

रसायनशास्त्र विभाग

October 15, 2019

Subject: Compliance for the minutes of meeting of Management Council held on 04-09-2019 with respect to item no. 196

As per the suggestions of Management Council held on 04-09-2019 with respect to item no. 196, the following changes have been made in the guidelines of Consultancy Cell of Department of Chemistry.

- 1) The word "PG Department of Chemistry" has been replaced by "PG Department of Chemistry & other departments of RTMNU (existing students)".
- 2) The word "RTMNU Departments and other Educational Institutions" has been replaced by "Other Educational Institutions, affiliated colleges and ex-students of RTMNU".

The improved guidelines with the inclusion of above two amendments (Page No. 7-8) have been attached for necessary information.

Encl:

- i) Minutes of meeting of Management Council held on 04-09-2019 with respect to item no. 196
- ii) Consultancy guidelines of Department of Chemistry

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Prof. N. N. Karade

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तुकडोजी
महाराज नागपूर
विद्यापीठ



Consultancy Brochure









Department of Chemistry
(Institutional Consultancy Cell)

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1] Constitution of consultancy cell: The composition of consultancy cell for Department of Chemistry comprises following members.

S. N.	Name	Designation	Signature
1.	Prof. Mrs. J. S. Meshram	Head of the Department	 
2.	Prof. N. N. Karade	Coordinator of Consultancy Cell	 
3.	Prof. R. M. Jugade	Member of Consultancy Cell	 
6.	Dr. V. M. Tangde	Member of Consultancy Cell	 

2] Objectives of consultancy cell:

Department of Chemistry, RTM Nagpur University promotes the use of its infrastructural resources for serving external organizations, agencies and individuals, not only as a source of income, but as an opportunity for teachers, technical staff, research scholars and students to involve in real life problems and gain valuable experience and to foster linkages with industries and external organizations. These guidelines are issued to streamline and enable all consultancy services offered by the Department of Chemistry of RTM Nagpur University, Nagpur. These rules may be reviewed normally in three years or as per needs.

Specific objectives of consultancy through instrumentation facility:

- To carry out analysis of samples received from researchers working in universities, research institutions and industries.
- To make available facilities to scientists to carry out measurements on sophisticated instruments not available in their own institutions.
- To initiate advanced level research in high priority areas.
- To organize a pool of experts from various scientific disciplines and make them available for research interactions.
- To provide specialized training for scientific and technical personnel for up-keeping, maintenance and essential servicing of instruments from undergraduate to post graduate Students.
- To act as a common platform for organizing short-term courses and workshops on sophisticated instruments as well as imparting hands-on training to research scholars, teachers, students and personnel from other laboratories, universities and industries.
- To develop skilled manpower and create expertise in specific area.
- To train technicians for maintenance and operation of sophisticated instruments.
- To participate in teaching of formal courses on instrumentation, conducted by other departments/agencies.
- To provide consultancy service in instrumentation to industry/Govt. departments/other institutions.

3] Details of Departmental (Institutional) Consultancy

4.1 Liquid Chromatography Mass Spectrometer (LCMS/MS) Triple Quadrupole

4.2 High Performance Liquid Chromatography (HPLC) with PDA detector

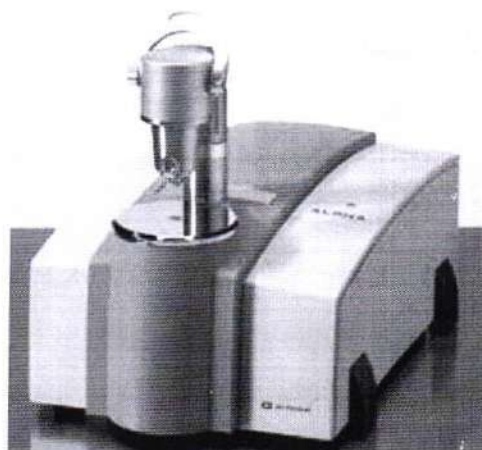
4.3 Fourier Transform Infrared Spectrometer (FTIR)

