Minutes of the Meeting of Board of Studies of Department of Chemistry, School of Chemical Sciences of CUK, Kalaburagi, held during 26th January, 2019 at CUK, Kalaburagi.

Venue: On 26th January 2019, Dept. of Chemistry, School of Chemical Sciences, CUK, Kadaganchi

#### Members present:

- 1. Prof. K. K. Balasubramanian, Formerly Professor, Department of Chemistry, IIT Madras
- 2. Prof. K. C. Kumara Swamy, Professor, School of Chemistry, University of Hyderabad
- 3. Prof. G. R. Naik, Dean, School of Chemical Sciences, CUK (Onduty-out of station)
- 3. Dr. Harish Holla, CUK, BOS Chairman & Convener
- 5. Dr. K. Hanumae Gowd, CUK, Dept. Of Chemistry
- 6. Dr. N. S. Venkata Narayanan, CUK, Dept. Of Chemistry
- 7. Dr. Bharat Kumar, CUK, Department of Physics, Allied Department Member (on duty out of station)
- 8. Dr. Deepak Samuel, CUK, Department of Physics, Allied Department Member
- 9. Dr. G. Janaradhan Reddy, CUK, Department of Mathematics, Allied Department Member
- 10. Dr. P. Duraippandi, CUK, Dept. Of Chemistry (Special Invitee)

## The following points have been recommended by the BOS members:

- 1) The Inorganic Chemistry text book by Catherine Housecroft should be included as a reference and should be made available to students.
- 2) Project Allotment of MSc students should be considered strictly on the basis of merit. Allotment should be done in the month of September/October of the Academic year.
- 3) The course CYP-510 may be renamed to 'Research training & Project Report' and credit may be reduced to eight (8). This course need not come under the purview of UGC circulated plagiarism circular.
- 4) Evaluation of the CYP-510- Research training & Project Report for marks may be done as follows: Research supervisor 40%; Departmental committee including the research supervisor 60% [open seminar presentation (40%) & project report write up (20%)].
- 5) Submission format for the CYP-510- Research training & Project Report may be as follows: Title, Abstract, Introduction, Objective/s, Experimental Section, Results & Discussion, Conclusion & Future Scope and reference in specific standard format.
- 6) For NPTEL or MOOC or SWAYAM courses, only take TOTAL MARKS given as per NPTEL or MOOC certificate rather than strictly adhering to CUK format of 40% for the internal and 60% for end semester examination. If the student passes under the NPTEL or MOOC or SWAYAM courses then the university should consider the end result declared by the respective online agencies.
- 7) Open elective should be completed by students within first two semesters (3 credit). Students can opt for open elective either from the University or from NPTEL /SWAYAM online courses
- 8) Students can opt for foundation course from online through NPTEL or SWAYAM, if offline is
- 9) Points 1 to 8 in the current minutes are applicable immediately and should be implemented starting with the current M.Sc. Ist & IInd year-Chemistry batches.
- 10) The course CY-501 Group Theory & Molecular Spectroscopy may be split into two courses, namely, CY-413 - Chemical applications of Group Theory as 2 credit course and CY-501-Molecular Spectroscopy as 4 credit course.

Minutes of Board of Studies - Department of Chemistry

Kumaia Pranque 2019/2019

K. K. Balandoonnavian 26/1/2019

- 11) The new course CY-413 Chemical applications of Group Theory may be introduced in the M.Sc. IInd Semester.
- 12) The course CY-501- Molecular spectroscopy (Microwave, IR, Raman, NMR, ESR and NQR) will be of 4 credit in the M.Sc.-IIIrd semester.
- 13) One more unit of Bio-inorganic Chemistry may be added in the course CY-410-Chemistry of Life, and the number of credits for the same course may be increased to 4 (four).
- 14) In the M.Sc.-III<sup>rd</sup> Semester elective (CY-505), individual faculties can float their choice of electives and students have freedom to choose any one according to their preference. This elective will be of only 2 credit. The number of students opting for this elective should be a minimum of five (5).
- 15) In the M.Sc.-IVth semester both the electives (CY-507 & CY-508) may be discontinued and a new course 'CY-507-Advanced Organic Chemistry' of 4 credit may be introduced.
- 16) PhD course work shall be completed by the research scholars within first two semesters as per UGC guidelines.
- 17) In the PhD course, apart from CY-601-Research Methodology course, all other courses can be opted by the PhD scholars either through online (NPTEL, SWAYAM) or offline mode.
- 18) Members of the BOS recommends to recruit a specialist physical chemistry faculty for teaching post graduation due to severe shortage of teaching physical chemistry courses.
- 19) BOS members of the opinion that Department severely lack instrument facility for teaching and research. Therefore, BOS members strongly recommend to procure essential instruments attached in the annexure-I for running MSc and PhD programme.
- 20) BOS members strongly recommend to recruit laboratory technicians & laboratory attenders at the earliest.
- 21) The detailed modified/ New course structure and content is attached as Annexure-II.

Prof. G. R. Naik

Central University of Karnataka

K-KBalambry me wan

IIT Madras

Balanon Mewan Kumala Swamy 2019
Prof. K. K. Balasubramanian Prof. K. C. Kumara Swamy

26/1/2019 University of Hyderabad

Dr. Harish Holla

Central University of Karnataka

Dr. K. Hanumae Gowd 26/1/19

Central University of Karnataka

Dr. G. Janardhan Reddy

Central University of Karnataka

Central University of Karnataka

Dr. N. S. Venkata Narayanan

Central University of Karnataka

Dr. Bharat Kumar

Central University of Karnataka

Central University of Karnataka

(Established by an Act of the Parliament in 2009)





Administrative Building, Aland Road, Dist Gulbarga – 585 367 Phone (08477) – 226714 Telefax: 226703 Website: www.cuk.ac.in

Website: www.cuk.ac.in E: registrar@cuk.ac.in

No. CUK/Acad-III/F-3693/1/2020-21/132

26 July, 2020

### OFFICE ORDER

Sub: Constitution of Board of Studies in Dept. of Chemistry - reg.

Ref: 1) Recommendations of the Dean, School of Chemical Sciences dated 17.07.2020.

2) Approval of the Hon'ble Vice-Chancellor's dated 17.07.2020.

In terms of provisions of Statute 16(2) of Central University Act 2009, read with Ordinance No. 15 of CUK, Board of Studies for the Dept. of Chemistry, School of Chemical Sciences is constituted for a period of three years with the following members as per the terms and condition stipulated in the Ordinance.

Extract of the ordinance	Name of	the members	
Head of the Department: Chairman & Convenor	Prof. Konkallu Hanumae Gowd		
All the Professors of the Department/Centre (ex-officio members).	Prof. Konkallu Hanumae Gowd		
The senior most Associate Professor and the senior most Assistant Professor by rotation shall be a member of Board of Studies to be nominated by the Vice- Chancellor	Dr. Venkata Ramana Doddi Associate Professor Department of Chemistry, CUK Dr. Harish Holla (ex-Coordinator) Assistant Professor Department of Chemistry, CUK		
Two faculty members nominated by the Vice Chancellor from amongst the faculty members belonging to allied/ cognate subjects.	Dr. Veeresh G. Kasabegoudar Associate Professor & HOD Department of Electronics & Communication CUK Dr.Rasmita Samal Assistant Professor Department of Life Sciences, CUK		
Two subject experts, not in the service of the university, to be nominated by the Vice chancellor	Prof. B.R. Jagirdar, Department of Inorganic and Physical Chemistry (IPC) Indian Institute of Science (IISc), Bangalore-560012, India		
	Prof. Hosahudya N. Gopi Department of Chemistry Indian Institute of Science Education and Research (IISER) P Pune, Maharashtra – 411008	une	
Two experts to be invited by the Chairman n case need is felt for that persons inputs	Academics (M.Sc/PhD course)*	Certificate course*	
for specialized area	Dr. Pallepogu Raghavaiah Associate Professor Department of Chemistry, CUK	Dr. Ananda Kuppanna, Ph.D. Sr.GM, API-R&D Mylan Laboratories, Hyderabad	
	Dr. N. S. Venkata Narayanan Assistant Professor Department of Chemistry, CUK	Dr. Rajesh Sonti Assistant Professor NIPER – Hyderabad.	

(\*Two experts only will be invited by the Chairman in case need is felt for that persons inputs for specialized area)
The members of Board of Studies are requested to serve the committee.

To

All members of the Board of Studies

Copy to:

- 1) Dean, & All Heads in School of Chemical Sciences
- 2) Office of the PVC/COE/FO
- 3) PS to Vice-Chancellor
- 4) Concerned File.

कुलसाचन/REGISTRAR
कुलसाचन/REGISTRAR
किनीएक केन्द्रीय विश्वविधालय
Central University of Karnataka
गुलबर्गा/GULBARGA.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

Date: 06-08-2020

Minutes of the online meeting of Board of Studies (BOS), Department of Chemistry, School of Chemical Sciences, Central University of Karnataka, Kalaburagi held on 06<sup>th</sup> August 2020 on Webex-platform.

