Quotations are invited from original equipment manufacturers or their authorized dealers for supply and installation of air conditioning units as per the technical specifications given below:

**Technical specifications of air conditioning units for the CAD-CAM Laboratory**
 *(Department of Mechanical Engineering, IIT Kharagpur)*

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Item</th>
<th>Qty. reqd.</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>5.0 TR</strong> outdoor unit with scroll compressor connected to <strong>2 nos. of 1.5 TR</strong> and <strong>1 no. of 2.0 TR</strong>, wall mounted indoor units</td>
<td>1 no.</td>
<td>CAD Room</td>
</tr>
<tr>
<td>2.</td>
<td><strong>4.0 TR</strong> outdoor unit with scroll compressor connected to <strong>2 nos. of 2.0 TR</strong>, wall mounted indoor units</td>
<td>1 no.</td>
<td>Skype Room</td>
</tr>
<tr>
<td>3.</td>
<td><strong>5.0 TR</strong> outdoor unit with scroll compressor connected to <strong>2 nos. of 1.5 TR</strong> and <strong>1 no. of 2.0 TR</strong>, wall mounted indoor units</td>
<td>2 nos.</td>
<td>Server Room</td>
</tr>
<tr>
<td>4.</td>
<td><strong>3.0 TR</strong> outdoor unit with scroll/rotary compressor connected to <strong>2 nos. of 1.5 TR</strong> wall mounted indoor units</td>
<td>1 no.</td>
<td>Instrument Rooms (2)</td>
</tr>
</tbody>
</table>

Other specifications:

1) The units supplied must be complete in all respects including valves, controls, piping, insulation, relevant electrical fittings including timers.
2) The rated capacity shall not deviate by more than 10% from the capacities specified above.
3) The suppliers must clearly specify make of each of the unit clearly.
4) All the above units shall be equivalent to **3-star or higher rated units in terms of EER**
5) All the outdoor units shall be mounted either on the ground on a suitable pedestal. The indoor units shall be mounted on the walls.
6) The locations of each indoor and outdoor units shall be specified at the time of installation, hence, the suppliers must quote separately for additional copper piping, insulation etc. per metre basis. They must also specify clearly the standard lengths that are included in the unit cost.
7) The scope of work may include all necessary electrical fittings and civil works such as making suitable pedestals for mounting the units, making openings in the walls and making them good after installation etc. However, the suppliers shall quote separately for all the electrical and civil works so that finally this may or may not be included in their scope.
8) The suppliers are advised to visit the site on any working day between 10 AM to 4 PM, and understand the scope before quoting for the same.
9) The evaporators and condensers shall be made of copper tubes and aluminum fins.
10) The indoor noise level when the fan is running at highest speed shall not exceed **48 dBa**
11) The refrigerant used shall be either **R22** or other **non-CFCs**
12) The warranty period for the unit shall be a minimum of 1 year and for the compressor it shall be 5 years.
13) Approved makes are: Blue Star, Carrier, Daikin, Hitachi, Voltas, LG and Samsung
14) The suppliers must attach all the relevant brochures and technical specifications along with their offer
15) IIT reserves the right to accept the offer in part or in total, or may cancel all the offers

**Techno-Commercial Terms & Conditions**

A. Interested original manufacturers or dealers or agents may submit their quotations in two bid systems (technical and commercial).

B. Warranty is one year for total unit and for the compressor is for five years.

C. Validity of the quotation should be 90 days from last date of submission

D. Last date of submission of sealed quotation is 23rd March, 2015 15:00 hrs

E. The date of opening of quotations is 24th March, 2015 at 11.00 hrs.

F. The envelop should have the following number on the top:

   **IIT/ME/ENQ/CAD/CAM/14**

G. The quotation should be submitted to the office of:

   Head of the Department  
   Kind Attn: Prof. C. S. Kumar  
   Department of Mechanical Engineering  
   Indian Institute of Technology Kharagpur  
   Kharagpur, West Bengal 721 302

H. In the technical bid, vendors have to give a technical compliance certificate along with the technical literature.

I. Commercial bid is to be provided in clearly marked separate sealed envelope.

J. Regarding this purchase, the decision of the Director would be final and binding.

K. Payment terms of the Institute are:

   a) 100% payment through electronic transfer or A/c payee demand draft after receipt of store in good order and condition. Generally payment is released after certification of bill which typically takes 15 days.

   b) Ensure mentioning

      i) Bank details of the beneficiary and PAN number

      ii) Full name and address of the beneficiary on whom order has to be placed