#### भारतीय प्रौद्योगिकीसंस्थानमद्रासचेन्नै 600 036

# INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036

भंडार एवं क्रय अनुभाग

#### **STORES & PURCHASE SECTION**

Email: adstores@iitm.ac.in

दूरभाषः (044) 2257 8285 / 8287 / 8288 / 8290 फैक्सः (044) 2257 8082 Telephone : (044) 2257 8285/8287/8288/8290 FAX: (044) 2257 8082

GSTIN: 33AAAAI3615G1Z6



Date: 08.02.2023

### P.K. SHEBA SABARI

Assistant Registrar (Stores & Purchase)

Tender No. IITM/SPS/2D DIC System/021/2022-23/SPL

Due Date: 28.02.2023 Before 02.00 p.m.

Dear Sirs,

On behalf of the Indian Institute of Technology Madras, Tenders are invited in two bid system, namely technical and financial bids for the supply of

# 2D Digital Image Correlation (DIC) system for full field strain and displacement measurement

conforming to the specifications enclosed.

downloaded Public Procurement Portal Tender Documents may be from Central https://etenders.gov.in/eprocure/app. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll/register before participating through https://etenders.gov.in/eprocure/app. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Help for contractors". [Special instructions to the bidders for the e-submission of the bids online through this e-Procurement Portal"].

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Madras tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website https://etenders.gov.in/eprocure/app as per the schedule attached.

**No manual bids will be accepted.** All tender documents including Pre-qualification, Technical and Financial bids should be submitted in the E-procurement portal.

	LAST DATE for receipt of Tender	:	28.02.2023 before 02.00 p.m.		
			The <b>Pre-bid Meeting</b> will be conducted via Google Meet on <b>15.02.2023 @ 03:00 p.m.</b> Please see the below link to join the meeting <a href="https://meet.google.com/bmp-vodp-cye">https://meet.google.com/bmp-vodp-cye</a>		
1	Pre-bid meeting	:	Prospective bidders are requested to register their participation by sending an email to <a href="mailto:adstores@iitm.ac.in">adstores@iitm.ac.in</a> , with name/designation of the representative who will attend the meeting along with queries on or before <a href="mailto:14.02.2023">14.02.2023</a> .		
	Date & Time of opening of Tender	:	01.03.2023 @ 03.00 p.m.		
	GUIDELINES FOR TENDER SUBMISSION IN CENTRAL PUBLIC PROCUREMENT PORTAL (E-PROCUREMENT MODE)				
Α	निविदा की प्रस्तुति	:	As per the directives of Department of Expenditure, this tender document has		
	/Submission of Tender		been published on the Central Public Procurement Portal UR <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>		
			The bidders are required to submit soft copies of their bids electronically or the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal		

			prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal			
			More information useful for submitting online bids on the CPP Portal may be obtained at: <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>			
			All tender documents including Technical Bid & Financial Bid should be submitted separately in online CPP portal as per the specified format only. Right is reserved to ignore any tender which fails to comply with the above instructions. No manual bid submission will be entertained.			
В	ऑनलाइन बोली जमा के	:	REGISTRATION			
	अनुदेश / Instructions for		Bidders are required to enroll on the e-Procurement module of the			
	online bid submission		Central Public Procurement Portal URL: <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a> by clicking on "Online Bidder Enrollment". Enrolment on the CPP Portal is free of charge.			
			As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.			
			<ul> <li>Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.</li> </ul>			
			<ul> <li>Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.) <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a> with their profile.</li> </ul>			
			<ul> <li>Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.</li> </ul>			
			Bidder then may log in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.			
С	निविदा दस्तावेज़ की खोज / Searching for tender documents	••	• There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.			
			<ul> <li>Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective "My Tender" folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.</li> </ul>			
			The bidder should make a note of the <b>unique Tender ID</b> assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.			

### Bidder should take into account any corrigendum published on the बोली की तैयारी / tender document before submitting their bids. **Preparation of bids** Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid. Bidder, in advance, should prepare the bid documents to be submitted as indicated in the tender document / schedule and generally shall be in PDF / XLS formats as the case may be. Bid documents may be scanned with 100 dpi with black and white option. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GSTIN Details, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Documents" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process. बोली की प्रस्तुति / Bidder should log into the site well in advance for bid submission so that **Submission of bids** he/she can upload the bid in time i.e. on or before the bid submission date and time. Bidder will be responsible for any delay due to other issues. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document. A standard BOQ format has been provided in **Annexure-C** with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the detail with their respective financial quotes and other details (such as name of the bidder). If the BOQ file is found to be modified by the bidder, the bid will be rejected. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission. The **Tender Inviting Authority (TIA)** will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues. The uploaded tender documents become readable only after the tender opening by the authorized bid openers. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet. Any gueries relating to the tender document and the terms and conditions बोलीदाताओं के लिए सहायता contained therein should be addressed to the Tender Inviting Authority for /Assistance to bidders a tender or the relevant contact person indicated in the tender. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is [0120-4200462, 0120-4001002, 0120-4001005]

