SINGAPORE GEOSPATIAL CHALLENGE (SGC) 2015

FAQ on Sensors and Data Collection (Field Work)
For SENSg Sensors
(Applicable for Secondary School Category only)

1. **How will the data collection be carried out?**
   For Secondary School teams, you can proceed and turn on the sensors for the purpose of minimum one-day (24 hours) test run (check if the sensor data is synced to https://app.nse.sg/) that will help ascertain its usability and detect potential glitches that need to be rectified prior to official data collection for SGC 2015. The official timeframe of field works will be announced by Geo-Startathon 11 June 2015.

2. **How do I use and handle the sensor?**
   Please refer to the Quick Start Guide handout that was disseminated to you when you were given the sensor, on how to turn it ON and initiate it. The below usage precautions have to be observed AT ALL TIME when handling the sensor:
   i. Avoid contacts with any liquid or water;
   ii. No dropping or bumping;
   iii. No dismantlement;
   iv. Turn it OFF when not in use (to save on battery).

3. **Am I being tracked…?**
   As the sensor is meant to collect both indoor and outdoor environments while stationary and moving / in motion, user's location will be calculated as well whenever it is turned ON. But for SGC 2015, only data that was collected in the park will be uploaded and shared in the crowd-sourcing portal (ArcGIS online, https://sgc2015.maps.arcgis.com/home). Irrelevant data will be filtered out and won't be published.

4. **The sensor doesn't seem to blink anymore. Is something wrong…?**
   Its LED will blink blue every ~10 seconds or more. Do not be alarmed if it doesn't blink for a prolonged period, data sensing is still on-going.

5. **How do I know if the sensor is low in battery power or needs to be recharged?**
   The sensor is designed to last for 5 to 7 days if turned ON continuously, before it needs to be re-charged using micro-SD power cable (similar to Android phone power cable). Please turn it OFF when not in used to prolong battery life. You may check if there is still battery by turning sensor OFF and ON to check for blinking light.

6. **How much coverage in the park is needed for data collection?**
   Each team will be assigned a few grids of the allocated park. We will announce this and update all teams by 11 June 2015.

7. **So…the sensor will just do its work after being turned on, right?**
   Yes. Each sensor will have an SD card that stores all data collected. There're 6 parameters to be collected – temperature, humidity, light intensity, air quality (dust particles), air pressure and noise level. The data will automatically be streamed back to the server wirelessly, after synchronising with wireless hotspot of your mobile phone.

8. **When will the sensors be issued to us?**
   For those who haven't received the sensors, we will contact each school separately to arrange sensor delivery to your teacher in-charge.

9. **Must we use iOS or Android version of ArcGIS Collector app to collect the data as well?**
   ArcGIS Collector app is available on both iOS and Android. It HAS to be launched while collecting data using the sensor to help improve X & Y coordinates for each sensor location point within the grids that your team will be assigned to.

10. **So…we need to collect data using both means – (a) SENSg sensors, and (b) ArcGIS Collector app…?**
    Yes.

11. **Do we need to upload the sensor data to the crowd-sourcing portal for sharing...?**
    No. The sensor data will be uploaded into the portal aka ArcGIS online (https://sgc2015.maps.arcgis.com/home) by SGC organiser for sharing.

12. **We must use the data collected by other teams which is uploaded online. We can then do our geospatial visualisation and/or analysis using ArcGIS online. Is this correct?**
    Yes. You may also use other data additionally. Please refer to General FAQ – Q3 & Q4 (http://sgeospatial.weebly.com/general-faq.html) for details.

13. **Can we download the maps and data from the ArcGIS online portal and use it in ArcMap or other desktop GIS software? Is it possible?**
    Yes it is possible, but not directly from ArcGIS online. All teams can only download crowd-sourced sensor data from ArcGIS online. They can write to Jamilah_SHAMSUL@sla.gov.sg to have a copy of all other relevant base layers from SLA.

14. **Do we need to return the sensors to SLA?**
    Yes. The sensors need to be returned to SLA on a given date which will be duly informed.