



**OFFICE OF THE PRINCIPAL, UTKALMANI GOPABANDHU
INSTITUTE OF ENGINEERING, ROURKELA-769004.**

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No. 591 /Date. 19/3/2026



QUOTATION CALL NOTICE

Sealed Quotations are invited from the reputed firms/ manufacture/ Authorized Distributer/Dealers for **Supply of Machinery & Equipment for Electrical Engineering Department** as per the specification attached in Annexure-I and II. The sealed quotations shall reach to the undersigned on or before 31.03.2026 at 11.00 AM positively. The same will be opened before the Purchase Committee of UGIE, Rourkela on the same date 31.03.2026 at 4.00 PM. The authority reserves the right to accept/ reject any part or all the quotations without assigning any reason thereof.

TERMS & CONDITIONS

1. The quotations must be submitted in sealed cover super scribing
“**Quotation for Supply of Machinery & Equipment for Electrical Engineering Department**”
2. Rate must be mentioned indicating GST component separately.
3. Rate must be inclusive of GST, packing, forwarding, transportation, installation & demonstration.
4. Warranty: Minimum 12 months from date of installation.
5. Delivery period: Within 30 days from issue of Purchase Order.
6. Payment will be released after satisfactory installation & verification by purchase committee.
7. The authority reserves the right to cancel/reject any quotation without assigning any reason.
8. Incomplete or late quotations shall be rejected.
9. Firms who participated earlier may also participate again.

DOCUMENTS TO BE ATTACHED

- GST Registration (up to date)
- PAN Card
- Bank Details with Cancelled Cheque) (up to date)
- Authorization Certificate (if dealer)
- Past experience (preferable)
- Catalogue/Brochure of the Equipment

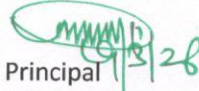
Encl: Annexure-I,II


Memo No 592 /Dt 19/3/2026


Copy to Institute Notice Board/ website for information & wide publicity.

Memo No 593(5) /Dt 19/3/2026

Copy to the General Manager, DIC Rourkela/ ADM Rourkela/ Treasury Officer/ Sub-Collector Rourkela/ P.D., DRDA Sundargarh with a request to display of this quotation call notice in their Office notice board.


Principal
UGIE Rourkela


Principal
UGIE Rourkela


Principal
UGIE Rourkela

Department of Electrical Engineering, UGIE Rourkela

Annexure-I

SI No	Product with Specification
01	DC voltmeter (0-50) V
02	DC ammeter (0-3) A
03	DC Mill Ammeter (0-500) mA
04	Rheostat (0-60) ohm
05	Rheostat (0-100) ohm
06	Rheostat (0-500) ohm
07	AC Voltmeter (0-300) V
08	AC Voltmeter (0-500) V
09	AC ammeter (0-5) A
10	AC ammeter (0-3) A
11	1 phase wattmeter, 300V, 10 amp
12	3 phase wattmeter
13	1 phase power factor meter
14	Regulated DC power supply $\pm 30V$ / 2 Amp Dual channel

Annexure-II

SL. NO.	NAME OF THE ITEMS	DETAIL SPECIFICATION OF THE ITEMS
1	Verify the VI characteristics of IGBT.	Verify the VI characteristics of IGBT:- IGBT characteristics study unit:- V – I characteristics study trainer One variable DC power supply from 1.5V to 15V @ 100mA. to vary VGE. One variable DC power supply from 2.5V to 30V @ 500mA. to vary VCE . Consists of ONE IGBT. One no-25 watts Variable load potentiometer. 3 No's of Digital meters to measure VCE, IL & VGE. Works directly on 230V AC mains. This unit is enclosed in a powder coated MS box with Screen printed front panel.
2	Verify the VI characteristics of DIAC to determine the break over voltage.	Verify the VI characteristics of DIAC to determine the break over voltage:- DIAC characteristics study unit:- V – I characteristics study trainer and to find out break down voltage of diac. One potentiometer to vary voltage from 3.5V to 35V @ 500mA. Consists of one DIAC One no. load Resistance. Works directly on 230V AC mains. This unit is enclosed in a powder coated MS box with Screen printed front panel PVC striker. 2Nos Digital meters.
3	Verify the VI characteristics of SCR.	Verify the VI characteristics of SCR SCR characteristics study unit/ V – I characteristics study trainer and to find out holding and latching current of SCR. One potentiometer to vary VGK from 1.5V to 15V @ 100mA. One potentiometer to vary VAK from 3.5V to 35V @ 500mA. Consists of 2 SCRs with heat sink Rating of SCR's-12A/600V & 16A/1200V One no. 25 Watts Variable load Resistance. Works directly on 230V AC mains. This unit is enclosed in a powder coated MS box with Screen printed front panel PVC striker. 3Nos Digital meters.
4	Test the variation of R, C in R and RC triggering circuits on firing angle of SCR.	HALF WAVE CONTROLLED AND FULL WAVE CONTROLLED RECTIFIER USING R-C TRIGGERING CIRCUIT:- This unit consists of R-C components , A thyristor, a Bridge rectifier, and an AC supply of 20V along with associated components to study half and Full controlled rectifier using R and RC circuit. One no. of 25 Watt Resistor is provided for R-load.

