

**FABRICATION, SUPPLY, TESTING
COMMISSIONING OF AC BUS
(SHELL) ON TATA Chassis (LP/LPO
1512 with 5545 wheel base)FOR
MOBILE SCIENCE EXHIBITION**

TN/PTU/2013-14/8/MSE

AT

**PUNJAB TECHNICAL UNIVERSITY
KAPURTHALA (PUNJAB)**

Punjab Technical University
Jalandhar – Kapurthala Road,
Kapurthala, Punjab



Punjab Technical University

Jalandhar – Kapurthala Road, Kapurthala

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ADVERTISEMENT

PUNJAB TECHNICAL UNIVERSITY

Jalandhar-Kapurthala Road,
Kapurthala

TENDER FOR FABRICATION OF BUS BODY

Sealed offers are invited from reputed Bus Body Builders for FABRICATION ON TATA Chassis (LP/LPO 1512 with 5545 wheel base) supplied and as per the design provided by PTU. The scope of work also includes SUPPLYING, TESTING, COMMISSIONING of it.

Earnest Money: Rs. 40,000/-; **Time Period:** 04 Months

Detailed Document can be obtained from PTU, Jalandhar or can be downloaded from website www.ptu.ac.in.

Pre-bid Meeting at PTU: 11.12.13 (1500 hours)

Last Date for Submission at PTU: 16.12.13 (1430 hours)

COVERING LETTER

From,

(Full name and address of the tendered)

M/S.....
.....

To,

**The Registrar,
Punjab Technical University,
Jalandhar-Kapurthala Road,
Kapurthala, PUNJAB**

**Subject: FABRICATION, SUPPLYING, TESTING,
COMMISSIONING OF diesel fuel propelled Air
Conditioned (AC) BUS TATA Chassis (LP/LPO 1512
with 5545 wheel base)**

Sir,

We hereby submit our offer in full compliance with terms & conditions of the attached tender. The tender is submitted in three separate and sealed envelopes marked Part-I, Part-II & Part-III.

**(Signature of tendered)
With seal**



Particulars

FABRICATION, SUPPLY, TESTING, COMMISSIONING OF diesel fuel propelled Air Conditioned (AC) TATA Chassis (LP/LPO 1512 with 5545 wheel base) to PTU

Date for Pre-Bid Meeting : 11.12.13 (1500 Hours)
Place for Pre-Bid Meeting : Office of the Registrar, PTU
Last Date for submission of Offer : 16.12.13 (1430 Hours)

Place for submission of Offer :
Validity of the Offer : 6 (Six) Months from the last date of submission of Tender

Time Schedule for completion of work : Four (4) months from award of work.

Earnest Money Deposit : Rs.40,000/- (Rs. Forty Thousand Only)

Through Demand Draft in favor of Registrar "PTU", payable at Jalandhar

Particulars of Tendered : Tendered is requested to fill their particulars as per Annexure: I

SCOPE OF WORK

Body Fabrication, Supply, Testing and Commissioning of diesel propelled Air Conditioned (AC) Bus (Shell) of Tata make Chassis (LP/LPO 1512 – 5545 Wheel base), with norms and specifications of Bharat Stage III or latest emission norms compliant conforming to Central Motor Vehicle Rules (CMVR) requirements. The Chassis will be provided by PTU. The broad details of the chassis are enclosed at Annexure: I. The internal design / interior of the bus will be as per the design provided by PTU.

1. PURPOSE

- 1.1 The Bus will be used as Mobile Science Exhibition.
- 1.2 Bus will be segregated into two sections by partition wall. One section "Driver Cabin" and other section (saloon area / passenger seating area) as "Gallery Section".
- 1.3 A small gallery will be developed in Gallery Section having indoor as well as outdoor facing exhibits as per the layout provided. Visitors will be entering the bus from the rear side, move through the gallery section and exit from the same door at the rear end.
- 1.4 Bus will be going to various schools in rural and urban areas to inculcate scientific temperament among the youth and sensitize the public about socially important issues viz. Female Feticide, Drug / Alcohol abuse and Malnutrition and Health Hygiene.

