

# **TENTATIVE PROGRAMME**

## **MILLING, PROCESSING & MECHANIZATION FOCUS AREA**

**PAC 2026**

**13-16 April 2026**

**Venue: MPOB Head Office**

**M P O B**

**Malaysian Palm Oil Board**



## MAIN PROGRAMME

| 13 APRIL 2026 (MONDAY) – DAY 1                                                                                                          |                                                                                                                               |                 |                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Opening Ceremony of PAC 2026                                                                                                            |                                                                                                                               |                 |                                                                                                                                                                             |
| Time                                                                                                                                    | Program                                                                                                                       | Venue           | Attendees                                                                                                                                                                   |
| 8.30 am                                                                                                                                 | Registration & Welcome Drink                                                                                                  | Admin Concourse | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• DG/DDGs/Directors/Program Leaders/HOUs</li><li>• Research Officers</li></ul>          |
| 9.00 am                                                                                                                                 | Arrival of MPOB Chairman                                                                                                      | Bactris Hall    |                                                                                                                                                                             |
|                                                                                                                                         | National Anthem <i>Negaraku</i><br>Recitation of Prayer                                                                       |                 |                                                                                                                                                                             |
|                                                                                                                                         | Video Show:<br>MPOB Corporate Video                                                                                           |                 |                                                                                                                                                                             |
| 9.15 am                                                                                                                                 | Opening Remarks by<br>Chairman, MPOB                                                                                          |                 |                                                                                                                                                                             |
| 9.30 am                                                                                                                                 | Presentation on MPOB R&D Direction<br>by Director General, MPOB                                                               |                 |                                                                                                                                                                             |
| 10.00 am                                                                                                                                | Photography Session:                                                                                                          | Admin Concourse | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• DG/DDGs/Directors/Program Leaders/HOUs</li></ul>                                      |
|                                                                                                                                         | 1. All Focus Area                                                                                                             |                 |                                                                                                                                                                             |
|                                                                                                                                         | 2. Each Focus Area                                                                                                            |                 |                                                                                                                                                                             |
| 10.15 am                                                                                                                                | Refreshment                                                                                                                   |                 |                                                                                                                                                                             |
| Discussion and Presentation Session on New Project Proposals and Ongoing Projects by<br>Program Leaders for Each Focus Area (Break out) |                                                                                                                               |                 |                                                                                                                                                                             |
| 11.00 am                                                                                                                                | 1. Opening Remarks by Chairman of<br>MA<br>2. Briefing by Focus Area Leader<br>3. Discussion of Focus Area and Way<br>Forward | Board Room      | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• DG/DDGs/Director/<br/>Program Leaders/<br/>HOUs</li><li>• Research Officers</li></ul> |

| <b>NEW PROJECT PROPOSALS</b><br><b>PROGRAMME: HARVESTING TECHNOLOGY &amp; AUTOMATION (MA1)</b><br><b>PROGRAMME LEADER: DR. MOHD. AZWAN BIN MOHD. BAKRI</b> |                                                                                                                      |                           |                                                                                                                                                                        |
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| <b>Time</b>                                                                                                                                                | <b>Project Title</b>                                                                                                 | <b>Project Leader</b>     | <b>Attendees</b>                                                                                                                                                       |
| 11.30 am                                                                                                                                                   | Evaluation of LoRaWAN Connectivity to Support the Digitalisation of Mechanised Operations in Oil Palm Plantations    | Nabilah Kamaliah Mustaffa | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• DG/DDGs/Director/Program Leaders/HOUs</li> <li>• Research Officers</li> </ul> |
| <b>NEW PROJECT PROPOSALS</b><br><b>PROGRAMME: BIOREFINERY TECHNOLOGY (MA2)</b><br><b>PROGRAMME LEADER: DR. LOH SOH KHEANG</b>                              |                                                                                                                      |                           |                                                                                                                                                                        |
| 11.45 am                                                                                                                                                   | Recovery of Liquid Enzyme from Glycerin - Rich Phase from Biodiesel Production Process                               | Dr. Harrison Lau Lik Nang | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• DG/DDGs/Director/Program Leaders/HOUs</li> <li>• Research Officers</li> </ul> |
| 12.00 pm                                                                                                                                                   | Development of carbon-based materials from oil palm biomass for energy storage applications                          | Dr. Mohamad Azri Sukiran  |                                                                                                                                                                        |
| 12.15 pm                                                                                                                                                   | Co-utilisation of processed empty fruit bunch residues from hemicellulose-based streams for succinic acid production | Dr Nurul Adela Bukhari    |                                                                                                                                                                        |
| 12.30 pm                                                                                                                                                   | Life Cycle Assessment of Oil Palm Biomass-to-Biochar Systems for Soil and Non-Soil Applications                      | Haryati Zainal            |                                                                                                                                                                        |
| 12.45 pm                                                                                                                                                   | Nanocellulose Dental Composite Derived from Oil Palm Biomass for Dentistry Applications                              | Dr. Fatiha Ismail         |                                                                                                                                                                        |
| 1.00 pm                                                                                                                                                    | Lunch at Dewan Sawit                                                                                                 |                           |                                                                                                                                                                        |