4.4 UV-Visible Spectrophotometer

4.5 Gamma Irradiation Chamber (GC-1200)



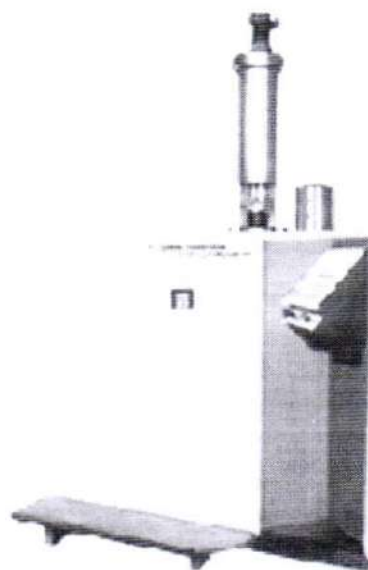
LCMS/MS Triple Quadrupole



FTIR Spectrometer



UV-Visible Spectrophotometer



Gamma Irradiation Chamber

3.1] Liquid Chromatography Mass Spectrometer (LCMS/MS) Triple Quadrupole

3.2] High Performance Liquid Chromatography (HPLC) with PDA detector

Instrument Details (LCMS and HPLC):

Make	Shimadzu Japan
Model	: LCMS/MS 8040
Specification	: 1] LCMS/MS triple quadrupole 2] HPLC with PDA detector 3] HPLC PDA Detector - Massspectrometer
Working Principle	: Liquid chromatography / Mass Spectroscopy (LC / MS) is a technique which combines high performance liquid chromatography HPLC, a powerful analytical separation and quantification technique with mass spectroscopy, a powerful analysis & detection technique.
Main Features of the instrument	: <ul style="list-style-type: none"> • Mass Range: 10-2000 amu Binary HPLC system with PDA detector • Ionisation Method : API using ESI positive & negative mode • Binary HPLC system with Mass as detector • Binary HPLC system with PDA detector (190-800 nm) • HPLC PDA Mass Spectrometer.
Applications	: <ul style="list-style-type: none"> ❖ Qualitative Analysis ❖ Quantitative Analysis
User Information	: <ol style="list-style-type: none"> 1) Expected structure or mass should be provided. 2) Solvent for mobile phase should be mentioned or solubility of compound in solvent should be given. 3) As HPLC is available in most departments, LC of submitted samples indicating the operating conditions should be supplied along with the sample. 4) At present C8 and C18 columns are available. 5) You can submit the column of your interest for separation or repeatability of HPLC run. 6) HPLC related data or details of method development should be provided, if available. 7) Source of the compound should be mentioned. 8) MS-DS (Material Safety Data Sheet) should be given along with samples to ensure that there is no toxic sample being given. Samples should not be toxic or hazardous.
Contact us	: nnkarade@gmail.com Mobile: 8055515493 (Prof. N. N. Karade)

3.3] Fourier Transform Infrared Spectrometer (FTIR)

Make	Brüker
Model	: Alpha-T
Specification	: ZnSe Optics, 4000 cm^{-1} to 400 cm^{-1}
Applications	: ❖ Qualitative Analysis of functional groups
Contact us	: nnkarade@gmail.com Mobile: 8055515493 (Prof. N. N. Karade)

3.4] UV-Visible Spectrophotometer

Make	Shimadzu, Japan
Model	: UV-1800
Specification	: <ol style="list-style-type: none"> 1. Range: 190 nm to 1100 nm 2. Monochromator: Blazed holographic grating with Crenzy Turner Mountings. 3. Spectral Bandwidth: 1 nm 4. Wavelength accuracy: $\pm 0.3\text{nm}$ over entire range 5. Photometric accuracy: Minimum ± 0.002 Abs 6. Photometric repeatability: ± 0.001 Abs 7. Detector: Silicon Photodiode
Working Principle	: Double beam Du lamp
Applications	: ❖ Qualitative Analysis ❖ Quantitative Analysis
Contact us	: vijaytn6@gmail.com Mobile: 9545112555 (Dr. Vijay M. Tangde)

