

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

Telephone/Fax-0661-2401130, email ID:-ugie\_principal@rediffmail.com Website – www.ugierkl.ac.in

Letter No. 2199 /Date. 13/12/2014/

#### **NOTICE INVITING QUOTATION**

Sealed quotations are invited from the reputed Registered and authorized dealers/ suppliers/ vendors/ firms having good track records for supply of "Automobile Engineering Lab Equipments" for Utkalmani Gopabandhu Institute of Engineering, Rourkela. Interested dealers/ suppliers/ vendors/firms are requested to submit the quotation in a sealed cover as per the given specification in Annexure-I in the address of the Principal, Utkalmani Gopabandhu Institute of Engineering, Rourkela- 769012 through Speed post/ registered post/ by hand on or before dt. 23.12.2024 by 4.00 PM super scribing envelope "Quotation for Automobile Engineering Lab Equipments" and the quotations are to be opened on the same date at 4.30 PM in the presence of the representatives of the intending bidders/ suppliers. If they are so like. Other terms and conditions are as follows.

### **Terms and Conditions**

- 1. The price should be inclusive of all taxes.
- 2. All payments will be made only after the materials are received in full and in good condition similar to the specifications quoted and after completion of installation and satisfactory commissioning.
- 3. Period of delivery after placement of order specified.
- 4. The validity of quotations is at least six month from the date of quotation call notice.
- 5. The quotation should clearly mention the specification offered in the notice as per annexure.
- 6. On the sealed cover must written "Quotation for Automobile Engineering Lab Equipments "addressing to the Principal, Utkalmani Gopabandhu Institute of Engineering, Rourkela, Sundargarh, Odisha-769012.
- 7. Quotations shall be submitted along with following documents.
  - i. Photocopy of GST Registration Certificate and PAN.
  - ii. Certificate of warranty period for 12 month.
  - iii. Detailed specifications of the materials/items quoted. Relevant documents including catalogue/brochure/literature should also be enclosed.
  - iv. Active service centre in Odisha along with contact details.

8. The undersigned reserves all rights to accept or reject the quotation in full or part thereof without assigning any reason.

UGIE Rourkela

Memo No 2200/Dated 13/12/2014

Copy to the Institution Notice Board and website for public information.

Principal, \ UGIE Rourkela

Memo No. 2201 Dated 13/12/2024

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.

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# UTKALMANI GOPABANDHU INSTITUTE OF ENGINEERING, ROURKELA-769004, ODISHA

# **Mechanical Engineering Department**

# Annexure-I

SI No	Name of the Machine	Specification	Quantity
01	Single Cylinder Four Stroke Petrol Engine Test Rig	TYPE OF ENGINE Single cylinder, four stroke, air cooled, Hand start, self-lubricating, petrol engine.	01
		TYPE OF LOADING: A Rope Brake Dynamometer	- 1
		Rope Brake arrangement with the brake drum fitted on the engine shaft and provided spring	
	2 20	balance. FUEL MEASURING SYSTEM:	
		Fuel measuring system consists of a fuel tank, a burette and a three-way cock.  AIR INTAKE MEASURING SYSTEM:	
		Air tank fitted with orifice and water manometer. EXHAUST GAS CALORIMETER:	
		An Exhaust Gas Calorimeter, made of stainless steel is provided for calculating heat carried away	
		by exhaust gas. The body of the calorimeter must be insulated. Digital Temperature indicator with temperature sensor at appropriate position to	
	,	measure the temperature of water and gas.	
		The whole setup must be well designed and supported by a good quality painted with rigid M.S. Structure.	
02	Single Cylinder Diesel	SINGLE CYLINDER DIESEL ENGINE TEST RIG:	01
	Engine Test Rig	The Set-up consists of 1 Cylinder, 4 Stroke Diesel Engine connected to Dynamometer for variable	
		loading. The Setup is stand-alone type independent panel box consisting of air box, fuel tank, and manometer, fuel measuring unit, digital	4.
		speed indicator and digital temperature indicator. Engine Jacket cooling water Inlet, Outlet and Exhaust Gas Temperature is displayed on	
		temperature indicator. Rotameters is required for Cooling Water Flow measurement.	
		FEATURES: - Compact Set-up, Digital Speed Measurement,	
		Digital Temperature Indication  RANGE OF EXPERIMENTS: -	

Study of engine performance for power, efficiencies, fuel consumption, air fuel ratio and heat balance.

#### **UTILITIES: -**

Electric Supply: - Provide 230 +/- 10 VAC, 50 Hz, Single Phase Electric Supply with proper earthing. (Neutral – Earth voltage less than 5 VAC)

**Space**: - 3800L x 2500W x 1700H in mm Foundation as per drawing supplied.

Water Supply: Continuous clean and soft water supply @ 1000 LPH, at minimum Head 20 m. is needed. Provide tap with  $\frac{1}{2}$ " BSP size connection. Exhaust: - Provide exhaust pipe 32 NB (1  $\frac{1}{4}$ ") size

with suitable length.

**Drain**: - Provide drainpipe 1 ½" BSP size with suitable length. Fuel, Oil: Diesel:10 Ltrs. Lubricating Oil: @ 5 Ltrs (20W40)

#### **ENGINE:**

Single Cylinder, 4 Stroke, Diesel Engine: Make - Kirloskar, Type 1 Cylinder, 4 Stroke Diesel, Water Cooled, Power 5 HP at 1500 RPM, Stroke 110 mm, Bore 80.0 mm. Compression ratio 16.5: 1, Capacity 553 CC.

**DYNAMOMETER:** Type Rope with Set of Weights Type

**AIR BOX:** M S Fabricated with Orifice Meter and Manometer

**FUEL TANK:** Capacity 10 Ltrs. With Glass Fuel Metering Column

# SPEED INDICATOR:

Digital Speed Sensor Temperature: Type Digital, Multipoint, Input K type Thermocouple Indicator **TEMPERATURE:** Thermocouple, Type K Sensor

ROTAMETER: Range 40 - 400 LPH

A good quality painted rigid MS Structure must be provided to support all the parts.

Principal'

**UGIE Rourkela**