5	Test the effect of variation of R, C in UJT triggering technique.	<p>Test the effect of variation of R, C in UJT triggering technique.</p> <p>UJT firing unit:- UJT based relaxation oscillator to study its characteristics in synchronized and unsynchronized mode. Its application in SCR triggering . Pulse transformer is also provided for isolation between power circuit and UJT relaxation oscillator. All the points are brought out to front panel for study purpose. 25watts resistor load. Works directly on 230V AC mains.</p>
6	“Perform the operation of Class A, B, C, D, E,F forced commutation/turn-off circuits”.	<p>FORCED COMMUTATION CIRCUITS (Class A, Class B, Class C, Class D and Class E):- Forced Commutations Study Unit:- This unit consists of two SCR’ s, Two diodes and different values of commutation components. These components can be interconnected to form power circuit to study</p> <ul style="list-style-type: none"> i) Self commutation by load resonance (Class A) ii) Self-commutation using L-C Circuit (Class B) iii) Complimentary SCR Commutation(Class C) iv) Auxiliary Commutation(Class D) v) External commutation (Class E) vi) Natural /Line Commutation (Class F) <p>Firing circuit for the above circuit with frequency variation and duty cycle. The Unit with built in DC unregulated power supply of 24 @1A. 230V AC mains operated. The Required Accessories are Rheostats – 100 ohm /2A – 2Nos..</p>
7	Use CRO to observe the output waveform of half wave-controlled rectifier with resistive load and determine the load voltage.	<p>Single phase half wave controlled rectifier with R and RL load -24V/1A With builtin AC supply(24V/1A) One SCR TY616. One no.of diode . Builtin firing circuit. R load of 25Watts. L-Load -1A.</p>
8	Cathode Ray Oscilloscope	<p>CRO-30MHz, Dual Chanel. Type of Product: Cathode Ray Oscilloscope Bandwidth: 30 MHz Trigger Sweep Mode: Auto, Lock, Single, Trig Calibration Signal: 0.5 V Square wave of 1 kHz Voltage: 400 V (DC +ACp-p) Color: Off White Factor: 5 mV/Div to 20 V/Div in factor 1-2-5 sequence in 12 steps (Deflection Factor) Display Size: 8x10 cm</p>

9	<p>Draw the output waveform of Full-wave-controlled rectifier with R-load, RL load, freewheeling diode and determine the load voltage.</p>	<p>Single phase controlled bridge rectifier-48V/1A:- 24-0-24 V / 1A AC source (48 V effective) or "48 V/1A". This unit consists of firing circuit based on Ramp comparator method to trigger 4 nos. of SCR's of 1200V/16A with pulse transformer isolation connected in single phase half wave, full wave, half controlled bridge, fully controlled bridge and AC phase control power circuit. Firing angle variation from 180 Degree to 0 degree on a graduated scale. Potentiometer to vary the firing angle. Power Circuit consists of 4nos. SCR's and 3no.Diodes with fuse & snubber protection. A 24-0-24V/1A AC source as input (Low Voltage operation) to bridge. Works directly on 230V AC Mains. This unit is enclosed in a powder coated MS box with Screen printed front panel PVC striker. A 25 Watt Resistor as R-load. L-Load -1A.</p>
10	<p>Determine the firing angle using DIAC and TRIAC phase-controlled circuit on output power under different loads such as lamp, motor or heater</p>	<p>LIGHT DIMMER CIRCUIT USING DIAC-TRIAC:- This unit consists of 200V @ 0.1A isolation transformer . The TRIAC is provided with fuse and snubber protection . A DIAC and associated RC components are provided to vary the firing angel. One lamp of 40Watts also provided. Small instrument fan motor provided. Input 230V AC mains . Closed type MS box cabinet.</p>