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| 2.30 pm                                                                                                                                                                                        | Optimization of Pilot Scale Production of Carboxymethyl Cellulose from Oil Palm Biomass for Industrial Applications                                        | Dr. Nur Eliyanti Ali Othman   | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• DG/DDGs/Director/Program Leaders/HOUs</li> <li>• Research Officers</li> </ul> |
| 2.45 pm                                                                                                                                                                                        | Production and Characterization of Nitrocellulose from Oil Palm Biomass                                                                                    | Dr. Elina Hishamuddin         |                                                                                                                                                                        |
| 3.00 pm                                                                                                                                                                                        | Oil Palm Boiler Ash as an Alternative to Commercial Bleaching Earth in Palm Oil Processing                                                                 | Dr. Roila Awang               |                                                                                                                                                                        |
| 3.15 pm                                                                                                                                                                                        | Graphene Production from Palm Biomass                                                                                                                      | Stasha Eleanor Rosland Abel   |                                                                                                                                                                        |
| 3.30 pm                                                                                                                                                                                        | Refreshment                                                                                                                                                |                               |                                                                                                                                                                        |
| <p align="center"><b>NEW PROJECT PROPOSALS</b></p> <p align="center"><b>PROGRAMME: PALM OIL MILL TECHNOLOGY (MA3)</b></p> <p align="center"><b>PROGRAMME LEADER: CIK NOR FAIZAH JALANI</b></p> |                                                                                                                                                            |                               |                                                                                                                                                                        |
| 3.45 pm                                                                                                                                                                                        | Magnetic EFB carbon for residual oil recovery and POME treatment                                                                                           | Ts. Dr. Nahrul Hayawin Zainal | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• DG/DDGs/Director/Program Leaders/HOUs</li> <li>• Research Officers</li> </ul> |
| 4.00 pm                                                                                                                                                                                        | Application of Dry Steam in Conventional Sterilisation Process                                                                                             | Mohd Faris Mustafa            |                                                                                                                                                                        |
| 4.15 pm                                                                                                                                                                                        | Evaluation of engineering control system in Malaysian kernel crushing plants and their influence on crude palm kernel oil and palm kernel expeller quality | Ts. Nu'man Abdul Hadi         |                                                                                                                                                                        |
| 4.30 pm                                                                                                                                                                                        | Inhibition of Free Fatty Acid Formation in Harvested Oil Palm Fruits Using Biosurfactants-Enhanced Coating                                                 | Hasliyanti Alias              |                                                                                                                                                                        |
| 4.45 pm                                                                                                                                                                                        | Enhancement of Post-Harvest Stabilization of Oil Palm Fruit Through Synergistic Biochemical Approaches                                                     | Mohd Firdaus Othman           |                                                                                                                                                                        |
| 5.00 pm                                                                                                                                                                                        | End of Session                                                                                                                                             |                               |                                                                                                                                                                        |

**14 APRIL 2026 (TUESDAY) – DAY 2**

**ON-GOING PROJECTS  
PROGRAMME: HARVESTING TECHNOLOGY & AUTOMATION (MA1)  
PROGRAMME LEADER: DR. MOHD. AZWAN BIN MOHD. BAKRI**

|         |                                                                                                                                                               |                                   |                                                                                                                                                                        |
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| 9.00 am | <b>MA1-7/2023</b> Unmanned Guided Vehicle for Palm Harvesting with Haptic Technology                                                                          | Dr. Mohd. Azwan Mohd. Bakri       | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• DG/DDGs/Director/Program Leaders/HOUs</li> <li>• Research Officers</li> </ul> |
| 9.10 am | <b>MA1-8/2024</b> Manipulator Arm Support for Oil Palm Harvesting Tools                                                                                       | Ts. Aminulrashid Mohamed @Ibrahim |                                                                                                                                                                        |
| 9.20 am | <b>MA1-9/2025</b> Harvesting Tool with a Linear Brushless Motor Technology                                                                                    | Mohd. Ramdhan Mohd. Khalid        |                                                                                                                                                                        |
| 9.30 am | <b>MA1-10/2025</b> Smart Oil Palm Operation: Evaluating Teleoperated Machinery with Mesh Networks                                                             | Dr. Ahmad Syazwan Ramli           |                                                                                                                                                                        |
| 9.40 am | <b>MA1-11/2025</b> Design and Development of an Artificial Intelligence (AI) Assisted Imager with Laser System for Oil Palm FFB Identification and Harvesting | Mohd. Ikmal Hafizi Azaman         |                                                                                                                                                                        |