The Board of Studies (BOS) members of Department of Chemistry are as follows:

- Prof. Balaji R. Jagirdar Professor, Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India.
- Prof. H.N. Gopi, Professor, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.
- 3. Dr. Veeresh G. Kasabegoudar, Associate Professor, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India
- Dr. Rasmita Samal, Assistant Professor, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India
- Prof. Konkallu Hanumac Gowd, Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Venkata Ramana Doddi, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Pallepogu Raghavaiah, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Harish Holla, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. N. S. Venkata Narayanan, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

## The following points have been recommended by the BOS members:

- In view of current COVID-19 pandemic, the committee strongly recommends for conducting online-examination for Semester-IV students of M.Sc Chemistry, online classes for Semester-I and Semester-III students of M.Sc Chemistry and online classes for Semester-I of Ph.D Chemistry programs.
- In view of the learning outcomes of M.Sc students, only online theory classes may be conducted for Semester-I and Semester-III courses of M.Sc Chemistry and Semester-I course PhD Chemistry. Laboratory courses may be swapped with corresponding theory courses of equal weightage credits. Accordingly, the courses recommended for semesters are as follows-

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

### Existing-Batch of M.Sc Students:

#### Semester-III

No. of credits = 18

Code	Type	Title	Credits	Hours
CY-501	Core-0	Molecular Spectroscops	3,76,70	220415
CY-502	Cappe-10	Organometallies		3
CY-503	Cont-11	Organic Chemistry-ill	1	3
CY-504	Corc-12	Spectroscopic Identification of Organic Compounds	4	4
CY-5()5	DSE-I	Elective-I	0	7
CY-509	FC-1#	Elective Foundation	2	2

#### Semester-IV

No. of credits = 16

Code	Type	Title	Credits	Hours
CY-507	Core-13	Advanced Organic Chemistry	4	1
CYL-506	SEC-5	Advanced Chemistry laboratory	2	4
CYP-510	SEC-6	Research training & Project report	-	16
CY-511	FC-I	Servous (Compulsions foundation course)	2	9
		Porar		

(Swapped courses are highlighted)

New-Batch of M.Sc Students:

#### Semester-I

No. of credits = 22

Code	Type	Title	Credits	Hours
PCHTCCTbul	Chiest	Inorganic Chemistry 1	Creares	Hours
PCHICC1002	Lore 7	Organic Chemistry - 1	A	7
PCHTCCTOOL	Cure-d	Physical Chemistry 1	7	4
PCHTCE 1001	Croppel	Introduction to Supposed Chemostry		4
PCHTGP 1080	Lization Competiti	Pitale Lines - Harry Savarranty		1
PCHTDS3061	Discipline Specific Elective-01	Elective-I (Supramolecular chemistry)	2	2
PCHTAE3042	Ability Enhancement Compulsory Course-02	Elective Foundation (IPR, Innovations & Entrepreneurship)	2	2
		Torni	12	-

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

#### Semester-II

No. of credits = 24

Code	Type	Title	Credits	Hours
REHICE2007	Cruis	compate Creations 11		4
PCHICCION.	Core-8	Olgranic Chemistry - II	4	4
PCHTCc2009	Compati	Physical Chemotre of	4	4
PEHTOLDINI	1	0 1 2 1 2 1		- 4
Particionari				
A STEEL TO			7	- 4
PLINECTED 1		Progradi a metro era il diputatory	7	4
PCHPCC1006	Core-6	Analytical & Computational Chemistry Laboratory	2	4
		Total	2.4	20

#### Semester-III

No. of credits = 20

Code	Type	Title	Credits	Hours
PCHICCOLL	Cox 14	Alalemilar Sportmenure	4	4
	7 (10)-12	Specificación Manufestrappi	4	+
CHILD DI				
till.				
Padipalisiiat	Computary Competition			4
PCHPCC1005	Core-5	Organic Chemistry Laboratory	2	4
		Limit	20	2.1

(Swapped courses are highlighted)

New-Batch of PhD Students:

Semester-I			No. of c	redits = 12
Code	Lipe	Tidi	Livdin	Hours
Manager Art Control				
DV HI CLESS				2
20-17-17-170	Specific	The state of the s	-	+
		Total	10	18

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

Semester-II			No. of cr	edits = 04
DCHPAE1041	Ability Enhancement Compulsory Course	Research preparation and Instrumentation	4	8
	T	otal	4	8

- 3. The committee strongly recommends for the implementation of teaching assistance ship for PhD students. Newly joined PhD students, irrespective of the nature of fellowship (CSIR-JRF/NET/SLET/UGC-Non-NET/Allied), needs to serve as teaching assistant for the period of one year (Two-semester laboratory courses). Preferably, they need to complete the teaching assistance within two-years of joining to the PhD programme.
- 4. In view of requirement of teaching assistance certificate for some of the post-doctoral fellowships in the abroad, the committee recommends to issue transcript/bonafide certificate for the PhD students pertaining to performance of teaching assistance.
- Title of the PhD course "DCHPAE1041: Laboratory training in Chemistry" has been changed to "DCHPAE1041: Research preparation and Instrumentation".
- 6. The committee approves for the constitution of "Guide Centric Research Advisory Committee (GCRAC)" for each PhD student. GCRAC is a three-member committee consists of Research guide (Convenor), external expert (outside the department) and Head of the Department (HOD) or nominated person by HOD. GCRAC is mandatory for each PhD student.
- 7. Stake-holder committee may approve the vision and mission of the Department of Chemistry, Central University of Karnataka. Stake-holder committee consists of all the teachers in the department, student representative (one male and one female) and student family representatives.
- 8. The committee approves the nomination of Dr. P. Raghavaiah for the school board of school of chemical sciences, Central University of Karnataka.
- The committee strongly recommends consideration of physical chemistry/theoretical chemistry/ Spectroscopy specialization in the future recruitment of faculties at the Department of Chemistry, Central University of Karnataka.
- 10. The committee also recommends for the consideration of two of the following subject experts outside the Central University of Karnataka with the specialization in physical chemistry/theoretical chemistry/Spectroscopy for school board of school of chemical sciences, Central University of Karnataka.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District-585367

SR. NO	Name (Specialization)	Institute	State
1	Prof. Aninda J Bhattacharyya (Electrochemistry/ Physical Chemistry)	Professor and Chair Solid State and Structural Chemistry Unit (SSCU) Indian Institute of Science (IISc), Bengaluru 560012, India	Karnataka
2	Dr. Sundaresan Athinarayanan (Materials Chemistry! Physical Chemistry)	Professor & Chair Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Jakkur, Bangalore-560 064, India	Karnataka
3	Prof. Susanta Mahapatra (Theoretical Chemistry)	School of Chemistry University of Hyderabad Gachibowli, Hyderabad, 500046 Telangana, India	Telangana
4	Prof. Ramakrishna V Hosur (NMR Spectroscopy)	Padma Shri, Raja Ramanna Fellow Department of Chemical Sciences Tata Institute of Fundamental Research (TIFR) Homi Bhabha Road, Colaba Mumbai 400 005, India	Maharashtra

As per Ordinance No. 30, School Board (statute 15(3): ordinarily at least one person shall be from the State where the University is located.

11. The committee approves enclosed syllabus and course code for M.Sc Chemistry and PhD chemistry courses. The approval of any modifications in course code, learning objectives, and learning outcomes pertaining to M.Sc Chemistry and PhD Chemistry courses will be sought through circulation mode.

Prof. Balaji R. Jagirdar Department of Inorganic and Physical

gofindansolo

Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012,

India.

Prof. H.N. Gopi, Indian Institute of Science Education and Research (HSER) Pune.

Pune-411008, India.

Dept. Of Chemistry

Bus segouer Dr. Vecresh G. Kasar goudar. Department of Engineering, Central University of Karnataka.

Kalaburagi-585367, India

Rasmita Samal, Department of Life Science.

Central University of Karnataka, Kalaburagi-585367, India

Dr. Palloogu Raghavaiah, Dept Of Chemistry. Central University of Kamataka. Kalaburagi-585367, India.

Dr. Harish Holla, Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India.

Prof. Konkallu Hanumae Gowd.

Central University of Karnataka,

Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry,

andlu C

Central University of Karnataka, Kalaburagi-585367, India.

Dr. N. S. Venkata Varayana Dept. Of Chemistry. Central University of Karnataka,

Kalaburagi-585367, India,

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

SR. NO	Name (Specialization)	Institute	State
1	Prof. Aninda J Bhattacharyya (Electrochemistry/ Physical Chemistry)	Professor and Chair Solid State and Structural Chemistry Unit (SSCU) Indian Institute of Science (IISc), Bengaluru 560012, India	Karnataka
2	Dr. Sundaresan Athinarayanan (Material Chemistry/ Physical Chemistry)	Professor & Chair Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Jakkur, Bangalore-560 064, India	Karnataka
3	Prof. Susanta Mahapatra (Theoretical Chemistry)	School of Chemistry University of Hyderabad Gachibowli, Hyderabad, 500046 Telangana, India	Telangana
4	Prof. Ramakrishna V Hosur (NMR Spectroscopy)	Padma Shri, Raja Ramanna Fellow Department of Chemical Sciences Tata Institute of Fundamental Research (TIFR) Homi Bhabha Road, Colaba Mumbai 400 005, India	Maharashtra

As per Ordinance No. 30, School Board (statute 15(3): ordinarily at least one person shall be from the State where the University is located.

11. The committee approves enclosed syllabus and course code for M.Sc Chemistry and PhD chemistry courses. The approval of any modifications in course code, learning objectives, and learning outcomes pertaining to M.Sc Chemistry and PhD Chemistry courses will be sought through circulation mode.

