

P G DEPARTMENT OF ELECTRONICS UNIVERSITY OF JAMMU, JAMMU

NO.: PGD/ELE/998

DATED: 26-02-2021

NOTICE INVITING TENDERS FOR THE PURCHASE OF FUEL CELL SIMULATOR

Offers (rates, terms, detailed literature, and specifications) are invited from manufacturers/authorized distributors/dealers, etc., for supply of the following instrument having the required specifications or better:

TECHNICAL SPECIFICATIONS FOR FUEL CELL SIMULATOR

- Support master-slave paralleling
- Bidirectional energy transfer, with equivalent Source, Sink capabilities
- DC power electricity regenerative to local grid
- Support control loop priority mode setting, with difference loop speed, to match with the needs of high speed voltage setup or current no overshoot application
- Support output resistance setting function
- Support Battery charge-discharge function
- Battery simulation function.
- Support signal generator function, import list file via U disc interface
- Support LIST sequence file, built-in DIN 40839 and ISO-16750-2/ISO21848 standard automotive power network voltage curves
- Support PV solar panel I-V curve simulation
- Built-in EN50530, Sandia, NB / T32004, CGC/GF004, CGC/GF035 test program, and generate reports
- Protections: support OVP, \pm OCP, \pm OPP, OTP, power down protection, anti-islanding protection
- Support local mode and Remote Sense compensation, support Sense reverse or open circuit protection
- Built-in USB/CAN/LAN/digital IO interfaces.
- Fuel cell simulation software : FC polarization curve (4096 points can be edited) Support .csv file import Data storage and export
- Graphical software operation interface, real-time display the output voltage, current and power

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Equipment should have following specifications:

Specification with value	
Output voltage	0~500V
Output current	-30~30A
Output power	-6000~6000W
Line regulation ±(%of Output+Offset)	
Voltage	≤0.01%FS
Current	≤0.05%FS
Load regulation ±(%of Output+Offset)	
Voltage	≤0.02%FS
Current	≤0.05%FS
Setup value resolution	
Voltage	0.01V
Current	0.001A
Power	0.001kW
Resistance	0.001Ω
Setup value accuracy	
Voltage	≤0.02% + 0.02%FS
Current	≤0.1% + 0.1%FS
Power	≤0.5% + 0.5%FS
Resistance	≤1% + 1%FS
Ripple(20Hz -20MHz)	
Voltage	≤200mVpp
Current	≤0.1%FS RMS
Dynamic Mode: Voltage	≤2ms
Efficiency	92%
Operating Temperature	0°C - 50°C
AC Input	342V - 528V (3P4W) 47Hz - 63Hz

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Terms and Conditions:

1. Tenders addressed to, “**Head, Department of Electronics, Baba Saheb Ambdekar Road, New University Campus, University of Jammu, Jammu 180006**”, should be submitted online only (<https://www.jktenders.gov.in>).
2. Delivery of goods should be FOR Department of ELECTRONICS, University of Jammu, Jammu.
3. General Sale tax/custom duty/excise/entry tax or any other tax, if any, should be clearly mentioned. Rates should be inclusive of custom clearance, insurance etc. It may kindly be noted that University of Jammu will not bear any cost/expenditure arising out of loss during transportation, etc. Cost of equipment should include transportation charges and insurance charges upto FOR destination. University of Jammu is exempted from Custom Duty under DSIR registration. DSIR certificate shall be provided by the University of Jammu.
4. Firm shall be required to submit complete information/brochure/catalogue along with the offer.
5. Firm should submit an authorization certificate from principal firm for sale and service.
6. Concession to educational institutions, if any, should be clearly mentioned.
7. Products conforming to particular standards (ISO, ISI etc.) should be clearly mentioned.
8. In case any item is your proprietary product or if you are sole manufacturer/distributor of requisite item, a certificate to this effect should be enclosed.
9. It is at discretion of the competent authority to reject one/all tenders/part of tender without assigning any reason, thereof.
10. In case seller fails to complete in full, all deliveries of product in accordance with supply order; the seller shall be responsible for the liquidity damages. Thereafter, the buyer will have right to terminate supply order in the case of such delay beyond period mentioned by seller in the offer and buyer will have total discretion to buy product from the market/other supplier at the lowest rate.
11. An undertaking should be submitted by your concern that rates quoted in this offer are lowest/at par with rates quoted to other Govt./Semi-Govt. institutions in the country and your concern/firm has not sold this product to any other organization in India at the price lower than the price quoted in this offer.
12. A user list of the institutions/organizations where the quoted equipment has been installed and working successfully must be provided.
13. Debarment of the bidding firms shall be governed by Rule No. 151 of GFR 2017; Ministry of Finance, GOI, as mentioned below:
 - (i) A bidder shall be debarred if he has been convicted of an offence—
 - (a) under the Prevention of Corruption Act, 1988; or

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- (b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.
- (ii) A bidder debarred under sub-section (i) or any successor of the bidder shall not be eligible to participate in a procurement process of any procuring entity for a period not exceeding three years commencing from the date of debarment. Department of Commerce (DGS&D) will maintain such list which will also be displayed on the website of DGS&D as well as Central Public Procurement Portal.
- (iii) A procuring entity may debar a bidder or any of its successors, from participating in any procurement process undertaken by it, for a period not exceeding two years, if it determines that the bidder has breached the code of integrity. The Ministry/Department will maintain such list which will also be displayed on their website.
- (iv) The bidder shall not be debarred unless such bidder has been given a reasonable opportunity to represent against such debarment.
14. All the pages of soft copy of the offer should be endorsed along with the stamp/seal of the firm.
15. It may kindly be noted that in case a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.
16. Firm shall be required to submit the EMD/Bid security amounting to 2% quoted value in the form of bank guarantee/CDR from any of the commercial banks which should remain valid for the period of forty-five (45) days beyond the final date of validity period.
17. Firms which are exempted to submit the EMD/Bid security shall be required to submit certificate issued by the concerned Ministry/Department.
18. Successful bidders shall be required to submit performance security amounting to 10% of the quoted price pledged to **the Head, Department of Electronics, University of Jammu, Jammu** in the form of bank guarantee from any of the commercial banks which should remain valid for sixty (60) days beyond the date of completion of all contractual obligations of the suppliers including warranty obligations.
19. Financial bids of only technically qualified tenderers shall be opened. If the Technical Bids are not in order or are deficient in some respect, the commercial bids in respect of such tenders shall not be opened.
20. Item must be quoted along with the warranty as specified in technical specifications.