

Our ref: AMIC\OPS\ADMIN\2023\074

Date: 27<sup>th</sup> November 2023

**TO WHOM IT MAY CONCERN**

Dear Sir,

**NEW APPOINTMENT AUTOMATED PAINTING LINE SOLUTION PROVIDER FOR AEROSPACE  
MALAYSIA INNOVATION CENTER – INVITATION TO TENDER**

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Aerospace Malaysia Innovation Center are pleased to invite you to submit your competitive tender proposal for the above works.

1. The Tender document is attached with this document. A hardcopy will be made available upon requests.
2. AMIC reserves the right to accept the whole or any part of this tender.

Thank you,

for **AEROSPACE MALAYSIA INNOVATION CENTRE**



**Ts. KARIM BIN MANSUR ALI**  
Senior General Manager  
Aerospace Malaysia Innovation Centre



INVITATION TO BID (TENDER)  
**New Appointment Automated Painting Line Solution Provider**  
**(Turnkey: Design And Built)**

FOR  
Aerospace Malaysia Innovation Center (“AMIC”)  
Asia Aerospace City  
German Malaysian Institute  
Selangor, Malaysia.

**-CONFIDENTIAL-**

ITB Reference No: AMIC/CSD/PAINT/001

Issuance Date: 28<sup>th</sup> November 2023

Closing Date: 7<sup>th</sup> December 2023

Closing Time: 15:00 pm (Malaysian Time)

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## **SUMMARY OF WORKS**

## Summary of work

- Client : Aerospace Malaysia Innovation Center (“AMIC”)
- Description of work : The scope covered in this SOW is as follows:
- 1) Design and Built concepts for industrial automated systems
  - 2) Fabrication and installation of automated systems including but not limited to jigs, fixtures, end effectors and part manipulators.

TENDER OPENING DATE : 28<sup>th</sup> November 2023

TENDER CLOSING TIME : 15.00 pm (Malaysian Time)

TENDER SUBMISSION LOCATION : ASIA AEROSPACE CITY,  
NO, 3-6-01, LEVEL 6,  
KOMPLEKS TEKNOLOGI 3,  
GERMAN MALAYSIAN  
INSTITUTE, JALAN ILMIAH,  
UNIVERSITY, 43000  
SELANGOR MALAYSIA  
And

Email:

support@amic.my

**SECTION 1**  
**BACKGROUND INFORMATION**

## **SECTION 1.0 - BACKGROUND INFORMATION**

### **1.1 Introduction**

AEROSPACE MALAYSIA INNOVATION CENTRE (AMIC) was incorporated as a company limited by guarantee, on 16th May 2011 under the company Act 1956. During the Malaysia Aerospace Council (MAC) meeting on December 1, 2010, as part of National Aerospace Blueprint 1997 initiative, AMIC has been established as an industry led innovation centre to enhance Malaysia's aerospace industry competitiveness. The formation of AMIC is to complement the 'Business Services' of the Economic Transformation Programme (ETP).

AMIC was developed and championed by the Malaysian Industry-Government Group for High Technology (MIGHT), the centre is described as an innovative model which substantially improve the commercial success of aerospace research and development projects undertaken in Malaysia.

Our core business is undertaking collaborative research and technology project in collaboration with the industries and the universities in aerospace sector. Research projects will be spearheaded by founding lead members namely AIRBUS, Rolls Royce and CTRM. All research works will be driven, evaluated, and managed by prominent industry experts. Initially three research focus areas have been identified such as jet fuel production from microalgae, innovative manufacturing of aerospace composite structures and advanced new green materials for aerospace.

### **1.2 Objective**

The objective of this Invitation to Bid ("ITB") is to solicit proposal for technical and commercial proposals for the Automated Painting Line Solution Provider for Aerospace Malaysia Innovation Center ("AMIC") according to the specification and guidelines set in this document.

**SECTION 2**  
**INSTRUCTION TO BIDDER**



## **SECTION 2.0 – INSTRUCTION TO BIDDERS (ITB)**

### **2.1 GENERALLY**

These Instruction to Bidder shall, in so far as they may affect the interpretation and/or execution of the contract, be held to form part of the contract document.

