





# Renewable Energy Innovation Technology - Solar Tracking Platform

(SCIS2051)

<p><b>Introduction</b></p>	<p>Energy may be the most important factor that will influence the shape of society in the 21st century. Solar energy is one of the well-known renewable energy sources to collect energy from the sun. It is the indispensable method to alleviate energy crisis. To maximize collection of solar energy, how can we achieve it? Solar tracker, which orients a solar panel towards the sunlight, can maximize the energy collection.</p> <p>In this programme, you will learn how solar energy can be collected. Also, you will use MIT App Inventor to write an App for remotely controlling the tracking platform.</p>						
<p><b>Programme Type / Level</b></p>	<p>Electricity I Course (Level 3) (<a href="#">Token-required</a>)</p>						
<p><b>Instructor(s)</b></p>	<p>Dr CHAN Mau Hing (Lecturer, The Department of Physics, Hong Kong Baptist University)</p>						
<p><b>Pre-requisite</b></p>	<ul style="list-style-type: none"> <li>• Preferably has experience in programming or feel strong interested in renewable energy.</li> <li>• Students need to bring their own Android phone.</li> <li>• Students may bring their own PC/Mac laptops equipped with WiFi.</li> </ul>						
<p><b>Target Participants</b></p>	<p> <ul style="list-style-type: none"> <li>➤ S1 to S6 HKAGE student members only in 2019/20 school year</li> <li>➤ Class size: 50</li> </ul> </p>						
<p><b>Medium of Instruction</b></p>	<p> English with English handouts</p>						
<p><b>Certificate</b></p>	<p> <b>E-Certificate</b> will be awarded to participants who have:</p> <ul style="list-style-type: none"> <li>❖ Attended <b>at least 3 sessions; AND</b></li> <li>❖ Completed all the assignments with <b>satisfactory performance</b></li> </ul>						
<p><b>Intended Learning Outcomes</b></p>	<p>Upon completion of the programme, participants should be able to:</p> <ol style="list-style-type: none"> <li>1. Use free graphical programming platforms (e.g. MIT App Inventor) to develop phone App for solar power monitoring and control of solar tracking platform;</li> <li>2. Develop programming and practical skills to construct phone Apps, and control the tracker to maximise the collection of solar energy;</li> <li>3. Appreciate the nature creation and enhance awareness of natural resources.</li> </ol>						
<p><b>Screening</b></p>	<p> Please answer the screening question in the online application form.</p> <p>*The screening question is designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate motivation and the basic knowledge of Renewable Energy in the screening question can be enrolled in the programme.</p>						
<p><b>Application Deadline</b></p>	<table border="0"> <tr> <td><b>1<sup>st</sup> batch: 22 Jun 2020, 12:00 n.n</b></td> <td><b>Application Result Release Date</b></td> <td><b>1<sup>st</sup> batch: 26 Jun 2020</b></td> </tr> <tr> <td><b>2<sup>nd</sup> batch: 29 Jun 2020, 12:00 n.n</b></td> <td></td> <td><b>2<sup>nd</sup> batch: 2 Jul 2020</b></td> </tr> </table> <p>Student members may withdraw from the programme on or before the deadline. Otherwise, the token will be deducted.</p>	<b>1<sup>st</sup> batch: 22 Jun 2020, 12:00 n.n</b>	<b>Application Result Release Date</b>	<b>1<sup>st</sup> batch: 26 Jun 2020</b>	<b>2<sup>nd</sup> batch: 29 Jun 2020, 12:00 n.n</b>		<b>2<sup>nd</sup> batch: 2 Jul 2020</b>
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## Schedule



### Mass Lecture

Session	Date	Time	Venue (HKPC <sup>1</sup> )
1	11 Jul	1:30 p.m. - 4:30 p.m.	<del>SME One Multi-function Room</del> Online Lecture

### Session A

Session	Date	Time	Venue (HKPC <sup>1</sup> )
2	18 Jul	9:30 a.m. – 12:30 p.m.	<del>Computer Room 112</del>
3		1:30 p.m. - 4:30 p.m.	Online Lecture
4	8 Aug	9:30 a.m. – 12:30 p.m.	<del>Classroom 122</del> Online Lecture

### Session B

Session	Date	Time	Venue (HKPC <sup>1</sup> )
2	1 Aug	9:30 a.m. – 12:30 p.m.	<del>Computer Room 112</del>
3		1:30 p.m. - 4:30 p.m.	Online Lecture
4	8 Aug	1:30 p.m. - 4:30 p.m.	<del>Classroom 122</del> Online Lecture

Remarks: There are 1 mass lecture and 3 laboratory sessions for this programme, please select your available timeslots of laboratory sessions on the Online Application Form. You will be informed about the timeslot in regard to your choice via email if you are offered.

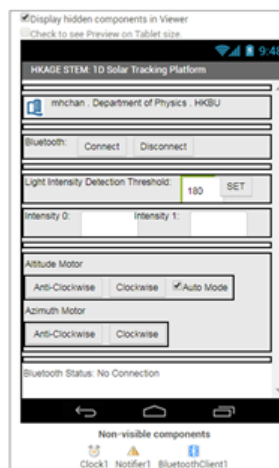
<sup>1</sup>Address: HKPC Building, 78 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong

## Sample note

### Project: Designer

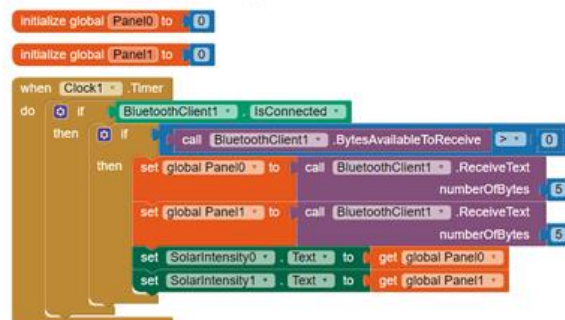
In User Interface, you may need the non-visible components:

- Bluetooth client
- Notifier
- Clock



### Project: Writing the Code

Get the voltage readings from solar cells.



## Enquiries



For enquiries, please contact us at 3940 0101 after language selection, press "1".