



S. S. Kohli
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R&D Infrastructure Division
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DEPARTMENT
OF SCIENCE & TECHNOLOGY
GOVERNMENT OF INDIA
Ministry of Science & Technology
Department of Science & Technology
Technology Bhawan, Heald Road, Connaught Place,
New Delhi - 110016

SR/FST/CS-1/2021/219

2nd March 2022

Subject: Proposal under "FIST Program - 2021" (TPN-70289)

Dear Sir,

Kindly refer to your captioned proposal submitted by your Department/ Centre/ College for support under the FIST Program of DST. I am pleased to inform you that the proposal has been favorably recommended in Level I category by the DST based on the recommendation of the FIST Advisory Board (HSTAB). The details of the recommendation for 5 years duration of the project is given below:

To augment the research facilities in the Department (Being private University the amount would be shared on 50:50 ratio).

E – ₹200.0L (400 MHz NMR)
IRD – ₹2.0 L (to be identified)
SSR – ₹1.0 L (Activities like Workshops, Seminar)
M – ₹17.0L

Total: ₹220.0 Lakh

It may be noted that the allocations indicated now above with respect to any Equipment or any other budget heads are the Upper Limit of the Budget as they are purely based on recommendations. However, Department shall now finally firm-up specifications/ configurations of each Equipment, Computational & Networking facility in Computer Lab, Infrastructure Facility as recommended above to be acquired by the Department/ Centre/ School/ College and actual cost of this project shall be firm up based on these inputs from you. The support for the 'Maintenance' will be provided as per norms under FIST Program. The type of equipment and its specifications/ configurations finalized now by the Department/ Centre/ School/ College would not be possible to change during the course of implementation of the said project. For enabling us to process the case further, including the release of 1st installment of grant now, you are requested to please upload the following documents by 10th March, 2022 only through e-PMS web portal of the DST using the registered USER ID and PASSWORD:

- Valid quotation for each of the recommended equipment (CIF value) for support. Please ensure recommended above that the budgetary cost is not an inflated one with respect to its specifications given. In case, the recommendation shows Equipment list is "to be identified & prioritized", please submit quotations of the identified & prioritized Equipment only. Teaching Aids like LCD Projector, Smart Boards etc. are out of scope under FIST support and shall not be projected by the Department/ Centre/ School/ College.
- Quotations with detailed plans for implementation of the 'Networking and Computational Facilities' (NW) under the support as per guidelines mentioned in the Terms and Conditions of DST-FIST Program and attached herewith.
- Budgetary quotes from suppliers along with details & their cost estimates of items/activities recommended & proposed under 'Infrastructure Facility' which includes the list of Books, Lab renovation etc.

- Detailed plan of extending the recommended facilities for utilization by nearby industries and must include the cost of sample preparations and other peripherals towards seeking the allocated amount under IRD budget head for undertaking analysis of the industrial samples.
- Identify the activities pertaining to the Scientific Social Responsibility (SSR) to be conducted, and hence, provide a detailed plan with cost-wise details to undertake each of such activities.

The Department/ Centre/ School or College who have already enjoyed support earlier under FIST Program and recommended for **Repeat Support** now, shall need to complete all formalities i.e., **submission of Project Completion Report, Audited Financial Statements, Refund of unspent funds etc.** for the previously supported project under DST-FIST Program. Processing towards releasing the grants to such Department/ School/ Centre would not be possible to initiate without completion of all formalities for the previous project. **Blank Format** toward closure of previous project is also available at the Website: www.fist-dst.org

Department/ Centre/ School/ College are also requested for uploading all documents (whichever is applicable) as a single PDF file through e-PMS web portal at the earliest in the following order:

Sr. No.	For Colleges under Level 2 and Department/ Centre/School or Institute/ Autonomous Institute under Level 3 category	For Department/ Centre/School at the University/ Autonomous Institute under Level 2 and Level 3 category
1	List of the Major & Minor Research Equipment with Cost (Price/ Quotation) one for each category.	List of the Research Equipment with Cost (Price/ Quotation) one for each category.
2	Items for Networking Lab with Cost (Price/ Quotation).	Not Applicable
3	Items for Research or teaching equipment for laboratory use, and other items and list of items with Cost (Price/ Quotation) as applicable.	Items for Infrastructure including equipment for high technology and other items as applicable.
4	Cost of sample preparations and other peripherals towards seeking the allocated amount under IRD budget head for undertaking analysis of the industrial samples.	
5	Cost-wise List of Activities pertaining to the Scientific Social Responsibility (SSR) to be undertaken.	
6	duly signed copy of Terms & Conditions	
7	Composition of the Self-Implementation Group (SIS)	
8	Details of Public Finance Management System (PFMS) registration of the Department/ School/ Centre/ College/ Institute/ and other Campus Building (Code: FIST)	
9	Details of Saving Bank A/c: (Copy of cancelled Cheque)	
Documents (in PDF) to be submitted for the previously supported project (if any) under DST-FIST Program (Formats at www.fist-dst.org)		
1	Project Completion Report	
2	Joint Summary of FIST Support (not for 1 st time supported Departments/ Schools/ Centres/ Colleges)	
3	Audited Financial Statements	
4	Refund generated after refund of unspent funds and proper interest from the Consolidated Fund of India (CFI) through KRRP: www.krrp.gov.in	

Please do not send these documents in parts or by e-mail at the last moment. Incomplete documents submitted by any Department/ Centre/ School/ College would be unable to process for releasing grants. Kindly send the above information along with acceptance for taking up the project at the earliest to enable us to process the project for release of grant. In case we do not receive the above mentioned documents/ information within **10th March 2022**, it would be presumed that the Department is not interested in this project and the offer would automatically stand withdrawn.

Any further correspondence may please be sent directly to my colleague, Dr. Arindam Bhattacharyya (E-mail: a.bhattacharyya@nic.in ; Phone: 011-26590539; who will be handling the project henceforth. I shall remain accessible to Dr. Arindam Bhattacharyya for all project related matters, in case there is any such need on his part.

With best regards

Shyam Sundar Kohli

[S. S. Kohli]

Head,
Department of Chemistry,
SRM University,
Apmangalagiri, Nearukonda,
Tadikonda Rd, Mangalagiri Mandal,
Amaravathi- 522502,
Andhra Pradesh

Annexure - I

Notice Inviting Quotation (E-Procurement Mode)

Sub: Notice Inviting Tenders for procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer for advanced multi-dimensional solution state experiments

SRM University - AP invites tenders from reputed Manufacturers' Authorized Dealers / Tenderer for procurement of above-mentioned item.

All interested vendors are requested to send their bid for supply of the above item as per the details technical specification given below and as per the Bid Submission table given. No manual bids will be accepted. All quotation (both Technical and Financial) should be submitted in the SRM - AP E-procurement portal). The Important information related to tender are as follows:

Technical Specification for the 400MHz NMR Spectrometer

Magnet and Container	<ol style="list-style-type: none">1. Latest technology shielded magnet 9.4 Tesla with 54 mm bore superconducting magnet for 400MHz2. Helium hold time should be 300 days or more with auto level monitoring and recording3. Liquid Helium and Liquid Nitrogen transfer Lines should be provided.4. At least 25 Room Temperature shims for excellent line shape.
Electronics and Console	<ol style="list-style-type: none">1. Two independent channels to handle nuclei such as ^1H, ^{13}C, ^{15}N, ^{19}F, ^{31}P, etc. nuclei, capable of performing multidimensional biological NMR experiments. High-performance power transmitters with a high band ($^1\text{H}/^{19}\text{F}$) amplifier (100watts) and a low (or Broad) band (X) amplifier (300 watts or more).2. Gradient experiments such as Pulsed Field Gradient experiments with higher gradient strength, faster shimming should be the capability of the machine. Frequency generation, digital receiver controls with over sampling and digital filters should be quoted appropriately.3. Provisions for setting frequencies and field to lock and Digital-Auto Lock providing higher stability. System should achieve locking of the sample with different combination of solvents in a short duration without manual interference.4. Auto shimming feature for solution-state NMR.5. Gradient unit for Auto shimming ($^1\text{H}/^{13}\text{C}$) to achieve good line shape of sample and to perform all-new gradient pulse program-based experiment with the capability to run DOSY and other gradient experiments having capacity of 30 G/cm or better.6. Automatic Tuning and Matching for the nuclei under study for liquid samples. Single Autotune unit for all probes (Ready model for future upgrading probes). If Autotune is not working still probe

	<p>should be allowed to do manual tuning and matching to perform the experiments.</p> <p>7. Variable temperature experiments to be done in the range +150°C to -100 °C with $\pm 0.1^\circ\text{C}$ variations or a more comprehensive range should be provided. Accessories and consumables if any required for the variable temperature control should be quoted appropriately.</p> <p>8. High bandwidth receiver system with digital quadrature detection</p> <p>9. 16 Bit 100MHz Analog to Digital Converter or better to be quoted</p>
Probes	<p>1. 5mm multinuclear Broad Band Direct/observe Z-gradient Probe capable of covering nuclei range ^1H, ^{19}F, ^{31}P to ^{15}N, ^{39}K, ^{109}Ag with computer-controlled automatic tuning and matching (ATM) with S/N ratio for ^1H in 0.1% Ethylbenzene of 500 or more, ^{13}C in 10% Ethylbenzene in with 200 or more, ^{19}F with 500 or more, ^{31}P with 100 or more and ^{15}N with 30 or more on standard test samples.</p> <p>2. One solid-state 3.2mm \Rightarrow CP-MAS probe with essential accessories including 10 numbers of 3.2 mm Zirconium oxide rotors for solid-state NMR analysis</p>
Hardware and Software Requirements	<p>1. A high-end workstation: with the latest configuration (minimum of 4GB RAM, minimum hard disk capacity 500GB, 22" or bigger TFT Monitor, latest available processor, and other necessary accessories.</p> <p>2. The software should be the latest one and should function all the latest parameters automatically. The windows-based operating system for NMR Data acquisition and processing of multidimensional experiments.</p> <p>3. The software should be enabled with all functionalities available in the software.</p> <p>4. Supplier should offer unlimited NMR processing licenses for offline processing.</p>
Accessories	<p>1. Sample spinner/holder for 5 mm NMR tubes and 2 for low temperature experiments.</p> <p>2. 100 Nos. of NMR sample tubes with caps.</p> <p>Essential spare parts for magnet/Spectrometer</p>
Installation	The liquid helium required for installation should be provided by the NMR supplier
Other requirements and Conditions	<p>1. All the technical details of all the basic items, essential accessories, and optional items should be produced.</p> <p>2. The minimum power required for the operation of the spectrometer with all the accessories must be specified in the quote.</p> <p>3. Specify the pre-installation requirement including the minimum ceiling height, room size, etc.</p> <p>4. On-site training for operation and maintenance should be given during the installation</p> <p>5. Last Date and Time for submitting of Bids</p>

1.1 Eligibility Criteria:

- (i) Tenderer should be the manufacturer / authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) specific to the tender should be enclosed
- (ii) An undertaking from the OEM is required stating that they would facilitate the tenderer on a regular basis with technology/product updates and extend support for the warranty as well.
- (iii) OEM should be Nationally/Internationally reputed Company
- (iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between tenderer specification and supporting documents etc. may lead to rejection of the bid.
- (v) In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- (vi) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal / OEM in the same tender for the same item/product.

1.2 Installation & Demonstration

The supplier is required to do the installation and demonstration of the equipment within two weeks of the arrival of materials at the SRM University-AP, site of installation, otherwise the penalty clause will be the same as per the supply of materials.

In case of any damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier must replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. SRM University-AP will not be liable to any type of losses in any form.

1.3 Insurance: For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning.

VENDOR DECLARATION SHEET

We, _____ hereby certify that all the information and data furnished by our organization about these tender specifications are true and complete to the best of our knowledge. I have gone through the specifications, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certify that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

We, further specifically certify that our organization has not been Blacklisted/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.

NAME & ADDRESS OF THE Vendor/ Manufacturer / Agent	
Phone	
Fax	
E-mail	
Contact Person Name	
Mobile Number	
GST Number	
PAN Number	

VIJAYAWADA : 0866-2553033 / 44
TIRUPATHI : 0877-2255577

PUBLIC NOTICE

PUBLIC NOTICE

I, M. NITHYA SANTOSH SAI, S/o M. S. Venkata Chalapathi (UID No. 7727524) here by state that my name was entered as M. NITHYA SANTOSH instead of M. NITHYA SANTOSH SAI in his school records (Sri Veda E.M. High School, Madanapalli) I State that my correct name is M. NITHYA SANTOSH SAI as per my official records hence this notice

TENDERS



TENDER INVITE

For Supply & Installation of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer

Tender Enquiry No: SRM/AP/Tender/22-23/00001

For further details, scan the QR Code



SRM University-AP

Neerukonda, Mangalagiri Mandal, Guntur District, Andhra Pradesh - 522240



International Buddhist Confederation

Room No 513, 5th Floor, A-1 Wing, IGNC Building, Janpath, New Delhi 110001 India, Web Site: - https://www.ibcworld.org/tenders_page.php, Email adminibc@ibcworld.org

NOTICE INVITING TENDER (NIT) F.No 54/Lumbini/IBC/2021

IBC INVITES TENDER FROM REPUTED PROJECT MANAGEMENT CONSULTANT FOR CONSTRUCTION MANAGEMENT OF THE BUILDING OF INDIA INTERNATIONAL CENTRE FOR BUDDHIST CULTURE AND HERITAGE

BUSINESS OFFER

ARE YOU Need Business Loan Minimum 1Crore & Above Ct : 8122109759

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SITUATION VACANT

GENERAL

WANTED

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99851 74888

WANTED

Application are invited for the following Positions. **TGT for all subjects** (Science, Maths, Social, English, Hindi), **Primary Teacher** (Maths, Science, Social, English, Hindi), **Dance Instructor**, **Music Instructor**, **Librarian**, **PET's**, **Staff Nurse**, **Floor Incharge**, **Ex-Service Man**, **Lab Assistant**, **Warden**, JL's Candidates must be good in communication and fluent in English. Send your resume to V1885621@gmail.com.

