoints faults on its integrated interactive maps; drives external devices (for example close concerned solenoid valves); sends instant email alerts to users; reports to the BMS via a JBUS/MODBUS protocol and TCP/IP connection; and remote controls its sub-panels. It has a big system capacity (can monitor up to 500 lengths of sense cables) and meanwhile, settings are adjustable on every individual cable.



Figure 6 Two liquid leak detection monitoring panels installed inside a data centre

Conclusion

Installing a reliable water leak detection system can greatly decrease down-time, thus efficiently protecting assets and premises from water leak risks. A digitalbased system has its own technical advantages compared to analogue-based systems, especially in terms of pin-pointing faults on each individual sense cable and preventing "false alarms" with its unique cable structure.

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香港電器工程商會參加「學校起動」 "Project WeCan" 計劃之活動

「學校起動」(Project WeCan)計劃是由九龍倉集 團有限公司於2011年推出,主要是希望透過業界 的協助為學習條件稍遜的中學生提供各種機會,體 現「社、企共勉精神」。本會去年被邀請成為「學 校起動」計劃的其中一個合作伙伴,以便我們能動

員屬下會員協助學生安排多元化的學習活動及生涯 規劃經歷。在本學年2019年5 - 7月份期間,本會 參加了「學校起動」計劃,得到「學校起動」計劃 辦事處配對「慈航中學」與本會合作。在過程中, 三方都合作愉快,本會深信過去壹年三方的互動, 對學生貢獻良多,亦產生1+1大過2的多贏效應。 此外本會除能對學生作出貢獻而感到欣慰外,相信 對推廣工程行業予中學生亦有很大的幫助,這亦是 本會期望見到的結果。我們樂見在未來能對學生作 出更多的貢獻,鼓勵學生們能有清晰的目標,為香 港、為自己發光發亮,尤其是工程界。

1. 慈航中學大埔區浴彿典禮

慈航中學內舉行的大埔區浴彿典禮於2019年5月8 日(星期三)舉行。本會出席並擔任嘉賓。





2. 學校起動計劃伙伴嘉獎典禮

學校起動計劃伙伴嘉獎典禮 **Project** WeCan **Partners** Appreciation Reception 2019年5月30日(星期四) 在香港禮賓府舉行。由學校起 動計劃的始創人吳光正先生激 請各支持機構及各合作伙伴 同出席。儀式由香港特別行政 局首長林鄭月娥女士見證下舉 行。







香港電器工程商會

香港電器工程商會參加「學校起動」 "Project WeCan" 計劃之活動

3. 慈航中學2018/19年度的畢業典禮

慈航中學2018/19年度的畢業典禮於2019年5 月31日(星期五)舉行。本會出席學校舉行的畢業典 禮,並擔任嘉賓。





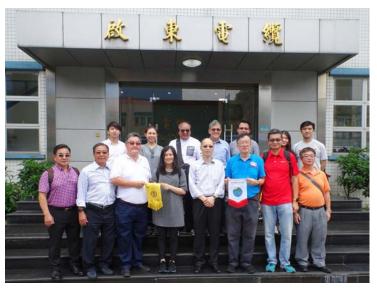
4. 東莞參觀

本會安排慈航中學全級中四學生於2019年6月26 日(星期三)到內地東莞參觀。是次參觀,出席的中四 學生人數共42人,帶隊老師共4人,本會共8名理 事陪同一起出發參觀。此外啟東電線電纜有限公司 和學校起計劃辦公室分別各派出1名陪同協助。學生 們參觀電線製造廠,了解工業的發展及各類電纜的 製造經過。由於學生很少機會參觀工業製造過程, 特別是他們認識的電線和電纜,事次參觀相信會令 學生多了解工業的製造過程和對電力工程有接觸性 的認識。此外並得到東莞市委台港澳工作辦公室的 協助,學生於下午參觀東莞南城水濂山垃圾焚燒 廠,在焚化廠職員詳細介紹焚化廠的運作過程下, 相信學生在環保慨念的認識會邁進一大步。