3.5] Gamma Irradiation Chamber (GC-1200)

Make	BRIT, Mumbai
Model	: GC-1200
Specification	: Co-60 source with dose rate of 7.1 kGy/ h as on 01.02.2019
Applications	: ❖ Gamma irradiation of inorganic materials ❖ Degradation studies of polymers ❖ Degradation studies of dyes ❖ Mutation studies in plants
Contact us	: ravinj2001@yahoo.co.in Mobile: 9420254377 (Prof. R. M. Jugade)

4] Rates of Instrumental Analysis

The instruments are available to all the students, research scholars and faculty members of the university and affiliated institutions and also other educational institutions, research labs and industry also on chargeable basis as mentioned in the table below. The users are to submit the requisition forms with the samples.

4.1] Charges for HPLC/LCMS analysis per sample:

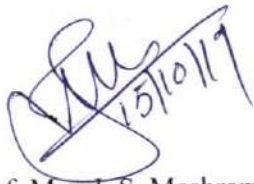
S. N.	Facilities	PG Department of Chemistry & other departments of RTMNU (existing students)	Other Educational Institutions, affiliated colleges and ex-students of RTMNU	R & D Labs	Industries
1	HPLC with PDA detector (Qualitative)	200 + 18% GST	300 + 18% GST	500 + 18% GST	700 + 18% GST
2	HPLC with PDA detector (Quantitative)	250 + 18% GST	350 + 18% GST	450 + 18% GST	800 + 18% GST
3	LCMS with ESI (Qualitative)	300 + 18% GST	400 + 18% GST	800 + 18% GST	1000 + 18% GST
4	LCMS with ESI (Quantitative)	800 + 18% GST	1000 + 18% GST	1200 + 18% GST	1600 + 18% GST
5	HPLC + PDA detector + MS/MS (Qualitative)	1000 + 18% GST	1200 + 18% GST	1500 + 18% GST	1800 + 18% GST
6	HPLC + PDA detector + MS/MS (Quantitative)	1200 + 18% GST	1400 + 18% GST	1600 + 18% GST	2000 + 18% GST
7	Interpretation of HPLC, LCMS and LCMS/MS data	50 + 18% GST	100 + 18% GST	200 + 18% GST	300 + 18% GST


Notes: 1] The charges of the sample analysis for LC-MS is 2 min to 30 min.


2] For quantitative analysis, the submission of standard sample is necessary.

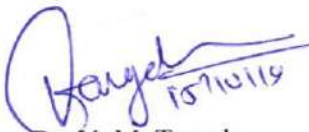
3] For HPLC/LCMS analysis, the details of method development should be provided.

4] Minimum quantity required for above analysis is 5 mg.


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Member
Consultancy Cell

4.2] Charges for FTIR analysis per sample:

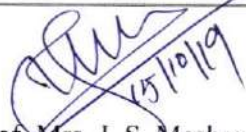
S. N.	Facilities	PG Department of Chemistry & other departments of RTMNU (existing students)	Other Educational Institutions, affiliated colleges and ex-students of RTMNU	R & D Labs	Industries
1	FTIR analysis per sample (Qualitative)	60 + 18% GST	80 + 18% GST	200 + 18% GST	400 + 18% GST
2	Interpretation of FTIR data	50 + 18% GST	70 + 18% GST	100 + 18% GST	200 + 18% GST

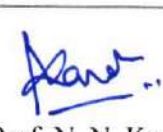
4.3] Charges for UV-Visible Spectrophotometer analysis per sample:

