



政府資訊科技總監辦公室

Office of the Government Chief Information Officer



IT Innovation Lab in Secondary Schools

中學IT創新實驗室計劃

中學**IT**創新實驗室

2020年11月





The 2019-20 Budget

“79. To pave the way for nurturing local technology talents, we will also encourage the promotion of popular science education in schools. I will deploy \$500 million to implement the IT Innovation Lab in Secondary Schools Programme in the coming three school years. Each secondary school benefiting will be granted \$1 million to procure the necessary information technology (IT) equipment and professional services, and organise more relevant extra-curricular activities to deepen students' knowledge of cutting-edge IT, such as artificial intelligence, blockchain, cloud computing and big data, with a view to helping young people build a good IT foundation early during their secondary school years. In addition to financial support, the Office of the Government Chief Information Officer (OGCIO) will set up a one-stop professional support centre to provide assistance.”

IT Innovation Lab in Secondary Schools Programme

Objectives

- ✓ Enhance EITP and extend the programme to all publicly funded secondary schools
- ✓ Enhance the interest of young people (including secondary school students) in IT and innovative thinking and foster an IT learning atmosphere to encourage them to choose technology-related tertiary education programmes and pursue an I&T career in the future
- ✓ Lay a sound foundation in IT for young people during their secondary schooling, thereby promoting local popular science education and expanding the supply of I&T talent

Funding Scope

IT Innovation Lab in Secondary Schools Programme

IT equipment and facilities

e.g. :

- ✓ Procure or rent server-side and client-side hardware and software
- ✓ Optical fibre and broadband network
- ✓ Software-as-a-service, cloud-based servers and storage
- ✓ Acquiring relevant professional services



Organisation of IT-related activities

e.g. :

- ✓ Coding class, mobile app workshop, VR/AR application experiment
- ✓ Seminars on the application of IT / digital transformation
- ✓ Short course or other learning experience
- ✓ Visits to local offices of multinational companies and local start-ups
- ✓ Preparing for and participating in local and non-local competitions
- ✓ Organising IT exhibitions

Others

- ✓ Operational expenses of the activities (e.g. maintenance and related professional services including part-time tutors and part-time staff)
- ✓ Administrative cost (accounting and auditing services)⁴

Governance Structure

Advisory Committee

- To provide advice in major aspects, including the reference list of equipment, the nature and types of IT-related ECA and implementation progress of the programme

Vetting Committee

- To endorse vetting criteria and pre-approved activity types; and
- To consider individual applications based on endorsed vetting criteria and make funding recommendations to the OGCI0 to ensure that the approved funding will be used in line with the policy objectives and funding scope of the programme

Application Timeline

2020/21
school
year

Approving applications and starting funding disbursement
(Target 1st batch by end-2020/early 2021)

2021/22
school
year

Approval in around 1 month normally
*(subject to completeness of the application and
volume of applications received)*


2022/23
school
year

Accept
applications
throughout
the year

eForm for submission

- 1) Input of required information on the applicant school, proposed IT-related activities and budget
- 2) Declaration and Commitment
- 3) Review and Confirmation

IT Innovation Lab in Secondary Schools Application Form

 **The Office of the Government Chief Information Office**
The Government of the Hong Kong Special Administrative Region of the People's Republic of China

I Want To Start Filling in a New Form Fill in a Saved Form

Last Update: 2020-09-25

1) Introduction
Part A: Particulars of the Applicant School 甲部：申請學校資料
Part B: Annual Plan - Part I 乙部：年度計劃書 - 第一部分
Part B: Annual Plan - Part II (a) 乙部：年度計劃書 - 第二部分 (a)
Part B: Annual Plan - Part II (b) 乙部：年度計劃書 - 第二部分 (b)
Part B: Annual Plan - Part III 乙部：年度計劃書 - 第三部分
Part B: Annual Plan - Part IV 乙部：年度計劃書 - 第四部分
Part C: Declaration and Commitment 丙部：聲明及承諾
9) Review & Confirm
10) Acknowledgement

eForm – Particulars of Applicant School

- ✓ School Name, School Code, School Type, Address, Website
- ✓ Principal and Teacher-in-charge information

Part A: Particulars of the Applicant School 甲部：申請學校資料

School Name 學校名稱 *

School Name (English) 學校名稱 (英文)

School Name (Chinese) 學校名稱 (中文)

School Code 學校編號



School information will be retrieved after "School Name" or "School Code" is inputted and ENTER is pressed. Please verify the accuracy of the retrieved information. 在輸入「學校名稱」或「學校代碼」並按ENTER鍵後，將自動檢索學校資料。請核實檢索的資料是否準確。

School Code 學校編號

School Type 學校類別 *

Please Choose ...