香港電器工程商會參加「學校起動」 "Project WeCan" 計劃之活動

5. 慈航中學結業禮

慈航中學結業禮於2019年7月9日(星期二)舉行。 本會出席學校舉行的結業禮,並擔任頒獎嘉賓。









料 Notes To Trade

医房屋委員會 招標公告

香港房屋委員會招標公告可在以下網頁查看: http://www.housingauthority.gov.hk/en/business-partnerships/

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商會與你 ECA Cares

恭賀永昌電器工程有限公司 **Congratulations to Wing Cheong Electrical Engineering & Contracting Company Limited**

本會恭賀永昌電器工程有限公司中標於東涌第54區資助出 售房屋發展計劃建築工程的電力裝置工程,並祝順利如期完 成。

On Behalf of Hong Kong Electrical Contractors' Association, we would like to convey our congratulations to Wing Cheong Electrical Engineering & Contracting Company Limited for the Electrical Installation for Construction of Subsidised Sale Flats Development at Tung Chung Area 54 (Sub-contract to Contract No. 20180305).

商會活動 Organised Activities

上海技術參觀

Technical Visit to Shanghai Smart City

為期3日2夜的上海智能城市技術參觀於2019年5 月30日至6月1日(星期四至星期六)在上海舉行。 此次參觀未來智慧城市的創新方案。

Technical Visit to Shanghai Smart City was held on 30 May to 1 June 2019 (Thur to Sat) at Shanghai, seeing the Innovative EcoStruxure Solution for Future Smart City.

INNOVATION HUB





廣州國際照明展覽會

Guangzhou International Lighting Exhibition

廣州國際照明展覽會於2019年6月9日至12日(星 期日至星期三)在廣州中國進出口商品交易會展館舉 行。共133個國家及地區的172,856名觀眾和22 個國家及地區的2.626名展商到場參加。

2019年我們以「思索照明-攻與守」為大會主 題,鼓勵業界思索應對行業轉變的攻守之道,開創 進步和嶄新的行業篇章。 GILE將繼續致力提供多元 化平台,促進照明業界與不同科技及領域交流,並 相互學習,在這個全新、複雜又多變的市場抓緊機 遇。無論是在智能化、互聯互通、LED小型化還是以 人為本的照明方面都對照明行業非常重要。

Guangzhou International Lighting Exhibition was held on 9 to 12 June 2019 (Sun to Wed) at China Import and Export Fair Complex, Guangzhou, China. The event attracted 172,856 visitors from 133 countries and regions and 2,626 exhibitors from 22 countries and regions. During the fair, we emphasised the importance of embracing change in the lighting industry, whether that be in the shape of smart and connected lighting, LED miniaturisation or even human-centric lighting. In 2019,

we have set a new show theme - 'THINKLIGHT: Envisage

the Next Move' - which aims to encourage the lighting community to see the changes as a means of progression and innovation. GILE will continue to devote our effort into offering a dynamic hub for the lighting industry to learn and share ideas across disciplines different sectors, establishing dialogue about strategies for a new, complex and ever-changing market.





創科研討會暨網上創新科技協作平台合作備

I&T Seminar cum Signing Ceremony of MoC for E&M InnoPortal

創科研討會暨《網上創新科技協作平台合作備忘 錄》簽署儀式 - 創科展覽於2019年6月11日(星期 二)在機電工程署總部地下及四樓舉行。由機電署自 行研發的客戶服務及工作管理平台。前線同事可以 透過手機應用程式,隨時隨地接收及處理工作,協 助同事即時調動資源,和實時以文字、影像或語音 匯報工作狀況,促進與各持份者的溝通和掌握進度 等資訊。綜合樓宇管理系統的預警信號,可遙距監

控機電設施的操作 狀況和透過收集不 同傳感器的數據, 與預設的參數作比 較,從而顯示預警 感應,協助查找設 施潛在問題,預防 系統故障。



I&T Seminar cum Signing Ceremony of MoC for E&M InnoPortal - I&T Exhibition was held on 11 June 2019 (Tue) at G/F & 4/F, Mechanical Services Department Headquarters, 3 Kai Shing Street, Kowloon, Hong Kong.



