

Poster Preparation Format

1. Inventors must produce their own poster according to the poster template. The evaluation will be only on the contents of the poster; thus, the inventors can choose an appropriate design and background for the poster.
2. The poster size is A4 size (297 mm x 210 mm) and it must be uploaded in PDF format.
3. Poster orientation must be in Portrait (Width: 210 mm & Height: 297 mm).
4. Contents must follow the prescribed format.
5. The main content of the poster must include:
 - Product photo
 - Inventor's details
 - Problem statement
 - Product features/ description
 - Main findings
 - Novelty
 - Commercial Potential
 - Market survey/ comparison
 - Other relevant information (e.g: Potential market, collaborators, extra pictures, etc).
6. Poster should be prepared in English or Malay only.
7. Relevant images can be included.

Reminder:

- Don't use small font size.
- Don't use shadow effect.
- Don't use the same background colour as the title and its content.
- Don't use blurry images of product or logos.
- Don't put in descriptions that are too long.

Product Image	Title & IP Details	Inventor's Details
Main contents of the Poster (suggested as in item #5 above). Can refer to the poster example for preparation idea.		
INVIDE 2026 Logo and Name		

Poster Preparation Sample





PLASTICTRACER:

A Novel Artificial Intelligence- Inspired Rapid Test Kit For Bioplastics Classification In Environmental Enforcement



PlasticTracer Prototype



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PROBLEM STATEMENT

Currently, the verification of biodegradable and compostable plastic is through visual inspection. Another method to identify plastic is by checking transparency of the plastics through automated machine vision systems for material and product inspection. However, this method is more applicable to check material defects during processing. Other conventional, simple and fast inspection of plastics is through 'Flame, Burn, Smell and Touch'. However, the approaches mentioned above are not versatile, dangerous, error-prone, not accurate, and not fully applicable to biodegradable and compostable plastics, and it is taking longer time to verify certain plastic products. Make it worse, certain method needs extra precautions during handling the test, and can cause long-term effect such as acute respiratory distress syndrome and respiratory failures. On the other end, as the enforcement bodies foresees the risk of having conventional plastic being labelled as biodegradable or compostable plastic, there is a need to develop a kit that can be used during site inspection to differentiate and verify the authenticity of the biodegradable or compostable plastic.

COMMERCIALISATION POTENTIAL

- Highly marketable due to cheap production cost of only approximately RM28000. There is high demand for the market for such technology and government as allocated RM5 million for this solution with MESTECC Matching grants.
- Portable solution with accuracy of between 80 – 95%.
- Easy pre-test product with life span of approximately 15 years.
- Advanced version of PlasticTracer is in research, which can provide an overall solution on bioplastic authenticity testing.
- Collaborating companies Waterbay Sdn. Bhd. (Marketing) and Peneraju Hijau Sdn. Bhd. (Design).

PRODUCT DESCRIPTION

PlasticTracer is a novel invention capable to differentiate and verify biodegradable and compostable plastic with conventional plastic. It is effective, user-friendly, simple and rapid approach, applying Artificial Intelligence (AI) and Internet of Things (IoT) as its backbone. Besides all these advantages, PlasticTracer is found to be lightweight, low-powered and portable to assist in environmental enforcement. PlasticTracer is a solution worth sought for in assisting the call of MESTECC towards no single fuel-based hydrocarbon plastics usage by year 2030. It is fabricated using simple engineering skill and proven 100% non-invasive and environmental friendly.





Preparation of PLASTICTRACER
Fabrication of Materials



System Programming and 3D Printing



Finished Product

PLASTICTRACER DEVELOPMENT PROCESS

NOVELTY

- Non-invasive and low-powered.
- Easily logged and monitored through web-based and mobile phones, thanks to the Internet of Things (IoT) technology utilized by the device.
- Artificial Intelligence (AI) as the backbone in determining the precise plastic type.
- PlasticTracer can be easily produced with simple engineering skills and proven environmental friendly with a long-life span.
- Solution for checking the authenticity of the bioplastic claimed by the plastic manufacturers by the Malaysian enforcement bodies and local councils. It is in line with the call of MESTECC towards no single fuel-based hydrocarbon plastics usage by year 2030.
- Patent search is in progress. Similar engineering solution from based on the artificial intelligence and Internet of Things concept is not available at the moment.

PRODUCT PERFORMANCE

Parameters	Plastic Inspection Chamber	PlasticTracer
Portability	No (Fixed and Large)	Yes
Inspection	Only Polyethylene (PE)	All range of plastics
Detection Time	Min. 1 hour/ piece	30-45 sec/ piece
Technology & Monitoring	Report (No logging)	Artificial Intelligence, Cloud Processing
Selling Price	RM200,000 (USD90,000)	RM28,000 (USD7,000)
Cost Reduction	1 time	7.1 times

INDUSTRIAL COLLABORATION

- Waterbay Sdn. Bhd. (Marketing)
- Peneraju Hijau Sdn. Bhd. (Design).



INTERNATIONAL VIRTUAL EXPO OF INNOVATION PRODUCT & SYSTEM DESIGN 2026

Presentation Video Preparation Format

1. Inventors must prepare a short video (duration max. 15 minutes).
2. Inventors can use the video trailer given in the Expo website to start the presentation.
3. The main content of the video must include:
 - Inventor introduction
 - Overview – Current problems/ Background (Need)
 - Materials
 - Step by step demo
 - Purpose of Invention/ Product (Approach)
 - How this product can help industry/ society (Benefit)
 - Market survey and competitors (Competition)
 - Commercial potentials
 - Other relevant information
4. Presentation points and time suggestion:
 - Introduction (2 minute)
 - Invention explanation/ demonstration (8 minutes)
 - Commercialization planning/ idea (3 minutes)
 - Conclusion/ Wrap up (2 minute)
5. The presentation video preparation must be guided by expo evaluation criteria.
6. Presentation must be in English or Malay only.
7. All supporting evidence are requested to be shown in slideshow view:
 - Business plan/ business proposal
 - Intellectual Property document
 - Proof of publication
 - Collaboration letters from industry/ governmental bodies
 - Status or commercialization plans
 - Report analysis market study
 - Other documents that can support the presentation
8. Please upload your presentation video by providing a YouTube link only. Participants are advised to upload the video to YouTube first and submit the link in the system. Direct video file uploads are not permitted.