H	बोलीदाताओं के लिए सामान्य अनुदेश /General Instructions to the Bidders	•	<ul> <li>The tenders will be received online through portal <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>. In the Technical Bids, the bidders are required to upload all the documents in single pdf file.</li> <li>Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a></li> <li>Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a> under the "Information about DSC".</li> <li>EMD of INR 1,35,000/- (Rupees One lakh thirty five thousand only) should be transferred through NEFT/RTGS to the following bank account</li> </ul>
	Earnest Money Deposit (EMD)		on or before due date 28.02.2023 before 2:00 p.m.  Name: Registrar IIT Madras  Bank: State Bank of India  Account No.: 10620824305  Branch: IIT MADRAS  IFSC CODE: SBIN0001055  ii. The EMD will be returned to unsuccessful Bidder(s), after finalization of the tender. The EMD shall be forfeited if any Bidder withdraws the offer before finalization of the tender.  iii. The EMD amount should not be sent through DD.  iv. Non-submission of EMD details on or before the due date and time will result in rejection of the e-bid.  v. As per Rule 170 of GFR 2017, exemption of EMD will be given subject to submission of undertaking by the firm seeking such exemption. Copies of relevant orders/ documents regarding such exemption should be submitted along with the tender document  The successful bidder shall submit a Performance Guarantee of 3% of the bid amount in the form of Demand Draft in favour of "The Registrar, IIT Madras" to be obtained from any commercial bank within 15 (fifteen) days from the date of issue of Order by IIT Madras, which shall be released on expiry/termination of the contract after adjustment of dues, if any without any interest.
I	तकनीकी बोली पर मार्किंग / Marking on Technical Bid		<ul> <li>i. The pre-qualification criteria, technical specification of the item for this tender is given in Annexure A. The Bidders shall go through the prequalification criteria, technical specification and submit the technical bid in the proforma given in Annexure B in the tender document along with the supporting documents.</li> <li>ii. The Technical bid should be submitted in pdf format only through online (e-tender). No manual submission of bid will be entertained.</li> <li>iii. The technical bid should have the page-wise heading as "Technical Bid" and page no. in all pages with seal and signature of authorized signatory. The total no. of pages should be mentioned at the last page of the documents.</li> <li>iv. The technical bid should consist of <ul> <li>a) Document proof for EMD payment</li> <li>b) Technical Compliance sheet as per proforma given in Annexure -B</li> <li>c) Document proof for pre-qualification criteria, technical details along with catalogue / brochure and other technical, commercial terms and conditions.</li> </ul> </li> </ul>
J	वतीय बोली पर मार्कंग / Marking on Financial Bid	:	Financial bid (BOQ) should be submitted in the prescribed format given in Annexure- C in xls format through e-tender only. No manual or other form of submission of Financial Bid will be entertained.

### नि वदा के निबंधन व शर्तें /TERMS AND CONDITIONS OF TENDER

- 1 नि वदा की तैयारी Preparation of Tender:
  - The bids should be submitted through online only in two bid system i.e. Technical Bid and Financial Bid separately.
  - The bidder has to submit the tender document duly signed on all pages by an authorized person and his / her full name and status shall be indicated below the signature along with official seal/stamp of the firm. Submission of wrong / forged information / document will be liable to legal action, and rejection of the bid submitted by the firm.
  - The bids of the agency/firm/company not in possession of valid statutory license / registrations are liable for rejection.
  - If any relative of the bidder is an employee of the IIT Madras, the name, designation and relationship of such employee shall be intimated to the Registrar, IIT Madras in writing while submitting the bid.
  - No bidder will be allowed to withdraw / alter / modify the bid during the bid validity period.

### <sup>2</sup> नि वदा पर हस्ताक्षर Signing of Tender:

The Tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the schedule to the Tender are not fully filled in or not duly signed/authenticated. Specific attention is drawn to the delivery dates and terms and conditions enclosed herewith. Each page of the bids required to be signed and bears the official seal of the Bidders.

If the bid is submitted by a firm in partnership, it shall be signed (with seal) by all the partners of the firm above their full typewritten names and current addresses or alternatively by a partner holding power of attorney for the firm in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the partnership deed along with current addresses of all the partners of the firm shall also accompany the application.

