



GOVERNMENT COLLEGE OF ENGINEERING, KEONJHAR

ସରକାରୀ ଯାନ୍ତ୍ରିକ ମହାବିଦ୍ୟାଳୟ, କେନ୍ଦୁଝର

(An Affiliated College of BPUT, Odisha)

At : Jamunalia, P.O.: Old Town, Dist., Keonjhar, Pin: 758002 (Odisha)

Web: www.gcekjr.ac.in / Mail id- principal@gcekjr.ac.in

No. 1570 Date 19-09-2025

TENDER CALL NOTICE

Sealed tenders are invited from reputed authorized manufacturers/distributors mentioned in the tenders for the supply of equipment through speed/registered post for the supply of equipment for **Department of Mining Engineering, Government College of Engineering, Keonjhar**. The date of opening the tender is mentioned in the tender document, which will be opened in the office of the Principal, Government College of Engineering, Keonjhar, in the presence of bidders and/or their nominees. The tender bid documents with details of terms and conditions are to be downloaded from the College Website (Tender section): www.gcekjr.ac.in.

The authority reserves the right to reject/cancel the tenders in whole or in part without assigning any reason thereof. The authority will not be responsible for any postal delay.

Sd/-
Principal
Government College of Engineering,
Keonjhar

**BIDDING DOCUMENTS AND INSTRUCTIONS TO SUPPLY OF
EQUIPMENT
FOR
DEPARTMENT OF MINING ENGINEERING**



**GOVERNMENT COLLEGE OF ENGINEERING, KEONJHAR
[An Affiliated College of Biju Patnaik University of Technology]
Jamunalia, Old Town, Keonjhar– 758002**

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INVITATION FOR BIDS

Principal, Government College of Engineering, Keonjhar, invites sealed bids from eligible bidders for the supply of machinery/equipment to the Department of Mining Engineering.

Interested eligible Bidders may obtain detailed information and a list of items with technical specifications from the website of the College www.gcekjr.ac.in

Particulars about the submission of the bidding document are as follows:

Price of bidding document	Rs 1000/- (Service Tax is included) (non-refundable)
First date of availability of Bidding	19/09/2025
Last date and time for submission of bids	13/10/2025
Time and date of opening of bids	16/10/2025
Place of opening of bids	Office of the Principal Government College of Engineering, Jamunalia, Old Town, Keonjhar-758002
Address for communication	Office of the Principal Government College of Engineering, Jamunalia, Old Town, Keonjhar-758002
Contact info. for the Mining Engineering Department	Dr. Umakanta Behera Mail Id: umakantabehera_fmn@gcekjr.ac.in M: +91-9438706802

**Sd/
Principal**



TO BE FILLED IN TENDERER LETTER HEAD

From:

Tenderer Name and Address

Sub.: Participation details

Name of the Lab	Technical Bid	Financial Bid (Tick/ YES OR NO)
Mine Machinery Lab	One for all the labs	
Mine Safety Lab		
Mine Environmental Engineering Lab		
Mine Surveying Lab		

Sign & Date with Official Stamp

Note: Tenderers are required to affix this document on the main cover page of the packet as well as inside the technical bid packet.



1. Eligibility of Tenderer and General Instructions:

1.1. Eligibility:

Those who fulfil the following criteria are eligible to participate in the tender.

- a) The tenderer must be a reputed Original Manufacturer or the Authorised agent/ dealer of a reputed manufacturer. Manufacturers must provide all documents relating to their Manufacturing Capabilities.
- b) If the tenderer is an Authorized Dealer/Agent of a reputed manufacturer, a necessary certificate to this effect from his manufacturer must be enclosed.
- c) Annual turnover of the tenderer must be more than **Rs. One Crore in the last three years**. As a letter of support, the bidder should submit an audited balance sheet for the last three financial years.
- d) The Company must be registered with GST.
- e) The tenderer must have cleared GST up to date. Attested copies of GST Clearance Certificate or non-assessment certificate from the concerned Authority, valid up to date, and attested copy of Income Tax Clearance Certificate or non-assessment certificate, as the case may be, from the competent authority, up to date, and PAN Number must be enclosed along with the Tender documents.
- f) The tenderer must have the willingness to provide comprehensive maintenance support of the Machine supplied by them for at least two years after expiry of the warranty period.
- g) The tenderer must provide evidence of purchase order and successful execution of supply of orders with installation and successful after-sales support in reputed organizations like NITs/IITs/IIESTs/IISERs/NISER/IISc/Central Research Laboratories/ Government Engineering Colleges of Odisha.
- h) All after-sales support must be provided directly by the manufacturer only.
- i) The manufacturer should preferably be ISO: 9001-2008.
- j) The manufacturer should preferably have its own NABL (National Accreditation Board for Testing and Calibration Laboratories) accredited laboratory, or equipment supplied should have certification from any NABL accredited laboratory in respect of quality and performance.
- k) The manufacturer should preferably be registered with ESI.



