

NATIONAL INSTITUTE OF MENTAL HEALTH & NEURO SCIENCES (Institute of National Importance), Hosur Road, Bengaluru – 560 029

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STR-D4/TMS/VENKAT/PSY/2020-21

03.02.2021

TENDER NOTIFICATION (TENDER) Through E Procurement Karnataka Only

Online Tender quotations for the following Equipment/Chemicals/Consumables/Reagents are invited from reputed manufacturer/s or authorized dealers.

Sl. No.	Item Description	Qty. Reqd.
1	TMS – Transcrannial Magnetic Stimulation	01 No.

Downloading of Tender documents from NIMHANS website	From 03.02.2021 Onwards	
Last date for tender enquiry	09.02.2021 upto 11:00 AM	
Tender submission last date and time	04.03.2021 upto 11:00 AM	
Technical bid will be opened by Assistant Administrative officer (S) on	05.03.2021 at 03:00 PM in the AO(Stores) Office	

Sd/-, Director

Terms and conditions

- The bid documents for the above items should be addressed to "The Director, National Institute of Mental Health & Neuro Sciences, Post Box No. 2900, Hosur Road, Bengaluru -560 029, Karnataka, India" and should be uploaded on or before the due date.
- 2. The tender bid should be valid for **Six months** from the due date.
- 3. The tender documents and all correspondence's relating to the bid should be in **English** language only.
- 4. Technical bid should comprise of -
 - **5.1** Brochure/Catalogue and Data sheet of the equipment.
 - **5.2** Tax and other charges should be mentioned as a separate item and not included in the base price.
 - **5.3** Proprietary certificate from the manufacturer mentioning the unique technology or feature/s mentioned apart from the brand name (If applicable).
 - **5.4** Pre requirements required at the installation site (Before submitting the bid, the tenderer should make pre-visit to the installation site and indicate the requirement along with the price bid wherever necessary)
 - **5.5** Delivery Period of the item to be supplied and Time required for installation from the date of purchase order has to be indicated.
 - **5.6** List of Institutes where the equipment has been supplied.

- 5.7 Copy of GST, PAN, TIN document
- **5.8** Whether tenderer is manufacturer / accredited agent / sole representative, indicate details of principal's name & address. The offers of tenderer who are not manufacturer or direct authorized agent will be summarily rejected. Sub- distributors will not be accepted.
- **5.9** Non blacklisting certification that the firm has not been blacklisted in the past by any government/Private institution and certification for No Vigilance/CBI case pending against the firm/supplier by making an affidavit on non judicial stamp paper of Rs. 10/-.
- **5.10** Declaration towards acceptance of all terms and conditions should also be provided.
- 5.11 Quote must have a compliance report on all the specification points mentioned in the specification sheet.
- 5. Price Bid should comprise of-
 - **5.1. Quotation should be INR only and for door delivery upto laboratory in NIMHANS** and should have detailed information as per tendered specifications (such as main equipment cost, each article wise/spares rates, taxes, other Government levies, Customs duty, any local agency commission, transportation, delivery of the equipment to the Institute premises, installation and commissioning etc. separately along with total cost) with manufacturers name, License number and name of the brand/make. Tender bids without price bid/quotation will be rejected. If supplier fails to bid for door delivery upto laboratory in NIMHANS, bid is liable to be rejected.
- **6.** Successful tenderer decision will be made on the basis of base price + AMC/CMC price after the guarantee/warranty period (wherever applicable).
- 7. The tender bids (technical and price bid) should be typewritten; every correction in the tender should be initialled along with seal by the tenderer, failing which the tender will be rejected. All pages of the bid submitted must be signed along with seal and sequentially numbered by the tenderer.
- **8.** Kindly quote <u>only for 01 unit price</u> (<u>rate per item</u>) <u>ONLY for respective items else</u> <u>price bid be rejected strictly</u>. Please note that the mentioned quantity is for 01 Nos and price bid should be quoted only for 01 quantity.
- 9. GST and other charges should be quoted separately else bid will be rejected.