Alex-

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISe), Bangalore-560012, India

ProE.H.N. Gopi, Indian Institute of Science Education and Research (HSER) Pune. Pune-411008, India Dr. Vecresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd. Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. N. S. Venkata Narayanan, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

SR. NO	Name (Specialization)	Institute	State
1	Prof. Aninda J Bhattacharyya (Electrochemistry/ Physical Chemistry)	Professor and Chair Solid State and Structural Chemistry Unit (SSCU) Indian Institute of Science (IISc), Bengaluru 560012, India	Karnataka
2	Dr. Sundaresan Athinarayanan (Material Chemistry/ Physical Chemistry)	Professor & Chair Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Jakkur, Bangalore-560 064, India	Karnataka
3	Prof. Susanta Mahapatra (Theoretical Chemistry)	School of Chemistry University of Hyderabad Gachibowli, Hyderabad, 500046 Telangana, India	Telangana
4	Prof. Ramakrishna V Hosur (NMR Spectroscopy)	Padma Shri, Raja Ramanna Fellow Department of Chemical Sciences Tata Institute of Fundamental Research (TIFR) Homi Bhabha Road, Colaba Mumbai 400 005, India	Maharashtra

As per Ordinance No. 30, School Board (statute 15(3): ordinarily at least one person shall be from the State where the University is located.

11. The committee approves enclosed syllabus and course code for M.Sc Chemistry and PhD chemistry courses. The approval of any modifications in course code, learning objectives, and learning outcomes pertaining to M.Sc Chemistry and PhD Chemistry courses will be sought through circulation mode.

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISe), Bangalore-560012, India.

Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Punc, Punc-411008, India. Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India Prof. Konkallu Hanumae Gowd. Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. N. S. Venkata Narayanan, Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India.



#### Approval: Minutes, syllabus, course code

Balaji Rao Jagirdar (jagirdar@iisc.ac.in> To: CUK Chemistry Department <chem.office@cuk.ac.in>

Thu, Aug 13, 2020 at 6:32 PM

Dear Hanumae Gowd:

Attached, please the signed minutes of the BoS meeting.

Best wishes, Jagirdar.

B. R. Jagirdar Professor Dept of Inorganic & Physical Chemistry Indian Institute of Science Bangalore 560 0 12 India

e-mail: jagirdar@iisc.ac.in Tel.: ++(80) 2293-2825 Fax: ++(80) 2360-1552

From: CUK Chemistry Department < chem.office@cuk.ac.in>

Sent: Thursday, August 13, 2020 1:23 PM

To: Balaji Rao Jagirdar <jagirdar@iisc.ac.in>; hn.gopi@iiserpune.ac.in <hn.gopi@iiserpune.ac.in>; Veeresh Gangappa Kasabegoudar Associate Professor <veereshgk@cuk.ac.in>; Rasmita Samal Asst. Prof. Life Sciences <rasmitasamal@cuk.ac.in>; Konkallu Hanumae Gowd Asst. prof. Chemistry <khgowd@cuk.ac.in>; Dr Venkata Ramana Doddi <venkatardoddi@cuk.ac.in>; Raghavaiah Pallepogu Asst. Prof. Chemistry <raghavaiahp@cuk.ac.in>; Harish Holla Asst. Professor <a href="mailto:ref">harishholla@cuk.ac.in></a>; Dr. N S Venkata Narayanan Asst. Prof. Chemistry <a href="mailto:ref">ref</a>. Chemistry <a href="mail Subject: Approval: Minutes, syllabus, course code

External Email

342K

Minutes of the BOS meeting\_06082018 (1).pdf



## Approval: Minutes, syllabus, course code

Gopi, Hosahudya N. <hn.gopi@iiserpune.ac.in> To: CUK Chemistry Department <chem.office@cuk.ac.in>

Sat, Aug 15, 2020 at 11:33 PM

Dear Prof. Hanumae Gowd,

Thanks for the minutes and the syllabus. Both are looking good to me. Please find the attached signed copy of the minutes.

With Regards H. N. Gopi

From: "CUK Chemistry Department" <chem.office@cuk.ac.in>

To: "Balaji Rao Jagirdar@iisc.ac.in>, "Hosahudya N. Gopi" <hn.gopi@iiserpune.ac.in>, "Veeresh Gangappa Kasabegoudar Associate Professor" <veereshgk@cuk.ac.in>, "Rasmita Samal Asst. Prof. Life Sciences" <rasmitasamal@cuk.ac.in>, "Konkallu Hanumae Gowd Asst. prof. Chemistry" <khgowd@cuk.ac.in>, "Dr Venkata Ramana Doddi" <venkatardoddi@cuk.ac.in>, "Raghavaiah Pallepogu Asst. Prof. Chemistry" <raghavaiahp@cuk.ac.in>, "Harish Holla Asst. Professor"

<a href="mailto:</a> <a href="mailto://www.ac.in">harishholla@cuk.ac.in</a>, "Dr. N S Venkata Narayanan Asst. Prof. Chemistry" <a href="mailto://www.ac.in">nsvenkat@cuk.ac.in</a>, Sent: Thursday, August 13, 2020 1:23:57 PM

Subject: Approval: Minutes, syllabus, course code

Minutes of the BOS meeting\_06082018\_HNG.doc



#### Approval: Minutes, syllabus, course code

Harish Holla Asst. Professor <harishholla@cuk.ac.in> To: CUK Chemistry Department <chem.office@cuk.ac.in> Mon, Aug 17, 2020 at 1:22 PM

Cc: Balaji Rao Jagirdar <jagirdar@iisc.ac.in>, hn.gopi@iiserpune.ac.in, Veeresh Gangappa Kasabegoudar Associate Professor <veereshgk@cuk.ac.in>, "Rasmita Samal Asst. Prof. Life Sciences" <rasmitasamal@cuk.ac.in>, "Konkallu Hanumae Gowd Asst. prof. Chemistry" <khgowd@cuk.ac.in>, Dr Venkata Ramana Doddi <venkatardoddi@cuk.ac.in>, "Raghavaiah Pallepogu Asst. Prof. Chemistry" <raghavaiahp@cuk.ac.in>, "Dr. N S Venkata Narayanan Asst. Prof. Chemistry" <nsvenkat@cuk.ac.in>

Dear Prof. Gowd.

I have gone through the minutes of the BOS meeting. It seems to be fine. As I didn't attend the discussion, I have one query here. School Board is independent entity as per University ordinance. Selection of the members criterion is given. In this regard, whether it comes under perview of BOS to nominate a faculty on the School Board.

This is just query to understand more about role and boundries of BOS. Nothing against Dr. Raghavalah. Purely a technical question.

Overall I give consent to the minutes of the BOS meeting,

With regards, Harish

प्रश्रिकारी बैक र Canara Bank Kadaganchi-585311 (Kalaburagi Dist.)

IFSC: CNRB0005109 2019 S/CKML

MULTI-CITY SB

Valid for three months only from the date of instrument

Website: www.cuk.ac.inEmail: focukgul@gmail.com Phone (08477) -226710 Kadaganchi, Aland Road Gulbarga - 585 367

या धारक को or Bearer

Date: 12.10.2020

Rupees रुपये Two Thousand only

Pay RTGS TO PROF.BALAJI R JAGIRDAR

5109101006412

A/c. No.

540464

Payable at par at all our branches in India

For CENTRAL UNIVERSITY OF KARNATAKA

अदा करें

₹2,000/-

Authorised Signatory

pees Two Thousand only). towards

FINANCE OFFICER

3 L Central University of Karnataka

" 240585 " BBP015 "

Kalaburagi - 585367 CANARA Bank Ph. No. Nature of Payment Rem

GAGIRDAR PROF, BALAGIR HISC BANGALORE TOTAL 2,000/-2,000/- IFSC CODE C N R B 0 0 0 0 6 8 3 0683101016771 BANK

After transferring the above payments to their respective accounts, you are requested to provide the UTR No's of each transaction. Thanking You,

Yours sincerely

Central University of Karnataka Kalaburagi - 585367 FINANCE OFFICER 12/10/20

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

Date: 08-10-2020

Minutes of the online meeting of School Board, School of Chemical Sciences, Central University of Karnataka, Kalaburagi held on 08<sup>th</sup> October 2020 on the Google-meet-platform.

The School Board members of the School of Chemical Sciences are as follows:

- 1. Prof. Aninda J. Bhattacharyya, Professor and Chairman, Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.
- 2. Prof. R.V. Hosur, Professor, Padma shri, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India.
- Dr. Veeresh G. Kasabegoudar, Associate Professor, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India
- 4. Dr. Rasmita Samal, Assistant Professor, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India
- Prof. Konkallu Hanumae Gowd, Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Venkata Ramana Doddi, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 7. Dr. Pallepogu Raghavaiah. Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Harish Holla, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

#### The following points have been recommended by the School Board members:

- The committee approves the minutes of the Board of Studies (BOS) meeting of the Department of Chemistry held on 06<sup>th</sup> August 2020 on online-platform.
- The committee approves the online-mode of admission for M.Sc Chemistry and Ph.D. chemistry at the Department of Chemistry for the academic year 2020-21.
- 3. The committee has discussed and strongly recommended for hosting prestigious DST-INSPIRE/Ramalingaswamy Re-entry/Ramanujan/DBT-Wellcome Trust India Alliance faculty fellowships at the Department of Chemistry, CUK. The following points may be considered while hosting/supporting of these prestigious national fellowships
  - a) Fellows with Inorganic Chemistry/Organic Chemistry/Physical Chemistry and with allied fields of chemistry specializations may be considered for hosting at the Department of Chemistry, CUK.