- l) The manufacturer should preferably have its own R&D section registered with the Government of India.

1.2. General Instructions:

The selection for procurement of equipment will be based on quality and performance, along with cost. In this context decision of the technical committee is final based on documentary evidence or actual physical verification.

- a) Submission of more than one bid by a particular tenderer under different names is strictly prohibited. In case it is discovered later on that this condition is violated, all the tenders submitted by such tenderer/s would be rejected or the contract cancelled.
- b) The tenderer should mention in the tender paper the location of its service center nearest to Keonjhar.
- c) All offers should be in English, and the price quoted for each item should be firm.
- d) Warranty period, Delivery period, and after-sales service conditions, etc., are also to be clearly indicated.
- e) The rates and the conditions of the offer will remain valid for **six months** from the date of opening of the tender, and no change or alteration of the rate will be acceptable on any account.
- f) Submitted tender forms with overwriting or erased, or illegible specifications and rates will be rejected.
- g) Request from tenderer in respect of additions, alterations, modifications, corrections, etc. of either terms & conditions or rate after opening of the bid may not be considered. However, negotiation may be made before finalization.
- h) Tenderers shall carefully examine the bid documents and fully inform themselves of all the conditions which may in any way affect the work of the cost thereof.
- i) Should a tenderer find discrepancies or omissions from the specification or other documents, and any doubt as to their meaning, he should at once notify the purchaser and obtain clarification in writing.
- j) This, however, does not entitle the tenderer to ask for time beyond the due date fixed for receipt of tenders.
- k) The tenderer must also specify the minimum time and maximum time to repair/replace in the event of a failure, and the penalty thereof.

- l) Verbal clarification and/or information given by the purchaser or its employees or representatives shall not be binding on the purchaser.
- m) Submission of a sealed bid will carry with it the implication that the tenderer agrees to abide by the conditions laid down in the detailed particulars of the bid notice.
- n) Conditional offers and offers qualified by vague and indefinite expressions, as "subject to immediate acceptance"/ "subject to prior sale", etc., will not be considered.
- o) While tenders are under consideration, tenderers and their representatives or other interested parties are advised to refrain from contacting by any means, to the purchaser's personnel or representatives on matters relating to the tenders under study.
- p) The purchaser, if necessary, will obtain clarification on tenders by requesting such information from any or all the tenderers either in writing or through personal contact as may be necessary.
- q) The tenderer will not be permitted to change the substance of his offer after the tenders have been opened.
- r) In the event of non-compliance with this provision, the tenderer is liable to be disqualified.

1.3. Procedure for Submission of Tenders:

Both sealed covers, Part I "Technical Bid" and Part II "Financial Bid," should be placed in a third cover and sealed. The sealed cover containing tender documents as per the procedure indicated above should be sent to the Office of the Principal, GCE, Keonjhar by Registered Post/Speed Post, addressed to the Office of the Principal, Government College of Engineering, Jamunalia, Old Town, Keonjhar-758002, within the due date and time as stipulated in the Tender. The sealed envelope must show the name of the tenderer and their address, and should be superscribed as "Tender for supply of Equipment for Mining Engineering Department" on the top of the envelope.



Part I (Technical Bid)

Except for the price schedule, all other documents as mentioned in para 1.1 shall be covered in Part I (Technical Bid).

- a) Tender fee and EMD
- b) Copy of the Firm Registration Certificate from the competent authorities,
- c) GST registration certificate and clearance,
- d) Income Tax Clearance,
- e) Proof of annual turnover
- f) PAN Card copy,
- g) List of clients, evidence of successful execution with photograph, etc.
- h) Details of technical specifications, printed information Catalogue for each instrument,
- i) Willingness to provide comprehensive maintenance support of the Machine supplied by him for at least two years after expiry of the warranty period
- j) Tender document duly signed by the authorized person on each page.

Part-II (Financial Bid)

All indications of price shall be given in Part II (Financial Bid).

- A. All the documents submitted must be in the papers showing the signature of the tenderer and the printed office name of the tenderer on the official seal.
- B. All the documents must be submitted in a sequential manner with separators/flags to help in the quick scanning of the topics. Wherever possible, data in tabular form should be given.