商會活動 Organised Activities

建造香港 建造自己

Building Hong Kong, Building Your Future

建造自己」啟動禮暨約章簽署儀式於 2019年7月4日(星期四) 在香港中環8號碼頭香港 海事博物館顧宗瑞展廳舉行。近100間建造業機構 代表出席,承諾發揮團結精神,支持建造業議會(議會)及香港建造學院(學院)培育生力軍以支援 業界持續發展,共同構建充滿熱誠及專業的建造團 隊。議會及學院近年除了優化培訓課程外,亦努力 改變行業的傳統印象,提升從業員的形象和地位, 吸引更多年輕人投身發展,將個人發展與建造香港 的使命緊繫一起。更以「建造香港」建造自己」為主 題,製作了一系列的短片,細說三位校友對建造業 的熱誠、抱負及承傳精神。期望透過故事能夠為行 業提升形象,吸引年輕人接受專業的培訓,投身建 造業,一同肩負「建造香港」的使命。

"Building Hong Kong, Building Your Future" Charter Signing and Kick-off Ceremony was held on 4 July 2019 (Thur) at Hong Kong Maritime Museum, 8 Central Pier,

Hong Kong.



穗港兩地機電培訓基地揭牌儀式 Plaque Unveiling Ceremony of Guangzhou-**Hong Kong Electrical and Mechanical Talent Training Bases**

廣州市人力資源和社會保障局 - 香港特別行政區政 府機電工程署:穗港兩地機電培訓基地揭牌儀式於 2019年7月18日(星期四)在香港九龍啟成街3號機 電工程署總部四樓互動學習中心舉行。過去一年, 穗港雙方在機電技術人員培訓、業界交流及世界技 能大賽三個範疇均合作無間,取得豐碩成果。承蒙 香港發展局局長黃偉綸先生及廣州市副市長黎明女 士共同主禮,揭開港穗兩地深化機電技能人才發展 合作的里程碑。

Plaque Unveiling Ceremony of Guangzhou - Hong Kong Electrical and Mechanical Talent Training Bases was held on 18 July 2019 (Thur) at Electrical and Mechanical Services Department Headquarters, 3 Kai Shing Street,



2019機電業持續職業安全推廣活動 **E&M Safety Promotional Activities 2019**

2019機電業持續職業安全推廣活動『離地工作風險高 防護措施齊做好』啟動禮儀式於2019年8月20日(星 期二)在九龍觀塘翠屏道3號基督教家庭服務中心1樓禮 堂舉行。由港九勞工社團聯會(勞聯)及香港機電業工會聯 合會(機電聯)聯合舉辦『機電業持續職業安全』推廣活 動。對新入行或即將入行的工友,向他們灌輸正確的安 全文化,提高他們的安全意識。勞聯及機電聯發動各成 員及支持機構進行全民推廣行動,將安全訊息的教育培 訓及宣傳推廣至主要對象,預期在新的工程可以進一步 提高建造業的職安健水平,從而締造安全健康的工作文 化。本會為活動支持機構,並擔任主禮嘉賓。

Joint Activities of E&M Safety Promotional Activities with The Federation of Hong Kong and Kowloon Labour Unions with The Federation of Hong Kong Electrical & Mechanical Industries Trade Unions was held on 20 August 2019 (Tue) at Christian Family Service Centre, 1/F, 3 Tsui Ping Road, Kwun Tong, Kowloon. Our association was the event support organization and served as the officiated auest.



2019年永遠會長方宏浩盃羽毛球賽 2019 Badminton Competition – The Life **President Martin Fong Cup**

2019年永遠會長方宏浩盃羽毛球賽於2019年8月 12、16、19及21日在香港專業教育學院沙田分 校舉行舉行,經過四天激烈的比賽,本年度羽毛球 精英已順利誕生。在此多謝永遠會長方宏浩先生的 慷慨支持。

The 2019 Life President Martin Fong Cup Badminton Competition was held on 12, 16, 19 and 21 August 2019 at IVE Sha Tin, NT. Once again we would like to extend

sincere our thanks to our Life President Mr Martin Fong for his generous supports to the competition.