School Address (English) 學校地址 (英文) *

School Address (Chinese) 學校地址 (中文) *

School Website 學校網址 *

eForm – Annual Plan of Activities

IT-related activities :

- ✓ Title
- ✓ Description
- ✓ Technology
- ✓ Objective / Outcome
- ✓ Estimated Number of Participating Students
- ✓ Estimated Activity Period
- ✓ Estimated Activity Hours
- ✓ Mode of Delivery
- ✓ Activity Type
- ✓ Deliverables that can be shared with other schools

Part B: Annual Plan (2020/21 School Year) 乙部：年度計劃書 (2020/21 學年)

I. IT-related activities (extra-curricular activities or co-curricular activities) 與資訊科技相關的活動 (課外活動或聯課活動)

Please describe the IT-related activities going to be held for your students. 請說明為學生舉辦的資訊科技相關活動。

1

Title 名稱 *

(English) (英文) Please write no more than 150 characters. 請以不多於150字作描述。

(Chinese) (中文) Please write no more than 150 characters. 請以不多於150字作描述。

Description (including background, scope, list of activities, how the students are engaged in the activity, plan and schedule (if any)) 活動說明 (包括背景、範圍、活動列表、學生如何參與該活動、計劃及時間表 (如有)) *

Please write no more than 500 characters. 請以不多於500字作描述。

Technology 科技 *

Artificial Intelligence (AI) 人工智慧

Big Data 大數據

Blockchain 區塊鏈

Cloud Computing 雲端運算

eForm – Budget

- ✓ Cost of IT-related activities
 - ✓ IT Equipment, Infrastructure and Related Service Charges
 - ✓ Operating Expenses and Administrative Cost

Part B: Annual Plan (2020/21 School Year) 乙部：年度計劃書 (2020/21 學年)

II. Cost of IT-related activities 與資訊科技相關的活動費用

(a). IT Equipment, Infrastructure and Related Service Charges 資訊科技設備、基礎設施及相關服務費用

Please describe the hardware, software, infrastructure, cloud services and other items that will be acquired in organising the proposed IT-related activities. The applicant has to provide justifications in the description below showing how the procured IT equipment and professional services will be utilised to organise suitable IT-related activities.

請說明為擬舉辦的資訊科技相關活動而購買的硬件、軟件、基礎設施、雲端服務及其他項目，申請人必須在以下說明一欄提供理由，說明如何運用所採購的資訊科技設備及專業服務舉辦合適的資訊科技相關活動。

#	1
Expenditure Item 開支項目	Please Choose ...
Description and Justification 描述及理由	Please write no more than 500 characters. 請以不多於500字作描述
Estimated Amount (2020/21) (Ballpark in HK\$) 估計金額 (2020/21) (港幣)	0.00
Related Professional and Maintenance Services (2020/21) (Ballpark in HK\$) 相關專業及維修保養服務 (2020/21) (港幣)	0.00
Remarks (optional) 備註 (可選擇)	

eForm – Declaration and Commitment

- ✓ Declaration that the submitted information is true and accurate
- ✓ Commitment to organise the activities according to the submitted application

Part C: Declaration and Commitment 丙部：聲明及承諾

(1) The teacher-in-charge has to print the hard copy with no modification and submit the **true copy** to the following address within five working days following the date of e-submission with the signature of the school principal on behalf of the school authority and the school chop:

*IT Innovation Lab in Secondary Schools One-stop Support Centre
Office of the Government Chief Information Officer
6/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
[Application for the IT Innovation Lab in Secondary Schools]*

負責老師須在不作修改的情況下列印表格，並在提交申請日期起計五個工作天內將附有代表校方的校長簽署及學校印章的**真真正正**紙本送交以下地址：

*香港北角渣華道333號北角政府合署6樓
政府資訊科技總監辦公室
中學IT創新實驗室一站式支援中心
「中學IT創新實驗室計劃申請」*

(2) I confirm that: (Please mark "✓" as appropriate.) 本人確認：（請在適當空格內劃上「✓」號）

- All information given in this application is true and accurate. I understand that if I wilfully give any false information or withhold any material information, the application will become void and any fund approved will be withheld and any payment made shall be refunded to the OGCI/O. 在此申請提供的所有資料均真實準確。本人明白如本人故意提供任何虛假資料或不提供任何關鍵資料，申請將告無效。任何獲批的資助將不予支付，而已支付的任何款項均須退還資助辦。^{*}
- The proposed plan is not a replication (i.e. sheer copying without adaptation or new elements) of those I have been conducting / will conduct using funding for similar plan from other Government sources. 建議的計劃不是本人運用其他政府資助一直 / 將會推行的類似計劃的複製品（即純粹複製而沒有任何修改或加入新元素）。^{*}
- If our application is accepted, we will commit with the authorisation of the School Management Committee (SMC) / Incorporated Management Committee (IMC) / School Sponsoring Body (SSB) or School Supervisor, as appropriate, to designing and organising the activities according to our submitted application; and complying with all obligations and requirements specified in the Application Guidelines of IT Innovation Lab in Secondary Schools. 如果我們的申請獲得資助，我們將按照校董會 / 法團校董會 / 辦學團體或學校校董（視乎何者適用而定）的授權承諾：根據我們所提交的申請設計和舉辦活動；以及遵守「中學IT創新實驗室申請指引」所訂明的所有義務及要求。^{*}

