



भारतीय
प्रौद्योगिकी
संस्थान
काशी हिन्दू विश्वविद्यालय



INDIAN
INSTITUTE OF
TECHNOLOGY
BANARAS HINDU UNIVERSITY

ANNEXURE-I-A

DEPARTMENT OF ELECTRONICS ENGINEERING, IIT (BHU)

QUOTATION ENQUIRY

Ref: IIT (BHU)/EC/QTN/2015-16/11/16-5 Due Date: 14.01.2016

Date: 23.12.2015

Opening Date: 20 .01.2016 Time: 12:30 p.m.

To

Dear Sir,

Please submit your lowest rate for supplying the under mentioned items. Quotation in duplicate must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/CIF New Delhi.
2. Sales tax at concessional rate as applicable to educational institution.
3. You VAT/CST registration number PAN & TIN numbers.
4. Conditions of supply and terms of payment.
5. If you are a manufacture of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.
6. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
7. Please give undertaking as per annexure-I-B
8. The rates quoted should include transportation costs upto IIT (BHU) clearly mentioning the percentage/rage of sales tax or all other taxes and duties inclusive and rates should be valid for at least three months from the date of opening of quotation. **The educational discount should be separately mentioned in percent as well as in net amount.**
9. **This purchase being for teaching and research purpose, the IIT (BHU) is eligible for the payment of custom duty at reduced rates. The quote should quote accordingly.**
10. **IIT (BHU) is eligible for "Excise duty exemption". Rate should be quoted accordingly.**

Quotation must be sent in a **sealed envelope** with word "QUOTATION", our reference number, and due date as given above, clearly marked over it.

SL. NO.	Name of Items with Technical Specifications	Quantity
1.	<u>Plasma Cleaning System</u> The plasma cleaning system should have following specifications: 1. Scope: System can be used in removal of organic contaminants on work surfaces and enhancing hydrophilic / hydrophobic properties and inter-layer adhesiveness in micro-electronics and bio-electronics applications. 2. Mounting: Table top damage-free plasma process system.	01 No.

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3. Process Chamber: Cylindrical chamber made up of Quartz material and having below specifications:
 - a. Chamber size : Dia. 100mm x L. 200mm
 - b. Chamber should be Weldment free and having Silica encapsulated O-rings viton.
 - c. Gas shower head integrated door for uniform gas flow
 - d. Combination of perforated plate and buffer chamber for uniform gas flow in the chamber

4. Generator: DSP on board feedback control as automatic impedance matching up to 100W with free adjustment power having frequency from 20~100kHz with 10kHz increment.

5. Gas Line Package: System should be integrated with below gas line package:
 - a. Gas Channel: 2 x gas lines (User Define the gas species)
 - b. Additional gas line: 1x empty gas line for future up-grade.
 - c. Gas flow-control by MFC is desirable having flow rate up to 50sccm for oxygen. Accuracy will be $\pm 1\%$ of full scale and operating temperature from 5 to 50 °C.
 - d. All gas pipe line, purge, and vent are made up of stainless steel and should be compatible with O₂, Ar, N₂ and H₂.

6. Vacuum Pump and gauges: pump should be rotary oil pump having pumping speed 80 l/min @ 50Hz with ultimate pressure 1×10^{-3} Torr. Vacuum gauge: Pirani gauge ($760 \sim 1 \times 10^{-4}$ Torr).

7. Process controller:
 - a. DSP on board signal controller with 16x input & 16x output port.
 - b. RS232 Communications.
 - c. Fully automatic with TFT color touch panel interface.
 - d. All parameter like set value of power, power output, frequency, pressure, plasma-on time, gas flow set and flow for MFC should be display on the screen.

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	<p>8. Operational Software:</p> <ul style="list-style-type: none">a. Win CE based OS with color touch PC interface for full process control.b. Recipe control like creation, load etc.c. Up to 10x process recipes can be stored with up to 10 x process steps in each recipe.d. Control of all process parameters.e. Data downloading facility by USB <p>9. Warranty: One year after installation and commissioning.</p>	
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आचार्य व विभागाध्यक्ष/PROFESSOR & HEAD
इलेक्ट्रॉनिक्स अभियंत्रिकी विभाग/Department of Electronics Engineering
भारतीय प्रौद्योगिकी संस्थान (का.हि.वि.)/Indian Institute of Technology

वाराणसी /Varanasi-221005 (INDIA)
23/12/2015