(Established by an Act of the Parliament in 2009)

THE REAL PROPERTY OF PARKETAN

### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

- b) Fellows may be screened by conducting an interview (or) presentation at the level of the Department of Chemistry before hosting these fellowships.
- c) They may be mentored and associated with the permanent faculty member at the Department of Chemistry during the tenure of the fellowship.
- d) They must be supported by infrastructural/laboratory/equipment facilities to conduct the research work at both the department and university level.
- e) They may be considered for the teaching of some of the topics of Ph.D. chemistry, M.Sc Chemistry, and B.Sc Chemistry.
- f) They must be supported well in establishing their independent career.
- 4. The committee has discussed the road map for the future development of the Department of chemistry and suggested the following points for implementation in the next I-3 yrs for growth and development of Department of Chemistry, CUK
  - a) Experts felt that current faculty strength is inadequate to teach all the areas of chemistry. The current faculties are burdened with teaching load which may not permit them to conduct high-quality research work.
  - b) The permanent faculty strength must be increased under the umbrella of a single Department of Chemistry without compartmentalization based on the different specializations of chemistry.
  - c) Efforts may be made within the rules and regulations of the central university of Karnataka to attract the best faculties. Faculties must be recruited in the major areas of chemistry topics to facilitate effective teaching of M.Sc chemistry.
  - d) The following efforts must be made to bring the visualization of the Department of chemistry at the national and international level: (i) faculties should write research grants, (ii) Ph.D./Post-Doc students should participate in various conferences and workshops, and (iii) invited lectures must be organized from the experts in the field.
  - e) In addition to the procurement of sanctioned equipment under HEFA (Higher Education Financing Agency) grant, the department must apply for the DST-FIST, K-FIST and allied research grant to strengthen the research activity at the Department of Chemistry, CUK.
  - f) Department of chemistry may consider hosting of prestigious national DST-INSPIRE/Ramalingaswamy Re-entry/Ramanujan/ DBT-Wellcome Trust India

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

Alliance faculty fellowships to facilitate both teaching and research activity at the Department of chemistry, CUK.

g) Visiting professors, eminent scholars in the field of chemistry/allied subjects may be considered for teaching activity as per the rules and regulations of CUK. Such visiting professors should be physically available at CUK for oneto-one interactions with students.

Aprilya

Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India Rican

Prof. R.V. Hosur. Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India Dr. Vecresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

Dr. Rasmita Samal, Department of Life Science. Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India Dr. Venkata Ramana Doddi Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India.

Dr. Pallepogu Raghavaiah. Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

(Established by an Act of the Parliament in 2009)





Administrative Building, Aland Road, Dist Gulharga 585 367, Phone (08477) = 226714 Telefax : 226703 Wehsite; www.cuk.ac.in E: registrat@cuk.ac.in

No. CUK/Acad-III/F-3693/1/2020-21/14-1

Sept, 2020

#### OFFICE ORDER

Sub: Constitution of School Board in School of Chemical Sciences - reg.

Ref: 1) Recommendations of the Dean, School of Chemical Sciences dated 25.08.2020.

2) Approval of the Hon'ble Vice-Chancellor's dated 02.09.2020.

In terms of provisions of Statute 15(3) of Cenfral University Act 2009, read with Ordinance No. 30 of CUK, School Board in School of Chemical Sciences is constituted for a period of three years with the following members as per the terms and condition stipulated in the Ordinance.

SNo	Extract of the Ordinance	Name of the member	Designation
1	Dean of the School	Prof. Konkallu Hanumae Gowd Dean, School of Chemical Sciences	Chairman
II	All Professors in the School		-
III	Heads of the Departments assigned to the School who are not Professors	-	-
IV	One Associate Professor and one Assistant Professor from each Department in the School by rotation on the basis of seniority;	Dr. Venkata Ramana Doddi Associate Prof. Dept. of Chemistry, CUK Dr. Harish Holla Assistant Prof. Dept. of Chemistry, CUK	Member
V	One representative each of the Boards of other Schools which have interdisciplinary work with the School, to be nominated by the Vice-Chancellor on the recommendations of the School Board concerned;	Dr. Veeresh G. Kasabegoudar HOD Dept. of Electronics & CE (School of Engineering)  Dr. Pallepogu Raghavaiah Associate Prof. Dept. of Chemistry (School of Under Graduate Studies)  Dr. Rasmita Samal Assistant Prof. Dept. of Life Sciences CUK (School of Life Sciences)	Member
VI	Not more than two teachers from Colleges, maintained and affiliated, (wherever applicable) nominated by the VC on the recommendations of the Board of Studies; and	(Selicot of Dire selectes)	¥
VII	Not more than five persons, not in the service of the University or of the College, maintained or affiliated (wherever applicable), nominated by the Academic Council for their special knowledge and expertise in the subject concerned.	Prof. Aninda J Bhattacharyya Prof. & Chair, (SSCU) IISc, Bangalore 560 012.  Prof. Ramakrishna V Hosur Dept. of Chemical Sciences Tata Institute of Fundamental Research (TIFR) Mumbai – 400 005.	Expert

The members of School Board are requested to serve the School Board.

To

All members of the School Board

Conv to:

- 1) Dean, & All Heads in School of Chemical Sciences
- 2) Office of the PVC/COE/FO
- 3) PS to Vice-Chancellor
- 4) Concerned File.

Antiagales

mention/REGISTRAR 109/2014

क्रमाचिव / REGISTRAR कर्नाटक केन्द्रीय विश्वविधालय Central University of Karnataka गुलबर्गा / GULBARGA.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

Date: 15-04-2021

Minutes of the online meeting of Board of Studies (BOS), Department of Chemistry, School of Chemical Sciences, Central University of Karnataka, Kalaburagi held on 15<sup>th</sup> April 2021 on Google Meet Platform.

Following members attended the Board of Studies (BOS) meeting:

#### BOS members:

- Prof. Balaji R. Jagirdar Professor, Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India.
- Prof. H.N. Gopi, Professor, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.
- Dr. Ananda Kuppanna, Sr. GM, Mylan Laboratories Limited, Hyderabad-500034, India
- Dr. Rajesh Sonti, National Institute of Pharmaceutical Education and Research (NIPER) Hyderabad, Balanagar, Hyderabad-500037. India
- 5. Dr. Veeresh G. Kasabegoudar, Associate Professor, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India
- 6. Dr. Rasmita Samal, Assistant Professor, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India
- 7. Prof. Konkallu Hanumae Gowd, Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 8. Dr. Venkata Ramana Doddi, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

#### Special Invitees:

- Prof. Basavaraj Rachappa Kerur, Controller of Examination (COE), Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Pallepogu Raghavaiah, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

#### Absent:

 Dr. Harish Holla, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

#### The following points have been recommended by the BOS members:

- With due approval of the 25<sup>th</sup> academic council (AC) meeting of Central University of Karnataka, the Department of chemistry has expressed interest to start the certificate course the "Quality Control Chemist" in academic year-2021-22 and like to adopt the curriculum developed and approved by the National Skill Development Corporation (NSDC), Government of India (QP No. 'LFS/Q1301 NSQF Level 5).
- The members have unanimously approved the starting of the "Quality Control Chemist" certificate course at the Department of chemistry, CUK, and recommended adopting the curriculum developed by the NSDC, Govt. of India. The members have

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District-585367

appreciated the initiative as the certificate course is going to generate skilled manpower for society and improves the employability of the trained candidate.

- 3. The members have discussed infrastructure, instruments, and teaching experts available for the course of "Quality Control Chemist" and found that the conditions are suitable for running the course at the Department of Chemistry, CUK. The members are further discussed and finalized the eligibility criteria, mode of admission, intake as per seat matrix of reservation roster, the total credits, and fee for the course.
- 4. Eligibility: M.Sc in Chemistry/Analytical Chemistry, M.Pharma, B.Sc/B.Sc. (Hons) degree with Chemistry/Analytical chemistry as one of the subject and B. Pharma from a UGC recognized University or College or foreign university (as per the AIU foreign equivalence list) with at least 50% marks aggregate (45% for OBC {NON-CREAMY LAYER}, SC/ST and Kashmiri Migrant and non-migrants Students) and who have secured a minimum of 40% (35% for OBC {NON-CREAMY LAYER} SC/ST, PWD and Kashmiri Migrant and non-migrants Students) marks in the Central Universities of Karnataka Admission Test as notified in the CUK website. Candidates with M.Sc Chemistry/Analytical Chemistry, M.Pharma, and/or having prior experience of working in the relevant industry/sector are preferred.
- 5. Mode of Admission: Two modes of admissions are proposed for the course. Eligible criteria are common for both modes. The entrance test for the admission is also common for both the course. The details of the two modes are as follows-

Regular Mode: Individual centric approach for the admission, the candidate will bear the fee expenses, the candidate has to conduct on-job-training in CUK specified industry/ organization, the candidate will be dedicatedly working to complete the course, and the candidate is eligible to apply for Govt. scholarships/fellowships.