Proposal Requirements

Project Scope	The proposed scope is primarily related to IT (including Artificial Intelligence, Big Data, Blockchain, Cloud Computing, Coding / Algorithm / Computation Thinking, Cyber Security, 3D modeling, Digital Game Design and Development, Drone Coding, Internet of Things, Mobile App Development, Robotics Coding, Virtual Reality / Augmented Reality / Mixed Reality, Web Development) and in line with the policy objectives and funding scope of the programme.
Project Outcome	The proposed activity can enhance students' computational thinking and digital skills in innovation and real-life problem solving outside regular classroom learning, and cultivate students' interest in IT and foster an IT learning atmosphere at school.
Design and Implementation	The proposed activity is practical.
Financial Considerations	The proposed budget is reasonable and effective.

Pre-approved Activity Types

Pre-approved Activity Types

The following activities with cost \$100,000 or below:

Workshops	Short courses	Lessons
Maker sessions	Trainings	Exhibition
Seminars	Competitions (intra- and inter-school, local)	Expo
Webinars	Visit to local IT organisations	Open day

Non Pre-approved Activity Types

- Non-local competitions
- Conference/Symposium
- Any activity with cost over \$100,000
- Any equipment and operating expenses/administrative cost that are sharable with more than one activities with sum over \$100,000

Reference List of Equipment / IT-related Activities

- Inputs from IT-education related associations, IT corporates and academia
 - Made reference to EITC partner schools and EITA participating schools
 - Currently, there are about 40 reference items, containing hardware, software and cloud services
 - Currently, there are about 30 reference IT-related ECA cases
 - No commercial elements in the list



Reference List of Equipment (Examples)

Examples

Technology	Hardware / Software / Cloud Services	Level (Pre-requisite, if any)	Purpose and Description
Artificial Intelligence (AI)	Hardware – Vision Recognition Kits	Level : Moderate Pre-requisite : NIL	<ul style="list-style-type: none">- Hardware kits that equip with microcontroller board/embedded processor and camera- run pre-trained machine learning models such as recognising objects, e.g. animals, fruits- Supports common programming languages such as Python, etc.
Drone Coding	Hardware : Programmable Drones	Level : Moderate Pre-requisite : Nil	Description : <ul style="list-style-type: none">- block-based / text-based coding- programmable with Scratch, Swift, Javascript, Python, etc.- Connection via flight controllers or smartphones

Reference List of IT-related Activities (Example)

Example

Case : Introduction Workshop to Artificial Intelligence (AI)

Objective	Introduce AI to students through a lecture and a practical session
Description	Students will learn the principle and daily application of AI through interactive lecture
<u>Activity Details</u>	
Hardware	Vision & voice capturing peripherals PC / laptop / tablet computer with Internet connection
Software	Common programming languages like Python
Cloud Services	AI service platform
Major Activities	<ol style="list-style-type: none"> 1. Interactive lecture 2. Brainstorm session 3. Application design and programming
Learning Objective(s)	Understand AI application in our daily lives/Combine imagination and computational thinking to innovate and build AI applications
Duration	Theoretical session: 4 hours Practical session: 8 hours
Difficulty	Medium
Target Level	S1 – S4
Target No. of Students	About 20 students per workshop

Examples of Out-of-Scope Items

Category	Out-of-scope Items
Lab hardware, software and cloud tools and services	<ul style="list-style-type: none">• E-learning equipment for assisting general teaching and learning purposes• Notebook computers for regular ICT class• Renovation works and furniture unrelated to IT activities• School's general facilities (e.g. WiFi, CCTV)• Non-IT related STEM equipment (e.g. solar panel)
IT-related activities	<ul style="list-style-type: none">• Lab activities of regular subject of ICT within traditional syllabus• All trips outside Hong Kong (except representing Hong Kong in non-local competitions)
Operating cost	<ul style="list-style-type: none">• Teacher training• Maintenance cost for schools' pre-existing hardware or software• Utility costs (e.g. electricity cost)• Pre-existing bandwidth subscription• Entertainment expenses such as food and beverages

More details will be available in the Application Guidelines

Way Forward

Description	Schedule
Start to receive applications	1 December 2020
Organise experience sharing at Learning and Teaching Expo 2020 by EITP partner schools	9 -11 December 2020
Organise experience sharing at Education & Career Expo 2021 by EITP partner schools	28 - 31 January 2021