The Bidder is to take note that the goods defined in the Tender Document shall be executed on Bill of Quantity.

### **2.2 TENDER DOCUMENT**

The Tender Document will to be sent through email to those interested Bidders. Tender document is available online (amic.my) or via email request (support@amic.my). Only authorized personnel from the Bidder are permitted to open the Tender Document. In the Event that it is found any person other than the authorized representative of the Bidder opened the email of Tender Document, the Bidder shall be liable for disqualification.

#### Scrutiny of Tender Document

Upon receipt of the Tender Document, it shall be the sole responsibility of the Bidder to scrutinize the document and satisfy himself that they are the exact copies of those included in the Submission Check List. Should any discrepancy be found, the Bidder shall immediately inform the Tender Secretariat of AMIC to have such discrepancy rectified before the date of the submission of the Tender. No extension of time shall be granted arising from failure to comply with the above clause shall be entertained.

## **2.3 BIDDER SELECTION**

The Bidder selected will provide the greatest benefit to AMIC. The evaluation criteria for this selection include but not limited to:

- Bidder's experience
- Project reference of similar nature
- Special features of product and services
- Competitive pricing

AMIC also reserves the right to award the contract in whole or in parts and reserve the right to award more than one (1) Bidder.

If the Bidder is a group of two or more firms forming a joint venture or a consortium, the Bidder shall submit in its Tender Documents, a duly stamped joint venture or consortium agreement which shall state the share of participation of the partnership. However, should the business arrangement be at understanding stage only, kindly submit a stamped copy of Memorandum of Understanding (MOU) for AMIC reference.

## **2.4 CONTRACT NEGOTIATION**

AMIC reserves the right to accept or reject any or all responses or to take exception to these tender specification. AMIC reserves the right to negotiate for purpose of entering into formal contact (Contract) with the selected Bidder after the closing of the tender.

## **2.5 PROPOSAL PREPARATION COST**

AMIC shall not be liable to award the contract or to pay for any cost incurred by the Bidder in the preparation of a proposal to this request.

## **2.6 MARKETING REFERENCES**

Marketing references to AMIC can be made in any literature, promotional material, brochures, or sales presentation without the express written consent of AMIC once a contract has been awarded.

## **2.7 CONFIDENTIALITY**

This Tender exercise and all information and materials pursuant to the Scope of Works states in Section 3 herein by AMIC shall be treated with confidentiality. The Bidder undertakes that this Tender exercise is not to be forwarded to any third party (ies) for evaluation or for any other purposes without the expressed written consent of AMIC. When submitting confidential material to AMIC, the Bidder shall clearly mark it as such.

## **2.8 DOCUMENTATION**

The Bidder compulsory to submit the plans, graphics, tables, transparencies, manuals, publications, drawings, specifications, training materials and manuals and any other documents related to Scope of Work.

## **2.9 BIDDER'S UNDERTAKING**

The Bidder is under the obligation to seek clarification on all matters, which may affect the prices, and sum quoted by the Bidder for the Tender. AMIC will not entertain any subsequent claims for the additional sum or extension(s) of time for completion of the Contract in any, circumstances, which should have been clarified under this section before the submission of the Tender Document.

No verbal communication with any officer, agent, or employee of AMIC shall be deemed to affect or modify any of the terms or obligations of the Tender Document.

In the event clarification or rectification to the Tender Document is required, AMIC will issue an official addendum to the Tender Document.

## **2.10 CURRENCY OF BID AND PAYMENTS**

All prices quoted in Tender and payments made under the Contract shall be in Malaysian Ringgit (RM) where applicable.

## **2.11 LANGUAGE OF TENDER**

All correspondence in connection with the Tender and the Contract and all matters accompanying the Tender are to be in English language and all measurements and quantities are to be expressed in units of metric system or imperial measurement as the case may be.

## **2.12 BRIBERY AND SOLICITATION**

The offer of a bribe or other inducement to any person with the view to influence the placing of the Contract will result in the instant rejection of the Tender.

Should any of our staff solicit directly or indirectly for any forms of benefits or favors of any kind, please report the matter directly to the [support@amic.my](mailto:support@amic.my) email address.