**ON-GOING PROJECTS  
PROGRAMME: BIOREFINERY TECHNOLOGY (MA2)  
PROGRAMME LEADER: DR. LOH SOH KHEANG**

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| 9.50 am  | <b>MA2-4/2023</b> Production of bio-based hydrocarbon fuels from palm biomass mixture via simultaneous liquefaction-hydrotreatment using heterogenous catalyst | Nursyairah Jalil         | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• DG/DDGs/Director/Program Leaders/HOUs</li> <li>• Research Officers</li> </ul> |
| 10.00 am | <b>MA2-5/2023</b> Investigation of biochemical control on fungi growth associated with oil palm bio-composites                                                 | Dr. Nur Azreena Idris    |                                                                                                                                                                        |
| 10.10 am | <b>MA2-7/2024</b> Development of Non-woven Hybrid EFB Fibre Composite for Automotive Felt Application                                                          | Dr. Aisyah Humaira Alias |                                                                                                                                                                        |
| 10.20 am | <b>MA2-8/2024</b> Production of Blended Empty Fruit Bunch Pulp (EFBpulp) from Eco-Moulded Products                                                             | Dr. Fazliana Abd. Hamid  |                                                                                                                                                                        |

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| 10.30 am                                                                                                                       | <b>MA2-9/2024</b> Evaluation of Outdoor Storage Duration of Empty Fruit Bunch (EFB) Fibre on the Properties of Particle Board          | Zawawi Ibrahim                      | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• DG/DDGs/Director/Program Leaders/HOU</li><li>• Research Officers</li></ul> |
| 10.40 am                                                                                                                       | <b>MA2-10/2024</b> Palm Biodiesel with Improved Filter Performance                                                                     | Dr. Yung Chee Liang                 |                                                                                                                                                                  |
| 10.50 am                                                                                                                       | <b>MA2-11/2024</b> Synthesis of palm-based Lubricant Base Stock from Triacylglycerol of Palm Oil Via a two-step Enzymatic Process      | Dr. Nur Sulihatimarsyila Abd. Wafti |                                                                                                                                                                  |
| 11.00 am                                                                                                                       | Refreshment                                                                                                                            |                                     |                                                                                                                                                                  |
| 11.15 am                                                                                                                       | <b>MA2-12/2025</b> Optimization of Furfural Production from Oil Palm Biomass                                                           | Dr. Teh Soek Sin                    |                                                                                                                                                                  |
| <b>ON-GOING PROJECTS</b><br><b>PROGRAMME: PALM OIL MILL TECHNOLOGY (MA3)</b><br><b>PROGRAMME LEADER: CIK NOR FAIZAH JALANI</b> |                                                                                                                                        |                                     |                                                                                                                                                                  |
| 11.25 am                                                                                                                       | <b>MA3-13/2024</b> Establishment of the Electrical Energy Consumption in Various Configuration of Palm Oil Mills                       | Muhammad Abid Amer                  | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• DG/DDGs/Director/Program Leaders/HOU</li><li>• Research Officers</li></ul> |
| 11.35 am                                                                                                                       | <b>MA3-15/2025</b> Enhancement of Oil and Phytonutrients Extraction from Palm Pressed Mesocarp Fiber with Green Solvent as Co- Solvent | Ts. Dr. Ng Mei Han                  |                                                                                                                                                                  |
| 11.45 am                                                                                                                       | <b>MA3-16/2025</b> Evaluation of Automation System in Palm Mills                                                                       | Ts. Che Rahmat Che Ma               |                                                                                                                                                                  |
| 11.55 am                                                                                                                       | <b>MA3-17/2025</b> Ripening Agent for Subpar Oil Palm Fresh Fruit Bunches Recovery                                                     | Dr. Andrew Yap Kian Chung           |                                                                                                                                                                  |

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| 12.05 pm | Individual Interaction with PAC Members                                                                        |                                                                                                                                            |
| 1.00 pm  | Lunch at Dewan Sawit                                                                                           | All Attendees                                                                                                                              |
| 2.30 pm  | 1. Discussion and Grading of Projects<br>2. Summing up of the way forwards Milling, Processing & Mechanization | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• Director<br/>Program Leaders/<br/>HOUs</li> </ul> |
| 3.30 pm  | Refreshment                                                                                                    |                                                                                                                                            |
| 3.45 pm  | Preparation of PAC 2026 Report & Plenary Session Slides                                                        |                                                                                                                                            |
| 5.00 pm  | End of Session                                                                                                 |                                                                                                                                            |

