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融匯科技 創建香港 WE INNOVATE, WE BUILD

基金資助加碼至200萬港元 鼓勵業界採用安全相關科技 支援實踐工地「零意外」 The CITF increases funding support to HK\$2 million to encourage the industry to enhance site safety with innovative technologies



The Development Bureau and the Construction Industry Council (CIC) as well as professional institutions, trade associations and unions have all along attached great importance to site safety. Back in 1993, the Government had required contractors of public works contracts to implement a Safety Plan and observe the specific safety procedures laid down therein to ensure the safety of workers. The Government has reviewed the safety management system of public works projects from time to time, and further strengthened the control on project design, tender approval and contract terms.

Thanks to the concerted efforts of various stakeholders, the accident rate in the construction industry has greatly improved, dropping from about 57 accidents per 1 000 people in 1999 to about seven accidents per 1 000 people in 2021. Nonetheless, there is no room for complacency. The recent sequence of fatal industrial accidents has rang the alarm bell on workplace safety. To create a "zero accident" working environment for workers, the industry shall continue to join hands to enhance safety awareness among practitioners and take a multi-pronged approach to improve site safety standards.

The Construction Innovation and Technology Fund (CITF) subsidizes the industry to embrace innovations and technologies to safeguard construction safety and support the industry to turn construction sites into accident-free zones. Following the mid-term review, the CITF has since January 2022 uplifted the funding ceiling from HK\$800,000 to HK\$2 million for each safety-related technology to encourage the industry to make wider use of technologies to improve site safety.

Further to providing more financial incentive to potential applicants, we also fine-tuned the Pre-approved List for Advanced Construction Technologies (the List) to add in a specific product category on safety-related technologies. Interested applicants can now use legend 15 to refine their search on safety-related technologies. The List now comprises 60 items primarily improving site safety, products of which include robotics, advanced tools and equipment, safety monitoring system and personal protective equipment. Ranging from digitised safety monitoring platform to automatic transportation robot to personal reflective vest with nano coating, those shortlisted items can support projects with different nature and scales.

10 briefing sessions had also been conducted to introduce to our target beneficiaries on how innovations and technologies could help lift site safety. In addition to highlighting the CITF enhancement measures, sharing sessions by fund applicants on their successful stories of safety-related technologies were also featured. Some of our 'Best Sellers' in the Pre-approved list with users' feedback are provided in the next few pages. 發展局和建造業議會(議會),以及業界各個專業機構、商會和工會均 十分重視工地安全。早於1993年,政府已在工務工程合約要求承建商 於工地實施一套符合指定標準的工地安全計劃,以保障工友的安全, 並不時檢討工務工程的安全管理系統,進一步提升在工程設計、標書 審批、合約條款等方面的監管。

在業界伙伴的齊心協力下,建造業的意外率已大為改善,由1999年以 每千人計約57宗意外,大幅降至2021年以每千人計約7宗意外。然而, 我們不能掉以輕心。近期發生的一連串致命工業意外為工地安全敲響 了警報。為此,業界必須全面提升所有從業員的安全意識,並多管齊 下提升工地安全表現,務求為工友提供「零意外」的工作環境。

建造業創新及科技基金(基金)資助業界應用創新科技提升建築安全, 支援業界實現工地「零意外」。在進行中期檢討後,基金於2022年 1月起將每項安全相關科技的資助上限由80萬大幅加碼至200萬港元, 以鼓勵承建商更積極採用科技提升工地安全。

除了加大對申請者的財務支援外,我們亦於創新建築科技的預先批核 名單(名單)中,就安全相關科技新增一個專屬的產品類別,便利申請者 搜尋合適的安全相關科技產品。有意申請者現在可利用圖例15,以更 精確的方式搜索有關科技。現時名單有60項主要為加強工地安全而設 的科技產品,包括機械人、先進工具和設備、安全監測系統,以及個人 防護設備等。由數碼化安全監測平台、自動運輸機械人,到納米塗層 反光背心,安全產品一應俱全,適用於各式各樣、規模不一的建築項目。

此外,我們還舉辦了10場簡介會,向業界講解創新科技如何有助加強 工地安全。除了介紹基金的優化措施外,我們亦特別邀請了獲批資助 的申請者分享他們應用安全相關科技的成功例子和心得。接下來, 我們羅列出名單上多個「暢銷產品」及其用家的評價。

想獲取更多安全相關科技產品資訊?歡迎登入 https://bit.ly/3ufo8nb 或掃描二維碼,以瀏覽完整 的「購物指南」,選擇適合你的產品! Want more information on the latest safety-related technologies? Browse our full 'Shopping Guide' at https://bit.ly/3ufo8nb or scan the QR code and pick one at your wish!



