Indian Institute of Technology Madras

DEPARTMENT OF OCEAN ENGINEERING

Ref.No. **Date : 19/02/2021**

OE	2020	006	DEPT	SNAL

Dear Sirs, **DUE DATE : 01/03/2021**

Quotations are invited in duplicate for the various items shown below / overleaf / Enclosed list.

1. The **Quotations are to be in two parts as Technical Offer and as Commercial offer** : The two parts of the offer in separate envelopes must be enclosed in the one bigger envelope duly sealed and superscribed with the reference No. and due date, and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.
2. ***Fax and Email quotation are not acceptable***
3. Quotations should be valid for 60 days from the due date and the period of delivery required , warranty terms etc., should also be clearly indicated. A minimum of one year warranty is required from the date of commissioning.
4. Imported supplies should be quoted for **CIF Chennai**.
5. Local firms to quote for free delivery to this Institute .If quoted for Ex-Godown delivery charges be indicated separately.
6. Relevant literature pertaining to the items quoted with full specifications(and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples/Machines/equipment if called for, should be submitted/demonstrated at free of charges, and collected back at the supplier's expenses. Compliancy certificate is to be provided indicating conformity to the technical specifications.
7. GST and such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted . If this is not indicated no such claim will be admitted at any stage.
8. Goods should be supplied carriage paid and insured.

9. Goods shall not be supplied without an official supply order.
10. If the item is under DGS&D Rate contract No. and price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price(Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
11. The guarantee period of the item may be indicated clearly.
12. The payment will be made after completion of the supply and satisfactory installation of the Equipment/item.
13. **Acceptance and Rejection**:- IIT.Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

14. The quotes should be addressed to

The Head,
Department of Ocean Engineering ,
IITMadras,Chennai-600036.

Specification for 32-Channel DAQ with Digital Bridge Signal Conditioner

1	No of modules	Input module containing electrically isolated & individually configurable channels. Facility to upgrade via cascading.
2	Signal conditioning	Strain Gauge in 3–wire regulated and 4–wire Quarter bridges; in 5 wire Half bridges; in 4 & 6 wire Full bridges, PT100, Resistance, Potentiometric transducers, Voltage (10 V differential, 0...30 V unipolar)
3	Quarter bridge Completion	Internal Completion resistors of 120 & 350 ohm with ±5 ppm/^{o}C temperature co-efficient. Software selectable. No external completion resistors or manually hardwiring of completion resistors is acceptable.
4	A/D Converter	Each channel should have separate 24-bit A/D Converter for synchronous & parallel measurements. No Multiplexing / sample & hold.
5	Sampling rate per channel	≥ 20 KHz/channel. Individually adjustable / channel
6	Bridge Excitation Voltage	0.5, 1, 2.5, 5V. Both DC &Carrier Frequency excitation required.
7	Carrier frequency (sine)	1200Hz
8	Accuracy class	0.05
9	Measurement frequency range	0 ... 3 kHz for DC &400Hz for Carrier
10	Bridge Measurement range	±20 mv
11	Transducer input	300 ... 1000Ω
12	Channel Isolation	All inputs to be electrically isolated
13	Auto & Shunt Calibration	Inbuilt shunt with ±5 ppm/^{o}C temperature co-efficient required giving 1mv/V on every channel. Software selectable. No external shunt resistors or manually hardwiring of shunt resistors is acceptable. Auto calibration for all channels in parallel is also required
14	Bessel & Butterworth Filters	0.01 HZ to 3.2 KHz individually adjustable per channel
15	Transducer impedance	300 ... 1000Ω
16	Quantity	1 No.
17	Warranty	1 Year
18	Delivery	10 Weeks

19	Payment	Advance Payment
20	Installation	Not required
21	Estimation	Rs. 20,00,000/-