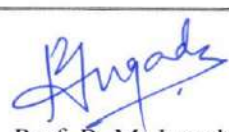
S. N.	Facilities	PG Department of Chemistry & other departments of RTMNU (existing students)	Other Educational Institutions, affiliated colleges and ex-students of RTMNU	R & D Labs	Industries
1	UV-Vis Spectra	100 + 18% GST	200 + 18% GST	300 + 18% GST	500 + 18% GST
2	Photometric Determination	200 + 18% GST	300 + 18% GST	500 + 18% GST	1000 + 18% GST

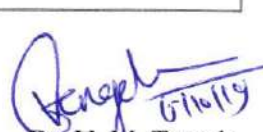
4.4] Charges for Gamma Irradiation Chamber (GC-1200)

S. N.	Facilities	PG Department of Chemistry & other departments of RTMNU (existing students)	Other Educational Institutions, affiliated colleges and ex-students of RTMNU	R & D Labs
Upto 5 min	100 + 18% GST	200 + 18% GST	300 + 18% GST	400 + 18% GST
5 to 30 min	200 + 18% GST	300 + 18% GST	400 + 18% GST	600 + 18% GST
More than 30 min	300 + 18% GST	400 + 18% GST	600 + 18% GST	800 + 18% GST


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 Consultancy Cell


 Dr. V. M. Tange
 Member
 Consultancy Cell

5] Organization of training programme or workshop activity:

The Department will organize training programmes or workshops for students, teachers and industry personnel. The tentative features of such training programme are:


- Affiliated colleges will be informed about such training programmes periodically through sending emails or by publications of information brochure or by mouth publicity.
- A batch of 10-20 students can be accommodated at a time.
- Experts from outside can be hired for making this event more attractive.
- Appropriate registration fees will be charged from the participants to meet all the working expenses.
- ***Each attendee will receive a Certificate of Attendance.***

6] Bank account for consultancy cell:

A separate bank account should be maintained for the deposition of all payments received through consultancy. The necessary approval of Hon'ble Vice-Chancellor should be taken for opening a bank account for the purpose of Consultancy Cell. This account will have following formal headings:

Name of bank	: Chemistry Consultancy Cell
account	
Type of account	: Savings
Mode of operation	: Joint account operated by The Head and the Coordinator of Consultancy Cell

All payments related to consultancy work shall be made by the client in the form of Bank DD or cash or cheque drawn in favour of "Chemistry Consultancy Cell". Net banking may also be used if the client so desires. The receipt of consultancy fee should be issued to the client or consumer. No consultant shall receive any amount in his/her name directly from the client towards consultancy work.



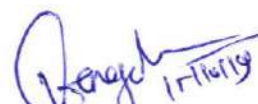
Prof. Mrs. J. S. Meshram
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Department of Chemistry



Prof. N. N. Karade
Coordinator,
Consultancy Cell



Prof. R. M. Jugade
Member
Consultancy Cell



Dr. V. M. Tangde
Member
Consultancy Cell


7] Distribution of Budget and Accounts for consultancy


Consultancy budget formulation: All consultancy budgets shall consider the following three components:


- (i) *Working Budget/Direct Expenditure:* This shall cover actual expenditure incurred in providing the consultancy service including cost of materials, stationary, consumables, communication, printer, CD/DVD, software upgradation, fees of service engineer, annual maintenance contract (AMC), comprehensive maintenance contract (CMC) etc. Working budget should be assigned at 70% and will be with Department of Chemistry.
- (ii) *Overhead Charges/Indirect Expenses:* This shall be fixed at 10% for institutional consultancy and cover administrative cost and also charges for utilization of space, water, electricity, internet etc. This amount will be credited to the account of RTM Nagpur University at the end of each financial year.
- (iii) *Hiring the technical staff:* As the Department of Chemistry is not having a regular staff for the technical operation of all the scientific equipment, it is proposed to take help of registered research scholars of the department for making sample analysis. Therefore, an allowance of 20% of the consultancy grant should be given to the respective research scholars involved in actual sample preparation and its analysis.
- (iv) *GST:* The consultant shall propose to the client additional amount of 18% of the budget (or at rates prevalent) as GST.