Sponsor Mode: Nomination mode approach by the industry/organization, fee expenses will bear by industry/organization, the candidate may conduct on-jobtraining in the respective industry/organization, the candidate will be on deputation to complete the course, and the candidate may or may not eligible to apply for Govt. scholarships.

6. Seat Matrix as per Reservation Roster: Total Intake of students for both the modes is ten (10). Accordingly, the seats are distributed as per the reservation roster. The distribution of intake as per roster is as follows

(Established by an Act of the Parliament in 2009)



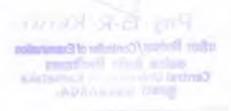
### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

Category	Percentage (%)	Regular Mode	Sponsor Mode	Supernumerary Quota	Total (Regular+Sponsor)
UR	50	3	2	HKR	1
SC	15	1	0	KM	1
ST	7.5	0	1	PWD	1
OBC	27	2	1	Sports/NCC/NSS	1
EWS	10	1	0	WDP	i
T	otal	7	4		5

Seats may be interchanged between regular mode and sponsored mode for the specified category

- 7. <u>Curriculum/Syllabus:</u> The duration of the certificate course is six (6) months. As per the adopted curriculum and syllabus designed and developed by NSDC, Govt. India, the course consists of Theory (153 Hrs), Practical (310 Hrs), and On-Job-Training (100 Hrs). The course has a nearly total of 26 Credits. On-Job-Training (OJT) will be conducted in the respective industry/sector.
- 8. <u>Fee for the course:</u> Certificate course "Quality Control Chemist" is job oriented and technical course that enhances the employability of the individual. Given this, the members have verified fees for various technical courses of CUK. Successful running and sustainability of the course were also considered as criteria. The total fee for the course is decided as Rs. 30,000-00 (Thirty thousand rupees only).
- 9. Fees distribution: The members of the committee have discussed and recommended for the university to consider only 15% of the fee towards the university and the remaining 85% for running the course. The remuneration for the theory lectures may be Rs.500/Hr for allied department faculties of the university and Rs.1000/Hr for the Industry/Outside university experts. The remuneration for the conducting practical may be Rs.250/Hr for allied departments and Industry/Outside university experts. The remaining fee amount may be utilized for chemicals/glassware/field visits if any.
- 10. The members of the meeting are further suggested the following points to be considered in future actions for successfully establishing/conducting the course-
  - To support the meritorious students of economically weaker sections aspiring for the course in regular mode, fellowships/financial supports towards the fee may be explored with Government/other funding bodies.
  - ii. Using the model curriculum template of NSQF, a detailed syllabus may be framed before the commencement of the course. Subsequently, the detailed syllabus may be accessed and approved by the BOS members through circulation mode.



(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

- iii. The title of the course may be currently retained as such defined by the NSDC and NSQF, Govt of India. However, depending on experiments and practical components, the title of the course may be accordingly revised.
- iv. In view of the use of sophisticated chromatographic techniques such as UP-HPLC (Ultra Performance High-Pressure Liquid Chromatography) in the industry for quality assessment, the members recommended procuring these analytical instruments for the certificate course.
- v. Memorandum of Understandings (MOUs) may be made with pharmaceutical industries to establish academia and industry collaboration. A placement cell may be established to enhance job opportunities for candidates. The campus recruitment activities may be conducted in the university.

#### Signature:

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India.

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Prof. Konkallu Hanumat Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Prof H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune,

Pune-411008, India.

Dr. Veeresh G. Kasabegoudar, Department of Engineering Central University of Karnataka, Kalaburagi-585367, India

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Ananda Kuppanna, Sr.GM, API-R&D Mylan Laboratories Limited Hyderabad, India

Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Dr. Pallerogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Prof. B.R. Kerur

परीक्षा नियंत्रक/Controller of Examination कर्नाटक केन्द्रीय विश्वविद्यालय Central University of Karnataka गुलबर्गा GULBARGA.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

- iii. The title of the course may be currently retained as such defined by the NSDC and NSQF, Govt of India. However, depending on experiments and practical components, the title of the course may be accordingly revised.
- iv. In view of the use of sophisticated chromatographic techniques such as UP-HPLC (Ultra Performance High-Pressure Liquid Chromatography) in the industry for quality assessment, the members recommended procuring these analytical instruments for the certificate course.
- v. Memorandum of Understandings (MOUs) may be made with pharmaceutical industries to establish academia and industry collaboration. A placement cell may be established to enhance job opportunities for candidates. The campus recruitment activities may be conducted in the university.

#### Signature:

Joseph don't de

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune. Pune-411008, India. Dr. Ananda Kuppanna, Sr.GM, API-R&D Mylan Laboratories Limited Hyderabad, India

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavarah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

परीक्षा नियंत्रक/Controller of Examination कर्नाटक केन्द्रीय विश्वविद्यालय Central University of Karnataka गुलबर्गा GULBARGA.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

- iii. The title of the course may be currently retained as such defined by the NSDC and NSQF, Govt of India. However, depending on experiments and practical components, the title of the course may be accordingly revised.
- iv. In view of the use of sophisticated chromatographic techniques such as UP-HPLC (Ultra Performance High-Pressure Liquid Chromatography) in the industry for quality assessment, the members recommended procuring these analytical instruments for the certificate course.
- v. Memorandum of Understandings (MOUs) may be made with pharmaceutical industries to establish academia and industry collaboration. A placement cell may be established to enhance job opportunities for candidates. The campus recruitment activities may be conducted in the university.

#### Signature:

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (HSER) Pune, Pune-411008, India. Dr. Ananda Kuppanna, Sr.GM, API-R&D Mylan Laboratories Limited Hyderabad, India

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

परीक्षा नियंत्रक/Controller of Examination कर्नाटक केन्द्रीय विश्वविद्यालय Central University of Karnataka गुलबर्गा GULBARGA.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

- iii. The title of the course may be currently retained as such defined by the NSDC and NSQF, Govt of India. However, depending on experiments and practical components, the title of the course may be accordingly revised.
- iv. In view of the use of sophisticated chromatographic techniques such as UP-HPLC (Ultra Performance High-Pressure Liquid Chromatography) in the industry for quality assessment, the members recommended procuring these analytical instruments for the certificate course.
- v. Memorandum of Understandings (MOUs) may be made with pharmaceutical industries to establish academia and industry collaboration. A placement cell may be established to enhance job opportunities for candidates. The campus recruitment activities may be conducted in the university.

#### Signature:

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012. India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India. Dr. Ananda Kuppanna, Sr.GM, API-R&D Mylan Laboratories Limited Hyderabad, India

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept, Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

- iii. The title of the course may be currently retained as such defined by the NSDC and NSQF, Govt of India. However, depending on experiments and practical components, the title of the course may be accordingly revised.
- iv. In view of the use of sophisticated chromatographic techniques such as UP-HPLC (Ultra Performance High-Pressure Liquid Chromatography) in the industry for quality assessment, the members recommended procuring these analytical instruments for the certificate course.
- v. Memorandum of Understandings (MOUs) may be made with pharmaceutical industries to establish academia and industry collaboration. A placement cell may be established to enhance job opportunities for candidates. The campus recruitment activities may be conducted in the university.

#### Signature:

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi. Indian Institute of Science Education and Research (HSER) Pune. Pune-411008, India. Dr. Ananda Kuppanna, Sr.GM, API-R&D Mylan Laboratories Limited Hyderabad, India

S. hours

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Venkata Ramana Doddi Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

परीक्षा नियंत्रक/Controller of Examination कर्नाटक केन्द्रीय विश्वविद्यालय Central University of Karnataka गुलबर्गा GULBARGA.



## Approval of minutes of BOS meeting-15042021

Balaji Rao Jagirdar <jagirdar@iisc.ac.in> To: CUK Chemistry Department <chem.office@cuk.ac.in>

Mon, Apr 19, 2021 at 9:16 PM

Dear Prof Hanumae Gowd:

Attached, please find signed MoM for your perusal.

Best wishes. Jagirdar.

B. R. Jagirdar Professor Dept of Inorganic & Physical Chemistry Indian Institute of Science Bangalore 560 0 12 India e-mail: jagirdar@iisc.ac.in

Tel.: ++(80) 2293-2825 Fax: ++(80) 2360-1552

From: CUK Chemistry Department <chem.office@cuk.ac.in>

Sent: Friday, April 16, 2021 11:10 PM

To: Balaji Rao Jagirdar <jagirdar@iisc.ac.in>; Gopi, Hosahudya N. <hn.gopi@iiserpune.ac.in>; Ananda.kuppanna@viatris.com <Ananda.kuppanna@viatris.com>; rajesh.sonti@niperhyd.ac.in <rajesh.sonti@niperhyd.ac.in>; Controller of Exam CUK <coe@cuk.ac.in>; Prof. Basavaraj Rachappa Kerur <kerurbrk@gmail.com>; Veeresh Gangappa Kasabegoudar Associate Professor <veereshgk@cuk.ac.in>; Rasmita Samal Asst. Prof. Life Sciences <rasmitasamal@cuk.ac.in>; Dr Venkata Ramana Doddi <venkatardoddi@cuk.ac.in>; Raghavaiah Pallepogu Asst. Prof. Chemistry <raghavaiahp@cuk.ac.in>; Konkallu Hanumae Gowd Asst. prof. Chemistry < khgowd@cuk.ac.in> Subject: Approval of minutes of BOS meeting-15042021

External Email [Quoted text hidden]