## **2.13 COMPLIANCE TO SAFETY, HEALTH AND ENVIRONMENT REGULATION AND GUIDELINE**

The Bidder shall ensure that all works undertaken in relations to goods shall comply with all the safety, health and environmental legal requirements of Malaysia.

The Bidder is responsible to ensure that the safety, health and organizational regulations and guidelines are adhered to at all times.

## **2.14 IMMIGRATION REGULATIONS**

Bidder shall ensure that all immigration regulations in Malaysia are adhered to with respect to the employment and works permits for their employees.

## **2.15 VALIDITY OF TENDER**

The bidder agrees that the Tender Document shall remain valid and open for consideration for a period of three (3) months from the Tender Closing Date.

## **2.16 EXECUTION OF CONTRACT**

The successful Bidder shall execute and sign the Contract in place and time as stipulated by AMIC.

## **2.17 STAMP DUTY**

Each party shall bear its own solicitors cost and expenses incidental to the preparation of the Contract save for the stamp duty which shall be borne by successful Bidder.

## **2.18 FORCE MAJEURE**

If there is any delay in rendering the services comprised in the Contract due to the following circumstances namely acts of God, arrest and restraint of prince's rulers of peoples, force majeure, riots and civil commotions, strikes, lookout, or other labor disturbance, fire, war and other cause and perils which are beyond the Bidder's control, then AMIC shall at its absolute discretion, to relieve the Bidder from his obligation to render the services affected by the force majeure event. The remaining provision of services of the Contract which are not affected shall remain full force.

## 2.19 STATUS OF TENDER

The Bidder shall be officially informed of the status of his Tender on or before the expiry date of the Tender Validity Period. If an extension of the Tender Validity Period is required, he will be notified by AMIC in writing.

## 2.20 TENDER CLARIFICATION

- a. If the Bidder is in doubt as to the true meaning of any part of the Tender Document, he shall immediately request in writing to the address below. Should there be any ambiguity or discrepancy or divergence between any two or more of the parts of the Tender Document or if there should be any omissions or redundant items, he should immediately refer the matter for clarification.
- b. Only e-mail queries sent before the Tender Closing Date of 7<sup>th</sup> December 2023 by 15:00 pm Malaysian time will be entertained.
- c. All e-mail queries shall be directed to:  
**Tender Secretariat, Aerospace Malaysia Innovation Centre Bhd**, at the following e-mail address:  
**support@amic.my**  
Query answers will be made available to the Bidder by The Secretariat and sent out electronically.

## 2.21 SUBMISSION

- a. The Bidder shall submit the Tender Document in two separate envelopes / e-mail:
  - **ENVELOPE I – TECHNICAL PROPOSAL**
  - **ENVELOPE II – COMMERCIAL PROPOSAL****And soft copy of proposals through e-mail for:**
  - **COMMERCIAL PROPOSAL: PAINT**  
**support@amic.my**
- b. Please **FOLLOW** the template provided for the Commercial proposal and email a non-editable, signed copy of the rates. The same document is to be submitted in hardcopy form in Envelope II. Bidders may add any item if it is not stated in the commercial template but **DO NOT** delete any item in the template.
- c. The Bidder shall seal the Tender submission in two (2) separate envelopes/ folders duly marked as **TECHNICAL PROPOSAL** and **COMMERCIAL PROPOSAL**. The envelopes must be properly sealed.
- d. Proposals that fail to adhere to the required format will be disqualified immediately. Additional information beyond the scope of the Tender Document should be clearly labeled at the appendices.
- e. Assumptions, if any, should be clearly cross-referenced against the relevant item of the Tender Document. Assumptions should also include the impact on the Tender item if the assumption is not compiled with.
- f. All supporting documentation submitted with the proposal will become the property of AMIC unless otherwise requested by the Bidder at the time of submission.
- g. The submission of the Tender Document must be received by AMIC not later than **7<sup>th</sup> December 2023 by 15:00pm Malaysian time** (The Tender Closing Date).
- h. If the Bidder indicates that they do not wish to submit a response, further consideration and communication in connection to this Tender exercise shall be discontinued.