If a limited company or a corporation makes the application, it shall be signed by a duly authorized person holding power of attorney for signing the application, in which case a certified copy of the power of attorney shall accompany the application. Such limited company or corporation may be required to furnish satisfactory evidence of its existence. The bidder shall also furnish a copy of the Memorandum of Articles of association duly attested by a Notary Public.

3 वह अव ध जिसके लए ऑफर खुला रहेगा Period for which the offer will remain open:

The Tender shall remain open for acceptance/validity till: **120 days from the date of opening of the tender.** However, the day up to which the offer is to remain open being declared closed holiday for the Indian Institute of Technology Madras, the offer shall remain open for acceptance till the next working day.

- <sup>4</sup> कीमत APrices:
  - The prices quoted must be considering all terms & conditions and as per the technical specification mentioned in **Annexure A**.
  - All conditional tenders will be summarily rejected.
  - Quote should be in INR / USD / EUR.
- 5 आपूर्ति के लए कोई अग्रम भुगतान नहीं कया जाएगा No Advance Payment will be made for the supply.

The Payment will be made only after satisfactory supply and installation as per terms and conditions of the purchase order.

- 6 सुपुर्दगी **Delivery:** The delivery period shall be within one month from the date of issue of Purchase order.
- 7 वारंटी Warranty: 1 year of standard warranty from date of installation
- 8 संस्थापन Installation: Installation should be done by supplier as per requirements
- 10 निबंधन ব शर्ते /Terms and Conditions: Failure to comply with any of the instructions stated in this document or offering unsatisfactory explanations for non-compliance will likely to lead to rejection of offers.

- 11 स्वीकृति का अधकार / **Right of Acceptance:** IIT Madras reserves the right to reject the whole or any part of the Tender without assigning any reason or to accept them in part or full.
- 12 स्वीकृति की सूचना **Communication of Acceptance:** Letter of Intimation and acceptance will be communicated by post /email to the successful bidder to the address indicated in the bid.
- All information including selection and rejection of technical or financial bids of the prospective bidders will be communicated through CPP portal. In terms of Rule 173(iv) of General Financial Rule 2017, the bidder shall be at liberty to question the bidding conditions, bidding process and/or rejection of bids.
- 14 बोलीदाता को इस नि वदा के साथ जमा करना होगा Bidder shall submit along with this Tender: Name and full address of the Banker and their swift code and PAN No. and GSTIN number.
- 8ोत्रा धकार **Jurisdiction:** All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued.
- 16 जुर्माना & परिसमापन क्षति Penalty & Liquidated Damages / Force Majeure:

If the selected Bidder fails to complete the due performance of the contract in accordance with the terms and conditions, Institute reserves the right either to cancel the contract or to accept performance already made by the selected Bidder after imposing Penalty on Selected Bidder. A penalty will be calculated on a per week basis and on the same Rate as applicable to Liquidated Damages (LD). In case of termination of the contract, Institute reserves the right to recover an amount equal to 5% of the Contract value as Liquidated Damages for non-performance.

Both Penalty and Liquidated Damages are independent of each other and are applied separately and concurrently. Penalty and LD are not applicable for reasons attributable to the Institute and Force Majeure. However, it is the responsibility of the selected Bidder to prove that the delay is attributable to the Institute and Force Majeure. The selected Bidder shall submit the proof authenticated by the Bidder and Institute's official that the delay is attributed to the Institute and/or Force Majeure along with the bills requesting payment.

- The bidder shall certify that the tender document submitted by him / her are of the same replica of the tender document as published by IIT Madras and no corrections, additions and alterations made to the same. If any deviation found in the same at any stage and date, the bid / contract will be rejected / terminated and actions will be initiated as per the terms and conditions.
- 18 The bidder shall study the tender document, pre-qualification criteria, technical specification in detail as given in **Annexure A** before submitting the bid.
- 19 पूर्व / अर्हता मानद-PRE-QUALIFICATION CRITERIA:
  - 1. The bidder shall not be from a country sharing land border with India and if the bidder is from a country sharing land border with India the bidder should have been registered with the competent authority as per orders of DIPP OM No. F. No. 6/18/2019-PPD dated 23rd July 2020, and MoCI Order No. P-45021/112/2020-PP (BE II) (E-43780) dated 24th August 2020. A declaration shall be submitted with the bid as per format given in **Annexure D.**
  - 2. Only 'Class-I local suppliers' and 'Class-II local suppliers', as defined under DIPP, MoCI Order No. P-45021/2/2017-PP (BE II) dated 16<sup>th</sup> September 2020 and other subsequent orders issued therein, shall be eligible to bid in this tender. Declaration for Class-I / Class-II local suppliers should be submitted in the prescribed proforma format as per **Annexure E.**
  - Neither the tender participating firm nor any of its partner has been blacklisted / debarred /involved / convicted in any criminal case / economic offence nor any criminal case / economic offence is **pending** against firm or any partner of the Firm before any Court of Law / Police. A self-declaration format given in **Annexure F.**
  - 4. The bidder should be an OEM or authorized supplier of OEM. Necessary OEM certificate / OEM authorization letter for this particular tender should be submitted by the bidder as given in **Annexure-G**.
  - 5. The firm must have an aggregate financial turnover of at least Rs.36 lakhs in the last 5 years i.e.2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 (Should enclose the audited financial statement signed by the Chartered Accountant)
  - 6. The firm should have executed minimum 5 orders in last 5 years in providing 2D DIC system (with same make or similar make) to the reputed Institutions like IIT, NIT and Central / State University / Central Research Labs / R&D units / Industries in India. Document proof of