Cont: 6301959922 / 21
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Contact

I, DEEPA spouse of Lakshmi Prasad Reddy. N Resident of D.No.1-1156, Kotapalli Road, Piller Town, Post and Mandal, Annamalah (Dt), A.P., India, Pin : 517214, Have Changed my name from DEEPA to KURAPARTHI DEEPA vide affidavit dated 23-08-2022 before me.

CHANGE OF NAME & D.O.B.

I, RAPURU VENKATA SUBBAIAH, S/O. R.PULLAIH, (NO.14300057k Rank ExNK) Residing No.2, Kapu Street, Rapur (V&Po), Rapur(M), SPSR Nellore Dist., A.P. - 524408, India. My Daughter Name is as Per ADHAR CARD & SSC MARKS MEMO RAPURU SREEDEVI. OUR ARTILLERY Record Maintained Name is SRIDEVI Both name of RAPURU SREEDEVI & SRI DEVI Belongs to Her to one and same Person and Original Date of Birth 01-Jan-1977, As Per Adhar Card Our Records Maintained Date of Birth 10-Jan-1977, So Please Change the Name & Date of Birth as Per Adhar Card.

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Ph: 9440262907, 0863-2338463

VACANCIES



KANNUR UNIVERSITY
(ADMINISTRATION BRANCH)

ADMIN/AD-A2/11507/2022

19.08.2022

NOTIFICATION

Applications are invited from eligible candidates



Admin Reports

Scheme-wise Contract Details

Home

CAR Reports

User Manuals

Masters

Users

Agency

Sanctions

PreSanction

Custom Fields

Finding Templates

Sanction Templates

Employee Info. System

Reports

Masters

My Schemes

Agencies

My Funds

Scheme Allocation

Registry Track Issues

Sanction Certificate

OLD UC

Controller: 037-SCIENCE AND TECHNOLOGY

Sanction Number: SR/PST/05/1/2022/71913

Sanction Type: Transfer (DDO Bill)

IPD Number: IPD/C/1/080722/35/00467

Scheme: 1837-Science and Technology Institutional and Human Capacity Building

DDO: 258297 DEPARTMENT OF SCIENCE & TECHNOLOGY (INCLUDING NCST)

Sanction Status: Approved

Sanction Date: 22/07/2022

Sanction Amount: 10000000

IPD Date: 08/07/2022

PAO: 058296-PAO(DST), New Delhi

Remarks: 1st release

North East Expenditure

Account Details

Grant	Department (For UT Grants Only)	Function Head	Object Head	Category	Amount	External PAC	Available Budget
089 - Department of Science and Technology		3425607891402 - OTHER PROGRAMMES	35 - GRANTS FOR CREATION OF CAPITAL ASSETS	5 - VOTED	10000000		60000000

TECHNOLOGY DEVELOPMENT BOARD, DEPARTMENT OF SCIENCE AND TECHNOLOGY	60414917022 - SCIENCE AND TECH I	10,000,000.00	RTGS
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Payment Details

Accredited Bank	UNION BANK OF INDIA	Amount	10000000	Not Payable Before : *	Required
SCIENCE AND TE	MAHB0000593	60414917022	10000000	PAO Payment	

Note: If the IFSC Code is not automatically shown it means bank A/C is not validated. If payment process is urgent please key in the IFSC Code and process payment. Please ensure IFSC Code is correct.

Back

Arindam



GOVERNMENT OF INDIA
Ministry of Science & Technology
Department of Science & Technology
SR/FST/CS-I/2021/219 (C)
(R & D Infrastructure)

Technology Bhawan, New Delhi

Dated: 27/07/2022

Sanction Order

Subject: Financial assistance for the project entitled "FIST Chemical Sciences Level B C or D - Project" submitted by Chemistry, SRM UNIVERSITY AP, AMARAVATHI, GUNTUR, ANDHRA PRADESH, 522240. Release of the first installment regarding

Sanction of the President is hereby accorded to the approval to the above mention project at a total cost of Rs. 22000000/- (Rupees Two Crore Twenty Lakh only) for the duration of 5 Years. The detailed breakup of the grant for general as well as capital components are given below: -

General Component: ₹ 20000000.00/-

Capital Component : ₹ 20000000.00/-

			Non-Recurring Head (in Rs.)					
Sl.No.	Name of the Equipment	Qty.	1 Year	2 Year	3 Year	4 Year	5 Year	Total
1	400 MHz NMR-	1	10000000	0	0	0	0	10000000
2	(Non-Recurring Contribution)-University Share	1	10000000	0	0	0	0	10000000
Total			20000000	0	0	0	0	20000000

2. The sanction of the President is also accorded to the release of Rs. 10000000/- (Rupees One Crore only) to the "Director/Registrar/Principal/Controller/Comptroller, SRM UNIVERSITY AP" being the first installment of grant as mentioned above table under "Capital Component" for the above mentioned project.

3. The expenditure involved is debatable to Demand No. 89, Department of Science & Technology for the year 2022-23:

3425	Other Scientific Research(Major Head)
3425.60	Others : (Sub-Major Head)
3425.60.789	Special Component Plan for Scheduled Castes
3425.60.789.14	Science and Technology Institutional and Human Capacity Building
3425.60.789.14.02	Other Programme
3425.60.789.14.02.35	Grants for creation of capital assets (SCSP)
	(Previous:)

4. The amount of Rs. 10000000/- (Rupees One Crore only) will be drawn by DDO, DST and disbursed to the "CNA account of Autonomous body TDB in respect of Science and Technology Institutional and Human Capacity Building Scheme".

Name of A/C Holder	Science and technology Institutional and Human Capacity Building TDB
Bank A/C No	60414917022
Name of the Bank & branch	Bank of Maharashtra, Press Enclave - New Delhi
RTGS/IFSC code	MAHB0000593

5. The amount of Rs. 10000000/- (Rupees One Crore only) will be drawn by the "CNA account of Autonomous body TDB and will be disbursed to the Director/Registrar/Principal/Controller/Comptroller, SRM UNIVERSITY AP".

The bank details for electronic transfer of funds through RTGS are given below: -

Name of A/C Holder	SRM University
Bank A/C No	60418075578
Name of the Bank & branch	Bank of Maharashtra
RTGS/IFSC code	MAHB0001952

6. As per Rule 234 of GFR 2017, the sanction has been entered at S. No 24 . in the register of grants maintained in the R & D Infrastructure for the scheme FIST Chemical Sciences Level B C or D.

7. This issues with the concurrence of IFD Vide their Concurring Dy. No IFD/C/1 /080722/35/00467 dated 08/07/2022.

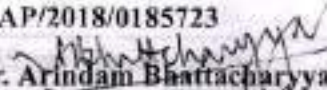
8. The GI will keep all the funds received in the Central Nodal Account only and shall not transfer the funds to any other account or not divert the same to Fixed Deposits/ Flexi-Account/ Multi-Option Deposit Account/ Corporate Liquid Term Deposit (CLTD) account etc. The funds released to GI shall not be parked in bank account of any other agency.

9. The GI will ensure the compliance of OM. No. F. No. 1/(18)/PFMS/FCD/2021 dated March 9, 2022 of Department of Expenditure, Ministry of Finance.

10. To Strengthen the release in the department on 50:50 Mode (Being Private University DST's Contribution of Rs. 11000000/- and University Contribution of Rs. 11000000/-

11. This sanction order is subject to the Terms & Conditions as annexured .

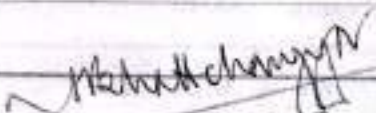
12. The organization is registered on NGO Darpan Portal and their Unique ID is AP/2018/0185723


Dr. Arindam Bhattacharyya
Scientist - 'F'
a.bhattacharyya@nic.in

To,
The Pay & Accounts Officer,
Department of Science & Technology,
New Delhi - 110 016.

Copy of information and necessary action to: -

1. The Principal Director of Audit, Scientific Department, IIIrd floor, AGCR Building, I.P. Estate, New Delhi.
2. The Financial Advisor, Integrated Finance Division, Technology Bhavan, New Mehrauli Road, Block C, Qutab Institutional Area, New Delhi, Delhi 110016
3. The Internal Audit Wing, Department of Science & Technology, Technology Bhavan, New Mehrauli Road, Block C, Qutab Institutional Area, New Delhi, Delhi 110016
4. Drawing and Disbursing Officer, DST, Cash Section. (two copies)
5. Head, Chemistry, SRM UNIVERSITY AP, AMARAVATHI, Guntur, Andhra Pradesh - 522240
6. The Director/Registrar/Principal/Controller/Comptroller/Chief Executive Officer(CEO), SRM UNIVERSITY AP, AMARAVATHI, Guntur, Andhra Pradesh - 522240
7. Secretary, TDB, New Delhi (for allocation of limits to implementing agency)
8. Head (R & D Infrastructure) DST
9. Sanction Folder (R & D Infrastructure)


Dr. Arindam Bhattacharyya
Scientist - 'F'
a.bhattacharyya@nic.in



GOVERNMENT OF INDIA
Ministry of Science & Technology
Department of Science & Technology
SR/FST/CS-II/2021/209 (C)
Terms & Conditions

1. The grantee organization will furnish to the Department of Science & Technology, financial year wise Utilization Certificate (UC) in the proforma prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to date progress report (Vis-a-Vis Target Vs-Achievement) at the end of each financial year duly reflecting the interest earned / accrued on the grant received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.
2. Subsequent releases of grants to the grantee institute would be made on the basis of the targeted deliverables with the timelines i.e. "Targets Vs Achievement" as mentioned in the Table below:

S. No.	Target with Proposed First Instalment
	Procurement/ Installation of following R&D Infrastructure
1.	400 MHz NMR

3. The Department/Institute will appropriately limit the expenditure within the sanctioned amount in case of any anticipated excess expenditure. **The Department is requested to utilize the released funds in the first one year from the date of sanction order.**
4. The grantee organization will have to enter & upload the Utilization Certificate in the PFMS portal besides sending it in physical form to this Division. The subsequent/final installment will be released only after confirmation of the acceptance of the UC by the Division and entry of previous Utilization Certificate in the PFMS.
5. If the grant has been released under capital head through separate sanction order under the same project for purchase of equipment(s), separate SE/UC has to be furnished for the released Capital head grant.
6. The grant-in-aid being released is subject to the condition that:-
 - a) A transparent procurement procedure in line with Provisions of General Financial Rules 2017 will be followed by the Institute/Organization under the appropriate rules of grantee organization while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organization immediately on receipt of the grant.
 - b) While submitting Utilization Certificate/Statement of Expenditure, the organization has to ensure submission of supporting documentary evidences with regard of the purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grants under the project shall be considered only on receipt of the said documents.
7. As per the GFR 2017 Rule 230 (8) the Grantee Institute should ensure that all the interests or other earnings against Grant-in-Aid or advances (other than reimbursement) released to any Grantee institution should be mandatorily remitted to the Consolidated Fund of India immediately after finalization of the accounts. Such advances will not be allowed to be adjusted against future releases.
8. As per the GFR 2017 Rule 230 (17) "the Grantee Institute should agree to make reservations for Scheduled Castes and Scheduled Tribes or OBC in the posts or services under its control on the lines indicated by the Government of India"
9. DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GFR 2017), shall not be disposed of without obtaining the prior approval of DST.

Handwritten signature

10. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit (both by C&AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.
11. Due acknowledgement of technical support / financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organization in bold letters in all publication / media release as well as in the opening paragraphs of their Annual Reports during and after the completion of the project.
12. Failure to comply with the terms and conditions of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.
13. It is mandatory to use EAT module in PFMS, failing which no further funds shall be released.
14. Goods (Consumable/Equipment) available in GeM portal are to be procured mandatorily online through GeM only as per the provisions of Rule 149 of GFR.
15. The Grantee Institute should follow Global Tendering Enquiry (GTE) conditions as per Department of Expenditure ID Note No:4/1/2021-PPD dated 10.09.2021.
16. If One time assistance or non-recurring grant as Grant-in-Aid for Rs. 10.00 lakhs to Rs. 50.00 lakhs, it should be included in the Annual Report of the Institute.
17. The Grantee Institute must ensure any other provisions of GFR-2017 and guidelines/amendments issued from Govt. of India from time to time.
18. To maintain transparency and accountability, the facilities acquired from FIST Grant should be mapped to Indian Science Technology and Engineering facilities Map i.e. I-STEM portal (www.istem.gov.in) and should be accessible to the scientific community and industry. DST should be informed after mapping the research facilities in the I-STEM Portal.
19. The Grantee Institution should promote services of FIST facilities to the demands of outside faculties, researchers, scientists and students at other academic institutes, universities, nearby colleges national laboratories, R&D Labs, Startups, and Industries to enable them to carry out R&D activities to promote FIST collaborative research endeavours.
20. Special seminar/s on usage and upkeep of scientific instruments might be conducted from time to time by the beneficiary organization to ensure smooth functioning as well as maximum uptime of the established facility.
21. A task-force with representation from IFD, any Division of DST along with any scientist of the R&D Infrastructure Division would undertake random check on the status of utilization of the major facilities supported by DST, as and when needed.
22. To give visibility to the identified department, the department may be called as "DST-FIST Sponsored Department". The Public Notice displaying the Logo of the FIST Program may be downloaded from the DST website and suitably displayed in this regard.
23. The Grantee Institution should follow, implement and adopt the Scientific Research Infrastructure Sharing Maintenance and Networks (SRIMAN) guidelines of Ministry of Science & Technology, GoI, released on May 2022.
24. The Grantee Institution should follow and adopt the Scientific Social Responsibility (SSR) guidelines of Ministry of Science & Technology, GoI, released on May 2022. While utilising the grant which has released SSR broad guidelines both in letter and spirit and should highlight the benefits of SSR guidelines among stakeholders of FIST.

