



JADAVPUR UNIVERSITY

CALCUTTA-700 032, INDIA

Telephone: 91-33-2457 2776 (Office)

91-9433948648 (Mob.)

E-mail : nitin.chattopadhyay@yahoo.com

Homepage: <https://sites.google.com/site/pcnitin/>

Dr. Nitin Chattopadhyay, Ph.D., D.Sc., F.A.Sc., F.N.A.Sc.

SIKSHA-RATNA, GOVT. OF WEST BENGAL

PROFESSOR, DEPARTMENT OF CHEMISTRY &

FORMER DEAN, FACULTY OF SCIENCE

February 24, 2025

To: The Vice Chancellor,
Pt. Ravishankar Shukla University, Raipur.

Sub: Report on the visit of Professor Nitin Chattopadhyay as the Visiting Professor of PRSU.

Dear Sir,

With due respect, I would like to place before you the following report on my visit to the Chemistry department of PRSU as a Visiting Professor during February 17-22, 2025.

Report on the activities of Professor Nitin Chattopadhyay as the Visiting Professor during his 1st visit to the School of Studies in Chemistry and Center for Basic Sciences, Pandit Ravishankar Shukla University, Raipur during February 17-22, 2025.

In response to the appointment letter with reference number kramank/3720/stha/sa.prasaa/2024, dated 19.12.24 for the Visiting Professorship in the Department of Chemistry, Pt. Ravishankar Shukla University, Raipur, I sent my acceptance letter to the Hon'ble Registrar on December 23, 2024 requesting him to consider February 01, 2025 as my joining date in the assignment. In the same acceptance letter, I further committed to make my first visit tentatively during middle of February 2025.

Accordingly, in consultation with Professor Kallol K. Ghosh, Head of the department of Chemistry, PRSU, I made my first visit to the department as Visiting Professor during February 17-22, 2025. Before my visit Prof. Ghosh made a tentative schedule (please see below) of my classes to take for the students of both SoS in Chemistry and Center for Basic Sciences (CBS).



रसायन अध्ययनशाला
पं. रविशंकर शुक्ल विश्वविद्यालय
रायपुर (छ. ग.) 492010

Ref, No



School of Studies in Chemistry
Pt. Ravishankar Shukla University
RAIPUR (C. G.) 492010
Phone : 2262764, 2263146

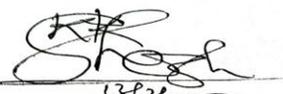
Raipur, Date, ... 13.2.25

TIME TABLE FOR VISITING PROFESSOR
Prof. Nitin Chattopadhyay, Jadavpur University, Kolkata

17-02-2025 to 22-02-2025

Date	Time	Time
17-02-2025	10:00 AM to 10:30 AM (Introduction) (S.o.S. in Chemistry)	02:30 PM to 03:30 PM (Centre for Basic Sciences)
	10:30 AM to 11:30 AM M.Sc. II & M.Sc. IV (S.o.S. in Chemistry) Topic: Spectroscopy	
18-02-2025	10:30 AM to 11:30 AM M.Sc. II Sem. (S.o.S. in Chemistry)	02:30 PM to 03:30 PM (Centre for Basic Sciences)
19-02-2025	11:30 AM to 12:30 PM M.Sc. IV (S.o.S. in Chemistry)	02:30 PM to 03:30 PM (Centre for Basic Sciences)
20-02-2025	10:30 AM to 11:30 AM M.Sc. II Sem. (S.o.S. in Chemistry)	02:30 PM to 03:30 PM (Centre for Basic Sciences)
21-02-2025	10:30 AM to 11:30 AM, M.Sc. II/ M.Sc. IV Sem. (S.o.S. in Chemistry)	02:30 PM to 03:30 PM (Centre for Basic Sciences)
22-02-2025	One Day national Conference on "Molecules to Material: Unveiling the Chemical Landscape"	

Venue: Sir C.V. Raman Hall, S.o.S. in Chemistry, Pt. Ravishankar Shukla university, Raipur


13/2/25
Dr. Kallol K. Ghosh
Professor and Head
School of studies in Chemistry
Pt. Ravishankar Shukla University
RAIPUR (C.G.)

From Kolkata I arrived Raipur on 16th February (Sunday) by air (Indigo flight 6E 417 scheduled at 2:15 pm). Prof. Ghosh was kind enough to receive me at Raipur airport at around 4 pm and took me to PRSU. He arranged for my comfortable stay in the PRSU Guest House.