- i. No delays and/ or extensions by any Bidder will be accepted or entertained.
- j. The Tender Document responses should be delivered to the address below before the Tender Closing date: **7<sup>th</sup> December 2023 by 15:00pm Malaysian time.**
- k. **THE CHAIRMAN, TENDER COMMITTEE**  
**Tender Tittle: AMIC/CSD/PAINT/001**  
**Aerospace Malaysia Innovation Center.**  
**ASIA AEROSPACE CITY,**  
**NO, 3-6-01, LEVEL 6,**  
**KOMPLEKS TEKNOLOGI 3,**  
**GERMAN MALAYSIAN**  
**INSTITUTE, JALAN ILMIAH,**  
**UNIVERSITY, 43000**  
**SELANGOR MALAYSIA**

## **2.22 Goods and Services Tax – Not Applicable**

- a. Where Goods and Services Tax (“GST”) is chargeable to any supply of goods/ services/ works made by successful Bidders under this Agreement, the Successful Bidder is entitled to charge GST on the payment of goods/ services/ works. The Company Name shall pay to Successful Bidder the applicable GST rate, which is the Purchase Price/ Contract Sum/ Rates Multiply by the applicable GST rate.
- b. The GST for the goods/ services/ works is payable to the Successful Bidders at the same time as the Purchase Price/ Contract Sum/ Rates.
- c. The Successful Bidder will issue a tax invoice or the other documents (if necessary) containing information that may be required, to enable the Company Name, if permitted by GST Act to claim input tax credit, rebate or refund under GST Act.

**SECTION 3**  
**SCOPE OF WORK**

## **SECTION 3.0 – SCOPE OF WORK**

### **3.1 Technical Requirement**

This work requires the Automation Solution Provider Company that offers the best excellent automation system that is capable of handling multiple trays throughout the robotic painting process.

The breakdown of technical work is as follows:

<b>No.</b>	<b>Technical Works</b>	<b>Due Date</b>
1.	Concept Design	December 2023
2	Detailed Design	January 2024
3.	Fabrication and System Programming	April 2024
4.	System Installation On-Site	May 2024

Refer Section 4, Technical Proposal/ Specifications



**SECTION 4**  
**TECHNICAL PROPOSAL**  
**AND/ OR**  
**TECHNICAL SPECIFICATION**

### SOLUTION PROVIDER SCOPE

NO	DESCRIPTION	REQUIREMENT	REMARKS
1	System Final Design & Installation	<ul style="list-style-type: none"><li>• The proposed system should complement the process flow.</li><li>• The total footprint of the final complete system should be installable within the given paint booth size 4800(L) mm x 5050(W) mm x 2650 mm(H).</li><li>• The solution provider company shall provide a basic concept design diagram to explain how the proposed system works.</li><li>• The proposed solution shall consist of the following items:<ol style="list-style-type: none"><li>1. Trolley for loading the trays – 1 unit</li><li>2. Trolley for unloading the trays – 1 unit</li><li>3. Loader stacker – 1 unit</li><li>4. Unloader stacker – 1 unit</li><li>5. Conveyor – 1 unit</li><li>6. Part's flipping capability</li><li>7. Tray – 10 units</li><li>8. Control panel</li></ol></li><li>• The control panel of the proposed system should have a flexible communication protocol to interact with the industrial and collaborative robots.</li><li>• The complete system must be ready on-site in May 2024 for testing and integration with the robot unit.</li></ul>	<ul style="list-style-type: none"><li>• Refer Appendix 1</li><li>• Refer Appendix 1</li></ul>

2	Solution Provider Responsibility	<ul style="list-style-type: none"> <li>• To design, fabricate, and install the system.</li> <li>• To provide on-site support for programming, and part replacement for 1 year.</li> </ul>	
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<b>TECHNICAL CONDITION OF THE EQUIPMENT</b>			
<b>NO</b>	<b>DESCRIPTION</b>	<b>REQUIREMENT</b>	<b>REMARKS</b>
3	Explosion-proof capabilities	<ul style="list-style-type: none"> <li>• All sensors, motors, and actuators implemented in the proposed system should be explosion-proof or equivalent compliant.</li> </ul>	
4	Conveyor Size	<ul style="list-style-type: none"> <li>• The minimum length of the conveyor should be 2.2 meters to provide sufficient space clearance for the robot's movement.</li> </ul>	
5	Tray size	<ul style="list-style-type: none"> <li>• The design of the tray should be within 1000 mm x 600 mm.</li> </ul>	