संलग्नक



भारत सरकार

विज्ञान और प्रौद्योगिकी मंत्रालय

विज्ञान और प्रौद्योगिकी विभाग

SR/FST/CS-II/2021/209 (C)

निबंधन और शर्तें

1. अनुदानग्राही संस्थान प्रत्येक वित्त वर्ष के अंत में इस परियोजना के अंतर्गत प्राप्त अनुदान पर अर्जित/प्रोद्भूत ब्याज को विधिवत रूप से दर्शाते हुए अद्यतन प्रगति रिपोर्ट (लक्ष्य बनाम उपलब्धि) के साथ जीएफआर 2017 में विनिर्दिष्ट प्रारूप में वित्तीय वर्ष-वार उपयोग प्रमाण पत्र (यूसी) और व्यय का लेखापरीक्षित विवरण (एसई) विज्ञान और प्रौद्योगिकी विभाग को प्रस्तुत करेगा। यह परियोजना की समाप्ति की निर्धारित तारीख से एक वर्ष भीतर व्यय का अंतिम विवरण, उपयोग प्रमाण-पत्र और परियोजना समाप्ति रिपोर्ट प्रस्तुत करने की शर्त के भी अध्वधीन है।
2. अनुदानग्राही संस्थान को बाद में जारी किए जाने वाले अनुदानों को समय-सीमा के साथ लक्षित सुपुर्दगी के आधार पर किया जाएगा अर्थात् "लक्ष्य बनाम उपलब्धि" जैसा कि नीचे दी गई तालिका में उल्लेख किया गया है:

क्रमांक	प्रस्तावित प्रथम किश्त के साथ लक्ष्य
	निम्नलिखित अनुसंधान एवं विकास अवसरचना की खरीद/स्थापना:
1.	400 MHz NMR

3. विभाग/संस्थान किसी भी प्रत्याशित अधिक व्यय के मामले में व्यय को स्वीकृत राशि के भीतर उचित रूप से सीमित करेगा। विभाग से अनुरोध है कि जारी की गई धनराशि का उपयोग स्वीकृति आदेश की तिथि से प्रथम एक वर्ष में करें।
4. अनुदानग्राही संस्थान को उपयोग प्रमाण-पत्र इस प्रमाण में भौतिक रूप में भेजने के साथ-साथ पीएफएमएस पोर्टल पर प्रविष्टि और अपलोड करना होगा। अनुवर्ती/अंतिम किस्त प्रभाग द्वारा यूसी की स्वीकृति की पुष्टि और पीएफएमएस में पूर्ववर्ती उपयोग प्रमाण-पत्र की प्रविष्टि के बाद ही जारी की जाएगी।
5. यदि अनुदान एक ही परियोजना के अंतर्गत उपस्कर (रॉ) की खरीद के लिए पृथक संस्वीकृति आदेश के माध्यम से पूंजी-शीर्ष के अंतर्गत जारी किया गया है तो जारी किया गया पूंजी-शीर्ष अनुदान के लिए पृथक एसई/यूसी प्रस्तुत करना होगा।
6. जारी किया जा रहा सहायता अनुदान निम्नलिखित शर्तों के अध्वधीन है-
क) उपर्युक्त परियोजना के लिए संस्वीकृत पूंजी आस्तियों की खरीद करते समय अनुदानग्राही संस्थान के उचित नियमों के तहत संस्थान/संगठन द्वारा सामान्य वित्तीय नियमावली 2017 के उपबंधों के अनुरूप पारदर्शी खरीद प्रक्रिया का अनुपालन किया जाए और अनुदान प्राप्ति पर तुरंत प्रभाव से अनुदानग्राही संगठन द्वारा इस आशय का प्रमाण-पत्र प्रस्तुत किया जाए।
ख) उपयोग प्रमाण-पत्र/ व्यय विवरण प्रस्तुत करते समय, संगठन को जीएफआर 2017 के उपबंधों के अनुसरण में उपस्कर/पूंजी आस्तियों की खरीद के संबंध में संबंधित दस्तावेज-साक्ष्य प्रस्तुत करना सुनिश्चित करना होता है।
7. जीएफआर नियमावली 2017 के नियम 230 (8) के अनुसार अनुदानग्राही संस्थान को सुनिश्चित करना चाहिए कि किसी भी अनुदानग्राही संस्थान को जारी किए गए सहायता अनुदान या अग्रिम (प्रतिपूर्ति से भिन्न) पर प्राप्त समस्त प्रकार के ब्याज या अन्य आय को लेखों को अंतिम रूप दिए जाने के तुरंत बाद भारतीय समेकित निधि में अनिवार्य रूप से विप्रेषित किया जाए। ऐसे अग्रिमों को भविष्य में जारी की जाने वाली निधियों में समायोजित करने की अनुमति नहीं दी जाएगी।
8. जीएफआर नियमावली 2017 के नियम 230 (17) के अनुसार, "अनुदानग्राही संस्थान को भारत सरकार के निर्देशानुसार अपने नियंत्रणाधीन पदों या सेवाओं में अनुसूचित जाति या अनुसूचित जनजाति या ओबीसी के लिए आरक्षण रखने पर सहमत होना चाहिए।"
9. डीएसटी, अनुदान से सृजित परिसंपत्तियों पर एकमात्र सुरक्षित अधिकार रखता है। सरकारी अनुदानों से पूरी तरह से या पर्याप्त रूप से अर्जित संपत्ति (जीएफआर 2017 में निर्धारित प्रक्रिया के अनुसार अप्रचलित और अनुप्रयोज्य, अनुपयोगी घोषित अनुदानों से इतर), का निपटारा डीएसटी का पूर्व अनुमोदन प्राप्त किए बिना नहीं किया जाएगा।
10. जैसा कि सामान्य वित्तीय नियमावली 2017 के नियम 236 (1) के तहत निर्धारित किया गया है, अनुदानग्राही संगठन का लेखा स्वीकृति प्रदाता प्राधिकारी और लेखा परीक्षक (भारत के नियंत्रक एवं महालेखापरीक्षक और डीएसटी के प्रधान लेखा कार्यालय दोनों द्वारा आंतरिक लेखापरीक्षा) द्वारा निरीक्षण किए जाने, जब भी संगठन को ऐसा करने के लिए कहा जाता है, हेतु अभिगम्य होगा।

(Signature)

11. इस परियोजना अनुदान से प्राप्त तकनीकी सहायता/वित्तीय सहायता की उचित पावती को अनुदानग्राही संगठन द्वारा सभी प्रकाशनों/मिडिया प्रकाशनी में मोटे अक्षरों में और परियोजना के पूरा होने के दौरान और तदुपरांत उनकी वार्षिक रिपोर्टों के शुरूआती पैराग्राफों में अनिवार्य रूप से दिखाया किया जाना चाहिए।
12. बॉन्ड के नियमों और शर्तों का पालन करने में असफल होने पर जीएफआर 2017 के नियम 231 (2) के अनुसार पूरी राशि सब्याज वापस करनी होगी।
13. पीएफएमएस में ईएटी मॉड्यूल का उपयोग करना अनिवार्य है, ऐसा न करने पर अन्य कोई भी आगामी निधि जारी नहीं की जाएगी।
14. जीएफआर के नियम 149 के उपबंधों के अनुसार जीईएम पोर्टल पर उपलब्ध वस्तुओं (उपभोग्य वस्तु /उपस्कर) का अनिवार्यता आम तौर पर प्रापण जैम (जीईएम) ही के माध्यम से किया जाना है।
15. अनुदान ग्राही संस्थान को वय विभाग के आईडी नोट संख्या: 4/1/2021-पीपीडी दिनांक 10.09.2021 के अनुसार वैश्विक निविदाकरण जांच-पड़ताल (जीटीई) नियमों का पालन करना चाहिए।
16. यदि एकबारगी सहायता या गैर-आवर्ती अनुदान 10.00 लाख रुपये से 50.00 लाख रुपये के सहायता अनुदान का हो तो इसे संस्थान की वार्षिक रिपोर्ट में दर्ज किया जाना चाहिए।
17. अनुदान ग्राही संस्थान को जीएफआर-2017 के किसी भी अन्य उपबंध और समय-समय पर भारत सरकार द्वारा जारी दिशा-निर्देशसंग्रह का अनुपालन सुनिश्चित करना चाहिए।
18. पारदर्शिता और जवाबदेही बनाए रखने के लिए, एफआईएसटी अनुदान से प्राप्त सुविधाओं को भारतीय विज्ञान प्रौद्योगिकी और इंजीनियरिंग सुविधाओं के मानचित्र यानी आई-एसटीईएम पोर्टल (www.istem.gov.in) पर मैप किया जाना चाहिए और वैज्ञानिक समुदाय और उद्योग के लिए सुलभ होना चाहिए। आई-एसटीईएम पोर्टल में अनुसंधान सुविधाओं का मानचित्रण करने के बाद ओएसटी को सूचित किया जाना चाहिए।
19. अनुदानग्राही संस्थान को अन्य शैक्षणिक संस्थानों, विश्वविद्यालयों, नजदीकी कॉलेजों, राष्ट्रीय प्रयोगशालाओं, अनुसंधान एवं विकास प्रयोगशालाओं, स्टार्टअप्स और उद्योगों के बाहरी संकायों, शोधकर्ताओं, वैज्ञानिकों और छात्रों की मांगों के लिए एफआईएसटी सुविधाओं की सेवाओं को बढ़ावा देना चाहिए ताकि वे अनुसंधान एवं विकास गतिविधियों को बढ़ावा देने के लिए सक्षम हो सकें FIST सहयोगी अनुसंधान प्रयास।
20. लाभार्थी संगठन द्वारा समय-समय पर वैज्ञानिक उपकरणों के उपयोग और रखरखाव पर विशेष संगोष्ठी आयोजित की जाय ताकि सुचारु संचालन के साथ-साथ स्थापित सुविधा के अधिकतम अपटाइम को सुनिश्चित किया जा सके।
21. आईएफडी, डीएसटी के किसी भी डिवीजन के प्रतिनिधित्व के साथ एक टास्क फोर्स, आर एंड डी इंफ्रास्ट्रक्चर डिवीजन के किसी भी वैज्ञानिक के साथ, जब भी जरूरत हो, डीएसटी द्वारा समर्थित प्रमुख सुविधाओं के उपयोग की स्थिति पर यादृच्छिक जांच करेगा।
22. पहचाने गए विभाग को दृश्यता देने के लिए, विभाग को "DST-FIST प्रायोजित विभाग" कहा जा सकता है। एफआईएसटी कार्यक्रम के लोगों को प्रदर्शित करने वाली सार्वजनिक सूचना को डीएसटी वेबसाइट से डाउनलोड किया जा सकता है और इस संबंध में उपयुक्त रूप से प्रदर्शित किया जा सकता है।
23. अनुदानग्राही संस्थान को मई 2022 को जारी विज्ञान और प्रौद्योगिकी मंत्रालय, भारत सरकार के वैज्ञानिक अनुसंधान अवसंरचना साझा रखरखाव और नेटवर्क (श्रीमान) दिशानिर्देशों का पालन, कार्यान्वयन और अपनाना चाहिए।
24. अनुदानग्राही संस्थान को मई 2022 को जारी विज्ञान और प्रौद्योगिकी मंत्रालय, भारत सरकार के वैज्ञानिक सामाजिक उत्तरदायित्व (एसएसआर) दिशानिर्देशों का पालन करना चाहिए और उन्हें अपनाना चाहिए। औद्योगिक अनुसंधान एवं विकास सहायता और एसएसआर घटक के लिए जारी किए गए अनुदान का उपयोग करते हुए, अनुदानग्राही संस्थान को एसएसआर के व्यापक दिशानिर्देशों का अक्षरशः कार्यान्वयन सुनिश्चित करना चाहिए और एफआईएसटी के हितधारकों के बीच एसएसआर दिशानिर्देशों के लाभों को उजागर करना चाहिए।

[Handwritten Signature]

SRM UNIVERSITY – AP, Andhra Pradesh-522240

Sub: Recommendations of Purchase Committee Meeting held on 10/06/2022 and 27/10/2022 for the procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer – Chemistry Department:-

We have received an indent from Dr. Mannathan – HOD, Chemistry Department on 18/11/2022 (Indent. No: 7000) for the purchase of 400 MHz Solid State NMR Spectrometer for research purpose

A proposal has been obtained from various vendors as under:

- M/s Bruker Bio Spin AG
- M/s JEOL India Pvt Ltd
- M/s Inkarp Instrument Pvt Ltd

Upon receipt of techno commercial offer, a PCM was scheduled on 10/06/2022 and following list of committee members participated for technical and commercial discussions as below:

1. Prof. D. Narayana Rao – Pro Vice Chancellor
2. Dr. R Prem Kumar – Registrar
3. Ms. Suma – C/AO
4. Prof. B.V. Babu – DEAN, SEAS
5. Dr. S. Mannathan – HOD, Chemistry Department
6. Dr. Partha Saradhi Maram – Asst. Professor, Chemistry Department
7. Dr. Sahyasachi Chakraborty – Asst. Professor, Chemistry Department
8. Dr. J.P.Raja Pandian – Asst. Professor, Chemistry Department
9. Dr. Balaji Bahu – Asst. Professor, Chemistry Department
10. Dr. Mahesh Kumar Rayva – Asst. Professor, Chemistry Department
11. Dr. Rajapandian – Asst. Professor, Chemistry Department
12. Dr. Satishesh Kumar Ellipili – Asst. Professor, Chemistry Department
13. Mr. Rajeshkannan.S – Dy. Manager, Procurement
14. Mr. Anil Kumar – Sr Executive, Procurement

In Techno-Commercial discussions, the Committee has evaluated all the vendors technically and commercially and negotiated with the vendors.

Comparative statement for NMR Spectrometer						
Sl. No	Description	Unit	Qty	M/s. Bruker BioSpin AG	M/s. Jeol India Pvt Ltd	M/s. Inkarp Instrument Pvt Ltd
1	Model	Nos	1	Bruker AVNEO 400MHz one bay NMR Spectrometer	JEOL JNM-ECZL 400R	NMReady-100 PRO
Total amount (USD)				4,35,000.00	4,35,000.00	1,87,000.00
Grand Total (USD)				4,35,000.00	4,35,000.00	1,87,000.00
Delivery				12 Months from LC opening	9 Months from LC opening	10 to 12 weeks
Warranty & Service				1 year	3 Years	1 year
Payment Terms				100 % LC payment	100 % LC payment	100 % LC payment
Stage				L3	L2	L1

SRM UNIVERSITY – AP, Andhra Pradesh-522240

Sub: Recommendations of Purchase Committee Meeting held on 10/06/2022 and 27/10/2022 for the procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer – Chemistry Department: -

In this ground the committee couldn't select the equipment due to all three vendors presented for their equipment with different specifications and features. The commercial impact also is there, because of specification and features variation. So that, the committee has decided to make a report for SRM-AP requirements detailed technical specification and along with SRM-AP commercial terms and conditions.

