

## Environmental Research, Technology Demonstration and Conference Project

<b>ECF Project:</b>	ECF 2018-125
<b>Project Title:</b>	Effects of external lighting on the environment
<b>Principal Investigator:</b>	Dr Pun Chun Shing, Jason, Department of Physics, The University of Hong Kong
<b>Total Approved Grant:</b>	\$1,761,101
<b>Duration:</b>	1/7/2019 to 30/06/2023
<b>Project Status/Remarks:</b>	On-going
<b>Project Scope:</b>	<p>With the successful launch of the Charter on External Lighting in 2016, Hong Kong has taken an important step in reducing light pollution. Hong Kong is also in the midst of a revolution in the type of lighting devices being deployed, migrating from traditional incandescent tungsten lamps to solid-state lighting such as LEDs. The first part of this project involves using the technique first pioneered by the applicant in a previous ECF project to conduct a long-term monitoring of the light pollution in multiple urban and rural locations by establishing a 10-year history of the night sky brightness measurement at selected locations. The project will be supplemented by analysing night-time satellite images to extend the geographic coverage. The second part of the project involves studying the type and weighting of lighting devices contributing to skyglow in Hong Kong using spectroscopic techniques. Through this project, the project team hopes to establish the long-term evolution of the Hong Kong night sky. The project team also aims to identify the actual composition of the urban and rural skyglow in their effort to promote more usage of dark sky friendly lighting in the society.</p>
<b>Summary of the Findings/Outcomes:</b>	To be available upon completion of the project