2. SCOPE

- 2.1 The bus shell design will be energy efficient, environmentally friendly, and safe and secured and attractive as per the layout and drawings provided by PTU.
- 2.2 The broad dimensions of the Bus Chassis are as follows:

➤ Make	TATA
➤ Model	(LP/LPO 1512) BS-III
➤ Fuel	Diesel
➤ Engine	CUMMINS 6BT 5.9 Water Cooled Direct Injection Turbo Charged Diesel Engine
➤ Maximum Power	101 KW (135HP) at 2400 rpm
➤ Wheel Base(in mm)	5545
➤ Tire Size	10R 20-16 PR
➤ Fuel Tank Capacity (in liters)	250
➤ Front Over hand (in mm)	1775
➤ Rear Overhang (in mm)	3325
➤ Overall Length (in mm)	10645
➤ Max Width	2560 mm
➤ Maximum Speed	87 kmph
➤ Electrical	Battery: 2x12 Volts, 150 Ah; Alternator: Capacity: 45 Amps
➤ Turning Circle Diameter (in mm)	20830
➤ Gross Vehicle Weight (In kg)	14860

Bus will be partitioned into two sections Driver Cabin and Gallery Section:

- As per Drawing

2.3 The bus should be:

- Ergonomically designed driver's work area
- Ease of repair and maintenance
- Aesthetically designed interiors and exteriors
- Attractive outside design

2.4 The bus shell specifications must conform to those promulgated by Central Motor Vehicle Rules (CMVR) requirements, BS III norms or latest norms and other regulations on the subject.

2.5 The broad Body Fabrication Specifications are enclosed at **Annexure: II**

2.6 The drawings and layouts are enclosed at **Annexure: III**

2.7 Salient technical requirements are to be provided by the Bidder and the same shall form a part of 'Technical Bid' as per the specifications mentioned in the tender document.

3 BUS FABRICATION DRAWING

Successful Bidder will provide fabrication drawings within 20 days after the placement of order.

4 APPROVALS and REGISTRATION

4.1 Responsibility for approval of design and registration of bus from Government will be that of Bidder, However, PTU will provide necessary support as and when required. The required fees and charges for the approval, registration and insurance will be borne and paid by PTU on the receiving the receipts.

5 TOOL KIT

The complete list of tools in the tool kit to be supplied with bus shall be provided to the Purchaser.

6 INSPECTION AND TESTING:

The bus may be inspected at various stages of fabrication by the PTU's representative at the manufacturer's works.

7 MAINTENANCE SPARES AND MATERIALS

The Bidder shall provide the details of the components/spares required for maintenance of the vehicle.

8 WARRANTY/ GUARANTEE:

The fully built bus shall be covered under Warranty/ Guarantee for 1,00,000 Kms Or 1 year whichever is earlier.

9 STATUTORY REQUIREMENT

The Bidder shall meet all statutory requirements in respect of the Diesel propelled, Air Conditioned bus (shell).

INSTRUCTIONS

FABRICATION, SUPPLY, TESTING & COMMISSIONING of Diesel propelled AC BUS (SHELL) TATA Chassis (LP/LPO 1512 with 5545 wheel base) to PTU, Kapurthala, Punjab.

1. The offer should be submitted in three separate envelopes.

Part - I (Envelope - I): containing Earnest Money Deposit
Part - II (Envelope - II): containing Technical Bid
Part - III (Envelope - III): containing Financial Bid

2. The procedure for submitting the tender shall be as under: -

ENVELOPE - I: superscribed "**EARNEST MONEY DEPOSIT**" should contain

- Earnest Money Deposit in the form of Demand Draft drawn in favour of Registrar, PTU payable at Jalandhar.
- Tender submitted without the Earnest Money will be summarily rejected.
- The earnest money deposited with PTU will be refunded to the unsuccessful tender after finalization and the award of work as per terms & conditions of the contract.
- In case of successful Tenderer, the Earnest Money will be retained as part of the Security Deposit/ Retention Money for satisfactory execution of the contract. In case the Tenderer does not return the signed copy of the work order within 15 days of the award of work, the earnest money shall be forfeited by the PTU.
- No interest will be payable on the EMD.

ENVELOPE - II: superscribed "**TECHNICAL BID**" should contain

- Company Profile
- Particulars of Tenderer (Annexure: I)
- Experience (Relevant Project(s) completed)
- Technical Compliant Certificate
- Salient features and technical specifications
- Proposed Bus's Brochure

ENVELOPE III: superscribed "**FINANCIAL BID**" should contain only the price bid. The price bid shall be opened on the date and time as decided by the Committee to be constituted by the PTU for this purpose.

All the envelopes mentioned above should be submitted in a larger envelope double-sealed cover, super-scribing the Tender for "**FABRICATION, SUPPLY, TESTING & COMMISSIONING OF DIESEL PROPELLED AC BUS (SHELL) TATA Chassis (LP/LPO 1512 with 5545 wheel base) TO PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA, PUNJAB.**" within due

3. PROCEDURE

The procedure of opening the tender shall be as follows:

Envelope – I shall be opened in first instance. Bids without proper Earnest Money shall be out rightly rejected and Envelope – II and III shall not be opened.