The same thing to be published in SRM-AP website and published in Newspaper for advertisement of the SRM-AP tender and the same to invite the vendors for bidding.

We published the tender notification in Times of India Newspaper on 26/08/2022. The tender notification and bidding schedules are as follows:

Date of Publishing	26/08/2022
Last date for submitting of Bids	26/09/2022
Last date and Time for receipt queries	10/09/2022

- The detailed 400 MHz NMR tender notification, Please refer to the Annexure - I

As per SRM-AP Tender Notice inviting bidders for procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer for advanced multi-dimensional solution state experiments.

we have received the proposal from single vendor as under,

- M/s. JEOL India Pvt Ltd

Upon receipt of technical proposal letter, a P.C.M was scheduled on 27/10/2022 and following list of committee members participated for technical and commercial discussions as below

1. Prof. D. Narayana Rao – Pro Vice Chancellor
2. Prof. H.V. Babu – DEAN, SEAS
3. Dr. S. Mannathar – HOD, Chemistry Department
4. Dr. Pardina Saradhi Marem – Asst. Professor, Chemistry Department
5. Mr. Krishna R – Sr. Manager, Finance & Accounts
6. Dr. Sathesh Kumar Ellipilli – Asst. Professor, Chemistry Department
7. Mr. Rajeshkannan.S – Dy. Manager, Procurement
8. Mr. Anil Kumar – Sr. Executive, Procurement

In Techno Commercial discussions, the Committee has evaluated the vendor technically and commercially and negotiated with the vendors to bring down the prices.

SL No		Vendor Name	Description	Total Cost (USD)	Custom Duty	Stage	Remarks
I	Initial Proposal	M/s. JEOL India Pvt Ltd	400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer	4,35,000/-	Extra at actual	LI	Installation & Training will be provided at site.
	Final Proposal			3,40,000/-			

- The detailed 400 MHz NMR Spectrometer specification enclosed here. Please refer to the Annexure-II

In this ground, the committee has decided to place order to M/s. JEOL India Pvt Ltd, who was a technically and commercially stands in LI Stage.

Payment Terms: -

- The payment should be made in favour of JEOL Asia Pte Ltd.
- USD 1,20,000/- (Equal to INR Rs 1,00,00,000/-) advance against Proforma Invoice,

SRM UNIVERSITY – AP, Andhra Pradesh-522240

Sub: Recommendations of Purchase Committee Meeting held on 10/06/2022 and 27/10/2022 for the procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer – Chemistry Department: -

- 2nd stage USD 1,50,000/- prior to consignment dispatch and submission of shipping documents.
- 3rd Stage balance USD 30,000/- against the successful installation or 3 months against the materials received date at SRM-AP campus. (Whichever is earlier)

Purchase Terms: -

- Order placed in favour of M/s. JEOL ASIA PTE., LTD.
- Delivery: 10-12 Months against the order and advance confirmation.
- CIF Chennai Sea Port prices have been quoted.
- Warranty: 12 Months from the date of installation or 16 Months from the date of shipment (whichever is earlier). During the warranty period, should the system develop any fault, and parts required to set the instrument right, will be shipped free of charge by JEOL, on CIF / CIP basis.
- On-Site comprehensive maintenance contract for the next 3 years after the completion of the standard one-year warranty period including all parts and service labour. The JEOL shall not be responsible for any damages to the instruments caused by faulty operation or rough use, power failures, fire, flood, earthquake, or any force majeure. Liquid helium charges will be extra.
- Installation: Installation will be done by JEOL's Engineer or JEOL authorized local engineers.
- Inspection: JEOL's inspection will be final.
- Packing: Wooden case of export standard.
- Training: On-site training at customer site

Financial Summary:

Sl. No	Particulars	Amount (Rs)	Remarks
1	DST - FIST Contribution	1,00,00,000.00	To be used on or before 31/03/2022. Equal to USD 1,20,830/-.
2	SRM-University AP contribution	1,48,28,854.79	To be paid on FY 23-24
3	Custom's duty and clearance charge Approx.,	50,00,000.00	To be paid on FY 23-24 from SRM University AP contribution
Grand Total (Rs)		2,98,28,854.79	PO value USD 3,00,000/- Exclusive of Custom's duty and clearance charges.
Note: USD conversion rate 1 USD = INR 82.76 on 15/12/2022. The PO to be considered for USD only. The Indian currency value will be varied, it's to be considered on payment making day's currency conversion rate.			

Here there is a Cost Savings in negotiations USD 1,35,000/- against Total cost.

Here by submitting the PCM-Minutes with the proposal and request approval to proceed further to release the order to M/s JEOL ASIA PTE., LTD. with Total value of USD 3,00,000/-, Exclusive of Custom Duty and clearing charges at CIF Chennai basis.

SRM UNIVERSITY – AP, Andhra Pradesh-522240

Sub: Recommendations of Purchase Committee Meeting held on 10/06/2022 and 27/10/2022 for the procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer – Chemistry Department: -



Dy. Manager-Procurement



Dr. S. Mannathoo
(HOD – Chemistry Dept)


15/12/2022

Dean - SEAS


N.
CFAO
16/12/22
Registrar

Pro Vice-Chancellor
[Approved Mail Copy Enclosed here]


Vice-Chancellor

President

SRM UNIVERSITY – AP, Andhra Pradesh-522240

Sub: Request your approval to amend the purchase order to M/s. Jeol Asia Pte., Ltd., for procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer – Chemistry Department: -

We have received an indent from Dr. Mannathan – HOD, Chemistry Department on 18/11/2022 (Indent No: 740) for the purchase of 400 MHz Solid State NMR Spectrometer for research purpose. For that, we have placed order to the M/s. JEOL ASIA PTE., LTD on 22/12/2022 (Ref. No: SRM/TRUST/AP/Dec/IC/22-23/PUR-00001).

Existing Financial Summary:

Sl. No	Particulars	Amount (Rs)	Remarks
1	DST - FIST Contribution	1,00,00,000.00	To be used on or before 31/03/2022. Equal to USD 1,20,830/-.
2	SRM-University AP contribution	1,48,28,854.79	To be paid on FY 23-24
3	Custom's duty and clearance charge Approx.,	50,00,000.00	To be paid on FY 23-24 from SRM University-AP contribution
Grand Total (Rs)		2,98,28,854.79	PO value USD 3,00,000/- Exclusive of Custom's duty and clearance charges.
Note: USD conversion rate 1 USD – INR 82.76 on 15/12/2022. The PO to be considered for USD only. The Indian currency value will be varied, it's to be considered on payment making day's currency conversion rate.			

We tried to make the advance payment to M/s. Jeol Asia Pte., Ltd., from DST-FIST account for Rs.1,00,00,000/-. But we couldn't transfer it. Because as per the DST-FIST rules, we can transfer that amount for Indian vendors only. For that we confirmed in DST-FIST website.

In this ground, we informed to the vendor to submit the proposal from the Indian organization. That detail as under,

- Jeol India Pvt Ltd

In this proposal has the same technical specification, terms, and conditions. The differences between the both proposals are currency and Vendor name only. (M/s. Jeol India Pvt Ltd is there instead of M/s. Jeol Asia Pte., Ltd).

The new financial summary is as under,

Sl. No	Particulars	Amount (Rs)	Remarks
1	DST - FIST Contribution	1,00,00,000.00	To be used on or before 31/03/2022.
2	SRM-University AP contribution	1,65,50,000.00	To be paid on FY 23-24. Prior to dispatch the materials
3	SRM-University AP contribution	29,50,000.00	To be paid on FY 23-24. After successful installation.
Grand Total (Rs)		2,95,00,000.00	The PO value is Rs. 2,95,00,000/- (Inclusive of all taxes, up to the SRM-AP campus)
Note: This price is inclusive of all Taxes and transport (Up to SRM-AP campus & Unloading is SRM-AP Scope).			

Sub: Request your approval to amend the purchase order to M/s. Jeol Asia Pte., Ltd., for procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer – Chemistry Department: -

So that, kindly give your approval to cancel the old order (SRM/TRUST/AP/Dec/IC/22-23/PLIR-00001) and to release the new order to M/s. Jeol India Pvt Ltd.

Payment Terms: -

- The payment should be made in favour of JEOL India Pvt Ltd
- INR 1,00,00,000 advance along with Purchase order against the proforma invoice,
- 2nd stage INR 1,65,00,000/- payment prior to consignment dispatch and submission of shipping documents.
- 3rd Stage balance INR 29,50,000/- against the successful installation or 3 months against the materials received date at SRM-AP campus. (Whichever is earlier).

Purchase Terms: -

- Order placed in favour of M/s. JEOL India Pvt Ltd,
- Delivery: 10-12 Months against the order and advance confirmation.
- This price is included in Custom's clearance, transport charges, Delivery to the SRM-AP campus
- Unloading the instrument charges are extra by SRM-AP.
- Prices quoted are as per current govt of India norms. Any changes in import taxes have to be paid by SRM-AP.
- Warranty: 12 Months from the date of installation or 16 Months from the date of shipment (whichever is earlier). During the warranty period, should the system develop any fault, and parts required to set the instrument right, will be shipped free of charge by JEOL on CIF / CIP basis.
- On-Site comprehensive maintenance contract for the next 2 years after the completion of the standard one-year warranty period including all parts and service labour. The JEOL shall not be responsible for any damages to the instruments caused by faulty operation or rough use, power failures, fire, flood, earthquake, or any force majeure. Liquid helium charges will be extra.
- Installation: Installation will be done by JEOL's Engineer or JEOL authorized local engineers.
- Inspection: JEOL's inspection will be final.
- Packing: Wooden case of export standard.
- Training: On-site training at customer site.

Hence, we request you to kindly approve to amend the purchase order to M/s JEOL India Pvt Ltd, with Basic Value Rs. 2,50,00,000/- and GST 18% of Rs. 45,00,000/- Grand Total value of Rs. 2,95,00,000/- (Inclusive of all Taxes)


Dy. Manager-Procurement


Dr. S. Mannathan
(HOD - Chemistry Dept)


Dean - SEAS


CFAO


Registrar


Vice-Chancellor

President

PURCHASE ORDER

Supplier Details:		P.O No. :	COM-SRM/UNIV/AP/Feb/22-23/PUR-00692
M/s JEOL India Pvt Ltd		Date :	03-Feb-2023
Unit No 305, Level 3, Elegance Tower, Jasola Business District Centre, Near Apollo hospital, Jasola, New Delhi-110025, India		Invoice To :	SRM University-AP, Amaravati Neerukonda Village Mangalagiri Mandal Guntur 522502 GST No. 37AASTS4359N1ZD
GST No :	07AACCJ5763C1ZP	Delivery At :	SRM University AP, Neerukonda Village, Mangalagiri Mandal, Guntur - 522 502
Supplier Reference No :	-		
Quotation Received on :	03-Feb-2023		
Contact Person :	-		
Contact No. :	9741115885		
Email Id :	abhilash@jeolindia.com		

Sl No	Description	Delivery period	Qty	Unit	Price /Unit(Rs.)	Discount /Unit(%)	Tax /Unit	Extra Charges	Total Price (Rs.)
1	Supply and installation of 400MHz NMR (Nuclear Magnetic Resonance) Spectrometer, Model No. JEOL JNM-ECZ400R	03-Feb-2023	1.00	Nos	25000000.00	0.00	18.00%	4500000.00	29500000.00

29500000.00

Total Purchase Amount : 29500000.00

Rupees in Words : Two Crore Ninety Five Lakh Hundred Only

Terms and Conditions:

Purchase Terms	1. Delivery: 10-12 Months against the order and advance confirmation. 2. This price is included in Customs clearance, transport charges. Delivery to the SRM-AP campus. & Unloading the instrument charges are extra by SRM-AP. 3. Prices quoted are as per current govt of India norms. Any changes in import taxes have to be paid by SRM-AP. 4. Warranty: 12 Months from the date of installation or 16 Months from the date of shipment (whichever is earlier). During the warranty period, should the system develop any fault, and parts required to set the instrument right, will be shipped free of charge by JEOL on CIF / CIP basis. 5. On-Site comprehensive maintenance contract for the next 2 years after the completion of the standard one-year warranty period including all parts and service labour. The JEOL shall not be responsible for any damages to the instruments caused by faulty operation or rough use, power failures, fire, flood, earthquake, or any force majeure. Liquid helium charges will be extra. 6. Installation: Installation will be done by JEOL's Engineer or JEOL authorized local engineers. 7. Inspection: JEOL's inspection will be final. 8. Packing: Wooden case of export standard. 9. Training: On-site training at customer site.
Payment Terms	1. The payment should be made in favour of JEOL India Pvt Ltd. 2. INR 1,00,00,000 advance along with Purchase order against the proforma invoice. 3. 2nd stage INR 1,65,00,000/- payment prior to consignment dispatch and submission of shipping documents. & 3rd Stage balance INR 29,50,000/- against the successful installation or 3 months against the materials received date at SRM-AP campus. (Whichever is earlier).
P.O. Note	1. Contact Person: Dr. Munnathan-HOD, Chemistry Dept., (Research Equipment)

SP

Acknowledged By

SRM University-AP Amaravati

Supplier Seal, Signature & Date

Copy To

ACCOUNT DEPT,

S.P
03/02/2023

N. S.
Authorised Signature & Date

PURCHASE ORDER

Supplier Details:		P.O No :	COM-SRM/UNIV/AP/Nov/23-24/PUR-00347
M/s Stryzen Engineers		Date :	21-Nov-2023
4-41-3037/G-163, C-Block, Road No-9, Papi Reddy Nagar, Jagathirigutta, Banaganur, Hyderabad, Telangana		Invoice To :	SRM University-AP Andhra Pradesh Neerukonda Village Mangalagiri Mandal Guntur 522502 GST No. 37AASTS4356V1ZD
GST No	36CGCPD1372J12J	Delivery At :	SRM University AP, Neerukonda Village Mangalagiri Mandal Guntur - 522 502
Supplier Reference No	: SKZE/SAC/167/2023-24		
Quotation Received on	20-Sep-2023		
Contact Person			
Contact No.	9600321285		
Email Id	mreridy@stryzenengineers.in		