10. Evaluation of Bids:-

The technical bid of the tenderer will be evaluated by the end-user to determine whether

- **a.** They are complete with respect to specifications.
- **b.** They are free from computational errors.
- **c.** The requisite documents have been submitted and properly signed.

11. Tender Opening:

- **a.** The Technical bids will be unlocked by the Assistant Administrative Officer (Stores), NIMHANS, Bengaluru.
- **b.** The Financial bid of the technically qualified tenderer/s only will be opened by the Assistant Administrative Officer (Stores).
- 12. Equipment and its accessories should be covered with minimum warranty period of 5 years for normal or regular wear & tear from the date of complete installation (Ready to

- use in all respects). In case of software's, the validity of the license key should be clearly mentioned and should have user define provision with option to switch over from one system to other system of the same kind within the validity period.
- 13. Successful supplier has to submit a Bank Gurantee from any Nationalized Bank for 10% of total PO value in order for this office to process the payment upon successful delivery and installation of the equipment.

14. Software Updates (<u>If applicable only</u>):

The selected firm for the supply of tendered item should provide free updates of software up to 5 years from the date of complete installation.

- **15.** Supply of spares should be guaranteed for a minimum period of 10 years from the date of supply or from the date of cessation of production of the model for 10 years, whichever is later, at the rates prevailing against payment.
- **16.** Any modification or revision of bids after submission will not be entertained under any circumstances. Conditions such as "subject to the availability of stocks", supplies will be made as and when supplies received from the principles etc., will not be considered under any circumstances.
- 17. If required, the tenderer should demonstrate the quoted model of the equipment at the institute during the technical evaluation, failing which their bid/offer shall be rejected. The tenderer will be intimated that they should get ready for demonstration. No request for extending time for demonstration will be entertained. Failure to demonstrate, their offer will be rejected.
- **18.** The tenderer should supply the circuit diagram and instruction manual of the tendered equipment/s at the time of supply of the equipment.
- **19.** Necessary training / instructions on operation of the system should be given by the qualified engineers of the tenderer firm to NIMHANS technical staff/s at free of cost after completion of the installation.

20. Payment terms:

Payment will be made only after good working condition of the equipment certified by the end user. **NO ADVANCE PAYMENT WILL BE ENTERTAINED**.

- 21. If, at any time, during the said period, the supplier reduce the said prices of such Materials/Equipment or sales such Materials/Equipment to any other person/organization/ Institution at a price lower than the chargeable, the company shall forthwith notify such reduction or sale to the Director, NIMHANS and the price payable for the Materials supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.
- 22. The losses to NIMHANS, Bengaluru, if any incurred on account of purchase made elsewhere by failure, neglect or refusal on the part of the tenderer to supply according to the terms of agreement will be recovered from them. If any article or things supplied by the tenderer have been partially or wholly used or consumed in the hospital and they are subsequently found to be in bad condition, unsound, inferior in quality or description, not in accordance with samples or otherwise faulty or unit for use, the wholesome of the contract price or price of such articles or things will be recovered from the tenderer. The tenderer will not be entitled for any payment whatsoever, for such articles for infringements of the stipulation of the conditions or for justifiable reasons the contract

- may be terminated by the Director and the tenderer shall be liable for losses sustained by the NIMHANS on the consequences of the termination which may be recovered from the EMD/Bank Guarantee or from their invoices due to them. In the event of such amount being insufficient, the balance will be recovered personally from the tenderer.
- **23.** Any corrections/changes in the tender will be uploaded as corrigendum in the NIMHANS and Government website only.
- **24.** If the tender last/opening date falls on any general/government/institute holiday(s), then the successive dates will be postponed by equivalent days of holiday(s), however the time remains unchanged.
- 25. The Director reserves the right of ordering/not ordering/cancelling/increase or decrease the quantity and to reject any or all tender quotations without assigning any reason. The decision of the Director, NIMHANS, Bengaluru, shall be final in all the controversies that may arise in the matter. Any dispute arising out of this will be subject to the jurisdiction of the Court in Bengaluru.
- **26.** Failure to adhere any of the above terms and conditions the bid(s) may be rejected.
- **27.** None of the terms and conditions of the supplier shall be applicable to the purchase contemplated hereunder, irrespective of it being attached to any documents to be provided to NIMHANS. Such exercise shall have no meaning and binding effect unless the same is accepted by NIMHANS in writing.