商會活動 Organised Activities

2019年永遠會長方宏浩盃羽毛球賽 **2019 Badminton Competition – The Life President Martin Fong Cup**

男子單打 Men's Single			
獎項	參賽者	代表機構	
冠軍 連澤霖 安樂工程集團			
亞軍 羅偉傑 中信工程設備有限公司			
季軍 林恩樂 豐盛機電工程集團有限公司			



女子單打 Women's Single			
獎項 參賽者 代表機構			
冠軍 鄧健羚 安樂工程集團			
亞軍 何佩賢 榮港電器有限公司			
季軍 馮慧珊 喜利得(香港)有限公司			



男女子混合雙打 Mixed Doubles			
獎項 參賽者 代表機構			
冠軍	軍 李永堂 高鳴娸		施耐德電氣(香港)有限公司
亞軍		豐盛機電工程集團有限公司	
季軍 李旭熹 黃鎧澄 安樂工程集團			

男子雙打 Men's Doubles			
獎項 參賽者 代表機構			
冠軍	林恩樂	黃健源	豐盛機電工程集團有限公司
亞軍 黃曉楊 甄煒強 創建科技控股有限公司			
季軍	吳志強	梁智宗	民光電器行



女子雙打 Women's Doubles			
獎項 參賽者 代表機構			
冠軍	高鳴娸	馮臻慧	施耐德電氣(香港)有限公司
亞軍	何佩賢	張美好	榮港電器有限公司
季軍	黃鎧澄	黃思欣	安樂工程集團







即將舉辦之活動 Upcoming Activities

2019年度亞洲太平洋電器工事協會聯合會會議 FAPECA 2019 Conference

亞洲太平洋電器工事協會聯合會2019會議將於2019年11月 6日至8日(星期三至星期五)在韓國光州舉行。

The Federation of Asian and Pacific Electrical Contractors Associations (FAPECA) Meeting and Conference for 2019 will be held from 6 - 8 Nov 2019 (Wed to Fri) at Korea Gwangju.

上海國際電力電工展2019 EP Shanghai 2019

國內電力行業中具規模及影響力的品牌電力展一國際電力電工展 (EP), 始於1986年,由中國電力企業聯合會及國家電網主 辦,由雅式展覽服務有限公司協辦,是國內唯一獲得UFI國際認 證之專業電力展,每年輪流於北京、上海舉辦。 承蒙業界人士 及海內外參展商多年來的大力支持,2019年將迎來「第十二屆 上海國際電力設備及技術展覽會 (EP Shanghai 2019)」 暨「 第十一屆上海國際電工裝備展覽會 (Electrical Shanghai 2019) 」。展會於2019年11月6-8日,在中國·上海新國際博覽中 心(N1-N5)館盛大舉行。展會面積近55,000平方米,預計 吸引來自中外1,000家參展商/品牌! 展會設有專門化專區包 舌: 「一站式輸配電」、「電力自動化」、「泛在電力物聯網」、「電力安全應急」、「電力智能製造裝備」、「發電機組及儲 能設備」。 展會網站: https://www.epchinashow.com 參觀查 詢:25163379/電郵:epchina,pr@adsale.com.hk。 Established in 1986, EP is organized by the China Electricity Council and State Grid Corporation of China, co-organized by Adsale Exhibition Services Ltd, and fully supported by all major Power Group Corporations and Power Grid Corporations. Over 30 years successful track record and experience, it has become the largest and the most reputable electric power exhibition endorsed by UFI Approved Event in China and has been widely recognized by global market leaders and international trade associations. With annual rotation in Beijing and Shanghai in alternate years, EP Shanghai 2019 will be held again at Shanghai New International Expo Center, PR China (Hall N1-N5) from 6-8 November 2019 in Shanghai with around 55,000sqm exhibiting area, which expecting for a total of about 1,000 exhibitors/brands all over the world. Specialized theme zones include "Onestop Power Transmission and Distribution", "Electric Power Automation", "Electric Internet of Things", "Power Generating Sets and Energy Storage", "Electric Power Testing, Measuring & Monitoring" as well as "Data Center". Official Website: https://www.epchinashow.com Visiting Enquiry: 25163379 / Email: epchina.pr@adsale.com.hk

