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| RGC Ref. No.:<br><u>UGC/IIDS25/M01/19</u><br>(please insert ref. above) |
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**RESEARCH GRANTS COUNCIL  
COMPETITIVE RESEARCH FUNDING SCHEMES FOR  
THE LOCAL SELF-FINANCING DEGREE SECTOR**

**INTER-INSTITUTIONAL DEVELOPMENT SCHEME (IIDS)**

**Completion Report**  
*(for completed projects only)*

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| <p><b><u>Submission Deadlines:</u></b> 1. <i>The unspent balance, if applicable, and auditor's report: within <u>six</u> months of the approved project completion date.</i><br/>2. <i>Completion report: within <u>12</u> months of the approved project completion date.</i></p> |
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**Part A: The Project and Investigator(s)**

**1. Project Title**

Seminar Series on “Finding our way out for our urban forest – the lessons  
learned from the aftermath after super typhoon”

**2. Investigator(s) and Academic Department(s) / Unit(s) Involved**

| Research Team                | Name / Post                        | Unit / Department / Institution                                    |
|------------------------------|------------------------------------|--|
| Principal Investigator       | Dr LAW Man Yee/Assistant Professor | Department of Environment, Faculty of Design and Environment, THEi |
| Co-Principal Investigator(s) | Dr. ZHANG Hao/Associate Professor  | Department of Environment, Faculty of Design and Environment, THEi |
| Co-Investigator(s)           | N/A                                | N/A  |
| Others                       | N/A                                | N/A  |

**3. Project Duration**

|  | Original         | Revised | Date of RGC / Institution Approval<br><i>(must be quoted)</i> |
|--|------------------|---------|---|
| Project Start Date                           | 1 January 2020   | N/A     | N/A   |
| Project Completion Date                      | 31 December 2020 | N/A     | N/A   |
| Duration <i>(in month)</i>                   | 12 months        | N/A     | N/A   |
| Deadline for Submission of Completion Report | 31 December 2021 | N/A     | N/A   |

**Part B: The Final Report****5. Collaboration with Other Self-Financing Degree-Awarding Institutions**

|  | <b>Name of Institution(s)</b> | <b>% of Participation</b> | <b>Distinctive <u>Element(s)</u> of the Institution in Responsible Project</b> |
|--|-------------------------------|---------------------------|--|
| <b>Applying Institution</b>                    | N/A                           | N/A                       | N/A  |
| <b>Collaborating Institution(s) (If any) #</b> | N/A                           | N/A                       | N/A  |
|  | N/A                           | N/A                       | N/A  |
|  | N/A                           | N/A                       | N/A  |
| <b>Total:</b>                                  |                               | N/A                       | N/A  |

# If no other eligible local self-financing degree-awarding institutions are involved, please input "N/A" in this table.

**6. Project Objectives****6.1 Objectives as per original application**

1. *To stimulate the conversation among the industry and interdisciplinary insights to seek solutions to imminent problems in urban tree management after the devastation of super typhoon;*
2. *To raise practical and political resolutions on building more resilient urban forest in Hong Kong regime;*
3. *To boost innovative strategy that build a smart city with integrated sciences for urban tree management.*

**6.2 Revised objectives**

N/A

Date of approval from the RGC:

Reasons for the change:

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- 1.
- 2.
3. ....

### 6.3 Realisation of the objectives

*(Maximum 1 page; please state how and to what extent the project objectives have been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)*

The objectives are realized based on the findings from the seminar evaluation survey and feedback. See attendees' feedback in Evaluation Report in Annex.

1. *To stimulate the conversation among the industry and interdisciplinary insights to seek solutions to imminent problems in urban tree management after the devastation of super typhoon;*
  - As reflected in our evaluation reports of seminar 1 to 4, the vast majority of respondents (86,89,91,96% in seminar 1,2,3,4 respectively) felt that they gained new knowledge applicable to their work/future career from webinars
2. *To raise practical and political resolutions on building more resilient urban forest in Hong Kong regime;*
3. *To boost innovative strategy that build a smart city with integrated sciences for urban tree management.*
  - As reflected in various comments by attendees, they highly commented our webinars, which definitely provide practical and political resolutions building more resilient urban forest in Hong Kong
  - Comments from attendees:
    - o "I have been working in the horticulture & arboriculture industry for over 9 years, and this session is the best session I have had. This session is informative and professional."
    - o "I felt that Dr Smiley's and Dr Ow's presentations were completely relevant to the seminar title"
    - o "It's a very great webinar. The topic is very good."


