

**Sub.: Expression of Interest (EOI) for “Upgradation of 600 MHz Solid State NMR Spectrometer”**

Ref. No. : CBMR/ PUR/ 1160/ 2025

Dated: 04.12.2025

This Expression of Interest (EOI) invites applications from the reputed OEMs (original equipment manufacturers) for “**Upgradation of 600 MHz Solid State NMR Spectrometer**” by the Centre. Main features of the instrument as follows:

**(A) Spectrometer Console with three Independent RF channels having the following:**

1. All three-broadband full-range synthesizers (600 MHz range) or at least one channel with high frequency synthesizer and rest with broadband frequency synthesizers
2. Waveform generators for each channel
3. Frequency, phase and amplitude modulation with clock speed of <20 ns for each channel
4. Composite pulse decoupling for each channel
5. Preamplifiers with attached or integrated filters for each channel
6. One high power high frequency 500W amplifier for 600 MHz range for channel 1 and two high power low frequency broadband 500W and 1000W amplifiers for channels for 2 and 3
7. ADC with high dynamic range and sampling rate, with 16-bit or better resolution and 100 MHz or better maximum sampling rate
8. Field frequency lock channel with digital lock control unit, digital lock receiver, lock amplifier, integrated lock switch for gradient shimming
9. Digital quadrature detection (DQD)
10. Ethernet based communication and control system for bi-directional connection to the host computer
11. Magic Angle Spinning (MAS) accessory for magic angle spinning with spinning controller for maximum achievable speed for each probe, better speed control for performing all types of solid-state NMR experiments.
12. Variable temperature unit having broad temperature range -100 to +150 °C, with an operational range for solid state samples of -20 to +80 °C along with accessories to achieve temperature range as per specifications of the probes.
13. Power transmitters and controllers
14. Accessories should allow to attain all technical specifications of the installed solid-state probes.

**(B) Solid state NMR probe**

Firm should repair/refurbish and reinstall the following existing four solid state NMR probes

1. Triple resonance DVT probe, b) Triple resonance E-free probe, c) 1.3mm (H/X/Y) CPMAS probe and d) E-free triple resonance static probe
2. The probe should be supported with all hardware and software components and accessories needed for its operation

3. 100 nos of each of 3.2 mm and 1.3 mm rotors along with sample packing accessories compatible with the installed solid-state probes.

**(C) Data acquisition and processing computers and software**

1. LINUX/Windows based workstations with pre-loaded software for data acquisition, processing and analyses.
2. The software should be capable of all up-to-date heteronuclear multi-dimensional NMR experiments including latest experiments for acquisition

**(D) Special requirements**

Interested reputed manufacturer/vendor may quote for a newer system matching the specifications of the existing 600 MHz solid state NMR system.

**(E) Warranty**

Five-year warranty (including parts replacement) of the system from the date of acceptance.

**General information / conditions / instruction to prospective bidders:**

The scope of work includes the Upgradation of 600 MHz Solid State NMR Spectrometer. Firms having done similar work can apply along with documentary evidence for work done in the past in government / private sector. The firm should also meet other criteria given below and is required to submit all supporting documents relating to the credentials / technical capabilities / financial standings and track along with their EoI as follows.

- a) Name of the firm with their constitution/proprietorship/partnership details etc. with the date of establishment/registration. Please submit the Articles of Association with the application.
- b) List of similar equipment supplied successfully in the last 5 years in Government research labs, other Government organizations and to Private Agencies along with brief details of the work. Enclose relevant document / certificate to ascertain the satisfactory completion of the work / service provided.
- c) List of employees in the firm, who will take up the requisite job/service listed above, their area of expertise and nature of their work in last five years.
- d) The list of work in hand, nature of work, cost, date of start and competition with present progress and the contact details of the clients.
- e) Proof of Turnover certified by a Chartered Accountant.

Applications in response to this EOI should be submitted in a sealed envelope, superscribed "Expression of Interest (EOI) for Upgradation of 600 MHz Solid State NMR Spectrometer" addressed to the Director, Centre of Biomedical Research (CBMR), SGPGIMS Campus, Raebareli Road,

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Lucknow- 226014 (UP) positively by 20.12.2025 by 3.00 p.m. The offer shall be opened on the same day at 3.30 p.m. There is no need to quote the price at this stage.

**“A Technical Committee, constituted by the competent authority shall evaluate the applications and short list the firms for further proceedings. Short listed firms shall be invited for the technical presentation / discussion scheduled on a suitable date, which would be communicated to concerned firms”.**

If any information furnished in the application is found incorrect at a later stage, the firm shall be liable to be debarred from participation/taking up work in CBMR. CBMR reserves the right to verify the particulars furnished by the applicant independently. CBMR reserves the right to reject any application without assigning any reason.

**ADMINISTRATIVE OFFICER**