purchase order should be submitted and also the list of similar instruments supplied including contact details (name of the person-in-charge, email, and phone number) should be provided.

20 बो लयों की संख्या और उनका प्रस्त्तीकरण Number of Bids and their Submission:

Bids should be submitted **CPP portal. Two bid system** should be followed as detailed below:

#### Bid I Technical Bid

The technical bid should consist of Pre-Qualification Criteria, technical specification and compliance sheet as per **Annexure – B**.

The bidder should go through the pre-qualification criteria and technical specification given in **Annexure-A** of the tender document, understand the requirement of IITM and submit their technical bid along with all relevant document proof in the proforma given in **Annexure-B**. **Any tender documents without these shall be invalid and rejected.** 

### Bid II Financial Bid

The financial bid should be submitted as per the proforma (**Annexure C**). The Quoted price should be for supply and installation of the item and inclusive of all cost at IIT Madras.

21 बो लयों का मूल्यांकन / Evaluation of Bids:

Bid Evaluation will take place in two stages.

### Stage I: Technical Bid evaluation

- 1. Bidder will be evaluated first for conformity with Pre-qualification Criteria and those bidders who have complied with pre-qualification criteria will alone be evaluated further.
- 2. In the 2nd stage, the details of technical specification offered by the bidders will be evaluated by the technical committee for compliance.
- 3. In the 3rd stage, the bidders who have complied with pre-qualification criteria and technical evaluation will alone be qualified for demonstration of the quoted model. The vendor needs to give a demo of the quoted model / equivalent model in the customer facility at the vendor's expense during technical evaluation at IIT Madras.
- 4. Only those bidders who have fully complied with pre-qualification, technical evaluation and successful demonstration as per specification requirement will only be considered for opening of financial bid.

#### Stage II: Financial Bid Evaluation

The financial bid evaluation will be based on price quoted by the bidder and the tender will be awarded to the L1 bidder. Optional item for Sl.No.2 mentioned in Price Bid (Annexure-C) will not be taken for price bid evaluation. Bid prices expressed in different currencies shall be converted to INR as per the prevailing RBI exchange rate on the date of opening of price bid.

23 सफल बोलीदाता का चयन और आदेश प्रदान करना / Selection of successful bidder and Award of Order:

The order will be directly awarded to the technically qualified bidder as per the condition in para 3A of DIPP, MoCI Order No. 45021/2/2017-PP (BE II) dated 16th September 2020 and other subsequent orders issued therein.

- The bidders will not be entertained to participate in opening of Bids. Since the tender is e-tender, the opening of the bids may be checked using the respective logins of the bidders.
- The pre-bid meetings will be conducted through online. Bidders can submit their queries and doubts to the email id: <a href="mailto:adstores@iitm.ac.in">adstores@iitm.ac.in</a> till the date of the online pre-bid meeting. Clarification to the queries and doubts raised by the bidders will be issued as a corrigendum/addendum in the e-tenders portal and Institute Website (tenders.iitm.ac.in). For the bidders, submitting bids on downloaded tender document, it is 'bidders' responsibility to check for any amendment/corrigendum on the website of IIT Madras or check for the same CPP Portal before submitting their duly completed bids.

### **DECLARATION OF THE TENDER**

It is hereby acknowledged that I/We have gone through all the points listed under "Specification and Terms and Conditions" of tender document, the same is abided and agreed to be executed. In case, if any of the information furnished by me/us is found false, I/We are fully aware that the tender /contract will be rejected / cancelled by IIT Madras and EMD shall be forfeited.