Minutes of the BOS meeting\_15042021\_Final\_BRJ.pdf



## Approval of minutes of BOS meeting-15042021

Ananda Kuppanna <Ananda.Kuppanna@viatris.com> To: CUK Chemistry Department <chem.office@cuk.ac.in> Cc: "Konkallu Hanumae Gowd Asst. prof. Chemistry" <khgowd@cuk.ac.in> Sun, Apr 18, 2021 at 8:20 AM

Approved

From: CUK Chemistry Department <chem.office@cuk.ac.in>

Sent: Friday, April 16, 2021 11:10 PM

To: Balaji Rao Jagirdar <jagirdar@iisc.ac.in>; Gopi, Hosahudya N. <hn.gopi@iiserpune.ac.in>; Ananda Kuppanna <Ananda.Kuppanna@viatris.com>; rajesh.sonti@niperhyd.ac.in; Controller of Exam CUK <coe@cuk.ac.in>; Prof. Basavaraj Rachappa Kerur <kerurbrk@gmail.com>; Veeresh Gangappa Kasabegoudar Associate Professor <veereshgk@cuk.ac.in>; Rasmita Samal Asst. Prof. Life Sciences <rasmitasamal@cuk.ac.in>; Dr Venkata Ramana Doddi <venkatardoddi@cuk.ac.in>; Raghavaiah Pallepogu Asst. Prof. Chemistry <raghavaiahp@cuk.ac.in>; Konkallu Hanumae Gowd Asst. prof. Chemistry <khgowd@cuk.ac.in>

Subject: Approval of minutes of BOS meeting-15042021

CAUTION: This email originated from outside of the company. Do not click links or open attachments unless you recognize the sender and know the content is safe.

[Quoted text hidden]

This email message and any attachments are for the exclusive use of the intended addressee(s). This message may contain confidential, privileged and/or proprietary information, and unauthorized review, use or distribution by persons other than the intended addressee(s) is strictly prohibited and may be unlawful. Unintended transmission does not waive any privilege including attorney-client, attorney work product or claims to confidentiality. If you received this email in error or it was forwarded from recipients who received it in error, please contact me by return message and immediately destroy all electronic, paper and other versions of this message.

Viatris Inc. and its affiliates and subsidiaries are fully committed to protecting the information relating to identified or identifiable natural persons ("Personal Data") that we process.

This Viatris Privacy Notice (https://www.viatris.com/en-us/privacy-policy) describes our collection, use, disclosure, and retention of Personal Data in relation to our websites, apps, services, and platforms, and your use of them, our marketing and provision of products and services, our interactions with you in-person, by calling us, or by mail, and otherwise during the operation of our business. The Notice also explains the ways in which you may, under applicable laws, be able to control our processing of your Personal Data and exercise other rights. This Notice does not apply to Personal Data of members of our workforce in the context of that relationship.

To exercise your rights or make a request concerning the processing of your Personal Data, you may contact us by emailing us at dataprivacy@Viatris.com.

Thank you.

Please think before you print.

View in other languages.



IMG 20210418\_080806.jpg 2472K



## Approval of minutes of BOS meeting-15042021

Gopi, Hosahudya N. <hn.gopi@iiserpune.ac.in> To: CUK Chemistry Department <chem.office@cuk.ac.in> Mon, Apr 19, 2021 at 11:50 AM

Dear Prof. Hanumae Gowd,

Thanks for the minutes. I am fine with the minutes of the meeting. Please find the attached signed copy of the minutes.

Best Regards H. N. Gopi

From: "CUK Chemistry Department" <chem.office@cuk.ac.in> To: "Balaji Rao Jagirdar" <jagirdar@iisc.ac.in>, "Hosahudya N. Gopi" <hn.gopi@iiserpune.ac.in>, "Ananda Kuppanna" <Ananda.kuppanna@viatris.com>, "rajesh sonti" <rajesh.sonti@niperhyd.ac.in>, "Controller of Exam CUK" <coe@cuk.ac.in>, "Prof. Basavaraj Rachappa Kerur" <kerurbrk@gmail.com>, "Veeresh Gangappa Kasabegoudar Associate Professor" <veereshgk@cuk.ac.in>, "Rasmita Samal Asst. Prof. Life Sciences" <rasmitasamal@cuk.ac.in>, "Dr Venkata Ramana Doddi" <venkatardoddi@cuk.ac.in>, "Raghavaiah Pallepogu Asst. Prof. Chemistry" <raghavaiahp@cuk.ac.in>, "Konkallu Hanumae Gowd, Asst. prof. Chemistry" <khgowd@cuk.ac.in> Sent: Friday, April 16, 2021 11:10:11 PM

Subject: Approval of minutes of BOS meeting-15042021

[Quoted text hidden]

Minutes of the BOS meeting\_15042021\_HN.pdf 302K



### Approval of minutes of BOS meeting-15042021

Rasmita Samal Asst. Prof. Life Sciences <rasmitasamal@cuk.ac.in> To: CUK Chemistry Department <chem.office@cuk.ac.in>

Sun, Apr 18, 2021 at 1:06 PM

Dear Sir,

Good afternoon.

Thank you for sharing the details on the BOS meeting. I agree to all the decisions made in the meeting as indicated in the minutes. Kindly consider my approval for this great move from the Department of Chemistry. Please find the attached document.

Best regards, Rasmita [Quoted text hidden]

Dr. Rasmita Samal, PhD Assistant Professor Department of Life Science School of Life Sciences Central University of Karnataka Kalaburagi 585311 Karnataka, INDIA

Minutes of the BOS meeting\_15042021\_Final\_RS.doc



Mon, Apr 19, 2021 at 10:20 AM

## Approval of minutes of BOS meeting-15042021

Rajesh Sonti <rajesh.sonti@niperhyd.ac.in> To: chem office <chem.office@cuk.ac.in> Cc: hanumae@gmail.com

Dear CUK chem office, Greetings.

Please find the signed copy attached.

with best regards, Dr. Rajesh Sonti, Department of Pharmaceutical analysis, NIPER Hyderabad- NH 65, Balanagar, Kukatpally industrial area, Hyderabad, Telangana, 500037

https://pubmed.ncbi.nlm.nih.gov/?term=rajesh+sonti+

http://www.niperhyd.ac.in/ProfileRajeshSonti.html

From: "chem office" <chem.office@cuk.ac.in>

To: jagirdar@iisc.ac.in, "hn gopi" <hn.gopi@iiserpune.ac.in>, "Ananda kuppanna" <Ananda.kuppanna@viatris.com>, "Rajesh Sonti" <rajesh.sonti@niperhyd.ac.in>, coe@cuk.ac.in, kerurbrk@gmail.com, veereshgk@cuk.ac.in, rasmitasamal@cuk.ac.in, venkatardoddi@cuk.ac.in, raghavaiahp@cuk.ac.in, khgowd@cuk.ac.in

Sent: Friday, April 16, 2021 11:10:11 PM

Subject: Approval of minutes of BOS meeting-15042021

[Quoted text hidden]

rs\_Minutes of the BOS meeting\_15042021\_Final.pdf

(Established by an Act of the Parliament in 2009)





Administrative Building, Aland Road, Dist Gulbarga – 585-367 Phone (08477) – 226714 Telefax : 226703 Website www.cuk.ac.ii

Website www.cuk.ac.in

2.6 July, 2020

No. CUK/Acad-III/F-3693/1/2020-21/132

### OFFICE ORDER

Sub: Constitution of Board of Studies in Dept. of Chemistry - reg.

Ref : 1) Recommendations of the Dean, School of Chemical Sciences dated 17,07,2020

2) Approval of the Hon'ble Vice-Chancellor's dated 17.07.2020.

In terms of provisions of Statute 16(2) of Central University Act 2009, read with Ordinance No. 15 of CUK, Board of Studies for the Dept. of Chemistry, School of Chemical Sciences is constituted for a period of three years with the following members as per the terms and condition stipulated in the Ordinance.

Extract of the ordinance	Name of	the members	
Head of the Department: Chairman & Convenor		u Hanumae Gowd	
All the Professors of the Department/Centre (ex-officio members).	Prof. Konkalli	ı Hanumae Gowd	
The senior most Associate Professor and the senior most Assistant Professor by rotation shall be a member of Board of Studies to be nominated by the Vice- Chancellor	Dr. Venkata Ramana Doddi Associate Professor Department of Chemistry, CUK Dr. Harish Holla (ex-Coordinator) Assistant Professor Department of Chemistry, CUK		
Two faculty members nominated by the Vice Chancellor from amongst the faculty members belonging to allied/ cognate subjects.	Dr. Veeresh G. Kasabegoudar Associate Professor & HOD Department of Electronics & Co	nimunication CUK	
subjects.	Dr.Rasmita Samal Assistant Professor Department of Life Sciences, CL		
Two subject experts, not in the service of the university, to be nominated by the Vice chancellor	Prof. B.R. Jagirdar, Department of Inorganic and Physical Chemistry (IPC) Indian Institute of Science (IISC), Bangalore-560012, India		
	Prof. Hosahudya N. Gopi Department of Chemistry Indian Institute of Science Education and Research (HSER) Pune, Maharashtra – 411008	/une	
wo experts to be invited by the Chairman n case need is felt for that persons inputs	Academics (M.Sc/PhD course)*	Certificate course*	
or specialized area	Dr. Pallepogu Raghavaiah Associate Professor Department of Chemistry, CUK	Dr. Ananda Kuppanna, Ph.D. Sr.GM, API-R&D Mylan Laboratories, Hyderabar	
	Dr. N. S. Venkata Narayanan Assistant Professor Department of Chemistry, CUK	Dr. Rajesh Sonti Assistant Professor NIPER – Hyderabad.	