**SECTION 5**  
**COMMERCIAL PROPOSAL**



## **SCOPE OF WORKS :**

Solution provider should prepare to submit **two (2) types** of commercial proposal. **One (1) in a hard copy**, send together with technical proposal (but in different envelope) **and one (1) softcopy** send to email below:

support@amic.my

It is a requirement for bidders to follow the template (Appendix) and provide us the breakdown cost which should include the following:-

- a. Reference with SOW on technical Specification
- b. Quotation within Origin Currency (MYR)
- c. Follow the currency exchange as states as a guideline
- d. Quotation Validity ( $\leq$  90 days)
- e. Payment Term ( $\leq$ 90 days upon acceptance of invoice)
- f. Warranty/ Insurance (Door to Door)
- g. Project duration /Lead Time (please state shipping lead time)
- h. Stamping Fee (if applicable)

**SECTION 6  
DECLARATION**

## SECTION 6 – DECLARATION

- 1) I /We hereby submit a Tender for the Automated Painting Line Solution Provider tender for Aerospace Malaysia Innovation Centre Berhad as stated in the Scope of Work and Instruction.
- 2) I /We agree that the Tender Committee is not bound to accept the lowest or any tender and reserves the right to reject or accept any or all tenders without further explanation.
- 3) I/ We represent and warrant that the Bidder has full powers and authority to enter into, perform and execute the Contract / Agreement , and each person signing this tender Document on behalf of the Bidder's is properly authorized to do so
- 4) I /We have read the Tender Document, understand them and intend to be bound by them.
- 5) I /We hereby declare that all the information and documents provided herein are true and accurate.

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(Authorized Signature)

Name :

Designation :

Date :

Company Stamp :

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(Witness)

Name :

Date :

**SECTION 7**  
**SUBMISSION CHECKLIST**

## SECTION 7 – SUBMISSION CHECK LIST

### 2.1 Technical Envelope /Proposal

No	Section	Particular	Please tick
1	4.0	Technical Proposal	
2	5.0	Brochures and Product Catalogues	
3.	6.0	Declaration	
4	7.0	Submission checklist	

### 2.2 Commercial Envelope /Proposal

No	Section	Particular	Please tick
1	5.0	Commercial Proposal	

### 2.3 Submission of Tender Bids

#### TECHNICAL PROPOSAL

THE CHAIRMAN, TENDER COMMITTEE

**AMIC/CSD/PAINT/001  
AEROSPACE MALAYSIA INNOVATION CENTER  
ASIA AEROSPACE CITY,  
NO. 3-6-01, LEVEL 6, KOMPLEKS TEKNOLOGI 3,  
GERMAN MALAYSIAN INSTITUTE,  
JALAN ILMIAH, TAMAN UNIVERSITY,  
43000 SELANGOR MALAYSIA.**