第十九期會刊

19th Edition Association Journal

時光荏苒,不覺間本會之雙年刊第十九期又開始籌備,承蒙各會 員與同業先進過去多年的鼎力支持,會刊內容越趨豐富。隨著會 務迅速發展,會刊已成為本港業內廣泛傳閱之刊物,亦成為海外 各友會間以至海內外工程從業員尋找產品資料的上佳媒體。本期 (第十九期)會刊將發行1,500本,本刊可發揮強大的廣告效力, 有助推廣產品及服務,拓展商機。本會刊將於2019年11月出 版,藉此良機,惠賜廣告。

Time passes quickly and it is time for us to prepare the 18th edition of our biennial Association Journal. With your continuous support over the past 18 issues, the Journal was able to grow along with the Association. With the enriched contents, the Journal is regarded as the most informative guide for own electrical industry. For the coming Journal, we plan to publish 1500 copies. With this large circulation base, we believe companies will find it worthwhile to promote their images, services and products through our Journal. The 19th edition of our biennial Association Journal is scheduled to release in November 2019. Your company is most welcome to place your promotional advertisement on the industry's most valuable quide.

2019年度週年會慶暨第二十三屆理事就職典禮 HKECA 2019 Anniversary Dinner Cum 23rd Term **Executive Committee Inauguration Ceremony**

2019年度週年會慶暨第二十三屆理事就職典禮將於2019年 11月22日(星期五)在九龍尖沙咀柯士甸道8號龍堡國際賓館胡 應湘宴會廳設宴舉行。

HKECA 2019 Anniversary Dinner Cum 23rd Term Executive Committee Inauguration Ceremony will be held on 22 November 2019 (Fri) at Gordon Wu Hall of the B.P International House, 8 Austin Road, Tsimshatsui, Kowloon.

2019電力規例研討會及傑出註冊電業工程人員 選舉暨表現優異註冊電業承辦商頒獎典禮 2019 Electricity Regulations Technical Seminar & Outstanding REWs Awards Scheme cum Outstanding **RECs Awards Scheme**

由機電工程署主辦,港九電器工程電業器材職工會和本會協辦的 電力規例研討會及2019年度傑出註冊電業工程人員選舉暨表現 優異註冊電業承辦商頒獎典禮將於2019年11月27日(星期三) 在九龍理工大學賽馬會綜藝館舉行。歡迎各會員參加。

Technical Seminar on "Electricity Regulations" & Outstanding REWs Awards Scheme cum Outstanding RECs Awards Scheme co-organized with EMSD and the HK & Kowloon Electrical Engineering & Appliance Trade Workers Union will be held on 27 November 2019 (Wed) at The Hong Kong Polytechnic University, Jockey Club Auditorium, Kowloon. All members are welcome to join.

機電安全健步嘉年華2019 E&M Safety Walk and Carnival Fair 2019

機電安全健步嘉年華2019,今年的活動定於2019年12月1 日(星期日)在大棠有機生態園舉行,此活動乃是連續第十七年由 香港機電工程商聯會與香港機電業工會聯合會合作舉辦機電安全 推廣計劃之項目。目的是為機電行業提升工地機電安全意識。活 動當天,節目非常豐富,有悠閒暢步、健身操、機電安全話劇、 問答遊戲及親子活動等,值以宣傳安全信息,中午更有自助燒 烤,是一個老少咸宜的家庭同樂日,既可以郊外步行增進身心健 康,又有遊戲獎品助慶。這是機電行業界每年舉辦安全推廣活動 之一,希望貴司能秉承以往對行業公益的支持,歡迎各會員參 加。

The E&M Safety Walk and Carnival Fair for this year will be held on 1 December 2019 (Sun) at the Tai Tong Organic Ecopark in Yuen Long. This sizable event is jointly organized by The Federation of Hong Kong Electrical & Mechanical Industries Trade Unions and Federation for the 16th consecutive years. The programme includes morning drill exercise, hiking, safety quiz and various games and lucky draws. Lunch will be provided in BBQ style. All members are welcome to join.