(\*Two experts only will be invited by the Chairman in case need is felt for that persons inputs for specialized area).

The members of Board of Studies are requested to serve the committee.

To

All members of the Board of Studies

Copy to:

1) Dean, & All Heads in School of Chemical Sciences

Office of the PVC/COE/FO

3) PS to Vice-Chancellor

4) Concerned File.

कुलस्रविच/REGISTRAR

कुल्याचिव / REGISTRAR केनीटक केन्द्रीय विश्वविद्यालय Central University of Karnataka मुलबर्मा / GULBARGA.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District- 585367

Date: 15-07-2023

Minutes of the online meeting of Board of Studies (BOS), Department of Chemistry, School of Chemical Sciences, Central University of Karnataka, Kalaburagi held on 19<sup>th</sup> June 2023 on Google Meet-platform.

The Board of Studies (BOS) members of Department of Chemistry are as follows:

- 1. Prof. Balaji R. Jagirdar Professor, Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India.
- 2. Prof. H.N. Gopi, Professor, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.
- 3. Prof. Aninda J. Bhattacharyya, Professor, Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore-560012, India.
- 4. Prof. R. V. Hosur, Senior Professor, Department of Chemical Sciences Tata Institute of Fundamental Research (TIFR), Mumbai, India
- 5. Dr. Sangamesh Badiger, Director, Aurigene Discovery Technologies, Bangalore-560100, India
- 6. Prof. Konkallu Hanumae Gowd, Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 7. Prof. Venkata Ramana Doddi, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 8. Prof.. Pallepogu Raghavaiah, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 9. Dr. Rasmita Samal, Assistant Professor, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India.
- 10. Dr. Oruganti Anjaneyulu, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

#### **Absent:**

- 11. Dr. Harish Holla, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 12. Dr. N. S. Venkata Narayanan, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 13. Dr. P. Duraippandi, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- 14. Dr. Veeresh G. Kasabegoudar, Associate Professor, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

#### The following points have been recommended by the BOS members:

- 1. The Dean School of Chemical Sciences has welcomed and explained the need to implement 4-yearsB.Sc course with a single major in chemistry as per directions of the university. The Head of the Department of Chemistry has explained the curriculum framework as per the guidelines of UGC, India.
- 2. The experts have raised the following concerns with respect to the newly proposed curriculum
  - a) Content in the syllabus is heavy and only 5% of the meritorious students will cope with it. Suggested for the reduction in credits.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District- 585367

- b) To maintain the spirit of NEP-2020, the option should be given to study all science subjects.
- c) Semester VIII should not have any theory courses. An option should be there for the students to do the project outside the university in other institutions.
- d) Mathematics for Chemists course should be included in the curriculum.
- 3. After detailed deliberations with the faculties, other science discipline deans/HODs, and higher authorities, the following directions were received from the university
  - a) As per the UGC model curriculum framework, the 4-years B.Sc courses with a single major have at least 160 credits, and the CUK framework has 164 credits.
  - b) The additional 4-credits are necessary for the students to change their majors at the end of one year of the course. This provision should be given as per NEP-2020.
  - c) Uniform framework is being followed across the university. A common timetable will be evolved for all the 4-year NEP-2020 courses, including SEC, VAC, and AEC courses
  - d) Option has been given for the chemistry students to study other science discipline courses: physics/mathematics/biology.
  - e) Even though two theory courses are present in semester-VIII, options there to take these courses through online/NPTEL courses. Thus, the spirit to conduct project work in other institutions has been maintained.
  - f) Mathematics for Chemists course is now included in the syllabus.
- 4. The curriculum framework and the syllabus are enclosed for approval.

#### **Signature:**

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India.

Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India. Prof. R. V. Hosur, Senior Professor, Department of Chemical Sciences Tata Institute of Fundamental Research (TIFR), Mumbai, India.

Prof. Aninda J. Bhattacharyya, Professor, Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore-560012, India. Dr. Sangamesh Badiger, Director, Aurigene Discovery Technologies, Bangalore- 560100, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Prof. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Prof. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Oruganti Anjaneyulu, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District – 585367

Date: 11-07-2022

### Minutes of the meeting of Board of Studies (BOS) and School Board, Department of Chemistry, Central University of Karnataka, Kalaburagi

The Board of Studies (BOS) and School Board members of Department of Chemistry, School of Chemical Sciences are as follows:

- 1. Prof. R.V. Hosur, Professor, Padma shri, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India.
- Prof. Aninda J. Bhattacharyya, Professor and Chairman, Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.
- 3. Prof. Balaji R. Jagirdar Professor, Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India.
- 4. Prof. H.N. Gopi, Professor, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.
- Dr. Ananda Kuppanna, Sr. GM, Mylan Laboratories Limited, Hyderabad-500034, India
- Dr. Rajesh Sonti, National Institute of Pharmaceutical Education and Research (NIPER) Hyderabad, Balanagar, Hyderabad-500037. India
- Dr. Veeresh G. Kasabegoudar, Associate Professor, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India
- 8. Dr. Rasmita Samal, Assistant Professor, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India
- Prof. Konkallu Hanumae Gowd, Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Venkata Ramana Doddi, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Pallepogu Raghavaiah, Associate Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. Harish Holla, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.
- Dr. N. S. Venkata Narayanan, Assistant Professor, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

#### Special Invitee:

 Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

## The following points have been recommended by the School Board and BOS members:

 The Dean/HOD, Department of chemistry has welcomed the School Board and the BOS members and upraised the activities undertaken by the CUK in implementing the new education policy (NEP)-2022. The members have appreciated the efforts taken

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District-585367

by the university and welcomed the implementation of NEP-2022 in M.Sc Chemistry and B.Sc (Physics, Chemistry) courses in the academic year-2022-23.

2. The members have discussed the following agenda points:

AGENDA-I: NSQF model evaluation/marking for certificate course

AGENDA-II: Towards NEP model research M.Sc Chemistry curriculum

AGENDA-III: Modalities to evaluate the M.Sc research component

AGENDA-IV: B.Sc (Physics, Chemistry) 4-years degree CUK-NEP model

AGENDA-V: B.Sc Generic elective and minors for other disciplin

AGENDA-VI: B.Sc Skill development course "Quality control chemist"

AGENDA-VII: B.Sc value added course "Industrial chemistry"

AGENDA-VIII: Inputs and guidance for DST-FIST research grant

3. The members have discussed the "AGENDA-I: NSQF model evaluation/marking for certificate course" and recommended the following for consideration

	Title	The	eory	Skills P	ractical	To	
Course Code	Title	Internal (40%)	Endsem (60%)	Internal (40%)	Endsem (60%)	Internal (40%)	Endsen (60%)
LFS/N0301	Perform routine analysis in lab while ensuring compliance with Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP)	19	28	21	32	40	60
LFS/N0101	Maintain a healthy, safe and secure working environment in the life sciences facility	19	29	21	31	40	60
LFS/N0302	Coordinate with Supervisors and colleagues within and outside the department	19	29	21	31	40	
LFS/N0320	To carry out quality checks in the quality control process	18	27	22	33	40	60
LFS/N0314	To carry out reporting and documentation to meet quality standards		27	22	33	40	60
LFS/N0103	Ensure cleanliness in the work area	18	28	22	32	40	00

4. As per NEP-2020 "The 2-year M.Sc programme may have the second year devoted entirely to research for those who have completed the 3-year Bachelor 's programme. In view of this, the members have discussed the "AGENDA-II: Towards NEP model

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District- 585367

research M.Sc Chemistry curriculum" and recommended the following syllabus for M.Sc Chemistry. It was agreed to have Semester-IV completely dedicated to research and accordingly recommended the syllabus

	-	Semester-1					
Code	Type	Title	Credits	Hours	L	T	P
PCHTCC1001	Core -1	Inorganic Chemistry – I	4	4	3	1	0
PCHTCC1002	Core-2	Organic Chemistry – I	4	4	3	1.1	0
PCHTCC1003	Core-3	Physical Chemistry -1	4	4	3	1	0
PCHTCC1004	Core-4	Introduction to Analytical Chemistry	3	3	2	1	0
PCHTCC1005	Core-5	Mathematics for Chemistry	2	2	1	1	0
PCHPCC1006	Core-6	Organic Chemistry Laboratory	3	6	0	2	4
PCHPCC1007	Core-7	Analytical & Computational Chemistry Laboratory	3	6	0	2	4
Total			23	29	12	9	8
		Semester-II			1.4	1	1.0
PCHTCC2008	Core-8	Inorganic Chemistry – II	4	4	13	TI	10
PCHTCC2009	Core-9	Organic Chemistry - II	4	4	13	Ti	0
PCHTCC2010	Core-10	Physical Chemistry – II	4	4	3	1	0
PCHTCC2011	Core-11	Chemistry of Life	4	4	3	1	0
PCHTCC2012	Core-12	Chemical applications of Group Theory	2	2	1	ti	0
PCHPCC2013	Core-13	Inorganic Chemistry Laboratory	3	6	0	2	4
PCHPCC2014	Core-14	Physical Chemistry Laboratory	3	6	0	2	4
Total			24	30	13	9	8
		Semester-III			1		10
PCHTCC3015	Core-15	Molecular Spectroscopy	4	4	13	11	10
PCHTCC3016	Core-16	Spectroscopic Identification of Organic Compounds	4	4	3	I.	0
PCHTCC3017	Core-17	Organometallic Chemistry	4	4	3	1	0
PCHTCC3018	Core-18	Organic Chemistry-III	4	4	3	1	0
PCHTGE3080	Generic Elective Course-01	MOOC Course (NPTEL, SWAYAM) / Other Department Elective	3	3	2	i	0
PCHPAE3041	Ability Enhancement Compulsory Course-01	Research Orientation & instrumentation	6	12	0	4	8
		l'otal	25	31	14	9	8
		Semester-IV					
PCHRDS4061	Discipline Specific Elective-04	Research training & Project report	12	24	0	6	18
Total			12	24	0	6	18