NOTE: Please keep checking the NIMHANS and Government website regularly for any further updates.

Sd/-Director



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STR-D4/TMS/VENKAT/PSY/2020-21

03.02.2021

TENDER FOR THE SUPPLY OF "TMS – Transcrannial Magnetic Stimulation"

Department Psychiatry				
END USER CONTACT DETAILS		Quantity Required		
Name		Dr. Venkatasubramanian	Quantity Required	
Designation		Professor		
Mobile No.				
Office No.		080 – 2699 5256	EMD	Rs. 1,00,000/-
Email		venkat.nimhans@gmail.com		
SL.		CDEC	IFICATIONS	
NO.	O. SPECIFICATIONS			
	A. TMS – Trnasc	erannial Magnetic Stimulation:		
01.	As m	entioned in the sheet attached		

Annexure for TMS:

Name of the item: TMS-Transcranial Magnetic Stimulation Device with Accessories with 5 Years Warranty

Quantity: 1

Technical Specification:

- 1. Transcranial magnetic stimulation unit with /non-cooled coils and cooled coils, synchronized with a multichannel pre-amplifier for electromyography (EMG) recordings and data acquisition and analysis package, capable of performing the following functions:
- 1.1 Administration of monophasic and biphasic single-pulse stimuli to cortex and record active/resting motor threshold and motor evoked potentials
- 1.2 Administration of monophasic and biphasic paired-pulses to a single cortical region to acquire a combination of the following in a single sequence:
 - 1.1.1 Short interval intracortical inhibition (SICI), long interval intracortical inhibition (LICI), short interval intracortical facilitation (SICF), and long interval intracortical facilitation (LICF) according to standard protocols.
 - 1.1.2 In the above paired-pulse paradigms, the experimenter should have the option of varying the following:
 - 1.1.2.1 Stimulus intensity of individual pulses in each pair
 - 1.1.2.2 Inter-stimulus interval
 - 1.1.2.3 Inter-pair interval
- 1.3 The TMS device should be compatible for External Trigger System using Signal (CED, UK) through cables.
- 1.4 Administration of conventional repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, that includes:
 - 1.1.3 Low-frequency rTMS given at ≤1 Hz.
 - 1.1.4 High-frequency rTMS given at 5-30Hz.
- 1.5 Administration of patterned repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, with prediction/measurement of magnetic power and its decay during each stimulation, that includes:

- 1.5.1 Theta-burst stimulation (TBS): Three pulses of stimulation given at 50 Hz, repeated every 200 milliseconds in the following patterns:
 - 1.5.1.1 Intermittent TBS: A 2 second train of TBS is repeated every 10 seconds for a total of 1800 pulses.
 - 1.5.1.2 Intermediate TBS: A 5 second train of TBS is repeated every 15 second for a total of 1800 pulses.
 - 1.5.1.3 Continuous TBS: A 40 second train of uninterrupted TBS is given for 1800 pulses.
- 1.5.2 Quadripulse stimulation (QPS): Four equal TMS pulses administered at interstimulus intervals varying between 1.5 to 1250 milliseconds, with an inter-train interval of 5 seconds (i.e., 0.2 Hz) for a total duration of 30 minutes.