## 6.4 Summary of objectives addressed to date



| <b>Objectives</b>  | <b>Addressed</b><br><i>(please tick)</i> | <b>Percentage Achieved</b><br><i>(please estimate)</i> |
|--|--|--|
| 1. To stimulate the conversation among the industry and interdisciplinary insights to seek solutions to imminent problems in urban tree management after the devastation of super typhoon; | √  | 100%   |
| 2. To raise practical and political resolutions on building more resilient urban forest in Hong Kong regime;   | √  | 100%   |
| 3. To boost innovative strategy that build a smart city with integrated sciences for urban tree management.  | √  | 100%   |

## 6.5 Project progress

| <b>Original Implementation Schedule</b> | <b>Revised Implementation Schedule</b><br><b>(Date of RGC's Approval)</b> | <b>Updated Progress</b> |
|---|---|-------------------------|
| 1 Jan to 31 December 2020               | June to December 2020<br>(approved on 16 April 2020)                      | On Schedule             |

## 6.6 Speaker(s)

| <b>Title / Name</b><br>(Surname in Capital Letters)   | <b>Post / Institution</b>  | <b>Title / Topic of Presentation / Course</b>   | <b>Previous Research Links with Hong Kong Institutions</b><br>(Nature and Date (Month / Year)) |
|---|--|---|--|
| Mr Craig COKER<br> | Principal<br>Coker Composting and Consulting,<br>U.S.<br>Senior Editor/<br>BioCycle Magazine U.S.  | Closing The Loop In<br>Greenwaste<br>Management Through<br>Composting and<br>Compost Use  | Expert in U.S.   |
| Prof CHIU Siu Wai   | Honorary Senior College Tutor/<br>Chung Chi College, CUHK<br>Honorary Senior Scientific Officer,<br>Hospital Authority, HK                             | Sustainable Yard Waste<br>Management  | Local scholar  |
| Dr. Caroline LAW  | Assistant Professor/<br>Faculty of Design and Environment<br>Technological and Higher Education<br>Institute of Hong Kong (THEi)                       | Urban Yard Waste 3R --<br>Pilot Scheme for Private<br>Housing Estates in Hong<br>Kong   | Local scholar  |
| Dr ZHU Chun   | Editor- In- Chief,/ Guangdong<br>Landscape Magazine<br>Vice Chair/Female Landscape<br>Architects Group<br>Chinese Society of Landscape<br>Architecture | A study on technical<br>analysis of tree root<br>system and how it<br>impacts on the stability<br>of urban trees in high<br>winds | Expert in<br>China   |

|  |   |   |                                 |
|--|---|---|---------------------------------|
| Ms HUANG Songyi  | Director /Ecological & Landscape Research Center<br>Guangzhou Landscaping Company   | A review of recent typhoon disturbances on urban forest in the Southern China region and the emergency measures to address the post-typhoon disasters                   | Expert in China                 |
| Prof. QIN Xin Sheng<br> | Associate Professor/<br>College of Forestry and Landscape<br>South China Agricultural University<br>Deputy Secretary/<br>Arboriculture Division<br>Chinese Society of Forestry                                    | The impact of wind on trees: systematic quantitative literature review and a case study on impacts of Typhoon Mangkhut on street trees in the Bao'an District, Shenzhen | Scholar in China                |
| Dr Nadina GALLE<br>     | Ecological Engineer, Senseable City Lab<br>Massachusetts Institute of Technology, USA   | Internet of Nature: Exploring the intersection of "smart" cities, urban nature, and emerging technologies<br>Design of Planting Spaces                                  | Scholar in U.S. and Netherlands |
| Sr Paul TSUI   | Managing Director<br>Esri China (Hong Kong) Limited, HK   | Every Tree Counts: Using GIS for Urban Forestry in Smart Cities   | Local practitioner              |
| Prof. Yu-Hsing WANG  | Professor and Associate Department Head/<br>Department of Civil and Environmental Engineering<br>Director of Data-Enabled Scalable Research Laboratory/<br>The Hong Kong University of Science and Technology, HK | City-scale tree monitoring with the LoRaWAN-based sensor system, Internet of Tree Things  | Local scholar                   |
| Dr Tom Smiley  | Senior Arboricultural Researcher/<br>Bartlett Tree Research Laboratory in Charlotte, NC, USA<br>Adjunct Professor of Forestry/<br>Clemson University, SC, USA   | Maximizing Tree Growth With Limited Soil Volume - Results Of Research In The United States  | Scholar in U.S.                 |
| Ms Kathy Ng  | Chief Landscape Architect/<br>Highways Department<br>Hong Kong SAR Government   | Design For Tree Planting Space - An Evolutionary Process In Hong Kong   | Local practitioner              |
| Dr Genevieve Ow  | Deputy Director<br>Centre for Urban Greenery and Ecology (CUGE),<br>National Parks Board (NParks),<br>Singapore   | Exploration Of Subterranean Spaces For Urban Street Tree Planting   | Scholar in Singapore            |

