

## Productivity Step-up for Construction Agrifood Sector Programme (2023)

### Monitor Crops using IoT

<p><b>Day 1</b> <b>(Online Class)</b> 19 September 2023 (10.00am-5.00pm)</p>	<p><b><u>Diagnostics lesson</u></b> Productivity assessment is introduced for companies to identify the overall company performance and readiness to adopt technology. The companies will understand their strengths, weaknesses, and potential areas for improvement.</p> <ul style="list-style-type: none"> <li>• Understanding IoT and its applications in agriculture.</li> <li>• Importance of crop monitoring for sustainable agriculture.</li> <li>• Sensors and data collection techniques for crop monitoring.</li> <li>• Setting up IoT devices for crop monitoring.</li> </ul>
<p><b>Day 2</b> <b>(Online Class)</b> 20 September 2023 (10.00am-5.00pm)</p>	<p><b><u>Process Analysis lesson</u></b> The second phase of the programme examines the current processes of companies. Participating companies will be guided to analyse their key processes and understand their points and problem statements. Furthermore, it can help the companies determine the best solution and intervention.</p> <ul style="list-style-type: none"> <li>• Data preprocessing and cleaning for meaningful insights.</li> <li>• Visualizing crop health and environmental data.</li> <li>• Implementing alerts and notifications based on IoT data.</li> <li>• Hands-on: Creating a crop monitoring dashboard using IoT data.</li> </ul>
<p><b>Day 3</b> <b>(Physical Class)</b> 21 September 2023 (10.00am-5.00pm)</p>	<p><b><u>Intervention / Implementation Lesson.</u></b> Introduces a solution through process intervention and the use of technology within the identified indicators (Cost, waste, time, capital, etc..). Companies come out with a project report on solution proposed, either through digitalization in Construction.</p> <ol style="list-style-type: none"> <li><u>1) Fill up Report &amp; follow the format</u></li> <li><u>2) Industrial grade Proof-of-Concept for MPC</u></li> </ol>

#### Required hardware:

<p><i>MacOS or Microsoft Windows 8/10/11 (64-bit).</i></p>
<p><i>i3/ Ryzen 3 minimum CPU processor unit, i7/Ryzen 7 above recommended.</i></p>
<p><i>2GB RAM minimum, 8gb recommended.</i></p>

#### Training location:

-(Seminar Room) or (Training Room I&II), Blok B, UPM-MTDC Technology Centre III, Universiti Putra Malaysia, 43300 Serdang, Selangor Darul Ehsan.