Signature of the Bidder Name & Address of the Bidder with Office Stamp

# **SCHEDULE OF TENDER**

# 2D Digital Image Correlation (DIC) system for full field strain and displacement measurement

# Tender No. IITM/SPS/2D DIC System/021/2022-23/SPL

Name of Organization	Indian Institute of Technology Madras
Tender Type (Open/Limited/EOI/Auction/Single)	OPEN
Tender Category (Services/Goods/Works)	Goods
Type/Form of Contract (Work/Supply/Auction/ Service/ Buy/ Empanelment/ Sell)	Supply
Name of the Supply	2D Digital Image Correlation (DIC) system for full field strain and displacement measurement
Source of Fund (Institute/Project)	IIT Madras
Is Multi Currency Allowed	Yes
Date of Issue/Publishing	08.02.2023
Document Download Start Date	08.02.2023
Document Download End Date	28.02.2023
Prebid Meeting via Google Meet	15.02.2023
Bid Submission Start Date	20.02.2023
Last Date and Time for Uploading of Bids	28.02.2023@ 02.00 p.m.
Date and Time of Tender Opening	01.03.2023 @ 03.00 p.m.
No. of Covers (1/2/3/4)	2
Bid Validity days (180/120/90/60/30)	120 Days
Address for Communication	For Technical Queries:  Dr. Lakshmana Rao C Professor, Department of Applied Mechanics IIT Madras Chennai - 600 036. Phone No: 044- 2257 4059 Email: lakshman@iitm.ac.in  For General Queries: The Assistant Registrar Stores & Purchase Section IIT Madras Chennai - 600 036 Number 044-2257 8287, Email: adstores@iitm.ac.in.
Contact No.	For Queries: 044- 2257 8287/8288

### Tender No. IITM/SPS/2D DIC System/021/2022-23/SPL

# 2D Digital Image Correlation (DIC) system for full field strain and displacement measurement

### **I - PRE-QUALIFICATION CRITERIA:**

- 1. The bidder shall not be from a country sharing land border with India and if the bidder is from a country sharing land border with India the bidder should have been registered with the competent authority as per orders of DIPP OM No. F. No. 6/18/2019-PPD dated 23rd July 2020, and MoCI Order No. P-45021/112/2020-PP (BE II) (E-43780) dated 24th August 2020. A declaration shall be submitted with the bid as per format given in **Annexure D.**
- 2. Only 'Class-I local suppliers' and 'Class-II local suppliers', as defined under DIPP, MoCI Order No. P-45021/2/2017-PP (BE II) dated 16<sup>th</sup> September 2020 and other subsequent orders issued therein, shall be eligible to bid in this tender. Declaration for Class-I / Class-II local suppliers should be submitted in the prescribed proforma format as per **Annexure E.**
- 3. Neither the tender participating firm nor any of its partner has been blacklisted / debarred /involved / convicted in any criminal case / economic offence nor any criminal case / economic offence is **pending** against firm or any partner of the Firm before any Court of Law / Police. A self-declaration format given in **Annexure F.**
- 4. The bidder should be an OEM or authorized supplier of OEM. Necessary OEM certificate / OEM authorization letter for this particular tender should be submitted by the bidder as given in **Annexure-G**.
- 5. The firm must have an aggregate financial turnover of at least Rs.36 lakhs in the last 5 years i.e.2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 (Should enclose the audited financial statement signed by the Chartered Accountant).
- 6. The firm should have executed minimum 5 orders in last 5 years in providing 2D DIC system (with same make or similar make) to the reputed Institutions (like IIT, NIT and Central / State University / Central Research Labs) / R&D units / Industries in India. Document proof of purchase order should be submitted and also the list of similar instruments supplied including contact details (name of the person-in-charge, email, and phone number) should be provided.

#### **II -TECHNICAL SPECIFICATION:**

S.No.	Item Name	Technical Specifications
1.	High-speed camera	I. Specifications for camera
	with the Power	1. Sensor Type: CMOS, Mono
	supply, Ethernet	2. Sensor's Full Resolution: Minimum 1.2Mega-pixel
	cable & software.	3. Frames per Second at Full Resolution: 5500fps or more
		4. 6500 fps or more @1MP
		5. 1280X516@10000fps or more
		6. 200000fps or more at reduced resolution.
		7. Upgradion: Possibility of upgrading up to 12000fps@1MP
		8. Internal Storage: Minimum 18 GB
		9. Upgradation: Possibility of upgrading to more than 70GB
		10. Recording time at full resolution@5500fps: 1.8 Sec or more
		Requirement of smaller and larger pixel size in single camera:
		Possibility of increasing the speed with the Binned mode:
		Standard mode: Pixel Size: 18micron or lower
		Binned mode: 36–40-micron pixel size
		11. Bit Depth: 12 Bit
		12. CAR: 640X12 increments
		13. Mount: F mount
		14. Sensor size: 28mm diagonal
		15. Global Electronic shutter.
		16. Programmable I/O ports