2. EMG unit

- 2.1 EMG unit capable of acquiring data during 1.1 and 1.2 from at least two muscles simultaneously.
- 2.2 EMG unit compatible with the Signal (CED, UK) software (version 7 or latest) for acquisition and analysis.
- 2.3 Multi-channel isolated pre-amplifier with two channels electrodes adaptor box and 1.5mm cable, 1.5 mm touch-proof safety socket with USB cable, Serial Connector & Trigger Cable

3. Support

- 3.1 Five-years warranty on all hardware and software.
- 3.2 Full technical support in setting TMS parameter, EMG acquisition with the acquisition software.
- 3.3 On-site installation and comprehensive training by a qualified support engineer must be provided at the sites. These equipments are being procured as per multi-centred collaborative project involving NIMHANS, Central Institute of Psychiatry (Ranchi) & Kasturba Medical College

- (Manipal). The vendor should ensure delivery and installation & maintenance of the equipment these centres as per project requirements.
- 3.4 The training must be comprehensive and include:
- 3.4.1 Hands on training on setting-up, starting on delivering TMS with concurrent acquisition of EMG.
- 3.4.2 Hands-on demonstration of visualizing, saving and analysing the recorded EMG data in a compatible format
- 3.5 Data acquisition and analysis in the Signal (CED, UK) software (version 7 or latest).
- 3.6 Any major upgradation to the software or the hardware within the warranty period should be provided free of cost.

4. Mandatory accessories

- 4.1 Voltage stabilizer and UPS according to guidelines set by the manufacturer
- 4.2 Trolley for TMS console
- 4.3 Figure-of-eight cooled coils compatible with the supplied stimulator device (The cooling system should be sufficient to be able to deliver continuous theta burst trains of 1800 pulses in quick succession (~5min) without overheating.) two nos.
- 4.4 Figure-of-eight non-cooled coils compatible with the supplied stimulator device two nos,
- 4.4 Please specify the roll offs for cooled figure of eight coils (see above) at varying pulse frequencies (e.g., 20Hz, 50 Hz, 100 Hz, 200 Hz) for trains ranging from 300 to 1800 pulses.
- 4.5 Coil holder for holding the TMS coil
- 4.6 Ag/AgCl sintered ring electrodes (20 nos.) for EMG
- 4.7 Signal (CED, UK) software (version 7 or latest) and hardware interface (Micro 1401) to trigger the TMS device and receive signals from the TMS device (stimulation artefacts) and electromyography unit, as well as perform analysis of the EMG data
- 4.8 State-of-the-art laptop computer system with 14-16 inch monitor to host the trigger and EMG software (Signal) with Intel I6 processor, 8GB RAM, 1TB storage and Wi-Fi / Bluetooth connectivity

4.9 One-unit cost and the quantity per unit to be quoted for all the mandatory accessories and consumable items to be provided.

5. Others

- 5.1 List of users with contact details (e-mail & telephone / mobile number) in research institutes (India & Abroad) to be provided
- 5.2 The bidder should provide documents to support the compliance with all the technical specifications as annexures. In addition, the bidder should indicate the exact location of the text in the annexure (for example annexure no., page, paragraph, and lines detail) that provides the necessary documentary support for the respective technical specification. Scrutiny for matching the technical specifications will be solely based on the hard copy documents & details of the text location (as specified above) provided with the technical bid, preferably along with cross-referencing from the product website.
- 5.3 Certification: FDA or CE or CDSCO or equivalent certification with validity for the use of equipment in human subjects is mandatory and a copy of the same should be enclosed.
- 5.4 Required Mandatory Accessories to ensure turnkey operation.
- 5.5 The technical bid should be accompanied by an item-wise compliance report (as per enclosed format) that is signed & stamped by the authorized signatory of the bidder in all pages. This compliance report should have reference to the page number of the manual in which the specific technical compliance details with respect to each item (i.e. 1.1., 1.2., 1.3., ...) as per the instructions provided in item no. 8.3 above. The pdf / hard copy of the manual should be submitted along with the technical bid. It is preferable that the vendor provides additional reference to these technical details in their product web site as well.
- 5.6 If requested, the bidder must be able to organize for a physical demonstration of the product at NIMHANS with regards to all the technical specifications mentioned in this document within a notice period of 1 week.

6. Optional

6.1 Quotation for comprehensive maintenance care after 5 years of warranty

6.2 Quotation for annual maintenance care after 5 years of warranty

Quote must have a compliance report on all the above points.

The decision of L1 (lowest price bid) will be decided based on the price quoted for sections 1 to 6.