2. Requirements by Tenderer before Supply:

2.1. Rating Plate, Name Plate, and Labels:

Each piece of the equipment is to have permanently attached to it a rating plate of non-corrosive material in a conspicuous position, upon which the total specifications, along with the manufacturer's name, address, etc., are to be engraved.

2.2. Packaging:

All the equipment is to be suitably protected, covered in waterproof packing, and crated to prevent damage or deterioration during transit and storage till the time of installation. The supplier shall be responsible for any loss or damage caused during transportation, handling, or storage till their successful installation.

2.3. Inspection:



- a) All materials/equipment shall be inspected and tested for completeness, proper assembly, operation, cleanliness, and state of physical condition and performance as per the quoted specification.
- b) The test shall be conducted, reported, and certifications to be provided by the tenderer.
- c) The tenderer shall provide all test and measuring equipment/tools required for inspection/testing. The cost of all such tests shall be borne by the Tenderer.
- d) GCE, Keonjhar reserves the right to reject any equipment if it does not comply with the specifications during the site testing, installation, and commissioning stage.
- e) Inspection & testing would be conducted jointly, at various stages as applicable during unpacking, installation, and commissioning of respective equipment/components at the manufacturing site.

2.4. Environmental Condition:

All the equipment supplied shall be rugged and should operate without any deviation in quality or degradation of equipment performance. All the specifications/parameters shall be guaranteed over the following environmental conditions:

- a) Storage and operating Temperature: 0 to 50°C
- b) Humidity: 95% RH (non-condensing)
- c) Power supply: 220 V/440 V, 50 Hz

3. Requirements by Tender after Supply:

3.1. Supply:

- a) The material would be delivered by the supplier at GCE, Jamunalia, Old Town, Keonjhar – 758002, Odisha.
- b) The items should be supplied directly from the manufacturing terminal, having passed all tests successfully with Certifications as required.
- c) The equipment should conform to the latest relevant National/International standards and shall be completed in all respects.
- d) Any component, fitting, etc., which may not have been specifically mentioned in the specifications but which is usual and necessary for the equipment, shall be supplied by the tenderer at no extra cost.
- e) In case articles are found damaged in transit or found short at the time of delivery, the full cost of the same will be deducted from the bill of the supplier in



case the supplier does not replace the stock within a week from the date of the complaint.

- f) The articles ordered must be supplied in one lot within 30 days of placing the order. In case of any extension (if required), the tenderer must take permission from GCE, Keonjhar.
- g) In case of delay in delivery or successful installation, a penalty of 1% (one per cent) per week shall be levied.
- h) GCE, Keonjhar reserves the right to procure the materials from alternative sources at the risk and cost of the successful tenderer, giving 15 days' notice.
- i) Any increase in tax and duties after expiry of the delivery period will be borne by the supplier.
- j) In case the items supplied by the supplier are found not up to the specification shall be rejected. The supplier will be intimated to take back the stocks at his own cost within three days from the date of rejection and to replace the same within 7 days, failing which the EMD will be invoked in addition to taking legal actions.
- k) Imported consignment, if any, should be destined to GCE, Keonjhar Jamunalia, Old Town, Keonjhar – 758002, Odisha, India, through Bhubaneswar Airport.
- l) The suppliers shall be responsible for releasing the consignments from the carriers/transporters.
- m) The equipment shall be delivered and installed at the site at the cost of the tenderer.
- n) All taxes, levies, surcharges, including customs clearance and handling freight and insurance, should be paid and handled by the tenderer.

3.2. Installation and Commissioning:

Installation and Commissioning shall include the following:

- a) Installation and Testing of the Equipment, Machinery, etc. must be conducted by the tenderer at GCE, Keonjhar.
- b) It will be the responsibility of the tenderer to provide all necessary spares and consumables, which may be required during installation and commissioning, at no extra cost to the purchaser.
- c) The tenderer is to bring their own testing and measuring instruments required for installation, testing, and commissioning, which can be taken back after completion.

- d) Installation must be completed within 15 days after delivery on site.
- e) During installation and commissioning, the complete intended experiments are to be conducted, with the results being within an accepted level of accuracy.
- f) The raw materials and samples required for conducting experiments during installation are to be supplied by the tenderer free of cost.

3.3. Documentation:

- a) Detailed technical manuals, handbooks, drawings, Warranty card, and Factory Quality Assurance checklist, test results, and any other certifications mentioned in the technical specifications shall be supplied along with the consignment.
- b) Supplied manuals/handbooks must cover detailed technical specifications and installation, operation, maintenance, and System Safety procedures.
- c) For Experimental setups, details of theory, procedure, and methods of taking measurements, etc., should be provided in the form of handbooks for each experiment.
- d) The receipts for taxes paid, if any, for the supplied materials should also be submitted.