Sl No	Description	Delivery period	Qty	Unit	Price /Unit[Rs.]	Discount /Unit[%]	Tax /Unit	Extra Charges	Total Price [Rs.]
1	200 ltrs SS304 Vertical Air receiver suitable for 10 Bar working pressure With Standard Fittings(HSN CODE 8414)	21-Nov-2023	1.00	Nos	49538.00	3.00	18.000	0.00	58410.00
2	Advanced Microprocessor Based (Auto Drain valve with Digital Display, 1Nos)Max Working Pressure: 16Kgr/Sq cm/Cycle Time: 1 to 99 min. Adjustable Drain Time: 1 to 9 Seconds Adjustable.(HSN Code 8421)	21-Nov-2023	1.00	Nos	3670.00	0.00	18.000	0.00	4354.20
3	Oil free Scroll Silent Air Compressor(Model : AL 5P, (5 HP)Capacity:12.4Cfm/352LPM/9.9bar/140 Psi) pressure 1.7Kw/1.5HP, Base mounted oil free scroll Air Compressor in Acoustic Canopy with standard fittings. PLCHSN Code 8414)	21-Nov-2023	1.00	set	472320.00	0.00	18.000	0.00	557337.60
4	Spin Summits Make, 20Cfm Refrigerated Air Dryer, Pressure dew point of 3 - 7A°C (PDP)(Ambient temperature of +40AA°C(max), Inlet temperature: +45AA°C Standards require ISO 8573 AgAA 10Quality Class 4 & Class 5 air quality: Hsn Code:8421)	21-Nov-2023	1.00	Nos	42860.00	0.00	18.000	0.00	50336.80
5	Suitable Above Air Dryer With A. main Drain Activated Carbon Filter, 0.01 Micron.(HSN Code:8421)	21-Nov-2023	1.00	Nos	7795.00	0.00	18.000	0.00	9198.10
6	Suitable above Air Dryer With Automatic Drain Pre Filter, 10Micron(Hsn Code 8421)	21-Nov-2023	1.00	Nos	7670.00	0.00	18.000	0.00	9050.60
7	Suitable Above Air Dryer With Automatic Drain Pre Filter, 3Micron(Hsn Code 8421)	21-Nov-2023	1.00	Nos	7465.00	0.00	18.000	0.00	8608.70

Gross Total : 697498.00

Total Purchase Amount : 697498.00

Rupees in Words : Six Lakh Ninety Seven Thousand Four Hundred Ninety Eight Only

Terms and Conditions:

Purchase Terms	1. The total price is inclusive of GST. 2. F.O.R Destination ✓
Payment Terms	1. 50% Payment prior to dispatch, balance 50% payment against material receipt and installation ✓




P.O. Note

1. Delivery Period: 6-8 Weeks
2. Warranty: 1 Year from the date of installation.
3. Installation: Onsite.
4. Contact Person: Dr. S. Mannathan - Chemistry Dept - Research Equipment (DST-FIST Project)

Purchase Order Generated By: Anil Kumar Naradasu

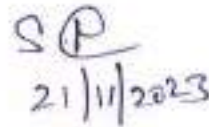
Acknowledged By

SRM University-AP, Andhra Pradesh

Supplier Seal, Signature & Date

Copy To

Stores and Accounts Dept.,


Authorized Signature & Date
21/11/2023

PURCHASE ORDER

Supplier Details:		P.O No.	COM-SRM/UNIV/AP/AUG/22-23/PUR-00340
Mrs EYEDEA BRAND SOLUTIONS		Date	25-Aug-2022
1/35 1/15F, 5 TH FLOOR, J.P TOWER, Thirumunthy Nagar Main Road, Thirumunthy Nagar, Chennai, Chennai, Tamil Nadu, 600034		Invoice To	SRM University-AP, Amaravati Neerukonda Village Mangalagiri Mandal Guntur 522502 GST No. 37AASTS4359N1ZD
GST No	: 33AGAPSB813P2ZA	Delivery At	SRM University AP, Neerukonda Village, Mangalagiri Mandal, Guntur 522 502
Supplier Reference No	: -		
Quotation Received on	: 25-Aug-2022		
Contact Person	:		
Contact No.	: 9840336932		
Email Id:	: eyedeabs@gmail.com		

Sl No	Description	Delivery period	Qty	Unit	Price Unit[Rs.]	Discount Unit[%]	Tax Unit	Extra Charges	Total Price [Rs.]
1	SRM AP Tender Notice Advertisement Nuclear Magnetic Resonance Spectrometer(Hindu Ail Editions, Language: English, Nature: B&W, Size: 3.5 cm W X 8 cm H, Total Size: 28 Sq cm)	25-Aug-2022	1.00	Issues	51156.80	0.00	5.000	0.00	53713.80

Gross Total : 53713.80

Total Purchase Amount : 53713.80

Rupees in Words : Fifty Three Thousand Seven Hundred Thirteen Only

Terms and Conditions:

Purchase Terms	1. The total price is inclusive of GST.
Payment Terms	1. 100% Payment after 45 days of release. ✓
P.O. Note	1. Contact Person: Mr. M V Shyam Kumar Reddy.

Purchase Order Generated By Jayaadithyan E.D

Acknowledged By

Supplier Seal, Signature & Date

Copy To

Accounts and Store Dept.

SRM University-AP, Amaravati

Authorised Signature & Date

 SRM
 25/8/2022

Signed



JEOL INDIA PVT. LTD.

Unit No. 305, 3rd Floor, ABW Elegance Tower,
Jasola District Centre, New Delhi-110025
Tel : +91 11 45958000 | www.jeol.co.in

DELIVERY CHALLAN

JEOL INDIA PVT. LTD.

Unit No. 305, Level 3, ABW Elegance Tower

Jasola District Centre, New Delhi-110025

Phone: +91-11-45958000 (Direct), GSTIN: 07AACCJ5783C1ZP

<https://www.jeol.co.in/>

Date:

No #:

25/Dec/2023

DC17026/12-23

From

JSS College of Pharmacy, SS Nagar, Next to the Fire station
Bangalore - Mysore Rd, Bannimantap A Layout, Bannimantap,
Mysuru, Karnataka 570015

Kind Attn: Dr. Yogesh

Contact No. - +91 9726447802

Delivery address

SRM University, AP - Amaravati, Neerukonda,
Mangalagiri Mandal, Guntur District, Andhra Pradesh
Pincode: 522502

Kind Attn: Dr. Mannathan, Chemistry Dept.

Contact No. - +91 0863-2343000, 9600252532

Instrument	FQ No.
-	-

HSN Code	DESCRIPTION	QTY.	UNIT PRICE	TOTAL
-	Charging tools pickup from JSS Academy of Higher Education and Research, Mysore & Deliver to SRM University, Guntur, Andhra Pradesh Vehicle Type: 20ft Container Carrying Capacity: 6MT	-	-	-

Document for transportation purpose only

For JEOL INDIA PVT. LTD.



8 boxes Recd

[Handwritten signature]



CERTIFICATE OF INSTALLATION

THIS IS TO CERTIFY THAT THE BELOW MENTIONED INSTRUMENT(S) HAS(HAVE) BEEN DULY INSTALLED AND ACCEPTED BY THE UNDERSIGNED:

NAME OF THE INSTRUMENT: 400 MHz FT NMR SPECTROMETER

Consisting of:

MODEL	DESCRIPTION	QTY.	Serial No.
JMTC – 400/54/JJ/YH	SUPERCONDUCTING MAGNET	01	23-6394054JY
JNM-ECZL400R	FT NMR SPECTROMETER CONSOLE	01	NM17440000130013
NM-70020R4S1	HEAD AMPLIFIER	01	FHACHR423040013
NM-57138PCWE	WORK STATION	01	4CE212F990
NM-71190AT	AUTOTUNE UNIT	01	F36189
NM-03812RO5S	ROYAL PROBE	01	NM6492001680168
NM-03571HXM32	HXMAS3.2 SOLID PROBE	01	NM73730000140014

Signature : S. M. Mannathan

Date : 01/03/2024

Full Name : Dr. MANNATHAN . S

Phone : +91-9600252532

Designation : Assoc. PROFESSOR

E Mail : mannathan.s@srmap.edu.in

Organization: SRM University, AP-Amaravati

Mangalagiri mandal, Guntur district

Andhra Pradesh - 522502

Installed By : PAVAN REDDY, NAVEEN DAHIYA

Engineer Signature

S. M. Mannathan

Dr. S Mannathan
Associate Professor
Department of Chemistry
SRM University AP
Andhra Pradesh

Srinivas L. Projary 9/03/24



JEOL JNM-ECZL400R 400MHz NMR SPECTROMETER

**SUPPLY AND INSTALLATION OF 400MHZ FT-NMR
SPECTROMETER AT SRM UNIVERSITY, AP -
AMARAVATI, MANGALAGIRI MANDAL, GUNTUR
DISTRICT, ANDHRA PRADESH, PINCODE: 522502.**

Final Revised Offer

07-12-2022

Registered Office:

JEOL INDIA PVT. LTD.

**Unit No.305, Level 3, Elegance Tower, Jasola Business District Centre,
Near Apollo Hospital Jasola, New Delhi 110 025, India**

Tel : 91-11-4595-8000, [www. Jeol.co.jp/in](http://www.Jeol.co.jp/in)

Opening Letter

Dated: 07th December 2022,

**To,
The Registrar,
SRM University, AP - Amaravati
Mangalagiri Mandal
Guntur District, Andhra Pradesh
Pincode: 522502.**

Subject: Final Revised Offer for JEOL JNM-ECZL400R 400MHz NMR Spectrometer.

Reference: Notice Inviting Tenders for procurement of 400 MHz NMR (Nuclear Magnetic Resonance) Spectrometer for advanced multi-dimensional solution state experiments
Dated 26th August 2022.

Dear Sir,

!! Greetings from JEOL Team!!

With reference to the above subject and your mail dated 07th December 2022. The payment terms mentioned by SRM university AP for the JEOL JNM-ECZL400R 400MHz NMR Spectrometer are acceptable to us.

We are pleased to enclose our final Revised offer for **JEOL JNM-ECZL400R 400MHz NMR Spectrometer** for your kind reference.

We look forward to receiving your valuable purchase order at the earliest.

Thanking you and assuring you of our best and sincere attention.

With Best Regards
For JEOL INDIA PVT. LTD.

Abhilash S
Area Manager _Sales
abhilash@jeolindia.com
+91- 9741115885

Below listed are some of the outstanding features of the JEOL JNM-ECZL400R 400MHz NMR Spectrometer for your kind reference.

➤ **The Highest Performance in the World's Smallest Chassis**

The ECZL chassis world's smallest chassis. The latest NMR spectrometer features a high degree of configuration flexibility and contributes to cutting-edge research in a variety of situations.

➤ **Year Hold Magnet with the greatly improved retention time of liquid helium**

The New 400 MHz Year Hold Superconducting Magnet (400JJYH) has a much-enhanced liquid helium retention period while maintaining its compact size. The 400JJYH is a newly designed magnet that decreases helium refill frequency to once a year (**120L every 365 Days**) while keeping the cryostat compact. The recurring cost is a crucial consideration when purchasing an NMR system; the cost of Liq Helium and Liq Nitrogen are the key factors on the maintenance of the system. The YH magnet is beneficial because it is less expensive to maintain in the long run.

The Newly developed superconducting magnet has a smaller stray magnetic field from the inside of the magnet to the outside. Combination with a compact spectrometer unit of ECZ NMR Spectrometer enables freer installation layout and placement of all units in a small area. In addition, as the design of the magnetic shield of SCM not only reduces the stray magnetic field but also the influences from outside, installation of several NMR systems nearby is possible. It can offer a more reliable, safer, and comfortable use of the NMR system. The NMR System has a smaller operation space (4m*5m) and a lower magnet height (2.84m).

➤ **MFDS (Multi-Frequency Drive System)**

The ECZ Luminous system enables multiple resonance measurements using triple-resonance probes such as HCN and HCX probes on a standard two-channel spectrometer. Conventional triple-resonance measurements, which require pulse irradiation of three or more nuclides with different frequencies, traditionally require costly expansion of channels and installation space. With ECZ Luminous, the multi-sequencer architecture with STS and the newly developed MFDS (Multi-Frequency Drive System) enables triple-resonance measurements with a two-channel spectrometer. It opens the door to multiple-resonance experiments for more users.

➤ **Stable, Fast, and Highly sensitive**

All circuits have been converted to digital versions. The STS (Smart Transceiver System), inherited from the previous model, achieves a time resolution of 5 ns for frequency, phase, and amplitude modulation, enabling ultra-fast control.

➤ **NO-D NMR Software (Free of Cost)**

No-D NMR (Do not require deuterated solvents)- cost-saving for routine sample analysis.
And it does not require expensive deuterated solvents for routine analysis.

For more details on No D NMR, please go through the below links:

<https://www.jeol.com/solutions/applications/details/NM180017E.php>

<https://pubs.acs.org/doi/10.1021/ol049979%2B>

• **Unlimited Licenses for NMR Processing Software:**

JEOL supports the open License policy and will provide a site License for NMR Data Processing Software that can be made available to an unlimited number of users.

• **QNMR software and J coupling analysis tool**

QNMR software and J coupling analysis tool will come as a standard with our DELTA Software.

• **On-Site Delivery of Spares under Warranty:** JEOL is happy to confirm that during the Warranty period any Spare supplied by JEOL will be delivered On-Site without any additional charges.

We will be happy to be of any further assistance on further information or clarifications on our offer.

Thanking you and assuring you of our best and sincere attention.

With Best Regards
For JEOL INDIA PVT. LTD.