6.7 Please provide details of the activities organized, including the theme / objectives of the activities, targeted participants, attendance, analysis of participants, e.g. country of origin,

research background, etc., evaluation forms of the activities and a summary of the participants' evaluation. Photos of the activities are preferred.)

See Annex for detail.

## 7. Research-Related Outcome

### 7.1 Potential for development into research proposal and the proposed course of action

*(Maximum half a page)*

See 7.2 and 7.3

### 7.2 Research collaboration achieved

*(Please give details on the achievement and its relevant impact)*

- provide professional development opportunities for students, industry practitioners working in greening and landscaping, and we are planning a series of applied research topics or knowledge exchange:
  - Knowledge exchange with Hong Kong Government Landscape Architects Association (HKGLAA) on promoting on-site composting in Hong Kong's residential neighborhood
  - Knowledge exchange with Tung Wah Group of Hospitals on their project E-Co Village development at Lot B of Tseung Kwan O Stage I Landfill on setting up on-site composting facilities
  - Potential research project with Charcoal World on testing benefits of biochar applying on landscaping soil for greening projects in Hong Kong
  - Research project on urban yard waste treatment facilities siting was successfully funded by ECF

### 7.3 Any new development and/or challenging research topic(s) has / have been identified and any new initiative(s) for future research has / have been inspired.

- Optimization and enhancement of yard waste co-composting with wood chips and other organic materials
- Promoting use of biochar in urban landscaping projects
- Recommending suitable tree species for sky gardens (podium gardens) in Hong Kong
- Developing hands-on onsite composting guide for schools and residential estates in Hong Kong

## 8. The Layman's Summary

*(Describe in layman's language the nature, significance and value of the research activities, in no more than 200 words)*

The seminar series of "Finding our way out for our urban forest – the lessons learned from the aftermath after super typhoon" comprised of 4 sessions have been hosted in 2020 by Bachelor of Science (Honours)

Horticulture, Arboriculture and Landscape Management in collaboration with Greening, Landscape and Tree Management Section, Development Bureau and Hong Kong Institute of Horticultural Science.

The seminar series aims to enhance public awareness of policy, planning and management strategies on urban greening by bringing together insights and experiences from local and overseas experts.

The COVID-19 pandemic has severely disrupted HALM's original plan for the 2020 IIDS seminar series by bans of international travel and social distancing policies etc. To protect the health and safety of our speakers and potential participants while ensuring continuity its commitments to RGC to deliver the 2020 IIDS seminar series program on-time and on quality, HALM proactively teamed up with the THEi IT department to bring the face-to-face seminar online. There had been a steep learning curve for HALM towards producing a professional webcasting from scratch in such a short period of time. Again affected by the pandemic, some speakers in our original proposal for the seminar series had decided to pull out of the 2020 IIDS seminar series with short notices, that brought HALM a big challenge of finding their replacements in a short and challenging period of time. HALM actively searched and approached potential candidates, replacement of the guest speakers were found and the webinar were delivered on time and in budget.