寶員動態 Members' News

香港電器工程商會 05/2019 - 08/2019年度新會員名單				
入會日期	申請會員名稱	會籍	代表人	
Joining Date	Applicant Name	Membership Types	Representative	
05/2019	劉家駒先生 Mr. Lau, Ka Kui William	普通會員 Ordinary Member		
05/2019	創新機電工程有限公司 Chong Sun E&M Engineering Co Ltd	普通會員 Ordinary Member	李頌年先生 Mr. Li, Chung Nin	
06/2019	國訊工程有限公司 National Concord Engineering Ltd	永遠會員 Life Member	袁廣業先生 Mr. Stephen Yuen	
07/2019	嘉業工程有限公司 Ka Yip Engineering Co Ltd	普通會員 Ordinary Member	金瑞昌先生 Mr. Kam, Shui Cheong	
07/2019	明發電器行有限公司 Ming Fat Electrical Co Ltd	永遠會員 Life Membe	鍾靖唯先生 Mr. Chung, Wai Keung	
07/2019	仟偉工程有限公司 Chief Way Engineering Ltd	普通會員 Ordinary Member	溫耀光先生 Mr. Wan, Yiu Kwong	
08/2019	曾廣智先生 Mr. Tsang, Kwong Chi Michael	普通會員 Ordinary Member		



HKECA|HKECA|HKECA|HKECA|HKECA

高球專線 Golfers Link

啟東盃高爾夫球盃賽

Keystone Cup Golf Competition

啟東盃高爾夫球賽,已於2019年5月17日(星期五)在觀瀾高爾夫球 會 - 羅斯-保爾特場舉行,在此多謝啟東電線電纜有限公司的慷慨贊 助,隊員的支持和參與,令比賽能順利完成。

Keystone Cup Golf Competition was held on 17 May 2019 (Fri) at Mission Hill Golf Club - Norman Course. We would like to express our appreciation to Keystone Electric Wire and Cable Co Ltd for the kind sponsorship and the keen participation of team members and guests, all of you have made the tournament successfully held.





高球專線 Golfers Link

啟東盃高爾夫球盃賽

Keystone Cup Golf Competition

<mark>啟東盃高爾夫球盃賽 Keystone Cup Golf Competition</mark> 17 May 2019 2019年5月17日 Mission Hill Golf Club 觀瀾高爾夫球會						
Champion	Mr. Chung Ting Hoi	冠軍	鍾定海先生			
1st Runner Up	Mr. Li Tai Kwong	亞軍	李大光先生			
2nd Runner Up	Mr. Fung Chun Pong Wilson	季軍	馮鎮邦先生			
Best Front Nine	Mr. Poon Shing Hung	前九最佳	潘盛洪先生			
Best Back Nine	Best Back Nine Mr. Au Chi Wai 後九最佳 歐志偉先生					
Nearest to the Line Hole No 7	Mr. Lam Lok Lei	最近中線獎7號洞	林樂基先生			
Nearest to the Line Hole No 14	Mr. Cheung Chong Lap	最近中線獎14號洞	張壯立先生			
Nearest to the Pin Hole No 4 Mr. Siu Kwok Lun 最近球洞獎4號洞 蕭國倫先生						
Nearest to the Pin Hole No 6	22.25(i) 35C - 3/6/i) 3					
Nearest to the Pin Hole No 11 Mr. Ho Kit Yin Kenny 最近球洞獎11號洞 何傑賢先生						
Nearest to the Pin Hole No 16 Mr. Fung Chun B近球洞獎16號洞 馮鎮邦先生 Pong Wilson						
Guest Winner	Mr. Au Tat Kay Walter	嘉賓組冠軍	區達基先生			