https://www.citf.cic.hk



o citf.cic.hk



發展局 Development Bureau



CONSTRUCTION INDUSTRY COUNCIL 建造業議會

# 預先批核名單中安全相關科技產品 Safety-related Technologies on Pre-approved List

\* 預先批核名單編號 Pre-approved List Code

# 產品特點 Product Features

#### 銷售渠道 Vendor Contact

喜利得(香港) 有限公司

Limited

Hilti (Hong Kong)

### 先進工具及設備 Advanced Tools and Equipment

#### \* PA21-022 人體外骨骼裝置 EXO-01

- # 非電池供電, 可穿著的上半身 外骨骼裝置
  - 穿上後,裝置為手臂增添力量, 支撐提舉過頭的工作

#### \* PA20-107 | 自動吊鉤 Elebia Evo Automatic Hook

- # 吊鉤可遙控關閉,或通過傳感器 白動關閉
  - 配備負載傳感器,顯示吊鉤的荷重、 位置及負載水平對齊狀況
  - 可通過 "eMax" 遙控器收集吊鉤的 數據,進行數據分析或建築信息模擬

- A wearable non-battery powered upper body exoskeleton
- Applies force to the wearer's arms to support overhead work

- The hook can be closed by remote control, or self-closed as assessed by the sensor

- A programmable battery-operated demolition

- Equipped with automatic stop function to enhance safety

- A core drilling rig for automatic deep-hole exploration

- With the safety control panel and the automatic

'Rod Handling System', the driller can operate the

machine and handle the rods from a distance which

drilling which can be operated by less experienced drillers

and chiseling robot with remote control

- 4-hours charging can support continuous

operation up to 8 hours.

improves safety

- Equipped with a load sensor indicating the lifting
  - load, its position and the load horizontal alignment
- The "eMax" remote control gathering the information
  - of the hook for data analysis or BIM modelling

#### 自動化與機械人技術 Automation and Robotics

#### \* PA21-043 | 打鑿機器人 Jackbot

- # 可編程序、以遙控器操作的電動 打鑿機械人
  - 具備自動停止功能,提升運作安全
  - 充電4小時後可連續運作8小時

#### \* PA21-036 | Diamec Smart 8

- # - 經驗較淺的操作員也可操作的自動 岩心鑽探機,進行深孔鑽探
  - 設有安全控制板及全自動鑽桿裝卸 系統,可遠距離操作鑽探機和裝卸 鑽桿,改善安全情況

# 數碼化 Digitalisation

#### \* PA21-024 | 火衛者應用程序 FireWatcher Fire Alarm Web Application

- # \_ 以雲端為本的火警監控平台
- 出現火警及/ 或煙霧時, 流動應用
- 程式會通知用戶
- A cloud-based fire alarm system monitoring platform - Alerts users of occurrences of fire and/or smoke

#### through mobile application

#### \* PA21-039 RACE 風險評估應用程式 **Risk Assessment Conduct Everywhere (RACE) Mobile App**

- # 用以進行風險評估的流動應用程式
- 支援項目團隊在電子平台上分享 相關資訊
- A mobile app to carry our risk assessment - Support project team to share relevant information on the electronic platform

#### 傳感器及物網聯 Sensors and IoT

#### \* PA22-005 A.I. Surveillance System for Construction Site Safety

- # 結合人工智能 (A.I) 和 5G 物聯網 (loT) 技術的安全管理系統 - 監察工友和車輛進入危險區域,
  - 並偵測未佩戴安全頭盔的工友 - 實時監察,並即時發出警報,
  - 以便及時採取應對措施

#### \* PA22-011 | Raspect-ACE-Safety

- # 用於監察工地活動和可移動機械的位置
- 工地的感應器和攝影機分別收集數據和
- 影像,經電腦分析後,可在平台查閱 - 偵測到安全問題時,可即時通知
- 安全主任

- A safety management system incorporating artificial intelligence (A.I) and 5G Internet of Things (IoT) technologies
- Monitor workers or vehicles entering hazardous areas and detect workers not wearing safety helmets.
- Provide real-time monitoring and issue instant warnings for timely response
- Monitor onsite activities and mobile plants location
- Data collected through sensors and cameras on site can be inspected on platform after computer analysis.
- Issue alerts to safety officers when detecting unsafe incidents