		I
		<ul> <li>17. Exposure time: 1μSec at any speed</li> <li>18. Data acquisition system with the Control Software: User friendly software with GUI is required to be quoted to control the camera &amp; should also allow playback of the recorded videos.</li> <li>19. ISO Spec:( 12232 STD)</li> </ul>
		ISO Tungsten: Standard: 80000 (Minimum)
		Binned: 125000 (Minimum)
		Billied. 123000 (William)
		20. Noise & Dynamic Range: Standard10 e-
		21. Connectivity option: Ethernet
		22. Triggering Option: BNC- Trigger, Software trigger
		23. Operating Temperature: -10 to 50 degrees C or more
		24. Weight: A maximum of 2.5 kg for the camera excluding
		accessories
		25. Warranty: Minimum one year from the date of installation
		26. PIV Features: Shutter-off mode with the straddle time of 726ns or lower, Support burst mode.
		27. Shock:MIL-STD-202G Method 213-B. Rated 30G
		with shutter; 100G without shutter
		28. Installation: Onsite (IIT Madras) Installation and
		Commissioning
		29. Warranty: Quote with One year (with an option of extension
		for Two more years)
2.	Accessories	<ol> <li>Hard carry case with the wheel.</li> </ol>
		2. High power LED with more than 7000 lumen light with the
		power supply & Extender
		3. Tripod to support the camera.
		4. 50mm Zeiss F-MOUNT 50MM MAKRO-PLANAR which will
		support the above camera.

# PROFORMA FOR TECHNICAL COMPLIANCE SHEET

# Tender No. IITM/SPS/2D DIC System/021/2022-23/SPL

# 2D Digital Image Correlation (DIC) system for full field strain and displacement measurement

### 1. PRE-QUALIFICATION CRITERIA

r shall not be from a country sharing land border with India and if	(Yes / No)	Page No.
, =		
r is from a country sharing land border with India the bidder should		
•		
9 , , ,		
·		
, ,,		
·		
Cl Order No. P-45021/2/2017-PP (BE II) dated 16 <sup>th</sup> September 2020		
subsequent orders issued therein, shall be eligible to bid in this		
eclaration for Class-I / Class-II local suppliers should be submitted		
scribed proforma format as per Annexure – E.		
he tender participating firm nor any of its partner has been		
· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·		
•		
<u> </u>		
, , ,		
· · · · · · · · · · · · · · · · · · ·		
· · ·		
· · · · · · · · · · · · · · · · · · ·		
the person in charge, chian, and phone number, should be		
	n registered with the competent authority as per orders of DIPP OM o. 6/18/2019-PPD dated 23rd July 2020, and MoCI Order No. P-2/2020-PP (BE II) (E-43780) dated 24th August 2020. A declaration abmitted with the bid as per format given in <b>Annexure – D.</b> Ses-I local suppliers' and 'Class-II local suppliers', as defined under CI Order No. P-45021/2/2017-PP (BE II) dated 16 <sup>th</sup> September 2020 or subsequent orders issued therein, shall be eligible to bid in this eclaration for Class-I / Class-II local suppliers should be submitted scribed proforma format as per <b>Annexure – E.</b> The tender participating firm nor any of its partner has been ded / debarred /involved / convicted in any criminal case / economic or any criminal case / economic offence is <b>pending</b> against firm or the reference of the Firm before any Court of Law / Police. A self-declaration oven in <b>Annexure – F.</b> The should be an OEM or authorized supplier of OEM. Necessary OEM at / OEM authorization letter for this particular tender should be dead by the bidder as given in <b>Annexure-G.</b> Thust have an aggregate financial turnover of at least Rs.36 lakhs in years i.e.2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 (Should be audited financial statement signed by the Chartered Accountant) should have executed minimum 5 orders in last 5 years in providing stem (with same make or similar make) to the reputed Institutions IT and Central / State University / Central Research Labs) / R&D units es in India. Document proof of purchase order should be submitted the list of similar instruments supplied including contact details for the person-in-charge, email, and phone number) should be	n registered with the competent authority as per orders of DIPP OM o. 6/18/2019-PPD dated 23rd July 2020, and MoCI Order No. P-2/2020-PP (BE II) (E-43780) dated 24th August 2020. A declaration ubmitted with the bid as per format given in Annexure – D. ss-I local suppliers' and 'Class-II local suppliers', as defined under CI Order No. P-45021/2/2017-PP (BE II) dated 16 <sup>th</sup> September 2020 r subsequent orders issued therein, shall be eligible to bid in this eclaration for Class-I / Class-II local suppliers should be submitted scribed proforma format as per Annexure – E.  the tender participating firm nor any of its partner has been d / debarred /involved / convicted in any criminal case / economic or any criminal case / economic offence is pending against firm or er of the Firm before any Court of Law / Police. A self-declaration ven in Annexure – F.  ser should be an OEM or authorized supplier of OEM. Necessary OEM et / OEM authorization letter for this particular tender should be deal by the bidder as given in Annexure-G.  must have an aggregate financial turnover of at least Rs.36 lakhs in years i.e.2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 (Should be audited financial statement signed by the Chartered Accountant) should have executed minimum 5 orders in last 5 years in providing stem (with same make or similar make) to the reputed Institutions IT and Central / State University / Central Research Labs) / R&D units es in India. Document proof of purchase order should be submitted the list of similar instruments supplied including contact details f the person-in-charge, email, and phone number) should be