Compliance Form

Specification	Compliance (Yes/No)	Reference to the text in brochure with page No. (and indicate reference to the enclosed certificate/document as applicable if any)
Transcranial magnetic stimulation unit with true/sha with a multichannel pre-amplifier for EMG recording package, capable of performing the following functi	ıs and data acqu	oils, synchronized isition and analysis
Administration of monophasic and biphasic single-pulse stimuli to cortex and record active/resting motor threshold and motor evoked potentials		
Administration of monophasic and biphasic paired- pulses to a single cortical region to acquire a combination of the following in a single sequence:		
1.2.1 Short interval intracortical inhibition (SICI), long interval intracortical inhibition (LICI), short interval intracortical facilitation (SICF), and long interval intracortical facilitation (LICF) according to standard protocols.		
1.2.2 In the above paired-pulse paradigms, the experimenter should have the option of varying the following:		
1.2.2.1 Stimulus intensity of individual pulses in each pair		
1.2.2.2 Inter-stimulus interval		
1.2.2.3 Inter-pair interval		
1.3 The TMS device should be compatible for External trigger system using Signal (CED, UK) software through external trigger cables	h	
1.4 Administration of conventional repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, that includes:		
1.4.1 Low-frequency rTMS given at ≤1 Hz.1.4.2 High-frequency rTMS given at 5-30Hz.		
Administration of patterned repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, with prediction/measurement of magnetic power and its		

4	Mandatory accessories	
5.0	within the warranty period should be provided free of cost.	
3.6	software (version 7 or latest). Any major upgradation to the software or the hardware	
3.5	Data acquisition and analysis in Signal (CED, UK)	
3.4.2	Hands-on demonstration of visualizing, saving and analysing the recorded EMG data in a compatible format	
	TMS with concurrent acquisition of EMG.	
3.4.1	centres as per project requirements Hands on training on setting-up, starting on delivering	
	and installation & maintenance of the equipment these	
	College (Manipal). The vendor should ensure delivery	
	Institute of Psychiatry (Ranchi) & Kasturba Medical	
	centred collaborative project involving NIMHANS, Central	
	These equipments are being procured as per multi-	
	qualified support engineer must be provided at the sites.	
3.3	On-site installation and comprehensive training by a	
0.2	acquisition with the acquisition software.	
	Full technical support in setting TMS parameter, EMG	
3.	Support Five-years warranty on all hardware and software.	
	4 EMG recording with Ag/AgCl electrode	
	Connector & Trigger Cable	
	touch-proof safety socket with USB cable, Serial	
	electrodes adaptor box and 1.5mm cable, 1.5 mm	
2.	Multi-channel isolated pre-amplifier with two channels	
2.	2 CED External Trigger System with cables and software	
	from at least two muscles simultaneously.	
2.	1 EMG unit capable of acquiring data during 1.1 and 1.2	
2.	EMG unit	
	minutes.	
	seconds (i.e., 0.2 Hz) for a total duration of 30	
	milliseconds, with an inter-train interval of 5	
	intervals varying between 1.5 to 1250	
	TMS pulses administered at inter-stimulus	
	1.5.2 Quadripulse stimulation (QPS): Four equal	
	train of uninterrupted TBS is given for 1800 pulses.	
	1.5.1.3 Continuous TBS: A 40 second	
	second for a total of 1800 pulses.	
	train of TBS is repeated every 15	
	1.5.1.2 Intermediate TBS: A 5 second	
	seconds for a total of 1800 pulses.	
	of TBS is repeated every 10	
	1.5.1.1 Intermittent TBS: A 2 second train	
	milliseconds in the following patterns:	
	stimulation given at 50 Hz, repeated every 200	
	1.5.1 Theta-burst stimulation (TBS): Three pulses of	
	(QPS)	
	burst stimulation (TBS) and Quadripulse stimulation	