Envelope – II shall only be opened with Earnest Money in Envelope-I as required.

➤ The Technical Bid will be evaluated by Technical Evaluation Committee.

Envelope - III of only that bidder(s) shall be opened who have been qualified by the Technical Evaluation Committee.

Conditional bids will be out rightly rejected.

4. CLARIFICATION OF BIDS

To assist in the examination, evaluation and comparison of bids, the purchaser (PTU) may, if necessary, ask bidders individually for clarification of their bids, including break-up of prices

5. SELECTION CRITERIA

The Financial Bids of only those companies will be opened who will be recommended by the Technical Evaluation Committee.

L-1 bidding company out of the technically recommended companies by Technical Evaluation Committee will be awarded the work.



CONDITIONS OF CONTRACT

1. PRICE

- 1.1 The prices / rates quoted shall be inclusive of cost of materials, fabrication, supply and commissioning of AC Bus (Shell) as per enclosed technical specifications & drawings.
- 1.2 The rate of Excise Duty (if any), Sales Tax and any other taxes / levies to be imposed on the rate shall be clearly mentioned.
- 1.3 Prices and rate quoted shall be firm and fixed for the entire period of execution of the order and no escalation of rate on any ground whatsoever shall be applicable.
- 1.4 The charges/ Fees to be paid for the approval of design, passing of bus, registration and insurance of bus will be borne and paid by PTU as per actual on receiving the receipt

2. WORKING CONDITIONS

- 2.1 Bus should conform to Central Motor Vehicle Rules (CMVR)
- 2.2 The standard quality of materials / components and ISI marked, wherever applicable, will only be allowed for use in the fabrication.

3. Inspections

- 3.1 Should any inspected or tested goods fail to conform to the specifications, the PTU may reject them and the supplier shall either replace the rejected goods or make all alternations necessary to meet specifications requirements free of cost to the purchaser.
- 3.2 On receipt of the Buses at the place of delivery, these shall be jointly inspected by the Bidder and the consignee for completeness and satisfactory condition of all equipment/components. Damages, defects and deficiencies, if any, shall be noted and the Bidder shall initiate immediate action for making good the same under advice to the Purchaser.

4. PAYMENT SCHEDULE

- 4.1 40% Advance payment will be made at the time of placing of firm order and handing over the chassis of the bus to the Agency.
- 4.2 50% payment of the quoted amount will be released after the supply of Bus I to PTU, Kapurthala to the satisfaction of the PTU.
- 4.3 Remaining 10% payment will be retained as performance warrantee for a period of one (1) year and would be released after receipt of Bank Guarantee of equivalent amount valid for one (1) year.
- 4.4 TDS and/or any other tax will be deducted as per rules.

5. TIME SCHEDULE AND DELAYS

- 5.1 **Contract time:** The time of completion of the work would be 4 months from the award of work.

- 5.2 Within one fortnight of the occurrence of any of the following, which the contractor might regard as impediments in the progress of work, the contractor shall apply in writing to the Registrar, PTU for extension of time, setting out the reasons for delays sought to be condoned.
- Addition, alteration or substitution ordered in the work, which could have a significant time impact and issued to the contractor under an official change order only.
 - Act of God or force majeure, i.e. a situation arising out of any occurrence totally beyond the control of the contractor, and explicitly excluding consequences of actions of the contractor or his staff or agents.
 - Forced closure of the works by a political strike and unrest not related to contractor's labour or personnel.
- 5.3 The contractor's application for extension of time in any of the above circumstances shall be considered by REGISTRAR, PTU and his decision shall be final and binding.
- 5.4 The granting of any extension of time shall not entitle the contractor to claim any additional remuneration or consideration whatever for costs incurred as a result of such delays or due to cost escalation.
- 5.5 **Compensation for Delay:** The time allowed for carrying out the work as entered in the Tender shall be strictly observed by the Contractor and shall be reckoned from the date on which the order to commence work is given to the Contractor. The work shall throughout the stipulated period of the Contract be proceeded with all due diligence and the contractor shall pay as Liquidated Damages and not by way of penalty an amount equal to **one percent** of accepted Tender for **every week** or **part of a week** that the work remains uncommenced or **unfinished after** the expiry of the completion date.

Provided always that the entire amount of compensation to be paid under the provisions of the clause shall not **exceed FIVE percent** of the value of the accepted Tender. Registrar, PTU may on representation from the Contractor reduce the amount of compensation and his decision in writing shall be final.