### 2. TECHNICAL SPECIFICATION

Sl. No.	Item Name	Description	Compliance	Reference
			(Yes / No)	Page No.
1.	High-speed camera	II. Specifications for camera		
	with the Power	1. Sensor Type: CMOS, Mono		
	supply, Ethernet cable	2. Sensor's Full Resolution: Minimum 1.2Mega-pixel		
	& software.	3. Frames per Second at Full Resolution: 5500fps or more		
		4. 6500 fps or more @1MP		
		5. 1280X516@10000fps or more		
		6. 200000fps or more at reduced resolution.		
		7. Upgradion: Possibility of upgrading up to		
		12000fps@1MP		
		8. Internal Storage: Minimum 18 GB		
		9. Upgradation: Possibility of upgrading to more than		
		70GB		

SI. No.	Item Name	Description	Compliance (Yes / No)	Reference Page No.
		10. Recording time at full resolution@5500fps: 1.8 Sec or	( , ,	. 0
		more		
		Requirement of smaller and larger pixel size in single		
		<u>camera:</u>		
		Possibility of increasing the speed with the Binned mode:		
		Standard mode: Pixel Size: 18micron or lower		
		Binned mode: 36–40-micron pixel size		
		11. Bit Depth: 12 Bit		
		12. CAR: 640X12 increments		
		13. Mount: F mount		
		14. Sensor size: 28mm diagonal		
		15. Global Electronic shutter.		
		16. Programmable I/O ports		
		17. Exposure time: 1μSec at any speed		
		18. Data acquisition system with the Control Software: User		
		friendly software with GUI is required to be quoted to		
		control the camera & should also allow playback of the recorded videos.		
		19. ISO Spec:( 12232 STD)		
		19. 130 Spec.( 12232 31b)		
		ISO Tungsten: Standard: 80000 (Minimum)		
		Binned: 125000 (Minimum)		
		20. Noise & Dynamic Range: Standard10 e-		
		21. Connectivity option: Ethernet		
		22. Triggering Option: BNC-Trigger, Software trigger		
		23. Operating Temperature: -10 to 50 degrees C or more		
		24. Weight: A maximum of 2.5 kg for the camera excluding		
		accessories		
		25. Warranty: Minimum one year from the date of installation		
		26. PIV Features: Shutter-off mode with the straddle time of		
		726ns or lower, Support burst mode.		
		27. Shock:MIL-STD-202G Method 213-B. Rated 30G		
		with shutter; 100G without shutter		
		28. Installation: Onsite (IIT Madras) Installation and Commissioning		
		29. Warranty: Quote with One year (with an option of		
		extension for Two more years)		
2.	Accessories	Hard carry case with the wheel.		
		2. High power LED with more than 7000 lumen light with		
		the power supply & Extender		
		3. Tripod to support the camera.		
		4. 50mm Zeiss F-MOUNT 50MM MAKRO-PLANAR which		
		will support the above camera.		

<sup>\*</sup> Reference page number is mandatory and should be mentioned in the technical compliance

SIGNATURE OF TENDERER ALONG WITH SEAL OF THE COMPANY WITH DATE

# PROFORMA FOR FINANCIAL BID (BoQ)

# Tender No. IITM/SPS/2D DIC System/021/2022-23/SPL

# 2D Digital Image Correlation (DIC) system for full field strain and displacement measurement

:	Sl.No.	Item Description	Qty.	Currency	Unit Rate Ex-Works	CIP / GST charges in value	Total (A+B)
					(A)	(B)	
	1	Supply of 2D Digital Image Correlation (DIC system for full field strain and displacement measurement with accessories as perspecification mentioned in <b>Annexure-A</b> .	t 1 No.	INR / USD / EUR			
	2 Optional items (depends on the requirement)						
		Warranty: Additional 2 years	1 No.				
			·	·	GR	AND TOTAL	