Abhilash S
Area Manager _Sales
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Final Revised Offer for JEOL JNM-ECZL400R 400MHz NMR Spectrometer

**To,
The Registrar,
SRM University, AP - Amaravati
Mangalagiri Mandal
Guntur District, Andhra Pradesh
Pincode: 522502.**

Tender Reference Number	Notice Inviting Quotation (E-Procurement Mode) Dated _ 26 th August 2022
Quotation Number	JI/220924/T/853/R1
Quotation Date	07/12/2022
Quotation valid up to	30 Days
Mode of Shipment	CIF
Estimated Delivery	10 - 12 Months from LC opening

MODEL NAME: JNM-ECZL400R: 400MHz NMR SPECTROMETER

Basic Specifications:

- Observation nuclei: 1H, 19F, 31P to 15N, 39K, 109Ag
- Auto tuning/matching range: All observation nuclei
- Observation frequency: 1H 400 MHz, 13C 100MHz
- Sensitivity for 1H: 500 or more (0.1% ethyl benzene)
- Sensitivity for 13C: 200 or more (10% Ethyl Benzene)
- Variable temperature range: -100 to +150-degree C
- Room-temperature shim: Digital matrix shim, 25 items controlled
- Amplifier set: HF Channel: 100W and LF Channel: 300W
- Drift rate: ≤ 4 Hz
- Stray Field: Radial: 0.5m and Axial distance: 1.0m.
- Magnet dimension: Minimum Ceiling height required: 2.84m.

Magnet cryogen details:

- Liq He Refill Volume 120Ltr for 365 Days.
- Liq N2 refill volume 63Ltr for 14 days.

Si. No	Part Number/product description	Q'ty	Price in USD
1	NM-70020R4S1 400MHZ SPECTROMETER The NM-70020R4S1 FT NMR System is a versatile high-performance system that utilizes the latest digital and high-frequency technologies. The JNM ECZL400R series FT NMR System features improved operability and small installation space, both of which are required for routine NMR systems. NM-70020R4S1 is a two-channel spectrometer. Frequency range from 10MHz to 430MHz. Frequency resolution: 0.001Hz, Phase resolution: ≤0.005 Deg and Linear transmitters. Room-temperature shim: Digital matrix shim, 25 items controlled Variable temperature range: -170 to +250-degree C High Band (1H /19F) amplifier: 100 W and Low band (or Broad) band amplifier: 300 W Gradient Strength: 30G/Cm @ 10A	1	USD 300,000
2	NM-66160SW: ECZ Standard Software: We will provide you with the latest windows based new Delta Software for multi-dimensional NMR data collection and processing. This includes newly developed experiments and processing algorithms. This is embedded with our free software for quantitative analysis, No D NMR, automation measurements, projection reconstruction, J-coupling tools, etc.	1	Included
3	NM-04890SCMYWS: SUPERCONDUCTING MAGNET 400/54 JJYHWS (365 Days Liq He Hold Magnet) Specifications: Drift rate: ≤ 4Hz Shortest possible Radial stray, 5 Gauss line: Radial: 0.5m and Axial distance:1.0m. Magnet dimension: Minimum Ceiling height required: 2.84m. Built-in Cryo shims: 09 Magnet cryogen details: Liq He Refill Volume 120Ltr for 365 Days. Liq N2 refill volume 63Ltr for 14Days. NM-04920HOU4JY: SPINNER HOUSING 40JY (It's a part of super conducting magnet) The spinner housing supplies air from an air source and performs the following two tasks when a probe for liquid-state NMR is used. a) Supports the Load/Eject operations for the sample. b) Supplies air for sample spinning to the probe and detects the sample spinning rate. For more details, please check the separate specification sheet	1	Included
4	NM-SB/J15L: Vibration Proof Table This unit is a vibration-proof table for the superconducting magnet (SCM) in the JEOL FT NMR systems: Vertical direction: Effective for 7.6 Hz or more vibration Horizontal direction: Effective for 3 Hz or more vibration	1	Included

Si. No	Part Number / product description	Q'ty	Price in USD
5	NM-03812R05S: 400MHZ 5MM FG/RO DIGITAL AUTO TUNE PROBE 5 mm Broadband high sensitive (Royal Probe) probe Including Z gradient coil and compact automatic tuning and Matching set up have been quoted as standard. VT-facility (covering the range -100 to +150 C). And which is capable to detect the nuclei 1H, 19F, and broad range from 31P to 15N, and a low-frequency range from 39K, 109Ag. Please check our quotation for Detailed Probe specifications	1	Included
6	NM-57138PCWE: Workstation English High-performance workstation (Windows operating system) for data acquisition and processing with 4GB RAM and 500GB hard disk capacity. Latest available processor, 24" LED monitor will be provided.	1	Included
7	NM-71190AT: Auto Tuning Unit Z Auto tuning unit comes as a standard, which will be helpful in doing Automatic Tuning and Matching for the nuclei under study for liquid samples.	1	Included
8	Variable Temperature Accessory: Liquid Nitrogen-based NM-51740DW10 10L Dewar NM-51770DHS10 10L Dewar Heater S VT control range: -100 °C to + 150 °C., Temperature setting steps 0.1 Deg C. Low-temperature unit include suitable liquid nitrogen dewar. Low-temperature limit: - 100 Deg C. The low-temperature unit is complete in all respects. This all function controlled under host computer.	1	Included
9	Liquid Helium and Liquid Nitrogen Transfer lines. We will provide you with the Liquid Helium and Liquid Nitrogen Transfer lines required for the regular operations.	1	Included
10	Liquid Helium Supply for completion of Installation We will provide you with enough quantity of Liquid Helium required for the completion of the Installation.	1	Included
11	NM-03571HXM32 400MHZ 3.2MM HXMAS PROBE with 10 numbers of 3.2 mm Zirconium oxide rotors for solid-state NMR analysis The NM-03571HXM32 "400 MHZ 3.2MM HXMAS PROBE" is a square type probe attached to the FT NMR System and is used for measuring high-resolution, solid-state NMR. This probe is equipped with a spinner module for a 3.2 mm sample tube that includes a dual resonant circuit tuned to High Frequency (HF) and Low Frequency (LF). This probe can rapidly rotate the sample tube at the magic angle with respect to a static magnetic field (MAS: Magic Angle Spinning). This probe includes additional attachments as well. <ul style="list-style-type: none"> MAS CONTROLLER CPMAS STANDARD SAMPLE KIT 3.2MM SOLID SAMPLING SET 3.2MM ZIRCONIA SAMPLE TUBE 	1	Included

Si. No	Part Number/product description	Q'ty	Price in USD
12	5mm NMR tubes We will provide 5mm NMR tubes with caps for regular solution-state NMR analysis.	100	Included
13	Warranty On-site comprehensive warranty for One year including all parts and service labor. During the warranty period, should the system develop any fault, and parts required to set the instrument right will be shipped free of charge by us on CIF/ CIP basis. However, JEOL shall not be responsible for any damages to the instruments(s) caused by faulty operation or rough use, power failures, fire, flood, earthquake, or any Force Majeure.	1	Included
14	Comprehensive maintenance contract (CMC) /year for the next two years after the completion of the standard one-year warranty period. On-site comprehensive maintenance contract for the next two years after the completion of the standard one-year warranty period including all parts and service labor. During the warranty period, should the system develop any fault, and parts required to set the instrument right, will be shipped free of charge by us on CIF/ CIP basis. However, JEOL shall not be responsible for any damages to the instruments(s) caused by faulty operation or rough use, power failures, fire, flood, earthquake or any Force Majeure. Liquid helium refilling charges will be extra.	1	Included
15	Onsite training Onsite training for two persons for two weeks will be provided by our Technical and Application Scientists	1	Included

CIF Chennai Sea Port - US Dollar USD 300,000

We have quoted up to CIF Chennai Sea Port.

Customer has to take the responsibility of local freight charges and any entry tax, customs duty, IGST, octroi / any other tax applicable has to be paid by the customer.

HSN Code for NMR spectrometer is: 90273010

With Best Regards
For JEOL INDIA PVT. LTD.

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abhilash@jeolindia.com
+91- 9741115885

LOCAL SUPPLY ITEMS:

Please find the details of Local supply items that need to be arranged by the customer at least two weeks before the start of the installation.

Si. No	Local Supply Items: -	Q'ty
1	Air Compressor with Drier: Scroll Compressor Oil-Free, Noise-free Anesta Iwata compressor (Model No: SLP371E) or Coaire make compressor (Model No: AL-5P) with necessary Air Drier and all required filters with the minimum of 90Lts storage tank.	1
2	5KVA UPS 5KVA Online UPS with the minimum backup of 1hr capacity with single phase input and single-phase output.	1
3	Liquid Nitrogen Dewar Liquid Nitrogen cryocans (IBP Make) (2 numbers) with 50L Capacity for refilling magnet with one Trolley	2
4	Liquid Nitrogen Supply for completion of Installation: Customer has to arrange around 500Lts of Liquid Nitrogen required for the completion of the Installation.	1
5	Additional workstation for Processing NMR Data with BW Printer High-performance workstation (Windows operating system) for data processing with 16GB RAM and 2TB hard disk capacity. Pentium i7 Quad or higher processor, 24" LCD monitor with A compatible laser jet BW printer needs to be arranged.	1

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Special Items:

Si. No	ITEM
1	Unlimited Licenses for NMR Processing Software: JEOL supports the open License policy and will provide site License for NMR Data Processing Software that can be made available to unlimited number of users.
2	NO-D NMR Software (Free of Cost) No-D NMR (Do not require deuterated solvents)- cost saving for routine sample analysis. And it does not require expensive deuterated solvents for routine analysis.
3	QNMR software and J coupling analysis tool QNMR software and J coupling analysis tool will come as a standard with our DELTA Software.
4	We will provide you the fallowing items under preventive maintenance Kit: <ol style="list-style-type: none"> 1. Necessary o rings 2. Non magnetic tool kit 3. Ballons for filling gases 4. Gloves for filling gases 5. Filters for compressors 6. Filters for Spectrometer air flow unit 7. Calibrated & Certified tools like Multimeter, Spectrum analyser and CRO are used by JEOL INDIA (JI) engineers for PM . These tools are JI property.

MAGNET QUENCH POLICY:

In case magnet-quench during the installation or at subsequent times due to any technical reason or faulty design or failure, JEOL will take the complete responsibility of the supply (including transport) of the liquid Helium, till the magnet is restored to normally and the entire costs for cryogenics, recharging or if required replacing the magnet will completely taken care by JEOL.

However, the policy does not cover any damage / quench of the magnet caused by faulty operation, power and water failures, fire, flood, earthquake or any Force Majeure or non-filling or irregular filling of liquid nitrogen or liquid helium. In such case, all the necessary costs for parts or labour have to be paid by customer.

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TERMS AND CONDITIONS

- The prices quoted are in US Dollars. CIF Chennai Sea Port prices have been quoted.
- The system quoted will be under warranty for the period of 12 months from the date of installation or 16 months from the date of shipment, whichever is earlier. During the warranty period, should the system develop any fault, and parts required to set the instrument right, will be shipped free of charge by us on CIF/ CIP basis. However, JEOL shall not be responsible for any damages to the instrument(s) caused by faulty operation or rough use, power and water failures, fire, flood, earthquake or any Force Majeures.
- On-site comprehensive maintenance contract for the **next two years** after the completion of the standard one-year warranty period including all parts and service labor. During the warranty period, should the system develop any fault, and parts required to set the instrument right, will be shipped free of charge by us on CIF/ CIP basis. However, JEOL shall not be responsible for any damages to the instruments(s) caused by faulty operation or rough use, power failures, fire, flood, earthquake or any Force Majeure. Liquid helium charges will be extra.
- The country of origin is Japan. The place of shipment will be from any Port in Japan.
- The payment should be made in favor of JEOL Asia Pte. Ltd as below:
USD 120,000 has to be paid as advance along with Purchase Order against the proforma invoice.
USD 150,000 against on presentation of complete and clear shipping documents.
USD 30,000 Against successful Installation or 3 months from the date of arrival of the instrument at the SRM AP Site, whichever is earlier.
- The delivery period will be 10 to 12 months from the date of receipt of L/C and end use certificate.
- Installation: Installation will be done by JEOL's Engineer or JEOL authorized local engineers.
- Inspection: JEOL's inspection will be final.
- Packing: Wooden case of export standard.
- Training; On-site training at customer site.
- Export: Export is subject to receipt of an export license from the proper government authorities. Thus, JEOL reserves the right to be free from the contract without penalty, should the license not be granted.
- Manufacturer: Manufacturer: JEOL Ltd., Otemachi Nomura Bldg., 13F 2-1-1 Otemachi, Chiyoda, Tokyo 100-0004, Japan. Tel:0081-3-6262-3563 Fax: 0081-3-6262-3577

➤ Please place your order on:

- JEOL ASIA PTE. LTD.
 - 2 Corporation Road
 - #01-12 Corporation Place
 - Singapore 618494
- Tel: +65 6565 9989, Fax +65 6565 7552

➤ Bank Details

MUFG Bank, Ltd.

- 7 Straits View, #23-01, Marina One East Tower,
- Singapore 018936.
- Name of Account Owner JEOL Asia Pte. Ltd.
- U.S DOLLAR ACCOUNT NO 189509
- SWIFT CODE BOTKSGSX

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Please Find Below Details of JEOL Make NMR **JNM-ECZL400R**

GENERAL

The JNM-ECZL series is an FT NMR system equipped with cutting-edge digital and high-frequency technologies. This system satisfies a wide variety of demands for current and future NMR measurements by providing the following excellent functions and performance:

1. High-precision RF control with high-speed digital circuits
2. Complex pulse sequences (passing pulses, asynchronous decoupling, etc.) generated by fully independent, multiple high-speed programmable sequencers
3. Purely generated and transmitted RF signals provided by compact, highly integrated functions
4. High-speed and high-stability power amplifiers
5. Low-noise and high-sensitivity preamplifiers
6. High-precision RF reception and detection over a wide frequency range
7. High-stability shim control achieved by high-precision NMR lock
8. High-accuracy and high-stability field gradient control
9. High-stability and wide-range variable temperature control

In order to make operations of the NMR system stable over a long period of time even for highly sophisticated NMR measurements, the JNM-ECZL series is equipped with the spectrometer control computer (SCC) dedicated to controlling the spectrometer. The SCC and the operator client computer communicate as network terminals independently of each other. Thus, the SCC can operate as a stand-alone unit, preventing measurement omission and missing data due to incorrect operations by the operator or communication problems. Furthermore, the SCC and the client computer use a state-of-the-art network communication system. This unique system enables the JNM-ECZL series to implement a many-to-many communication paradigm while performing access control, and also allows for the combination of multiple spectrometers and multiple client computers.