6. DEFECT LIABILITY PERIOD

The defect liability period shall be 12(Twelve) months from the date of supply and commissioning of bus / virtual completion of the entire work. The successful tenderer shall be responsible for all defects, loose parts, breakage, defective workmanship, use of defective materials etc. for a period of 12 (Twelve) months from the date of supply. The successful tenderer shall rectify the defects / defective parts within a reasonable time up to the satisfaction of the competent authority of the PTU or otherwise the PTU shall have the right to rectify the defect at the successful tenderer's own risk and

the cost of which will be adjusted from the Security / Earnest Money Deposit. Decision of the Registrar, PTU in this regard shall be final and binding on the successful tenderer.

7. PERFORMANCE WARRANTY

- 7.1 In case the structure develop any defects within defect liability period of 1 year from the date of supply the Tenderer will have to replace / rectify the same without claiming extra charge whatsoever. A specific undertaking to the effect is to be included along with the tender.
- 7.2 The decision of the REGISTRAR, PTU will be conclusive and binding on the tenderer in so far as the quality of the goods / material and installation and of workmanship are concerned.

8. WARRANTY

The Bidder will be responsible for any defect or failure of Buses or equipment provided in these buses due to defective design, material or workmanship, for operation of buses up to 1,00,000 Kms or 1 year, whichever is earlier, bus from the date of operation. The rectification / replacement of failed / defective components/ equipments will have to be undertaken by the Supplier free of charge during the warranty period.

9. SERVICE MANUALS AND SPARE PARTS

Detailed Maintenance & Service Manuals, Spare Parts Catalogues, Price List etc. shall be given along with the bus as required by the purchaser.

10. TRAINING

The Bidder shall arrange orientation training for driver. This training will be provided free of cost, as and when required by the PTU.

11. PATENT RIGHT AND ROYALTIES:

The tenderer shall indemnify the PTU against all third party claims of infringement of patent, royalties' trademark or industrial design rights arising from use of the goods or any part thereof.

12. GENERAL

- 12.1 The Registrar, PTU reserves the right to reject any or all tenders without assigning any reason whatsoever.
- 12.2 All damaged or unapproved goods shall be returned at the risk and cost of the tenderer and the incidental expenditure thereupon shall be recovered from the concerned party.
- 12.3 Legal jurisdiction will be judicial courts of Kapurthala District.
- 12.4 All disputes and differences arising out of or in connection with, touching or concerning this work shall be referred to the sole Arbitrator appointed for the purpose by the Registrar. The decision of the Arbitrator shall be final and shall be binding on both the parties subject to the provisions of the Indian

Reconciliation and Arbitration Act, 1996 or any statutory modifications or reenactment there of and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.



FINANCIAL BID

Fabrication, Supply, Testing and Commissioning of AC Bus (Shell) TATA Chassis (LP/LPO 1512 with 5545 wheel base) to PTU, Kapurthala

Amount in Indian Rs.

Item of work	Amount in Figures	Amount in Words
Fabrication, Supply, Testing and Commissioning of AC Bus Shell TATA Chassis (LP/LPO 1512 with 5545 wheel base) to PTU, Kapurthala		
Cost:		
Any other Charges: (taxes, etc.)		
1.		
2.		
3.		
4.		
5.		
TOTAL		

The above quoted prices will be NET PAYABLE AND SHALL BE INCLUSIVE OF ALL TAXES AND DUTIES ETC.

Name, Signature & Seal of Tenderer

Note:

- 1. The Purchaser (PTU) reserves to itself the right of omitting altogether or any item of work at the time of award of the work or at later date and the contractor shall not be entitled for any compensation due to this omission.*
- 2. Conditional Bids may be out rightly rejected.*



PARTICULARS
Use Additional Sheet if necessary

S.No

- 1 Name of Agency
- 2 Postal Address
 - E-mail address
 - Telephone No.
 - Fax No
- 3 Name and designation of the representative of the Agency to whom all references shall be made
Mobile No.
- 4 Has the tenderer executed similar nature of work? (attach copies of work orders & references and photographs)
- 5 Has the contractor/firm been ever debarred / black listed by any Government Department /Undertaking? Give details.
- 6 Details of the offer. Please mention number of pages and number of drawings attached with the Tender.