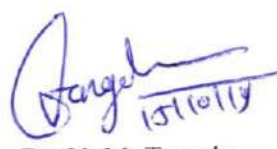
The consultancy fee shall be distributed as under:

Consultancy Category	Working budget with Dept. of Chemistry	Allowances of research scholar for technical support	RTMN University overhead charges
Departmental (Institutional) Consultancy	70%	20%	10%


 Prof. Mrs. J. S. Meshram
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 Consultancy Cell

Rules for utilizing consultancy budget:

1] Utilization of working budget: The Head of Consultancy Cell can utilize working budget (70%) for the procurement of consumables, stationary, printer, furniture, air conditioners required for laboratory and any other items required for smooth functioning of equipment involved in offering consultancy. For the items above Rs. 5,000/-, a due approval as per the accounts code should be taken.

2] Allowances for research scholar for technical support: The Head of the Department in consultation with the Coordinator and other members of Consultancy Cell will identify suitable research scholars for the necessary technical support in the operation of equipment. These respective students will be given 20% of the total consultancy fee received towards sample analysis.

3] Training workshop expenditure: The department will organize training workshop for students, research scholars, teachers and industry personnel with appropriate registration fees. The consultancy budget head of 70% can be utilized for organizing such training workshop, if required in addition to registration fees.



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Consultancy Cell



Dr. V. M. Tangde
Member
Consultancy Cell

8] Mode of payment:

- 1) The payment should be made by NEFT/IMPS/Account transfer/DD/Cheque/RTGS. Only online transactions are accepted.
- 2) DD or cheque in the name of "**Chemistry Consultancy Cell**" can be accepted for sample analysis.
- 3) NEFT /IMPS /Account transfer may not be considered valid if the user fail to intimate the UTR no, Amount and date of transaction while filling the offline registration form.
- 4) Details of Bank account of Chemistry Consultancy Cell:

1	NAME of bank account	Chemistry Consultancy Cell
2	Account number	
3	IFSC code	
4	Branch code	
5	MICR code	
6	Bank name	Bank of India
7	Branch Name	RTMN University Branch
8	Branch city and PIN code	NAGPUR 440 033
9	Account type	Savings

- 1) Download the online Application of Sample Analysis Request Form.
- 2) Fill the Payment and sample details.
- 3) Submit/send samples along with a copy of the NEFT/IMPS/Account Transfer or DD details and Offline request form with Supervisor/Authorized Signature and stamp.

The amount transferred without submitting the NEFT/DD details will not be accounted at any instance.

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Member
Consultancy Cell

Appendix-1

Department of Chemistry Consultancy Cell

Sample Analysis Request Form

Name:		
Address:		
Email:	Mobile:	
Type of analysis required:		
Number of samples:		
Details of samples (solubility and m/z for mass analysis):		
Category (Please tick whichever is applicable): <ul style="list-style-type: none"> • PG Department of Chemistry and other departments of RTMNU • Other Educational Institution, affiliated colleges and ex-students of RTMNU • R & D Labs • Industries 		
Payment Details (Cashless transactions only): NEFT/RTGS/Cheque/DD details:		
Signature of the applicant	Name, Signature and seal of HOD/Principal/Guide/Supervisor/Managing Director	
Signature of Faculty in Charge	Signature of Coordinator Consultancy Cell	Signature of Head, Department of Chemistry
For office use only: Date of analysis: Invoice number dated:		

Contact details:

Prof. Mrs. J. S. Meshram	The Head, Department of Chemistry	drjsmeshram@gmail.com
Prof. N. N. Karade	LCMS, HPLC and FTIR	nkcarade@gmail.com 8055515493
Prof. R. M. Jugade	Gamma Irradiation Chamber	ravinj2001@yahoo.co.in 9403753623
Dr. V. M. Tangde	UV-Visible Spectrophotometer	vijaytn6@gmail.com 9545112555