3.4. Trial Operation and Performance Guarantee Test:

- a) After successful completion of Installation and Commissioning of the equipment, a 7-day continuous trial operation putting those on optimum use shall be conducted by the tenderer at the site, during which the performance of the equipment shall be demonstrated for trouble-free continuous operation, meeting the specified standards, and proper training shall be imparted to two persons of the purchaser.
- b) During trial operation, the tenderer shall make all necessary adjustments required to ensure the performance as per the acceptable level.
- c) In case guaranteed performance is not established, the tenderer shall be allowed to rectify/replace the equipment/components, and restart the 7-day continuous trial operation, at the risk and cost of the tenderer.

3.5. On-Site Warranty:

- a) The entire material may be used continuously. The reliability and safety of the total installed system and trouble-free operation are, therefore, of prime importance. The supplied devices/equipment and components shall be covered under a two-year or more comprehensive on-site warranty from the date of issue of the successful completion of the Performance Guarantee Report.



- b) During the period of warranty, it shall be the responsibility of the tenderer to provide all essential spares and consumables, which may be required for maintenance and trouble-free operation of the devices/components at the tenderer's cost.
- c) Software, if any, has to be tested with at least a one-year warranty for trouble-free operation.

3.6. Comprehensive Maintenance Contract:

- a) The tenderer shall be under the obligation of entering into a Comprehensive Maintenance Contract (CMC) with GCE for a minimum period of two years, renewable if felt necessary, on mutually acceptable rates, terms, and conditions. CMC shall start after the completion of the Warranty.
- b) The scope of CMC shall cover maintenance and supply/replacement of materials and components, for smooth and reliable operation of the systems without trouble.
- c) Accordingly, the tenderer has to offer rates for the CMC structure per equipment, along with the price for the Systems and other associated Equipment supplied.

3.7. After Sales Service:

- a) During the warranty period and subsequently, after signing of Agreement for CMC, the tenderer shall attend to the problems reported by the users of GCE on a priority basis.
- b) For any problem reported, the tenderer shall attend and rectify the problem within 7 (seven) days or provide a standby system of a similar configuration.
- c) The report on any problem will be informed through the phone or fax number of which shall be given by the tenderer.
- d) The branch office of the concerned manufacturing firm will be fully responsible for providing maintenance service, in case of any negligence, in providing the service by the tenderer.
- e) On failure to comply with those instructions, the Bank Guarantee provided for the warranty period shall be invoked.



4. Financial Terms:

4.1. EMD

- a) The tenderer must submit a Demand Draft / Banker's Cheque / Pay order of Rs 50,000/- in favor of Principal, Government College of Engineering, Keonjhar, payable at Keonjhar in any Nationalized Bank towards EMD.
- b) There will be no interest paid to the tenderer on the EMD money.
- c) In no case, the EMD Money in cash or other forms be accepted at the time of opening of the bid.
- d) No request for adjustment of claims, if any, will be accepted.
- e) The EMD of unsuccessful tenderers will be refunded as soon as possible after the tenders are finalized.

4.2. PRICES:

Price quoted should be for the Government College of Engineering, Keonjhar only. Tax components as applicable should be mentioned clearly in the financial bid.

- a) Price should be quoted for a unit item.
- b) Purchase order will be placed as a single lot for each type of item or for all the items together, as the case may be.
- c) In case of items of import, the tenderer should take full responsibility for customs clearance, handling, tax payment, etc., and specify the charge for the same in the price bid.

4.3. Tax Concession:

Central Sales Tax Concession is to be availed on production of the required certificates applicable to the Educational Institution.

4.4. Discount:

- a) Our Institute is a pioneer Institution in the field of Teaching and Research in Engineering and allied disciplines, and does not run with a profit motive.
- b) As such, we are availing a price discount for the purchase of equipment/instruments.
- c) The rate of discount or any other Institutional benefit arising out of the Government. Policy, etc., on each item may also be indicated in the bid specifically.



4.5. Payments:

- a) In case of imported items, payment will be made by opening an LC in the name of the manufacturer, subject to the condition that a Bank Guaranty for an equal amount will be submitted by the selected tenderer to GCE for the period of completion of installation and commissioning.
- b) In case of purchase in Indian Rupees, payment of 90 percent of the ordered value will be made after successful installation and commissioning of the equipment, subject to submission of a satisfactory performance report by the concerned Head of Department. The rest 10 percent of the payment will be made after one year of successful installation of the equipment.