(Name & Signature of Agency)
With Seal



BROAD TECHNICAL SPECIFICATIONS FOR BODY FABRICATION

1. **Bus body Fabrication:** As per the guidelines and CMVR Rules.
2. **Structural materials:**
 - i) Crossed bearer channel should be conforming to IS MC 100
 - ii) for body structure square & rectangular tubes conforming to IS 3060/1984 or IS 3074
 - iii) Interior to be moulded with ABS of IS 15061
3. **Floor:**
Floor should be with compressed plywood fire retardant confined to IS 15061 to be covered with 2.5 thick anti-skid vinyl flooring sheet of IS 15061.
4. **Driver's Cabin:**
 - 4.1 Drivers Working Space as per Bus Body Code. The drivers environment shall be ergonomically designed with conveniently accessible controls and adjustable steering wheel (AIS052).
 - 4.2 One numbers of Driver's seat (adjustable for height, back, forward movement) and one double seat on left side. All the seats will have 100 mm. foam covered with foam-Rexene (leatherite).
 - 4.3 Two numbers of rear view mirror (450mm x 250mm) will be provided at the both sides.
 - 4.4 Fire extinguishers (Minimax) – Two numbers (2kg) to be fixed in Driver's Cabin as per CMVR Rules.
 - 4.5 Two doors (one for the driver & one for the passengers) to be provided with good locks and handle.
 - 4.6 Windows are to be provided with toughened glass sliding in aluminum frame with suitable felt channel.
 - 4.7 A toolbox of standard size will be provided, which can be accommodate under the double seat on left side of the cabin with proper locking arrange There will be laminated single glass for the windshield with two fans for driver and co-driver.
 - 4.8 Two fans for driver and co-driver.
 - 4.9 Heavy-duty standard wiper system to be provided on the front windshield.
 - 4.10 Driver's cabin will be full FRP including dashboard with proper insulation on all sides & ceiling.
 - 4.11 Two suitable size of ventilator or roof hatch will be provided on the Driver's cabin & passenger cabin.
 - 4.12 Music system (FM) will be provided.
 - 4.13 Front show and bumper will be of FRP.
 - 4.14 Windows required in Driver Cabin
5. **Door in the Saloon**
Door in the saloon as per the layout. Entry and Exit of visitors will be from this door.

Wide Door as per standards.

6. **Gangway** in the gallery section will be as per the design layout provided.

7. **Interior:** All interiors shall conform to IS 15061.

8. **Inner Panel** – ABS 3 mm thickness

9. **Roof:**

ABS

Covered with proper thermocol insulation.

Leak Proof

10. **Glass Window** – Side window glass toughened and tinted

4.15 **Front Wind Shield:** There will be laminated single glass for the windshield as per CMVR rule 100

11. **Electrical System:**

- Head Lights: 4 numbers
- Fog Lamps: 2 numbers
- Blinkers: at Front, rear and sides on all wheels
- Height Marker lamps: at front and rear
- Tail lamps: 4 lamp clusters on each side
- Reflectors: As per standards

12. Saloon lighting will be provided as per the design -Adequate lighting shall be provided.

13. Adequate lights in engine compartment Heavy duty twin blade wiper with water sprinkler As per AIS 052.

14. **Destination / Punjab Technical University Message Boards:** Minimum height of boards 220 mm. Minimum width of boards - minimum 1600 mm for front and 900 mm for rear at top in the centre illuminations of board required (as per AIS 052) preferably Cast Master-Brand Mobitec OR O.E. supplier.

15. **Exhibit Window**

- Total number of 9 Exhibit windows at the floor level. 4 at the door side and rest 5 other side as per the layout.
- Windows to be fixed with toughened clear glass.
- Below the window sliding window. Open able Panel below the window for interaction with exhibits
- Structure for Placing Exhibits as per the Layout

16. **AC Unit**

Carrier make 310 with power pack
Provision to be provided in the Driver Cabin through duct.
Provision for adequate ventilation in case of AC failure.

17. Roof Hatch Ventilator

- Roof Hatch shall have integrated Ventilation Unit, and inbuilt electrical motor driven fan.
- Hatch assembly shall serve the purpose as per CMVR rules.
- Hatch Assembly to be certified and meeting IS: 15061-2002.
- The hatch shall have 2 nos. External Emergency Handles and 2 nos. Internal Emergency Handles(with protection covers)

18. Life Cycle Requirements: Life of Bus minimum 15 years or as mandated by local legislation

19. Noise limits: As per CMVR/IS3028 or latest notification of Govt. of India.

20. Other Standard fitments: FWS blinder partition for driver. All flap doors with locking arrangement, First Aid Kit & Warning triangle as per CMVR Rules

21. Outer Design and Colour of the Bus: will be provided by PTU.

22. Body Painting

Exterior surface of the body will be painted with two coats of standard super acrylic automotive paint (ICI) finish coating over proper surface finish & primer as per approved colour scheme.

23. Electrical wiring be as per CMVR

24. Power source to provided in the saloon.

Layouts and Drawings