Nexans 盃高爾夫球盃賽 **Nexans Golf Cup Competition**

Nexans Cup 盃高爾夫球賽,已於2019年6月14日(星期五)在觀瀾高爾夫球會·羅斯-保爾特場舉行,在此多謝協通電線有限公司的慷慨贊助,隊員的支持和參與,令比賽能順利完成。

Nexans Cup Golf Competition was held on 14 June 2019 (Fri) at Mission Hill Golf Club - Rose-Poulter Course. We would like to express our appreciation to Hip Tung Cables Company Limited for the kind sponsorship and the keen participation of team members and guests, all of you have made the tournament successfully held.



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Nexans盃高爾夫球盃賽					
Nexans Golf Cup Competition					
14 Jun 2019	14 Jun 2019 2019年6月14日				
Mission Hill Golf	Club 觀瀾高爾夫	球會			
Champion	Mr. Lee Kwok Tai	冠軍	李國泰先生		
1st Runner Up	Mr. Wong Chi Kin	亞軍	黃賜健先生		
2nd Runner Up	Mr. Siu Ka Fai Kevin	季軍	蕭嘉輝先生		
Best Front Nine	Mr. Chung Ting Hoi	前九最佳	鍾定海先生		
Best Back Nine	Mr. Denny Mak	後九最佳	麥國樑先生		
Nearest to the Line Hole No 7	Mr. Kwong Ka Sum	最近中線獎7號洞	鄺加森先生		
Nearest to the Line Hole No 15	Mr. Cheng Chi Koon	最近中線獎15號洞	鄭子冠先生		
Nearest to the Pin Hole No 2	Mr. Au Chi Wai	最近球洞獎2號洞	歐志偉先生		
Nearest to the Pin Hole No 6	Mr. Hong Kim	最近球洞獎6號洞	康劍先生		
Nearest to the Pin Hole No 8	Mr. Poon Shing Hung	最近球洞獎8號洞	潘盛洪先生		
Nearest to the Pin Hole No 14	Mr. Edwin Fong	最近球洞獎14號洞	方奕聰先生		
Nearest to the Pin Hole No 17	Mr. Chui Hin Chi	最近球洞獎17號洞	徐顯枝先生		
Guest Winner	Mr. P T Yip	嘉賓組冠軍	葉寶達先生		





永昌電器工程有限公司(永昌電器),屬俊和機電工程有限公司,業務主要為提供機電工程安裝及整理、項目管理,以及承接住宅、商業及工業樓宇項目等 各類建築工程的機電服務。永昌電器於工業用途電氣裝置及電氣裝置(第III組)為認可公共工程的專門承造商。

永昌電器目前正參與將軍澳65C2區資助出售房屋發展計劃第一和第二期建築工程的電力裝置工程、東涌第54區資助出售房屋發展計劃建築工程的電力裝置 工程、東區海底隧道中央監控系統更新工程、鋼線灣食水抽水站工程及大埔第6區休憩用地的機電工程。

Wing Cheong Electrical Engineering & Contracting Company Limited is the subsidiary of Chun Wo E&M Engineering Limited and focuses in the provision of electrical installation and coordination, project management and sub-contracting services to the full range of construction work including public residential projects and industrial building projects. Wing Cheong is an approved specialist contractor for public works under Industrial Type Electrical Installation and Electrical Installation (Group III).

Wing Cheong is currently participating in Electrical Installation for Construction of Subsidised Sale Flats Development at Tseung Kwan O Area 65C2 Phases 1 & 2, Electrical Installation for Construction of Subsidised Sale Flats Development at Tung Chung Area 54, EMSD Contract 1155EM18W Replacement of Central Control and Monitoring System at Eastern Harbour Tunnel, WSD Telegraph Bay Fresh Water Pumping Station and ASD Building Services Installation for Construction of Open Space in Area 6 Tai Po.