On 17th February (Monday) Prof. Ghosh took me to the Chemistry department from the guest house at around 9:45 am. At 10:00 am we were assembled in Sir C. V. Raman Hall of the department where students of MSc Chemistry (both Semester II and Semester IV) were waiting. As the HoD Chemistry, Professor Ghosh introduced me before the students. After that I started my class. In the first class till 11: 30 am I introduced several fundamental aspects of efficient methods and techniques of LEARNING through asking questions to oneself. With a number of known topics, I convinced the Master's students that although they have the information, there were so many things that they can discover by asking questions, which they did not. The students liked the interactions and they also participated in the discussions, although not to the degree of my satisfaction. After the class, with Prof. Ghosh I visited the sophisticated lab that was newly set in SoS in Chemistry. The

state-of-the-art lab is believed capable of helping the faculty members and the research scholars to perform contemporary modern research of global standard. We had effective discussions on promising experiments that can be done with the instruments, especially with the fluorometer. I suggested to install excitation and emission polarisers in the fluorometer so that they can perform experiments on fluorescence anisotropy which can explore many things in solution phase, including important studies on targeted drug delivery etc. I also met Prof. Manas K Dev and had some discussions with him.

In the second half after lunch, I was taken to the CBS section by Prof. Ghosh where I was cordially received by Dr. Bhanusree Gupta. We met the students of CBS at 2:30 pm in a big class room which was completely full. After the introduction of mine by Dr. Gupta, I started my class where I started the same way as I did with the Master's students in the Chemistry department. The students were looking brighter with my way of interactions. The class went till 3:30 pm and I went back to the Chemistry department to meet with the departmental faculty members.

From 18th February till 21st February I continued taking classes as per the above routine with some modification that in many of the cases (in both the Chemistry department as well as CBS section) the classes were extended for two consecutive periods due to the demands of the students and, of course with the permission and adjustments of classes by the HoD Prof. Ghosh (in Chemistry) and Dr. Gupta (in CBS) without hampering the normal academic programs of them. Through my series of lectures (more in numbers than suggested in the above routine) I tried to convince the students and research scholars to learn in a more fruitful way through asking questions to themselves. I covered diverse topics including General physical chemistry, kinetics, acid-base concepts and a detail of photochemistry and spectroscopy.

On the combined requests of the research scholars of Chemistry and CBS as well the students of both the departments (Chemistry and CBS), on 19th during 3:30–4:30 pm (after the scheduled class of duration 2:30-3:30 for CBS) I delivered a lecture on research aspects and made interactions on it. Title of the presentation was “Convenient use of Molecular Aggregates for Drug Delivery and Excretion”. Both the scholars and students were illuminated and were very happy with the way of presentation. I was very happy with their substantive interactions.

During my visit I tried to interact intimately with the students of both Chemistry and CBS and tried to stimulate them to love their subjects. I gave them my contact details so that they can communicate with me in future for any need, academic or what-so-ever.

I had separate and rather long discussions with Dr. Gupta and her research scholars on their running and planned works. Based on my long experience, I suggested several important experiments which Dr. Gupta approved and accepted to do in future. I had detail discussions on research aspects with Dr. M. L. Satnami of SoS in Chemistry and his students as well. During the interactions I gave some positive suggestions which Dr. Satnami appreciated.

Apart from taking classes in SoS in Chemistry and CBS and interacting with the students and teachers of both the sections, I was given an assignment to act as the external expert for the examination of Ms. Preetimala Sahu for her possible promotion from Junior Research Fellow (JRF) to Senior Research Fellow (SRF). This was successfully done on 17th February at 12:00 noon in the room of HoD, Department of Chemistry.

After the completion of my scheduled programs as the Visiting Professor in PRSU, SoS in Chemistry, under the leadership of Prof. K K Ghosh, organized a One Day National Conference on “Molecules to Material: Unveiling the Chemical Landscape” on 22nd in association with the Indian Photobiology Society (IPS) where I delivered the Keynote address. In this talk I emphasized the importance of fluorescence anisotropy related experiments to unveil various aspects in solution phase. I particularly demonstrated how using this simple tool requiring principally a spectrofluorometer, we were able to explore and unveil asymmetric solvation of a class of molecules which are prone to excited state intramolecular proton transfer (ESIPT). Using a combination of both experiments and quantum chemical computations we pioneered in establishing unusual solvation of ESIPT probes in protic solvents like water. Based on the experimental outcomes of steady-state and time-resolved fluorescence anisotropy (FA) experiments with 3-hydroxyflavone (3HF) and its methoxy analogue (3MF) we put forward our pioneering proposition that high FA is due to the formation of H-bonded cage-like structures of probes involving the protic solvents including water. Although it was a Keynote lecture, participants were interested to ask questions to satisfy their queries and their demands were entertained. After taking lunch, I left PRSU to take my return flight (Indigo flight 6E 801) scheduled at 4:25 pm.

In short, to my assessment, my first visit as the Visiting Professor in the SoS in Chemistry and CBS of PRSU was really fruitful. As I felt, and I also received some positive and exciting communications from a few students from both sections, the students were very happy (as appeared from reading their faces) to be exposed to a more effective way of learning through asking questions to themselves. In my second visit I will try to read them again and will check their progress in the learning process and their love and inclination towards the subject.

Thanks and regards,





Raipur, Chhattisgarh, India
6hxw+696, Amanaka, Raipur, Chhattisgarh 492010, India
Lat 21.248108° Long 81.595824°
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