INVITATION FOR TENDER FOR SUPPLY OF EQUIPMENT

Sealed tender offers are invited in two separate sealed covers (Technical and Commercial offers) from eligible Indian manufacturers/suppliers or foreign manufacturers through their direct Indian agents for the supply of the following equipment:

<table>
<thead>
<tr>
<th>Item</th>
<th>“Digital Delay Generator”</th>
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<tbody>
<tr>
<td>Quantity required</td>
<td>1</td>
</tr>
</tbody>
</table>

Please send offers along with descriptive catalogue/brochure. The validity of the bid should be at least 90 days from the date of opening of this tender. Please ensure that your quotation reaches at the following address not later than 11.06.2015. The envelope containing the quotation should be superscribed with “IITKGP/AERO/PLAN/Tender/2015-16/RJ/02”.

Propulsion Laboratory,  
Aerospace Engineering Department,  
Indian Institute of Technology Kharagpur,  
Pin-721 302, West Bengal, India.  
With Kind Attention to  
Head, Department of Aerospace Engineering,

<table>
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<tr>
<th>Tender Reference</th>
<th>IITKGP/AERO/PLAN/Tender/2015-16/RJ/02</th>
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<tbody>
<tr>
<td>Last Date for submitting the tender document</td>
<td>11.06.2015, 15 hrs. (IST)</td>
</tr>
<tr>
<td>Date of opening of Technical Bids</td>
<td>12.06.2015, 16:30 hrs. (IST)</td>
</tr>
</tbody>
</table>
| Place of Opening tender offers | Department of Aerospace Engineering,  
Indian Institute of Technology  
Kharagpur – 721 302, West Bengal, India |
| Address of Communication | As stated above |
| Contact Telephone Numbers | +91- 3222 – 283000 |

The technical bid will be evaluated first and price bids will be opened only for those OEMs/Vendors whose technical bid satisfies the specifications (Section A).

The Director, IIT Kharagpur reserves the right to accept or reject the bids/tender or take any decision as deemed fit.
A. Technical Specifications of the Digital Delay Generator

1. Delays:
   a. Channels | 4 independent delay outputs
   b. Range    | 0 to 20 seconds
   c. Resolution | Less than or equal to 250 fs
   d. RMS Jitter | Less than or equal to 250 ps rms + delay x 10^-7 (external trigger to any output), Less than or equal to 20 ps rms + delay x 10^-7 (channel to channel), less than or equal to 5 ps rms for short delay (channel to channel)
   e. Accuracy | Less than or equal to 250 ps + delay x 10^-7
   f. Time base | 200 MHz or more, 0.5 ppm or higher stability

2. Trigger Source:
   a) Command | Front Panel / Ethernet
   b) Internal Load | 20 ohm or less
   c) External Repetition Rate | Less than or equal to 1 MHz, trigger level from 0.1 to 5 V, internal load 50 ohm
   d) Trigger Slope | Positive or negative, selectable
   e) Min. Trigger Delay | Less than or equal to 60 ns
   f) Trigger Mode | One shot, repetitive

3. Output:
   a) Amplitude | 2 to 5V in step of less than 0.1 V
   b) Width | 100 ns to 10 μs with steps of 5 ns
   c) Load | 50 ohm or less
   d) Rise Time | Less than or equal to 2 ns
   e) Fall Time | Less or equal to 5 ns
   f) Connector | BNC
   g) Clock Input | 60 MHz or better

4. Others:
   a) External Time Base (Clock In): 10 to 80 MHz (frequency)

5) Power: 220V AC Single Phase, 50 Hz
   c) Interface Control: Ethernet and USB

b) Additional Gate Input:
   i) Clock Output: 10 MHz or more @1V, Square
   ii) Time base of high stability (50 ppb or better)
B. GENERAL TERMS and CONDITIONS

1. Installation & commissioning: The instruments/goods to be tested and commissioned by representative of the supplier free of cost at our premises and to the satisfaction of the users.
2. Training: The supplier should provide the training on site free of cost.
3. Warranty: Warranty should be for a minimum period of 1 year.
4. Environmental requirements: Necessary environmental limitations i.e., temperature, humidity etc. during the operation of the instruments/goods should be specified clearly.
5. After sales service: After sales service should be available for 10 years
6. Please provide a list of such supplied systems in India and abroad, both in academics and industry.
7. In the technical bid, vendors have to give a technical compliance certificate along with technical literature.
8. Compliance certificate is to be submitted as per our technical specifications. Claim for compliance should be traceable to your brochure. Please mention page number etc. of your brochure for easy traceability.
9. The following documents are required from the Indian agents of Foreign Firms in line with the Rule 143 of GFR 2005 and CVC instruction and one circular dated 17.09.2009 of DG S & D, New Delhi: (i) Foreign Principal's Proforma Invoice/declaration on letter head indicating the commission payable to the Indian Agent, nature of after sales service to be rendered by the Indian Agent. (ii) Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business. (iii) The enlistment certificate of the Indian Agent with the Director General of Supplies & Disposals (DGS&D) under the Compulsory Registration Scheme of Ministry of Finance.
10. Regarding this purchase, the decision of the Director would be final and binding.
11. Payment terms for foreign firms: Through irrecoverable Letter of Credit after receipt of store in good order and condition
12. Payment terms for Indian firms
   a) 100% payment through electronic transfer or A/c payee demand draft after receipt of store in good order and condition, successful installation and the after certification of the bill by the Head of the Department.
   b) Ensure providing
      i) Bank details and PAN number of the beneficiary.
      ii) Full name and address of the beneficiary on whom order has to be placed.
13. In case the due date for opening tender happens to be a holiday, the same will be opened on the next working day. The timings will however, remain unchanged. Please Note that the Institute remains closed on Saturday & Sunday.