**Note:** Item No.2 Optional item will not be considered for price bid evaluation.

SIGNATURE OF TENDERER ALONG WITH SEAL OF THE COMPANY WITH DATE

(To be given on the letter	head of the bidder)
ender No. IITM/SPS/2D DIC System/021/2022-23/SPL	Dated:
<u>CERTIFIC</u>	ATE
(Bidders from	n India)
I have read the clause regarding restrictions on pr	·
shares a land border with India and hereby certify t	hat I am not from such a country.
OR	
(Bidders from Country which sha	res a land border with India)
I have read the clause regarding restrictions on pr	ocurement from a bidder of a country which
shares a land border with India and hereby certify	that I am from (Name
of Country) and have registered with the Compete	ent Authority. I also certify that I fulfil all the
requirements in this regard and am eligible to be co	nsidered. (Copy/ evidence of valid registration
by the Competent Authority is to be attached)	
Place:	Signature of the Bidder
Date:	Name & Address of the Bidder with Office

Stamp

# FORMAT FOR AFFIDAVIT OF SELF-CERTIFICATION UNDER PUBLIC PROCUREMENT POLICY (PREFERENCE TO MAKE IN INDIA) 2017

# Tender Reference No. IITM/SPS/2D DIC System/021/2022-23/SPL

Name of the item / Service: 2D Digital Image Correlation (DIC) system for full field strain and displacement measurement

Date:					
I/WeS/o, D/o, W/o,					
Resident of					
hereby solemnly affirm and declare as under:					
That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India)					
Policy vide Gol Order no. P-45021/2/2017-PP (B.EII) dated 15.06.2017 (subsequently revised vide orders dated					
28.05.2018, 29.05.2019and 04.06.2020)MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P-					
45021/102/2019-BE-II-Part(1) (E-50310) Dt.4th March 2021 and any subsequent modifications/Amendments, if					
any and					
That the local content for all inputs which constitute the said item/service/work has been verified by me and I am responsible for the correctness of the claims made therein.					
Tick (✓) and Fill the Appropriate Category					
I/We[name of the supplier] hereby confirm in respect of quoted items					
thatLocal Content is equal to or more than 50% and come under "Class-I Local Supplier" category.					
I/We[name of the supplier] hereby confirm in respect of quoted items					
that Local Content is equal to or more than 20% but less than 50% and come under "Class-II Local					
Supplier" category.					
I/We[name of the supplier] hereby confirm in respect of quoted items					
that Local Content is less than 20% and come under "Non Local Supplier" category.					
The details of the location (s) at which the local value addition is made and the proportionate value of local content in percentage					
Percentage of Local content : %**					
Location at which value addition done :					
Location at which value addition done					
For and on behalf of(Name of firm/entity)					
Authorized signatory (To be duly authorized by the Board of Directors)					
<insert and="" contact="" designation="" name,="" no.=""></insert>					
[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate					
from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost					
accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the					
percentage of local content.]					
This letter should be on the letterhead of the quoting firm and should be signed by a competent authority.					
** Services such as transportation, insurance, installation, commissioning, and training and after sales service support like AMC/CMC cannot be claimed as local value addition					

(To be given on the letter head of the bidder)

# Self-Declaration that the Service Provider has not been Black listed

l	S/o	
R/o	police station District	Director
/ partı	ner/ sole proprietor (Strike out whichever is not applicable) of	
	(Firm or Company) do hereby declare and solemnly at	ffirm:
l.	That the Firm	has not been Blacklisted or
	declared insolvent by any of the Union or State Government / Organization	n.
II.	That none of the individual / firm / Company Blacklisted or any partners of	or shareholder thereof has any
	connection directly or indirectly with or has any subsistence interest in	the deponent business / firm
	company.	
III.	That neither the Firm nor any of its partner has been involved / convicted i	n any criminal case / economic
	offence nor any criminal case / economic offence is pending against firm or	any partner of the Firm before
	any Court of Law / Police.	
Place:	S	ignature of the Tenderer
Date:	N	lame & Address of the
	Т	enderer with Office Stamp

# **OEM CERTIFICATION FORM**

# (in Original Letter Head of OEM)

Tender No:								Dated:					
We are Original Equipment Manufacturers (OEM) of							(Name of the company)						
Ms					(Name	of	the	vend	or)	is	one	of	our
Distributors/Dealers/Resellers/Partners (tick one) for the													
is	participating	in	the	above	mentioned	te	ender	by	offer	ing	our	pro	duct
model(Name of the product with model number).													
is authorized to bid, sell and provide service support warranty													
for our product as mentioned above.													

Name and Signature of the authorized signatory of OEM along with seal of the company with Date