The client system Delta NMR software provides advanced data processing and easy-to-use interfacing with the NMR spectrometer. The Delta system is built on a highly virtual architecture, thus providing an operating environment that can adapt to rapid changes in modern computer technology over a long period of time. Supporting the standard graphics environment with the OpenGL, the Delta system can efficiently perform routine data processing.

The JNM-ECZL400R FT NMR system provides excellent functionality and performance well suited for high-level research. In addition, this NMR system offers exceptional general versatility for simple operations, thus shortening the work time for measurements. In spite of being a compact instrument, this innovative NMR system provides the highest quality NMR data and will greatly contribute to research and development.

SPECIFICATIONS

Spectrometer

Standard frequency:	^1H : 400 MHz
Stability:	0.1 Hz/h (^2H internal digital lock used)
Channels:	HF: 1 CH, LF: 1 CH, Lock: 1 CH
Frequency band widths:	
HF:	365 to 430 MHz
LF:	5 to 170 MHz

Note: The specification may be limited depending on the system configuration.
Refer to the specification of the power amplifier included in the configuration.

Spectrometer control computer

CPU:	Intel® Core™ i7-4700EQ Processor
Memory:	8 GB
Hard disk drive:	1 TB
OS:	Microsoft® Windows® 10 IoT Enterprise 2016 LTSB

Pulse controller (sequencer)

Time resolution of control:	5 ns
Pulse width setting:	
Minimum width:	5 ns
Step:	5 ns
Control method:	Multiple-pulse controller (multi-sequencer)
External input/output control:	
Channels:	Input: 4 CH, Output: 6 CH
Signal level:	LVTTL

Radio frequency (RF) transmission/reception method:

Automatic switching between superheterodyne and direct conversion (patented)

RF transmission control

Independent frequency source:	Digitally mixed 4 tones/CH each (8 tones in total)
Frequency range:	5 to 1,300 MHz or more
Frequency shift (offset):	
Range:	Maximum 0 to 10 MHz or more
Step:	Minimum 0.001 Hz or less
Switching time:	20 ns or less
Switching interval:	Minimum 5 ns

Phase shift:

Range:	0 to 360°
Step:	Minimum 0.005° or less
Switching time:	20 ns or less
Switching interval:	Minimum 5 ns

Amplitude shift:

Range:	0 to 100%
Step:	Minimum 0.01% or less
Switching time:	20 ns or less
Switching interval:	Minimum 5 ns

Amplitude attenuation:

Range:	Maximum 0 to 79 dB or more
Step:	1 dB

Total amplitude range: Maximum 159 dB or more (Minimum 0.01% step or less)

Digital-to-analog (DA) conversion:

Sampling rate:	800 Msps (MHz)
Resolution:	14 bit

Sequence memory: 2 GB

Sequence data transfer method:

Streaming (without capacity limitation) (patented)

Power amplifier

Channels: HF: 1 CH, LF: 1 CH

HF

Output frequency:	365 to 430 MHz
Maximum output power:	100 W (pulse), 10 W (CW)
Maximum pulse length:	300 ms
Maximum pulse duty:	10%
Rise/fall time:	100 ns

LF

Output frequency:	10 to 170 MHz
Maximum output power:	300 W (pulse), 30 W (CW)
Maximum pulse length:	300 ms
Maximum pulse duty:	10%
Rise/fall time:	100 ns (20 MHz or more)

RF reception control

Spectrum width: 50 Hz to 10 MHz

Detection method: Digital QD (quadrature detection)
Automatic switching between undersampling and oversampling (patented)

Demodulation:	Frequency shift, phase shift (patented)
Analog-to-digital (AD) conversion:	
Sampling rate:	100 Msps (MHz)
Resolution:	16 bit
Data memory:	2 GB
Data length:	64 bit
Preamplifier	
HF:	Low-noise GaAs amplifier
LF:	Low-noise wideband SiGe amplifier
Shim (For NM-71130SMC4)	
Applicable magnet:	400 MHz narrow-bore superconducting magnet
Shims:	25 Z ₀ , Z ₁ , Z ₂ , Z ₃ , Z ₄ , Z ₅ , Z ₆ , X, Y, XZ, YZ, X ₂ , Y ₂ , XZ ₂ , YZ ₂ , X ₂ Z, Y ₂ Z, X ₃ , Y ₃ , XZ ₃ , YZ ₃ , X ₂ Z ₂ , Y ₂ Z ₂ , X ₃ Z, Y ₃ Z
Coil channel:	28 CH
Field gradient	
Axes (channels):	Z axis (1 CH)
Maximum output current:	±10 A
Maximum pulse length:	20 ms
Maximum pulse duty:	5%
Rise/fall time:	40 us
Output intensity resolution:	16 bit
Time resolution of control:	5 ns
Minimum pulse width:	80 ns
Control method:	Current output enable/disable control
Note: The specification may be limited depending on the system configuration. The actual performance of the gradient magnetic field varies depending on the configuration of optional attachments.	
Variable temperature	
Range:	-170 to +250 °C
Setting accuracy:	0.1 °C
Control method:	Computer control
Note: The specification may be limited depending on the system configuration. The variable temperature range at the sample measurement portion varies depending on the configuration of optional attachments.	

Required power capacity

Spectrometer: Single phase 100 to 240 V AC, 50/60 Hz, 15 A

Note: Refer to the installation guide.

Note: The specification of the entire system may be limited depending on the system configuration.

NOTES

Installation Requirements

Required power capacity (circuit breaker) and grounding

Spectrometer: Single phase 100 to 240 V AC $\pm 10\%$ (maximum 250 V),
50/60 Hz, 15 A

Auxiliary (for attachments): Single phase 100 to 240 V AC $\pm 10\%$, 50/60 Hz, 30 A

Grounding: 100 Ω or less 1

Note: For the required power capacity of the air compressor, superconducting magnet, and data system, refer to the appropriate product specifications.

Installation Room

Temperature range: 17 to 27 °C (within ± 1 °C/h)

Humidity: 70% or less

Ceiling height and 0.5 mT-position: Refer to the specification of the superconducting magnet included in the configuration.

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For JEOL INDIA PVT. LTD.

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SPECIFICATIONS FOR NM-04890SCMYWS: SUPER CONDUCTING MAGNET 400/54 JJYHWS

The NM-04890SCMYWS: SUPER CONDUCTING MAGNET 400/54 JJYHWS is a super self-shielding superconducting magnet (liquid-helium hold time: one year) that is a component of the 400 MHz FT NMR System.

SPECIFICATIONS:

Center magnetic field:	9.39 T (for proton at 400 MHz)
Field attenuation:	4 Hz/h or less (for proton)
Bore diameter at room temperature:	54 mm (nominal value)
Liquid Helium	
Hold time:	≥ 365 days
Refill volume:	120 L
Liquid nitrogen	
Hold time:	≥ 14 days
Refill volume:	63 L
0.5 mT position	
Vertical direction:	1.00 m
Horizontal direction:	0.50 m
Minimum ceiling height:	≥ 2.84 m with anti-vibration table.
Outer diameter:	795 mm or less

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SPECIFICATIONS FOR NM-03812R05S 400 MHZ 5MM FG/RO DIGITAL AUTO TUNE PROBE

1. General

This probe is used for ^1H and multinuclear NMR observation while irradiating ^1H , or for ^1H NMR observation while irradiating one nucleus among multiple nuclei and applying a pulsed magnetic field gradient to a sample using a 5 mm sample tube in the FT NMR system. By using the optional Auto Tuning Unit, you can automatically tune the probe for the multiple nuclei.

2. Specifications

Sample tube OD (nominal): 5 mm

Nuclei for observation and irradiation: ^1H , ^{19}F , ^{31}P to ^{15}N , ^{39}K , ^{109}Ag

NMR lock nucleus: ^2H

^1H line shape of chloroform (spinning)

Peak width at half height: ≤ 0.5 Hz

Peak width at 0.55% height: ≤ 6 Hz

Peak width at 0.11% height: ≤ 12 Hz

Spinning side band: $\leq 1\%$ for ^1H

Sensitivity:

≥ 500 for ^1H (0.1% ethylbenzene in the sample tube equivalent to 555-PPT made by Wilmad, one scan)

≥ 550 for ^{19}F (0.05% TFT, one scan)

≥ 200 for ^{13}C (10% ethylbenzene in the sample tube equivalent to 555-PPT made by Wilmad, one scan)

≥ 180 for ^{13}C (ASTM in the sample tube equivalent to 555-PPT made by Wilmad, one scan)

≥ 100 for ^{31}P (0.0485M TPP, one scan)

≥ 30 for ^{15}N (90% formamide, one scan)

90° pulse width:

$\leq 7 \mu\text{s}$ for 1H at 30W
 $\leq 9 \mu\text{s}$ for 19F at 26W
 $\leq 12 \mu\text{s}$ for 13C at 80W
 $\leq 18 \mu\text{s}$ for 31P at 50W
 $\leq 24 \mu\text{s}$ for 15N at 120W

Variable temperature range: -100 to + 150 °C

Gradient magnetic field output: Approximately 0.3 T/m (at 10 A setting)

Duty cycle of the gradient magnetic field at room temperature:

Up to 2% (at 10 A setting)

Up to 0.4% (at 30 A setting)

Pulse duration of the gradient magnetic field current at room temperature:

Up to 20 ms (at 10 A setting)

Up to 10 ms (at 30 A setting)

3. Configuration

Probe body and spinner rotator	1 set
Probe file	1 set

4. Applicable Instruments

JNM-ECZL400S/R

With Best Regards
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SPECIFICATIONS FOR NM-03571HXM32 400 MHZ 3.2MM HXMAS PROBE

General

The NM-03571HXM32 “400 MHZ 3.2MM HXMAS PROBE” is a square type probe attached to the FT NMR System and is used for measuring high-resolution, solid-state NMR. This probe is equipped with a spinner module for a 3.2 mm sample tube that includes a dual resonant circuit tuned to High Frequency (HF) and Low Frequency (LF). This probe can rapidly rotate the sample tube at the magic angle with respect to a static magnetic field (MAS: Magic Angle Spinning).

Specifications

Dimensions:	170 mm × 170 mm × 488 mm (not including protruding portion)
Mass:	Approximately 3.0 kg
Sample tube outer diameter:	3.2 mm
Main LF nuclei:	³¹ P, ⁷ Li, ¹¹ B, ²³ Na, ²⁷ Al, ¹³ C, ⁷⁹ Br, ²⁰⁷ Pb, ²⁹ Si, ⁶ Li, ¹⁵ N
HF nucleus:	¹ H, ¹⁹ F
NMR Lock:	Not available
Maximum input power:	<div>HF (¹H): 60 W</div> <div>LF (¹³C): 180 W</div>
RF intensity for decoupling:	1H: 92 kHz
90° pulse width:	<div>1H: 2.7 μs or less at 60 W</div> <div>13C: 3.0 μs or less at 180 W</div>
Resolution:	0.05 ppm or lower (ADM, FWHM of 13C)
Sensitivity:	210 or higher (HMB, 8 scans, S/N of 13C)
Maximum MAS speed at room temperature:	22,000 Hz (guaranteed 21,000 Hz)
Field Gradients:	Not available

Configuration

400 MHz 3.2 mm XHMAS Probe	1 set
Stick	1 set
Dial chart	1
Probe file	1
Instruction manual	1
Non-magnetic driver	1
Non-magnetic tweezers	1

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JEOL ASIA PTE. LTD & JEOL INDIA PVT. LTD

SERVICE SUPPORT IN INDIA.

Following are the engineers trained to carry out the maintenance and repairs of JEOL systems in India.

Engineer name
Mr. Oi Wataru
Mr. Jackson Youn
Mr. Amit Kumar
Mr. Tarun Sharma
Mr. Rahul Bhardwaj
Mr. Mohit Mehta
Mr. Naveen Dahiya
Mr. Arun Barun Chandra

Following are the staff trained to carry out the application training of JEOL NMR Products systems in India.

Dr. Ong Yiren Derek
Mr. Srinivasa

We are maintaining almost all the installed systems in various parts of country and are having annual maintenance contract of most of them.

With Best Regards
For JEOL INDIA PVT. LTD.