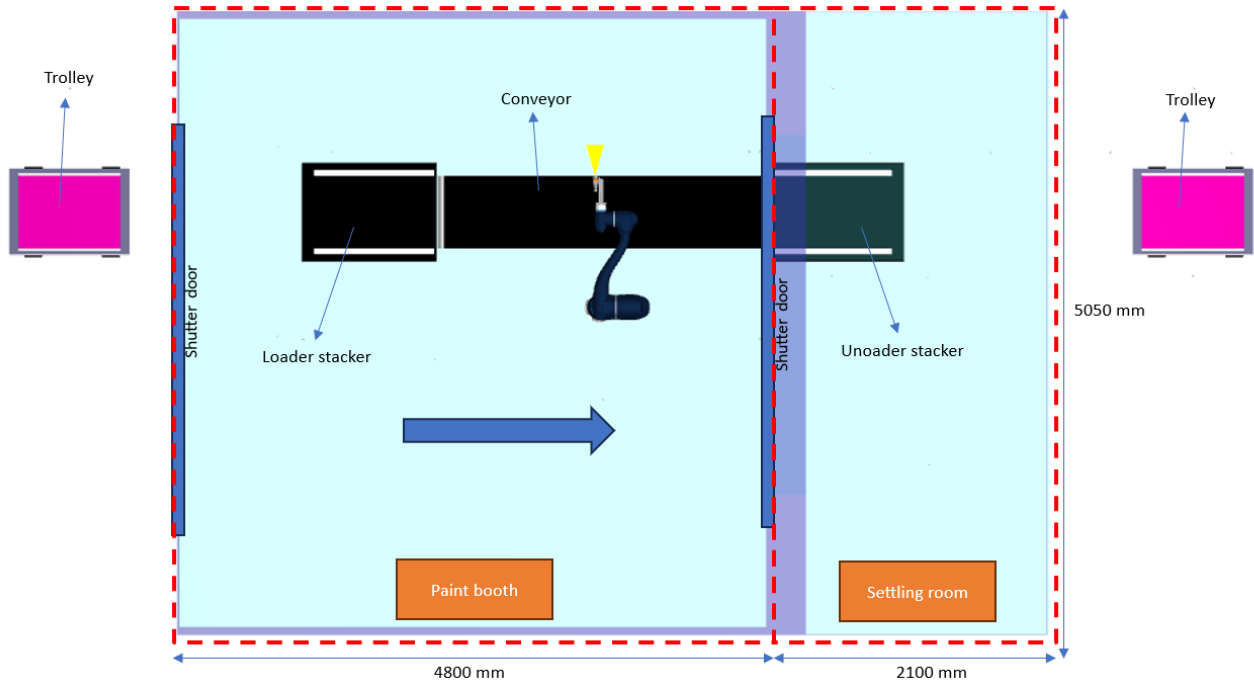
Bidder's Name

**COMMERCIAL PROPOSAL**

**THE CHAIRMAN, TENDER COMMITTEE  
AMIC/CSD/PAINT/001  
AEROSPACE MALAYSIA INNOVATION CENTER  
AEROSPACE MALAYSIA INNOVATION CENTER  
ASIA AEROSPACE CITY,  
NO. 3-6-01, LEVEL 6, KOMPLEKS TEKNOLOGI 3,  
GERMAN MALAYSIAN INSTITUTE,  
JALAN ILMIAH, TAMAN UNIVERSITY,  
43000 SELANGOR MALAYSIA.**

Bidder's Name

**APPENDIX 1**  
**ROBOTIC PAINTING PROCESS FLOW**



### Robotic Spray Painting Process Flow:

1.	<p>Surface Preparation:</p> <ul style="list-style-type: none"> <li>- Technicians perform surface preparation activities, including cleaning and masking, on the parts.</li> <li>- Parts are arranged on a tray by technicians</li> </ul>
2.	<p>Tray Preparation:</p> <ul style="list-style-type: none"> <li>- 5 Trays are prepared, each containing parts with specific variants and sizes.</li> <li>- All trays are placed on a trolley.</li> </ul>
3.	<p>Loading Trays:</p> <ul style="list-style-type: none"> <li>- Technicians push the trolley to the loader stacker.</li> </ul>
4.	<p>Tray Transfer to Spray Painting Station:</p> <ul style="list-style-type: none"> <li>- The conveyor transfers the tray to the robot spray painting station.</li> </ul>



<b>5.</b>	<b>Spray Painting Process:</b> <ul style="list-style-type: none"><li>- Robot performs spray painting on the top surface of the parts on the tray.</li><li>- Flipping system is activated to flip all parts on the tray, exposing the bottom surface.</li><li>- Robot continues spray painting on the bottom surface.</li></ul>
<b>6.</b>	<b>Transfer to Unloader Stacker:</b> <ul style="list-style-type: none"><li>- Once both top and bottom surfaces are painted, the conveyor transfers the tray to the unloader stacker.</li><li>- Robot sends a signal to open the shutter door, allowing the tray to move to the unloader stacker.</li></ul>
<b>7.</b>	<b>Repeat Process:</b> <ul style="list-style-type: none"><li>- Steps 4 to 6 are repeated until all five trays are completed.</li></ul>
<b>8.</b>	<b>Curing Process:</b> <ul style="list-style-type: none"><li>- Technicians bring the trolley to retrieve all five trays.</li><li>- Trays are transported to the curing oven for the curing process.</li></ul>