4.6. Penalty:

If the delivery, installation, and commissioning are not carried out in time as specified in other parts of the tender document, the tenderer/manufacturer will be charged @ 1 % (one percent) per week of the total value of the concerned machine/equipment.

5. Instructions to the Tenderer:

- a) Some of the minimum specifications specified may be redundant, obsolete, or incompatible, and in these cases, quote the particulars of the correct specification of the latest trend and technology.
- b) Higher specifications instead of minimum specifications are allowed if a minimum specification is not available, obsolete, or incompatible.
- c) Otherwise, the model with higher specification should be in addition to the model with minimum specifications.
- d) Specify brand name and full model name, and number for each offer.
- e) Include the printed catalogue and pricelist, if any, for each of the equipment quoted.
- f) Specify the list of Accessories required along with each piece of the equipment.
- g) Quote the additional price of the accessories; only those that are fully compatible with the quoted model should be furnished.
- h) Specify the list of Accessories to be given free of cost, along with the equipment as "Free Accessories"; these should be fully compatible with the quoted models.

5.1. Solving Disputes:



- a) GCE, the tenderer, and the manufacturer shall make all efforts to resolve amicably by direct informal negotiation on any disagreement or dispute arising between them under or in connection with this contract.
- b) All disputes arising out of the contract shall be referred to the courts under the jurisdiction of the Keonjhar court only.
- c) The above terms and conditions, except those otherwise agreed upon, shall form a part of the Purchase Order.
- d) Sign on each page of this tender document and return it along with the offer enclosing this part together with the Technical Offer.
- e) The GCE authority has the right to accept/reject any tender without assigning any reasons thereof.



6. Technical Specifications with Price Quote Sheet.

Mining Machinery Laboratory

SL.NO.	NAME OF THE EQUIPMENT	SPECIFICATION	PRICE (RS.)
01	Model of Direct Rope Haulage (01 No.)	<ul style="list-style-type: none"> ➤ A working model which can be operated both in hand and geared AC motor with Pulley & Wire rope. The haulage drum is driven by geared motor in both directions. Inclined rail track with 4 nos. mineral tub/mine Car, equipped with emergency stop, run away switch, flashing indicator with beep siren during operation. ➤ Drum RPM indicator (Digital), Forward/Reversed Controller, Emergency brake system. Voltmeter, Ammeter and Wattmeter to study power Consumption Pattern under Loaded and unloaded Condition. ➤ Size – 84" (Length) x 24" (Width) x 30" (Height) ➤ MOC – (Material of Construction) – MS angle, MS Sheet, Aluminium Channel duly powder coated & epoxy painted. ➤ Pre-start warning for each time of Car movement, two numbers of mineral tub and two number mine Car with Communication to operator and Signals during operation duringan emergency Situation. ➤ A control desk for operation is provided. 	




02	Model of Main and Tail Rope Haulage Layout (01 No.)	<ul style="list-style-type: none"> ➤ Working model of main & tail rope Haulage System. A slightly inclined track with 04 nos. mineral tub / mine Car attached to the rope running through Pulleys and finally attached to two different drums. ➤ AC geared motors with Controllers and braking arrangement to drive two drums separately inter locking Safety Switch, DGMS recommended safety arrangement, alarm and warning Signals are provided. ➤ The entire model can work by AC geared motor or manually by hand. ➤ A Control desk comprising all controls, safety and warning switches and communication protocol including power measurement of motor operation is provided. ➤ Size – 84" (Length) x 24" (Width) x 30" (Height) ➤ MOC – MS angle, MS sheet and Aluminium channel duly powder coated & Epoxy painted. Pré – starting warning for 10 Sec. (settable) for new operation is provided. 	
03	Model of Endless Rope Haulage Layout (01 No.)	<ul style="list-style-type: none"> ➤ Working model with two parallel tracks side supplied with 04 nos. tubs (Two nos. mineral tub, two nos. mine Car) Driven by AC geared motor with Starter & Controller. Main Pulley is a Clifton pulley with mounting structure. Return pulley with mounting structure for over-rope type haulage. Rope tension arrangement using tension bogie & Weight lashing chains. ➤ DGMS recommended Safety and Communication Provision, Emergency stop switch, Rope running guide pulley. Alarm & Flashing indicator with Operator Control 	