- The members have discussed the "AGENDA-III: Modalities of the assessment of the project work of the M.Sc. research component". This pertains to course Research Orientation & instrumentation (PCHPAE3041) and Research training & Project report (PCHRDS4061).
  - The following evaluation pattern is recommended for the Research Orientation & instrumentation (PCHPAE3041)-06 credits

11	NTERNALS (600 M	ENDSEM (120 Marks		
Internal-I (T)	Internal-II (T)	Internal-III (P)	Endsem (T)	Endsem (P)
20	20	20	60	30

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District- 585367

In this context, it is also clarified that the student allotment to the guide will be done at the end of Semester II.

 The following evaluation pattern is recommended for the Research training & Project report (PCHRDS4061)-12 credits

Examination	Items	Marks
Internal	M.Sc thesis assessment committee (Three-member committee	e):
Internal	(i) Supervisor	60
	External evaluation:  (i) one faculty within the department  (ii) one faculty outside the department/university	30 30
	Total internal marks	120
End	All the faculties in the department are involved in the assessm	nent
semester	Presentation	90
	Viva-voce examination	90
	Total end semester marks	180

In this context, the committee has clarified that the matter of sending the students for the project outside CUK may be treated as an internal matter.

- 6. The members have discussed the "AGENDA-IV: B.Sc (Physics, Chemistry) 4-years degree CUK-NEP model". The Dean/HOD has presented the proposed curriculum designed based on the template developed by CUK for the NEP model undergraduate courses. Upon deliberation and detailed discussion, the members have approved the enclosed curriculum. The salient features are as follows
  - (i) To include "Ethics for Science" as a value-added course in the Semester-I
  - (ii) The allotment of specialization at the end of semester-II
  - (iii) To explore possibilities of combining Semester-V B.Sc (Physics Chemistry) with Semester-I M.Sc chemistry to ease the workload of the faculties.
- 7. The members have discussed the "AGENDA-V: B.Sc Generic elective and minors for other-discipline". The members have recommended the minors and generic electives in chemistry as in the enclosed curriculum. The members have also agreed to consider MOOCs courses (NPTEL/Swayam) to offer as generic electives.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District – 585367

- 8. The members have discussed the "AGENDA-VI: B.Sc Skill development course "Quality control chemist". The members have also noted that the "Quality control chemist" certificate course is ongoing at the Department of Chemistry, CUK. They have also appreciated that consideration of these as Skill Enhancement Courses (SEC) will also ease the burden on the faculties. The members have recommended the Skill Enhancement Courses as in the enclosed curriculum.
- The members have discussed the "AGENDA-VII: B.Sc value added course Industrial chemistry". The members have recommended the following for the Value Addition Courses:

(i) Semester-I: Ethics in science

(ii) Semester-III: Industrial Chemistry (Making of soaps, candles, etc.)

(i) Semester-V: Industrial Chemistry (Electroplating, etc.)

- 10. The members have discussed the "AGENDA-VIII: Inputs and guidance for DST-FIST research grant". The members have recommended applying for the DST-FIST research grant. They have further suggested including the equipments that are commonly used by all faculty members in the department.
- 11. The members further discussed the holistic development of chemistry and strongly recommended the recruitment of faculty in ongoing assistant professor advertisement in the area of physical chemistry/theoretical chemistry/spectroscopy.
- 12. The members have further discussed that strength of the faculties at the Department of chemistry, Central university of Karnataka is inadequate. Given the diverse areas in chemical sciences, the members have strongly recommended to increase the faculty strength and to add additional 4-5 faculties to Department of chemistry as soon as possible.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District – 585367

#### Signature

Prof. R.V. Hosur, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India. Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.

Dr. Ananda Kuppanna, Sr.GM, API-R&amp,D Mylan Laboratories Limited Hyderabad, India

Dr. Veeresh G. Kasabegardar.
Department of Engineering.
Central University of Karnataka, Kalaburagi-585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr Venkata Ramana Doddi Dept. Of Chemistry,

Central University of Karnataka, Kalaburagi-585367, India.

Dr. Harish Holla, Dept. Of Chemistry,

Central University of Karnataka, Kalaburagi-585367, India.

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Dr. Rasmita Samal,

Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

4

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India

Dr. Pallepogu Raghavaiah,

Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Morrana

Dr. N. S. Venkata Narayaman Dept. Of Chemistry,

Central University of Karnataka, Kalaburagi-585367, India

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District – 585367

#### Signature

Room

Prof. R.V. Hosur, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India. Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune. Pune-411008, India.

Dr. Ananda Kuppanna, Sr. GM, API-R&amp,D Mylan Laboratories Limited Hyderabad, India Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Dr Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Dr. N. S. Venkata Narayanan, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District- 585367

#### Signature

Prof R.V Hosur,
Department of Chemical Sciences,
Tata Institute of Fundamental Research (TIFR), Mumbai 400 005,
India

ABlyga

Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.

Dr. Ananda Kuppanna, Sr. GM, API-R&amp,D Mylan Laboratories Limited Hyderabad, India Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Dr Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Harish Holla, Dept. Of Chemistry. Central University of Karnataka, Kalaburagi-585367, India. Dr. N. S. Venkata Narayanan, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District – 585367

#### Signature

Prof. R.V. Hosur, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.

ggirdan Bolegas

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (HSER) Pune, Pune-41 1008, India.

Dr Ananda Kuppanna, Sr GM, API-R&amp,D Mylan Laboratories Limited Hyderabad, India Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Dr. N. S. Venkata Narayanan, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District- 585367

#### Signature

Prof. R.V. Hosur, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India

Prof Balaji R, Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISe), Bangalore-560012, India.

Dr. Ananda Kuppanna, Sr. GM, API-R&D Mylan Laboratories Limited Hyderabad, India

Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr Venkata Ramana Doddi Dept Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr. Harish Holla, Dept Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.

Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.

Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India

Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. N. S. Venkata Narayanan, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

(Established by an Act of the Parliament in 2009)



## Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District—585367

#### Signature

Prof. R.V. Hosur,
Department of Chemical Sciences,
Tata Institute of Fundamental Research (TIFR), Mumbai 400 005,
India

Prof. Aninda J. Bhattacharyya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.

Prof. Balaji R. Jagirdar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc), Bangalore-560012, India. Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.

Dr. Ananda Kuppanna, Sr.GM, API-R&D Mylan Laboratories Limited Hyderabad, India Dr. Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad

Dr. Vecresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India Dr. Rasmita Samal, Department of Life Science, Central University of Karnataka, Kalaburagi-585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. Pallepogu Raghavaiah, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India. Dr. N. S. Venkata Narayanan, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

(Established by an Act of the Parliament in 2009)



### Department of Chemistry School of Chemical Sciences

Kadaganchi, Aland Road, Gulbarga District - 585367

#### Signature

Prof. R.V. Hossar, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai 400 005, India

Prof. Aninda J. Bhattachuryya Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore-560012, India.

Prof. Balaji R. Jagordar Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISC), Bangalore-560012, India Prof. H.N. Gopi, Indian Institute of Science Education and Research (IISER) Pune, Pune-411008, India.

Dr. Ananda Kuppanna, Sr. GM, API-Ritamp, D. Mylan Laboratories Lunited Hyderabad, India Dr Rajesh Sonti Assistant Professor NIPER Hyderabad, Hyderabad 19107/22.

Dr. Veeresh G. Kasabegoudar, Department of Engineering, Central University of Karnataka, Kalaburagi-585367, India

Dr. Rasmita Samal, Department of Life Science, Central University of Karnstaka, Kalaburagi -585367, India

Prof. P. Veera Somaiah, Visiting Faculty, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Prof. Konkallu Hanumae Gowd, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Venkata Ramana Doddi Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Pallepogu Raghavaiah, Dept Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. Harish Holla, Dept. Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India.

Dr. N. S. Venkata Narayanan, Dept Of Chemistry, Central University of Karnataka, Kalaburagi-585367, India



## Minutes of BOS and School Board meeting held on 11-07-2022

pin met <vs\_puppala@rediffmail.com> To: CUK Chemistry Department <chem.office@cuk.ac.in> Mon, Jul 18, 2022 at 11:21 AM

The BOS meeting minutes are approved.

Regards,

Prof.P.Veera Somaiah.

Sent from RediffmailNG on Android

From: CUK Chemistry Department <chem.office@cuk.ac.in> [Quoted text hidden]