M P O B

**15 APRIL 2026 (WEDNESDAY) – DAY 3**

**INDIVIDUAL INTERACTION / REPORT PREPARATION FOR EACH FOCUS AREA (BREAK OUT)**

| <b>Time</b> | <b>Program</b>                                                | <b>Venue</b>                | <b>Attendees</b>                                                                                                                                             |
|-------------|---------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.00 am     | Continue preparation of Report and Plenary Slide Presentation | Admin Meeting Room, Level 3 | <ul style="list-style-type: none"> <li>• PAC Members</li> <li>• Board Members</li> <li>• Directors</li> <li>• Program Leaders/ HOU's GLs/Officers</li> </ul> |
| 11.00 am    | Refreshment                                                   |                             |                                                                                                                                                              |
| 1.00 pm     | Lunch                                                         | Dewan Sawit                 | <ul style="list-style-type: none"> <li>• All attendees</li> </ul>                                                                                            |
| 2.30 pm     | Continue report & Plenary Slide Presentation                  | Admin Meeting Room, Level 3 |                                                                                                                                                              |
| 3.30 pm     | Refreshment                                                   |                             |                                                                                                                                                              |
| 4.30 pm     | JOPR Editorial Board Meeting                                  | Board Room                  | <ul style="list-style-type: none"> <li>• JOPR Board Members</li> <li>• DDG (R&amp;D) &amp; DDG (S)</li> <li>• R&amp;D Directors</li> </ul>                   |
|             | End of Session                                                |                             |                                                                                                                                                              |

M P O B

**16 APRIL 2026 (THURSDAY) – DAY 4**

**PLENARY SESSION & FINALIZATION PRESENTATION BY CHAIRPERSON FOR EACH SUB-COMMITTEE  
(CHAired BY CHAIRMAN, MPOB)**

| Time             | Program                                                                                                                                                                                                                                                                                                                                                           | Venue           | Attendees                                                                                                                                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.00 am          | Yield Performance Presentation and Q&A                                                                                                                                                                                                                                                                                                                            | Ballroom        | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• DG/DDGs/Directors/</li><li>• Program Leaders/</li><li>• HOU/GLs</li></ul>                                       |
|                  | Climate Change Mitigation and Adaption Presentation and Q&A                                                                                                                                                                                                                                                                                                       |                 |                                                                                                                                                                                                       |
| 10.30 am         | Refreshment                                                                                                                                                                                                                                                                                                                                                       | Admin Concourse |                                                                                                                                                                                                       |
| 10.45 am         | Milling, Processing & Mechanisation (MA) Presentation and Q & A                                                                                                                                                                                                                                                                                                   | Bactris Hall    |                                                                                                                                                                                                       |
|                  | Food Safety and Nutrition (FN) Presentation and Q&A                                                                                                                                                                                                                                                                                                               |                 |                                                                                                                                                                                                       |
|                  | Value Addition (VA) Presentation and Q&A                                                                                                                                                                                                                                                                                                                          |                 |                                                                                                                                                                                                       |
|                  | Techno Socio Economics (TSE) Presentation and Q&A                                                                                                                                                                                                                                                                                                                 |                 |                                                                                                                                                                                                       |
|                  | Closing Remarks by Chairman, MPOB                                                                                                                                                                                                                                                                                                                                 |                 |                                                                                                                                                                                                       |
| 12.30 pm         | Lunch                                                                                                                                                                                                                                                                                                                                                             | Dewan Sawit     | All above attendees                                                                                                                                                                                   |
| Mini PAC Seminar |                                                                                                                                                                                                                                                                                                                                                                   |                 |                                                                                                                                                                                                       |
| 2.00 pm          | Registration                                                                                                                                                                                                                                                                                                                                                      | Admin Concourse |                                                                                                                                                                                                       |
| 2.30 pm          | <b>Mini PAC Seminar</b><br><br><b>Seminar 1: VA</b><br><b>Title:</b> Unlocking Value Addition in Palm Oil: Advancing the Downstream Sector<br><br><b>Speaker:</b> Prof. Mohamed Kheireddine Aroua, King Fahd University of Petroleum & Minerals<br><br><b>Seminar 2: TSE</b><br><b>Title:</b> Waste to Wealth: Opportunities in Green Energy and Circular Economy | Bactris Hall    | <ul style="list-style-type: none"><li>• PAC Members</li><li>• Board Members</li><li>• Directors</li><li>• Program Leaders/HOU</li><li>• All Research Officers</li><li>• Online Participants</li></ul> |

|         |                                                  |                 |  |
|---------|--------------------------------------------------|-----------------|--|
|         | <b>Speaker:</b> En. Izham Mustaffa, FGV Holdings |                 |  |
| 4.30 pm | End of Session and Refreshment                   | Admin Concourse |  |

**\* Note:**

Grade A: Approved without correction or with minor correction

Grade B: May continue but with major correction: The corrected proposal can be presented at next PAC meeting or send to PAC members by circulation.

Grade C: Not accepted