		<p>Desk.</p> <ul style="list-style-type: none"> ➤ Size – 84" (Length) x 24" (Width) x 30" (Height) ➤ MOC – MS angle, MS sheet and Aluminium Channels duly powder Coated & Epoxy Painted. ➤ Pre – starting warning for 10 Sec. (Settable) for new operation is provided. 	
04	Model of Scraper Chain Conveyor (01 No.)	<ul style="list-style-type: none"> ➤ Motor driver Scraper Chain Conveyor is made of MS structure & SS Driver Sprockets are driven by geared motor with appropriate controller and protection system. Delivery or return end is run on return sprockets. Guided material movement tunnels are joined in a long path where the Scrappers run. ➤ Supplied with Operator's control desk, DGMS recommended safety features, Emergency stop and siren system loading hopper with feed gate is provided at loading side of the conveyor. ➤ Supplied complete set-up mounted on MS epoxy-based paint for years of operation without corrosion. ➤ Size – 84" (Length) X 30" (width) X 30" (Height) 	
05	Model of Shaker Conveyor (01 No.)	<ul style="list-style-type: none"> ➤ Electric power-driven shaker conveyor with input material loading hopper and feed gate with locking mechanism mounted on a MS structure. ➤ Power- 220 V, 400W Single phase multiple troughs with inclination adjustment facility safety switch, digital voltmeter, ammeter and watt meter to measure electrical parameters in different situations. ➤ Size – 60" (Length) X 20" (Width) X 30" (Height). 	

		<p>MOC – (Material of Construction)</p> <ul style="list-style-type: none"> ➤ MS Sheet, MS channel Structure. Two Coats Zinc Primer and two coats epoxy paint for corrosion free operation. Adjustable vibration of conveyor to study the optimal working condition. Inclination angle can be adjusted to simulate different practical conditions. 	
06	Model of Rope Cappel (01 No.)	<ul style="list-style-type: none"> ➤ A platform made of wood where zinc cone with 6 nos. of grooves to keep six strands in proper place. All accessories required to perform rope Capel are provided in a separate metal box. ➤ Suitable cut pieces, Zinc Cone, Nut & Washer, lock pin are for Practice. 	
07	Model of Rope Splicing (01 No.)	<ul style="list-style-type: none"> ➤ Sequence of splicing and its different stages are shown on a wooden board. ➤ Suitable Colours are marked to demonstrate the procedure. Stages are mentioned clearly on the board near the wire splicing for easy understand. ➤ Size of the board – 54" X 30" ➤ Mounted on MS Round pipe frame duly painted and labelled. 	
08	Model of Headgear structure (01 No.)	<ul style="list-style-type: none"> ➤ Constructional Features of a headgear mounted on a MS structure with shaft cut in the base plate. ➤ MS rectangular columns with MS angle iron braces, Tee – beam for mounting sheave wheels (Two headgear pulleys) MS rectangular columns are mounted on a heavy MS base plate kept on a MS structure. Shaft of 12" x 12" cut made 	




		<p>on base plate for Cage movement.</p> <ul style="list-style-type: none">➤ Platforms are on head frame as well on floor level & shaft bottom.➤ Hoist room with geared motor drive with controller for speed & direction control.➤ Two Cages are attached to wire rope running through headgear pulleys.➤ A control desk with all switchgears, indication and annunciation arrangement is provided.➤ Both the Cages are Lighted by low volt dc lights.➤ Necessary canopies are provided for rain water protection.➤ Canopies are made up of aluminium sheets duly painted.➤ All the structure, base plate and fabrication in machined and finished before applying zinc primer and epoxy paint.➤ A wall mounting schematic diagram is provided for easy understanding of different parts.➤ Size – 36" x 36" , Height - 42"	
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Handwritten initials

Mr. Saange

09	Model of Cage Guides (01 No.)	<p>Rope Guides:</p> <ul style="list-style-type: none"> ➤ MS structure with MS plate to hold head gear pulleys. ➤ Head gear structure holds 08 nos. rope guides and wire ropes run through eye brackets to pit button and tied in the end bracket at pit sump. ➤ Tensioning Weights are provided to keep the ropes under calculated tension dummy cage with guides is provided to demonstrate the function of rope guides. ➤ For clear view of different components, adequate lights are provided. ➤ Size 36" x 36" X Height – 42". ➤ All the parts are well finished and coated with zinc primer and epoxy paint. ➤ A wall mounting schematic diagram is provided for easy understanding of different parts. 	
		<p>Rigid Guides:</p> <ul style="list-style-type: none"> ➤ MS structure with MS plate to hold head gear pulleys. ➤ Headgear structure holds 04 nos. rigid rail guides. The 04 nos. rails are fixed from headgears to the bottom Sump. ➤ Two numbers of Cages are running over the rails from head gear to bottom sump. ➤ Two dummy Cages are provided to demonstrate the function of rigid guides. ➤ For clear view of different components, adequate lights are provided. ➤ Size of the model – 36" x 36" x 42" (Height) ➤ All the parts are well machined and finished and coated 	