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	Voltage stabilizer and UPS according to guidelines set by the manufacturer	
	Trolley for TMS console	
	Figure-of-eight cooled coils compatible with the supplied	
+.0	stimulator device (The cooling system should be sufficient	
	to be able to deliver continuous theta burst trains of 1800	
	pulses in quick succession (~5min) without overheating.) –	
4 7	two nos.	
4.7	Figure-of-eight non-cooled coils compatible with the	
	supplied stimulator device – two nos.	
4.8	Please specify the roll offs for cooled figure of eight coils	
	(see above) at varying pulse frequencies (e.g., 20Hz, 50 Hz	
	,100 Hz, 200 Hz) for trains ranging from 300 to 1800	
	pulses.	
	Coil holder for holding the TMS coil	
4.10	Ag/AgCl sintered ring electrodes (20 nos.) for EMG	
4.11	Signal (CED, UK) software (version 7 or latest) and	
	hardware interface (Micro 1401) to trigger the TMS device	
	and receive signals from the TMS device (stimulation	
	artefacts) and electromyography unit, as well as perform	
	analysis of the EMG data	
4.12	State-of-the-art laptop computer system with 14-16 inch	
	monitor to host the trigger and EMG software (Signal) with	
	Intel I6 processor, 8GB RAM, 1TB storage and Wi-Fi /	
	Bluetooth connectivity (Please specify the model)	
4.13	3 One-unit cost and the quantity per unit to be quoted for all	
	the mandatory accessories and consumable items to be	
	provided.	
5		
	List of users with contact details (e-mail & telephone /	
0.1	mobile number) in research institutes (India & Abroad) to be	
	provided	
5.2	The bidder should provide documents to support the	
	compliance with all the technical specifications as	4
	annexures. In addition, the bidder should indicate the exact	
	location of the text in the annexure (for example annexure	
	no., page, paragraph, and lines detail) that provides the	
	necessary documentary support for the respective technical	
	specification. Scrutiny for matching the technical	
	specifications will be solely based on the hard copy	
	documents & details of the text location (as specified above)	
	provided with the technical bid, preferably along with cross-	
	referencing from the product website.	
5.3	Certification: FDA or CE or CDSCO or equivalent	
	certification with validity for the use of equipment in human	
	subjects is mandatory and a copy of the same should be	
	enclosed.	
54	Required Mandatory Accessories to ensure turnkey	
J.7	operation.	
E =	The technical bid should be accompanied by an item-wise	
5.5	compliance report (as per enclosed format) that is signed &	
	stamped by the authorized signatory of the bidder in all	
	Stamped by the authorized signatory of the bloder in all	
	pages. This compliance report should have reference to the page number of the manual in which the specific technical	

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Price Quoted format

SI.No	Item	Quantit y	Amount (inclusive of GST)
1	Transcranial magnetic stimulation Unit (As per specification 1)	1 Set	
2	Multichannel pre-amplifier for EMG Unit (As per specification 2)	1 Set	
3	Mandatory accessory : Voltage stabilizer and UPS according to guidelines set by the manufacturer	1 No.	
4	Mandatory accessory: Trolley for TMS console	1 No.	
5	Mandatory accessory: Figure-of-eight cooled coils compatible with the supplied stimulator device (The cooling system should be sufficient to be able to deliver continuous theta burst trains of 1800 pulses in quick succession (~5min) without overheating.)	2 Nos.	
6	Mandatory accessory: Figure-of-eight non-cooled coils compatible with the supplied stimulator device	2 Nos.	
7	Mandatory accessory: Coil holder for holding the TMS coil	1 No.	
8	Mandatory accessory: Ag/AgCl sintered ring electrodes for EMG	20 Nos.	
9	Mandatory accessory: State-of-the-art laptop computer system with 14-16 inch monitor to host the trigger and EMG software (Signal) with Intel I6 processor, 8GB RAM, 1TB storage and Wi-Fi / Bluetooth connectivity	1 No.	
10	Signal (CED, UK) software (version 7 or latest) and hardware interface (Micro 1401) to trigger the TMS device and receive signals from the TMS device (stimulation artefacts) and electromyography unit, as well as perform analysis of the EMG data	1 No.	
11	Quotation for comprehensive maintenance care after 5 years of warranty	1 No.	
12	Quotation for annual maintenance care after 5 years of warranty	1 No.	