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JEOL NMR USER LIST

<u>Si. No.</u>	<u>Customer's name</u>	<u>Department</u>	<u>Model</u>
1	IISc- Bangalore	NMR Research Center	ECX II 400(SS)
2	IISc- Bangalore	NMR Research Center	ECX II 500
3	IISc- Bangalore	NMR Research Center	JNM ECZ500R
4	JNCASR, Bangalore	NMR Facility	JNM ECZ600R
5	IIT BOMBAY	SAIF	JNM ECZ600R
6	CSMCRI Bhavnagar	NMR Facility	JNM ECZ600R
7	IIT-Kanpur	Dept of Chemistry	ECX 500
8	IIT-Kanpur	Dept of Chemistry	ECS 400
9	IIT-Kanpur	Dept of Chemistry	ECS 400
10	IIT- Roorkee	Dept of Chemistry	ECX II 400(SS+Liq)
11	IIT-Delhi	Dept of Textile	ECA 400(SS+Liq)
12	IIT-Ropar	Dept of Chemistry	ECS 400
13	IIT- Mandi	NMR Facility, Dept of Basic Science	ECX 500
14	NCL-Pune	NMR Research Center	ECX 400(SS+Liq)
15	IISER -Pune	NMR Research Center	ECS 400
16	IISER-Kolkata	NMR Research Center	ECS 400
17	CLRI-Chennai	Chemical Physics Lab	ECA 500
18	NIPER-Mohali	NMR Facility	ECA 500
19	IOCL-Faridabad	NMR Facility	ECA 500(SS+Liq)
20	Banaras Hindu Univ.,	Dept of Chemistry	AL 300
21	Punjab University.	Dept of Chemistry	AL 300
22	Guru Nanak Dev Univ.,	Dept of Chemistry	AL 300
23	Delhi University	USIC, Central Facility	EXP 400
24	Sagar University	Dept of Physics	ECX 500(SS+Liq)
25	Tezpur University	Dept of Chemistry	ECS 400
26	Thapar University	Dept of Chemistry	ECS 400
27	SV University, Tirupati	DST PURSE CENTRE	ECS 400
28	GGSIU University, Delhi	Dept of Chemistry	ECS 400
29	MNIT Jaipur	Dept of Chemistry	ECS 400
30	IMMT Bhuvaneswar	NMR Facility	AL 400
31	Institute of Science Mumbai	NMR Facility	AL 300
32	IMTECH Chandigharh	NMR Facility	ECX 300
33	Unichem-Goa	R&D Center	AL 400

34	Piramal Healthcare	R&D Center	AL 300
35	PI Industries	R&D Center	ECS 400
36	Sapala Organics	R&D Center	AL 400
37	Banaras Hindu University	Chemistry Department	JNM ECZ500R
38	Birla Institute of Technology- Mesra, Ranchi.	Applied Chemistry Dept.	JNM ECZ400S
39	Ravenshaw University.	Dept. of Chemistry.	JNM ECZ400S
40	Guru Nanak Dev University.	Dept. of Chemistry.	JNM ECZ400S
41	PI Industries, Udaipur	R&D Center	JNM ECZ400S
42	HPCL Bangalore	R&D Center	JNM ECZ500R
43	Biological Evans, Hyderabad	R&D Center	JNM ECZ600R
44	Biological Evans, Hyderabad	R&D Center	JNM ECZ400S
45	Sapala Organics, Hyderabad	R&D Center	JNM ECZ500R
46	Karnataka University, Dharwad	USIC, SAIF	JNM ECZ400S
47	Unichem-Goa	R&D Center	JNM ECZ400S
48	Alchem Pharmaceuticals, Delhi	R&D Center	JNM ECZ400S
49	CSIR-IICB Kolkata	NMR Facility	JNM ECZ400S
50	Delhi University	Dept. of Chemistry	JNM ECZ400S
51	Central University of Punjab, Bathinda	Dept. of Chemistry	JNM ECZ600R
52	DRDO-Centre for Fire, Explosive and Environment Safety (CFEES), New Delhi, 110007.	Dept. of Chemistry	JNM ECZ400S
53	Rajiv Gandhi Institute of Petroleum Technology (RGIT) Amethi - 229304, Uttar Pradesh	Dept. of Chemistry	JNM ECZ400S
54	AURIGENE Discovery Technologies, Hyderabad	R&D Center	JNM ECZ400S
55	Mangalore University, Mangalore	Dept. of Chemistry	JNM ECZ400S
56	CSIR-NEIST, Jorhat	Dept. of Chemistry	JNM ECZ400R
57	NISER -Bhubaneshwar	Dept. of Chemistry	JNM ECZ400R

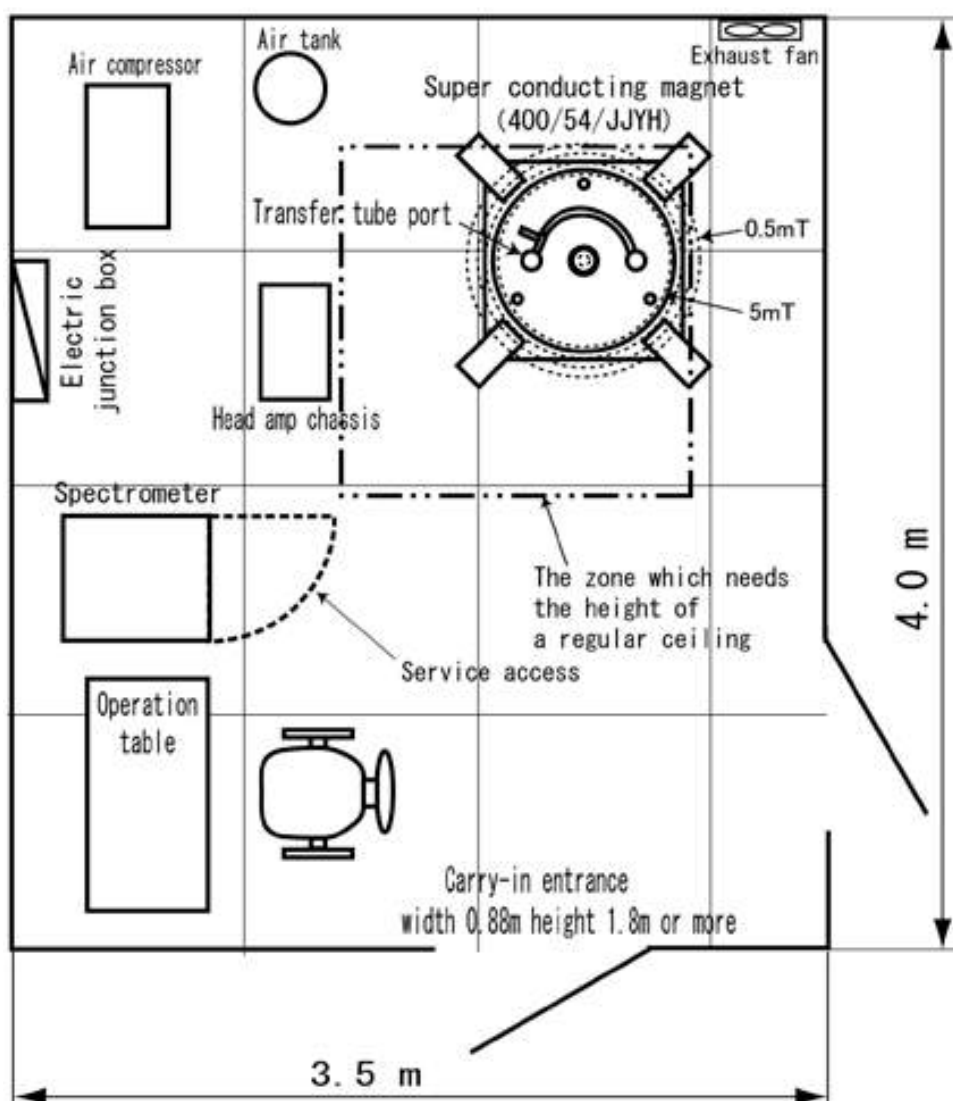
58	Sapala Organics, Hyderabad	R&D Center	JNM ECZ400S Spectrometer upgradation
59	Sastra University, Tanjore	NMR Facility	JNM ECZ600R
60	NIPER, Kolkata	Central NMR Facility	JNM ECZ400S
61	NIPER, Raebareli	Central NMR Facility	JNM ECZ500R
62	Aligarh Muslim University, Aligarh	NMR Facility	JNM ECZ400S
63	Central University of Hyderabad	ACRHEM	JNM ECZ600R
64	IIT Jammu	NMR Facility	JNM ECZ500R
65	IIT Dharwad	Dept. of Chemistry	JNM ECZ400R
66	Kurukshetra University	Dept. of Chemistry	JNM ECZ400S
67	IIT Ropar	NMR Facility	JNM ECZ600R
68	Govt. College for Women, Thiruvananthapuram	Dept. of Chemistry	JNM ECZ400S
69	Kalinga Institute of Industrial Technology (KIIT) Bhubaneswar.	School of Applied Sciences.	JNM ECZ400S
70	IIT Roorkee	Dept. of Chemistry	JNM ECZ500R
71	NIT Calicut	Dept. of Chemistry	JNM ECZ500R
72	IARI New Delhi	Agricultural chemicals	JNM ECZ400R
73	IIT Kanpur	NMR Facility	JNM ECZ500R
74	DSK Innosciences Pvt Ltd Hosur	NMR Facility	JNM ECZ400S
75	GVK Biosciences pvt ltd, Hyderabad.	NMR Facility	JNM ECZ400S
76	NIPER MOHALI	NMR Facility	JNM ECZ600R
77	Babasaheb Bhimrao Ambedkar University Lucknow	Dept. of Chemistry	JNM ECZ400S
78	Mohanlal Sukhadia University Udaipur	Dept. of Chemistry	JNM ECZ400S
79	TIFR Hyderabad	NMR Facility	JNM ECZ600R
80	IIT Delhi	Central Facility	JNM-ECZL400G
81	Abani Labs Pvt Ltd Hyderabad	NMR Facility	JNM-ECZL400S
82	Daicel Chiral Technologies (India) Pvt Ltd, Hyderabad	R&D Center	JNM-ECZL500G
83	Nayara Energy, Ahmendabad	NMR Facility	JNM-ECZL400S

Pre-Installation Requirements for JEOL Model JNM - ECZL400R NMR

Sr. No	Parameters	Requirements
1	Power Load	Single Phase 230V AC 5 KVA for Spectrometer Three Phase 400V AC 3 KW for Compressor
2	No. of sockets - 16 Amp	5 no's of 16A/6A Multi pin Sockets
3	No. of sockets - any other	Three No's of single phase 2 Pole 32 Amp MCB's (One for Spectrometer and two for UPS input and output) One no of 3 Phase 4 Pole 32 Amp MCB for compressor
4	Earthing	Separate earthing has to be provided. Ground to Neutral Voltage should be less than One Volt
5	Gas supply/ Paneling	One Nitrogen gas cylinder should be kept in the laboratory permanently. This gas is used to fill Liquid Nitrogen into the magnet every week. A Double Stage regulator capable of adjusting the outlet gas pressure from 0 to 2 Kg/Cm ² is required. It has to be connected to the Nitrogen Gas cylinder.
6	Exhaust system	Exhaust fan of 15 inches X 15 inches or more is required
7	Table dimensions	A Table of 4 ft X 2.5 ft for keeping the data station
8	Room environment conditions	Temperature of the room to be maintained between 20 to 25 Degree C
9	Ladder:	An Aluminum Ladder of Size 2.5 meters is required.
10	Ceiling Height:	The Clearance between the floors to Ceiling should be 3 meters or more.
11	Approach to the NMR Room for Magnet Box Movement (At the time of installation only)	The Magnet Box is of Dimensions 1.1mts X 1.1mts X 2 mts (W X D X H) approximately. The path has to be created to take the NMR magnet Box from the unloading point to the room.

12	Approach to NMR Room for Cryogenics:	<p>The Liquid Nitrogen Dewar has to be moved in and out of the room every week. The Liquid Helium Dewar has to be taken to NMR Room for refilling once in every 10 -11 months. The path way width should be a minimum of 1.6 mts. The height can be normal.</p> <p>The approach to NMR Room should be provided with necessary ramps where ever required for easy movement of these Dewar's.</p>
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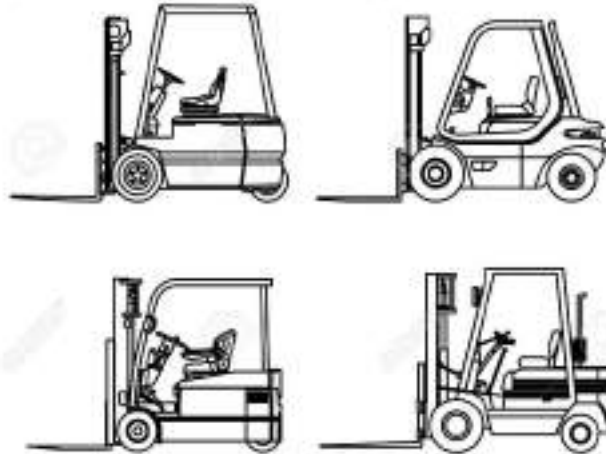
LAYOUT EXAMPLE FOR JNM-ECZL400R



Things which are needed to be taken care by the customer:

1. Forklift:

A forklift needs to be arranged during the unloading of the instrument. The forklift should be able to lift at least 3 tons of weight.



2. Hand Palette:

A hand palette needs to be arranged to transfer the instrument boxes from the entrance of the building to the instrument site. The device should withstand at least 2 tons of weight.



3. Magnet Hoisting Mechanism:

This mechanism must be prepared by the customer during the hoisting of the superconducting magnet. This device is comprised of a chain pulley. The chain pulley should be able to lift at least 2 tons of weight.





With Best Regards
For JEOL INDIA PVT. LTD.

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Usage Rate Chart

Equipment Name	400 MHz NMR Spectrometer
Research Facility	Central
Model and make	JNM-ECZL400R
Year of Installation and Location	2024 and W104 (Vikram Sarabai Block)
Source of Fund	Extrenal Fund

(i) FOR LIQUID SAMPLE:

S. No.	Experiment	Rate (Academia- Internal) *	Rate (Academia- External)	Rate (R&D Labs, Startups)	Rate (Industry)
1.	^1H , ^{19}F , ^{31}P	0.00	₹ 300/-per sample (CDCl_3)	₹ 300/-per sample (CDCl_3)	₹ 600/-per sample (CDCl_3)
2.	^{13}C , DEPT	0.00	₹ 350	₹ 350	₹ 700
3.	2D (per measurement)	0.00	₹ 600	₹ 600	₹ 1000

Additional charges for the solvents other than CDCl_3 :

4.	DMSO-d6, Acetone-d6	0.00	₹ 250	₹ 250	₹ 300
5.	D_2O , Methanol-d4	0.00	₹ 300	₹ 300	₹ 500

*Solvent charges can be applicable if the samples are not prepared by the users

Solvent Charges (Rs) [only for the internal users]	
CDCl_3	150
DMSO-d6, Acetone-d6	200
D_2O , Methanol-d4	300

[Signature]

(ii) FOR SOLID SAMPLE:

S. No.	Experiment	Rate (Academia- Internal) *	Rate (Academia- External) #	Rate (R&D Labs, Startups) #	Rate (Industry)**
1.	400 MHz NMR -Solid state (¹³ C, ²⁷ Al, ⁷ Li, ²⁹ Si, ³¹ P, ¹⁵ N etc)	0.00	₹ 2000/- per hour	₹ 2000/- per hour	₹4000/- per hour
# 1500/- per every additional hr; **2500/- per every additional hr					


Note:

1. Academia-Internal means researchers belongs to the same institution.
2. Academia-External means researchers belongs to the other institutions.

Approved by


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