		<p>with zinc primer and epoxy paint.</p> <ul style="list-style-type: none"> ➤ A wall mounting schematic diagram is provided for easy understanding of different parts. 	
10	Model Study of shaft fittings (Cage fittings) (01 No.)	<p>Rope Guide shoe:</p> <ul style="list-style-type: none"> ➤ Demonstration of rope guide shoe fixed on a wooden board size 24" x 12" with joint bolts. <p>Sliding Guide-shoe for Rail or Rigid Guide-shoe:</p> <ul style="list-style-type: none"> ➤ Demonstration of sliding shoe of cage on a wooden board. Rails are provided to demonstrate shoe function by movement. <p>Single-deck Cage:</p> <ul style="list-style-type: none"> ➤ Made of MS iron duly painted with Zinc primer & Epoxy Paint. ➤ Provided with gates locking Arrangements, rails, check rails, tub catches, arresting bar, hand bars, guide shoes, folding door at roof. ➤ Size – 24" x 12" x 18' (height) <p>Double-deck Cage:</p> <ul style="list-style-type: none"> ➤ Made of MS iron profiles duly painted with primer and epoxy paint. ➤ All standard fittings are provided such as: gates, rails, check rails, tub catches arresting bar, hand bars, guide shoes, folding door at roof. ➤ Size – 24" x 12" X 36" (Height). 	

11	Model of Centrifugal Pump (01 No.)	<ul style="list-style-type: none"> ➤ Working model of centrifugal pump with water sump, suction pipe and delivery pipe with flow control valves delivery pressure measuring gauge. Single-phase power supply with Voltmeter and Ammeter to measure Voltage and Current of motor coupled separately. ➤ Cut section of Centrifugal pump set to understand the construction and working of the pump. It demonstrates all inner geometry and functions of the parts. <p>Schematic diagram with naming of all parts for fixing on wall for clear view and functional description of Centrifugal pump.</p>	
12	Reciprocating Pump (01 No.)	<ul style="list-style-type: none"> ➤ Working model of reciprocating pump fixed on a MS structure with water inlet tank and suction line, Delivery line from double acting cylinder with pressure measuring gauges, Motor voltage, Current measuring panel for study of reciprocating pump. ➤ Cut section of reciprocating pump to demonstrate different parts and functions by rotating the pulley fixed to the driving shaft by hand. <p>Schematic drawing with description of different parts and its function of reciprocating pump.</p>	
13	Model of Turbine Pump (01 No.)	<ul style="list-style-type: none"> ➤ Turbine Pump coupled to a motor with Water Sump, Delivery & Suction hose, pressure gauge. A Complete Motor Control unit with voltmeter, Ammeter, Protection unit for study & measurement. ➤ Schematic drawing with description of different parts and its 	




		function of different parts and its function of Turbine Pump.	
14	Model of Mono Block Pump (01 No.)	<ul style="list-style-type: none"> ➤ A complete mono block pump with Suction pipe, delivery pipe, Sump, delivery pipe with valve, pressure gauge. ➤ Motor Control Unit with digital Voltmeter, Ammeter, protection unit for study & control. ➤ Cut Section model of mono block pump with illustration of different parts and its function. ➤ Schematic diagram with naming of all parts for fixing on wall for clear view and functional description of Centrifugal pump. 	

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Mine Safety Lab

SL NO.	NAME OF EQUIPMENT	SPECIFICATION	PRICE (RS.)
01	Self-Contained Breathing Apparatus Drager BG-174 (01 No.)	<ul style="list-style-type: none"> ➤ Mode – SAVIOUR, Capacity – 45 min, Weight – 8 Kg. ➤ Quick fit and start, Supplied with full mask for complete protection. ➤ Wide view visor for optical clarity. Hose duly tested and certified. ➤ High-quality fire-retardant harness for safety and comfort. ➤ Robust pressure gauge with easy adjustment. 	
02	Self-Contained Breathing Apparatus Travox-120(01 No.)	<ul style="list-style-type: none"> ➤ Mode – SAVIOUR, Capacity – 45 min, Weight – 8 Kg. ➤ Quick fit and start, Supplied with full mask for complete protection. ➤ Wide view visor for optical clarity. Hose duly tested and certified. ➤ High-quality fire-retardant harness for safety and comfort. ➤ Robust pressure gauge with easy adjustment. 	
03	Drager Pulmotor (Model: PT-60) (01 No.)	<ul style="list-style-type: none"> ➤ Make – HYGET, Display – TFT, Ventilation Mode – IPPV, Assisted Control, Manual control, Li-on rechargeable battery for 10 	

