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DEPARTMENT OF MECHANICAL ENGINEERING
Indian Institute of Technology Madras

I.I.T.P.O., Chennai - 600 036

Ref. No. MEE MES GLS 01/2017

Date 03/01/2017

Under certificate of posting

Dear Sirs,

DUE DATE 20/01/2017

1. Quotations are invited **in duplicate** for the various items shown below/overleaf/enclosed list.
2. The Quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. **Local Firms** : Quotations should be for free delivery to this Institute. If Quotations are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms Outside Chennai** : Quotations should be for F.O.R. Chennai. If F.O.R. Consignor stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.
8. The rate of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificates will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. Payment : Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.
12. The last date for receipt of quotation is 20/01/2017

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Address for correspondence
Dr. G.L. Samuel
Associate Professor
Manufacturing Engineering Section
Department of Mechanical Engineering
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
Chennai - 600 036, Tel: 044 2257 4699

Yours faithfully,

G.L. Samuel

3/1/2017

Head of the Department / P?

EDM - Pulse Generator with controller- Specifications

S.No	Specification	Details
1.0	Pulse Generator	
1.1	Cycle Frequency	Upto 150 kHz
1.2	Pulse-on Time (Ton)	100ns to 100µs
1.3	Peak Current(A)	0.1 to 20
1.4	Gap Voltage(V)	up to 200
1.5	Duty Cycle (Ton/(Ton+Toff))	Max 0.1%
1.6	Instantaneous Power	Up to 4kW
1.7	Circuit Type (Switchable for suitable power application)	(i) IGBT/ MOSFET (High power applications) (ii) Relaxation RC Circuit (Low power application)
2.0	Controller	
	Desired features	Remarks/ Comments
2.1	Polarity Change	Option of polarity change (forward or reverse biased) should be included
2.2	Micro-processor control	Capability to capture, analyze and process signals upto 500kHz
2.3	Analogue to Digital Converters	16 - 32 Bits or higher
2.4	Memory	Should have capability to R/W and run pulse classification algorithms
2.5	Expansion / Integration Capability	Should be capable of external integrating controllers/handling more controls Example:- Position Control, Feed Control and other ancillary controls
3.0	Application Requirements	
	(i) Should be capable of drilling the holes of range 0.1 to 0.3mm and the depth of 2 to 3mm	
	(ii) Should be able to integrate with the drives and linear controllers	

Other Technical Requirements:

- Suppliers to provide training for programing, operation and maintenance at IIT Madras at free of cost.
- The offer/bids should be sent only for a machine that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.
- All the necessary safety regulations such as CE compliance, low voltage directive, EMC regulations compliance details, Alarms and emergency switch-off in case of any malfunctioning must be provided. The system must be equipped with all the necessary safety interlocks. Provisions for safety wear etc. are essential.
- The complete system and its associated hardware / software should have a standard warranty of 3 years from the date of installation, commissioning and acceptance of the system at IIT Madras. Supplier modification(s) / Software upgrades shall be intimated and same will be made available free of cost during the warranty period.
- All Technical literature /catalogs and drawings of various systems should accompany the quotation. All the documents should be in English.
- Installation and commissioning should be provided by the supplier or its Indian agent. The Indian agent should have well proven service capability on similar systems with factory trained service engineers available in India. Details of their engineer's expertise should be enclosed along with the offer and will be a key factor in the decision making.
- The system should have compatibility with Indian environment conditions (for better power/energy stability).

G. S. Samuel

3/1/2017