(211)一個成多個以下 121 項 支方 不發之地方,應立即停止使用 及更換

電線切勿浸於水中,應高掛 或放置於行人通道旁,避免 長期課題

所有電工具、必须設有

H2 #38



Elebia Autohooks https://elebia.com/



**Robot Limited** © 3705 2998 安百拓香港

O-matic Intelligent

奧馬迪機器人 有限公司

有限公司 Epiroc Hong Kong Limited © 2488 0103

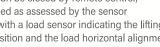
智叻科技 有限公司 Letsapp Limited © 5225 4679

思科創意有限公司 Ideas & Technology Company Limited © 9313 6043

iSafety Limited © 2408 8008

RaSpect Intelligence Inspection Limited ttps://raspect.ai/en/ about/contact-us









# 用戶對預先批核安全相關科技產品的評價 Users' Feedback on Pre-approved Safety-related Technologies

#### PA18-006 | 機械衣(型號-Y) Powered Wear MODEL-Y

其士 (環建) 聯營 Chevalier-CPC Joint Venture





- 協助工友發力並加強腰部的抗阻力
- 防止工友過度彎腰,從而減低背部受傷的風險
- 改善工友錯誤的提舉姿勢,提高工友的安全意識
- Provide workers with auxiliary force and increase resistance to the waist
- Prevent workers from excessively bending their waist to reduce risks of back injuries
- Improve worker's wrong lifting posture and raise worker's safety awareness

#### PA20-032 | 超寬頻無線定位安全系統 Ultra-wide Band Wireless Positioning Safety System

#### 中國建築工程(香港)有限公司

China State Construction Engineering (Hong Kong) Limited

110





- 提升緊急應變效率
- 令隧道建造工程開展以來維持零意外及零事故
- 實時監測工友的健康狀況,亦可在緊急情況
  時向工友發出緊急撤離通知
- Improve the efficiency of response to emergency
- Maintain zero accidents and incidents since the start of tunnel construction
- Enable real-time monitoring of workers' health status, and notify workers of emergency evacuation during emergency

#### PA19-011 | 運輸機器人 Transbot

有利建築有限公司 Yau Lee Construction Co., Ltd.

120105



- 配備了感應系統,當發現接近工人會發出警報及停車
- 減少了工人搬運物料時受傷的機率
- 日常使用不會排放產生固體廢物和污水
- Transbot equipped with sensors will auto stop with alarm when it detects workers nearby
- Reduce the chance of workers being injured when handling materials
- No solid waste and sewage will be discharged from daily operation

### PA20-055 | 超寬頻防碰撞警報系統 UWB Collision Warning System

創業地基有限公司 New Concepts Foundation Limited





- 當工友在未獲授權的情況下進入機械操作區域時,工友安全 帽上的接收器及移動機械內的警報器會通過聲音及振動作出 警示,從而提高機械操作員的安全意識和減低流動機械互相 碰撞的風險。
- The receiver on workers' helmet and alarm inside the moving plant will emit alert via sound and vibration for unauthorised entry to plant moving area, improving plant operator's safety awareness and reducing the risk of collision between mobile machines.

# 基金安全相關科技產品資料便覽 (截至2022年5月31日) Fact Sheet on CITF Safety-related Technologies (as of 31 May 2022)

安全相關科技的 獲批申請數目 Approved applications on safety-related technologies

項

Items

預先批核名單中與 安全相關科技產品數量 Number of pre-approved safety-related technologies



每項安全相關科技申請的資助上限 Funding ceiling on each safety-related technology



安全相關科技的 獲批總金額 Total approved sum on safety-related technologies

# нк\$**80,000,000**

預先批核名單中最受歡迎的三項安全相關科技產品 TOP 3 POPULAR safety-related technologies on Pre-Approved List



鷹網智能監測系統 5.0 I-Vision Smart Monitoring System 5.0



物聯網智能安全帽 連雲端管理平台 Dasloop IoT Smart Helmet with Cloud Based Management Platform



PA20-055 超寬頻防碰撞警報系統 UWB Collision Warning System

	基金統計數字 Funding Statistics : 獲批項目及總金額名單 (截至2022年5月31日) List of Approved Projects and Amount (as at 31 May 2022)	數量 Numbers	獲批總金額(港元) Amount(HK\$)
	建築信息模擬軟件 Building Information Modelling (BIM) Training	586	2,400萬
	建築信息模擬硬件 BIM Software and Hardware	764	8,600萬
	創新建築科技 Advanced Construction Technologies	888	2億8,700萬
	「組裝合成」建築法 Modular Integrated Construction	57	1億2,900萬
	預製鋼筋 Prefabricated Steel Rebar	131	9,700萬
	人力發展 Manpower Development	34	1,500萬
	總數 Total :	2 460	6億3,800萬



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