		<p>Hrs working time.</p> <ul style="list-style-type: none"> ➤ Easy configuration, Supplied with disposable mask set. 	
04	MSA type Gas mask (01 No.)	<ul style="list-style-type: none"> ➤ Make – VENUS mask type - V500, Filter Cartridge type – V7500. ➤ V-500 series is light weight and reusable respirator and comfortable. ➤ It is supplied with adjustable elastic band. ➤ It is combined with V-7500 filter cartridge. ➤ V-7500 can be fitted with different filter elements such as: - <ul style="list-style-type: none"> A1E1P1S - Organic Vapor, Acid gases and particles. B1RF - In organic gases. K1RF – Ammonia and derivatives 	





Mine Environmental Engineering Lab

SL NO.	NAME OF EQUIPMENT	SPECIFICATION	PRICE (RS.)
01	Dust precipitator (01 No.)	<ul style="list-style-type: none"> a) Fully DGMS Compliant PDS with Bluetooth & GPS Feature as per DGMS Circular No 02, Date: 02.05.2016 with IEC60079-0:2004 & IEC60079-0:2004 Standard, as per in accordance with specification of MSHA 30CFR74.4 Fully Compliant Such as Display, HSE Certified Cyclone @2.2LPM, CE Certified for EMC & RFI b) 1M Length of Tygon Tube c) Filter Cassette (5 Pcs / Pack) d) PVC Filter Paper (100 Nos / Pack) e) HSE Certified @ 2.2 LPM1 Nos Higgin Dwell Cyclon 	
02	Noise measuring instruments (01 No.)	<ul style="list-style-type: none"> a) Operating Range: 55.0-140.3 dB (A) RMS b) Frequency Weightings: A, C and Z, Type 2 Time c) Weightings: Fast, Slow and Impulse d) Run Time: Typically, 35 hours using Broadband Mode e) Charge Time: <6 Hours Fully Discharged 	




		<ul style="list-style-type: none">f) PC Interface: USB 2.0 Full speed 12Mbps via Dockingg) Station. Dimensions: 85L x 54W x 55H mmh) Weight: 117g Environmental Ingress Protection Rating: IP65 (with permeable air vent)i) Fully Compliant as per IEC61252 Standard as per DGMS Circular No 3;j) Fully Compliant as per IEC60079-19:2006(As per DGMS Circular No3), intact against Intrinsic Safety & Ingressk) IEC60079-0:2004 and IEC60079-11:2006 for Intrinsic Safety & Explosion Proof	
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S. J. Rangaraj

Mine Surveying Lab

SL.NO.	NAME OF THE EQUIPMENT	SPECIFICATION	PRICE (RS.)
01	Theodolite-(1 sec)1 No.	<ul style="list-style-type: none"> ➤ Precision 2" ➤ Display resolution 1" or 5" ➤ Display units DEG (360° 00' 00"), GON (400), MIL (6400), V / % ➤ Display Double side large character back-lit LCD ➤ System Automatic vertical compensator, User set on/Off ➤ Working Range $\pm 3'$ ➤ Operation period without laser plummet 36 h 	
02	Levelling-3 Nos.	<ul style="list-style-type: none"> ➤ Magnification 32X ➤ Image Erect ➤ Compensator Working Range +/-15 ➤ Stadia Constant 0 ➤ Stadia Ratio 100 ➤ Accuracy 1.6mm or better ➤ Working Temperature range Minus 20°C to Plus 50°C ➤ Ingress protection IP56 or better ➤ Weight 1.6 Kg ➤ Aluminums Tripod 1 no. ➤ 5 mts Staff 2 nos. 	
03	Prismatic Compass-3 Nos.		
04	Survey Chain-3 Nos.	➤Length -60M, MOC - MS steel	




05	Through Magnetic Compass-1 Nos.		
06	Levelling Staff-3 Nos.	➤ Size - 5 mtr.	
07	Ranging Rod-20 Nos.	➤ Size - 2 mtr. MOC - Mild Steel, alternatively painted red and white.	
08	Ranging Pole-10 Nos.	➤ Size - 1.5 mtr.	
09	Arrow Pins-20 Nos.		
10	Pegs-20 Nos.		
11	Tape- 30Mtr Fiber		
12	Gyro Theodolite-01 nos	➤ 20 cm	



Srinango