



### **TENDER NOTIFICATION**

The Adichunchanagiri University invites **closed tender** from eligible tenderers or bonafide licensed manufacturer or their authorised local supplier/dealer/distributor in the state of Karnataka for the **Establishment of Electronic Vehicle laboratory at BGSIT** as per section I & II.

1	Name of the work	<b>Establishment of Electronic Vehicle laboratory at BGSIT, BG Nagara</b>
2	Last date for tender submission	On or Before 21.07.2023 up to 05:00 PM

Sl. No.	Name of the consumables   Particulars	Provisional Qty.
1.	<b>Establishing EV lab</b> Cell testing & characterization, Electric Vehicle Powertrain sizing 1-D modelling, Equivalent circuit based Li-ion cell modelling, Electric 2 Wheeler Vehicle Testing & Data Acquisition Lab	01

### **SECTION - I**

#### **Instruction to Tenderers**

1. The Tenderer shall send quotes in 2 bid formats (Technical and Financial bids sealed separately inside the main envelope for any or all list of items) on professional business letterheads. The inner and outer sealed cover must bear the following identification
    1. Tender for .....[name of service | Contract]
    2. Tender Reference No.....[insert number]
    3. Address to "The Registrar, Adichunchanagiri University, B.G. Nagara -571448, Nagamangala (T), Mandya (D)"
  4. The tenderer who prefers to submit the tender through Post can dispatch the same through Registered Post / Speed Post or Courier so as to reach the above address on or before the due date and time specified in the Tender Notice. Tenders received after the due date and time, for what so ever reasons will not be considered and the authority, ACU BG-Nagara will not be liable or responsible for the same.
2. **Tender Currency:** Prices shall be quoted in Indian Rupees Only



3. **AMC/CMC (If any)** is subject to the Adichunchanagiri University's norms.
4. **Warranty:** standard warranty period
5. **Amendment of Tender Documents:** At any time prior to the deadline for submission of tenders, the University may, for any reason, whether at its own initiative or otherwise, modify the tender documents by amendment. Adichunchanagiri University reserves all the rights to accept, reject, incorporate changes and re-tender without giving any reasons.
6. **Documents Comprising the Tender:** Shall attach Brochure, Certification of the product, Bank/account details, PAN, GSTIN, Good Standing Certificate and 02 Years of ITR declaration inside the envelope and company contact details with email ID on the main envelope cover for further correspondence.
7. **Tender Prices:** Prices indicated on the Price Schedule shall be entered separately I.e. the price of the goods, quoted (ex-works, ex-factory, ex-showroom, ex-warehouse, or off-the-shelf, as applicable), including all duties and sales and other taxes already paid or payable. Any Indian duties, sales and other taxes which will be payable on the goods if this Contract is awarded. Conditional tenders will not be considered.
8. **Validity of the Bid:** 90 Days from the last date of submission of bid
9. **Corrupt or Fraudulent practices:** The Adichunchanagiri University requires that the Tenderers, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy:
  1. will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
  2. will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a university contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a University contract.
10. **Process to be confidential:** Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence the Employer's processing of Tenders or award decisions may result in the rejection of his Tender.
11. **Clarification of Tenders:** To assist in the examination, evaluation, and comparison of Tenders, the Employer may, at his discretion, ask any Tenderer for clarification of his Tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Tender shall be sought, offered, or permitted except as required to confirm the



correction of arithmetic errors discovered by the Employer in the evaluation of the tenders.

12. **Delivery:** The successful BIDDER should commence the services as per tender document/Work or Purchase Order. For any queries/ assistance, please write to registrar@acu.edu.in or telephone to purchase section +91 -98458 35834.

13. **Penalty Clause:** Non-execution of supply order - For the reasons of failure to supply partially or completely within the stipulated time or any event of breach of contract. In case at any following stages

1. Delay in supply (3 days of grace period) - 5% deduction
2. Quantity issues - 5% deduction
3. Quality issues - 10% deduction

## SECTION -II

### **1.1 Li-ion Cell Testing Lab**

1. Room Temperature
2. Cell Voltage characteristics wrt to discharge current
3. Cell capacity testing
4. Cell charging & discharging efficiency test
5. HPCC test
6. Maximum Charging & discharging current test

### **1.2 Electric Vehicle Powertrain sizing 1-D modelling outcomes**

1. Drive cycle development
2. Resistive force modelling
3. Motor peak & continues torque
4. Motor RPM, Power rating & Motor current
5. Motor efficiency & operating points analysis
6. Battery & Cell discharge rating (C-rating)
7. Energy consumption analysis (Wh/km)
8. Range estimation
9. Ns & Np configuration for pack
10. Battery pack sizing (Kw)
11. Influence of motor efficiency on energy
12. Influence of motor regeneration energy
13. Optimisation of powertrain components

### **1.3 Equivalent circuit modelling**

1. Rint approach of modelling & Results comparison
2. Thevenin approach of modelling & Results comparison





**1.4 Electric 2 wheeler Live testing & data acquisition lab**

1. Conduct test to validate Lab 4 with real time testing
2. Conduct vehicle performance testing
3. Conduct acceleration test
4. Conduct vehicle range test
5. Conduct peak & hold test
6. Conduct grade ability test
7. Conduct energy consumption per km tests

**Head of Procurement  
Adichunchanagiri University  
B G Nagara -571448**