The table below sets out the details of the webinar series:

| Seminar Title  | Delivery Date | Number of Attendees |
|--|---------------|---------------------|
| Seminar 1 – "Rethinking Our Yard Waste Management Policy And Practice"                         | 6 June        | More than 220       |
| Seminar 2 – "Looking ahead beyond tree stumps -- tree species selection for resilient city"    | 22 August     | More than 300       |
| Seminar 3 – "Smart city for urban forests: what changes can big data and technology bring us?" | 10 October    | More than 125       |
| Seminar 4 – "Reforming tree pits -- subterranean engineering design of planting spaces"        | 5 December    | More than 337       |

The webinar series was a resounding success with lots of positive comments on every aspect of each webinar. Majority of respondents of each Webinar Feedback Survey (1<sup>st</sup> webinar 81%; 2<sup>nd</sup> webinar 96%; 3<sup>rd</sup> webinar 89% and 4<sup>th</sup> webinar 91%) considered they gained new knowledge applicable to their work/future careers from this webinar.

Almost all webinar recordings (except presentation by Prof. Yu-Hsing WANG is not available because his research finding is not yet published) are made available online for seminar registrants, industry practitioners and students to view. See the URLs of webinar recordings in the table below.

| Seminar Title  | URL of webinar recordings   |
|--|---|
| Seminar 1 – "Rethinking Our Yard Waste Management Policy And Practice"                         | <a href="https://www.youtube.com/playlist?list=PLn5RW-P_aICtnkIo8Xahi0RjvYyyd3CK">https://www.youtube.com/playlist?list=PLn5RW-P_aICtnkIo8Xahi0RjvYyyd3CK</a>   |
| Seminar 2 – "Looking ahead beyond tree stumps -- tree species selection for resilient city"    | <a href="https://www.youtube.com/playlist?list=PLn5RW-P_aICs6nbMTrkyq0feHD7byily4">https://www.youtube.com/playlist?list=PLn5RW-P_aICs6nbMTrkyq0feHD7byily4</a> |
| Seminar 3 – "Smart city for urban forests: what changes can big data and technology bring us?" | <a href="https://www.youtube.com/playlist?list=PLn5RW-P_aICshzEoX_2MwIbRNfiBhKFDg">https://www.youtube.com/playlist?list=PLn5RW-P_aICshzEoX_2MwIbRNfiBhKFDg</a> |
| Seminar 4 – "Reforming tree pits -- subterranean engineering design of planting spaces"        | <a href="https://www.youtube.com/playlist?list=PLn5RW-P_aICt51zVN37UkM4bRQk5iShFi">https://www.youtube.com/playlist?list=PLn5RW-P_aICt51zVN37UkM4bRQk5iShFi</a> |

News announcement was made via THEi website and HALM program Facebook page.

<https://www.thei.edu.hk/news/webinar-recordings-2020-seminar-series-finding-our-way-out-for-our-urban-forest-the-lessons-learned-from-the-aftermath-after-super-typhoon>



**Part C: Research Output****9. Recognized Conference(s) Paper(s) Related To This Project Was / Were Delivered (As Applicable)***(Please attach a copy of each conference abstract)*

N/A

| Month / Year / Place | Title | Conference Name | Submitted to RGC<br><i>(indicate the year ending of the relevant progress report)</i> | Attached to this Report<br><i>(Yes or No)</i> | Acknowledged the Support of RGC<br><i>(Yes or No)</i> |
|----------------------|-------|-----------------|---|---|---|
|                      |       |                 |   |   |   |
|                      |       |                 |   |   |   |
|                      |       |                 |   |   |   |
|                      |       |                 |   |   |   |

**10. Research Personnel Trained (As Applicable)**

| Name | Capacity           |
|------|--------------------|
|      | Research Assistant |

**11. Other Impact (As Applicable)***(e.g. prizes, collaboration with other research institutions, technology transfer, etc.)*

N/A

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**12. Statistics on Research Outputs**

|   | Peer-reviewed Journal Publications | Conference Papers | Scholarly Books, Monographs and Chapters | Patents Awarded | Other Research Outputs<br>(please specify) |     |
|---|------------------------------------|-------------------|--|-----------------|--|-----|
| No. of outputs arising directly from this project | 0                                  | 0                 | 0  | 0               | Type                                       | No. |
|   |                                    |                   |  |                 | NA   | 0   |

**13. Public Access Of Completion Report**

*(Please specify the information, if any, that cannot be provided for public access and give the reasons.)*

| <b>Information that Cannot Be Provided for Public Access</b> | <b>Reasons</b> |
|--|----------------|
| N/A  |                |