

Report of Science Academies' Virtual Lecture Workshop

on

“Fundamental Chemistry”

in collaboration

with

Indian Academy of Sciences, Bengaluru

Indian National Science Academy, New Delhi

The National Academy of Sciences India, Prayagraj

Date: 23- 25 October 2021

(Ref. No: SEP/LW/October/2021 Date: 18/08/2021)



Organized By

Department of Chemistry

Dayanand Science college, Latur-413512

Maharashtra, India

About the workshop:

Dayanand Science College organized Science Academies' Virtual Lecture Workshop on “**Fundamental Chemistry**” for B.Sc. T.Y. Chemistry students in collaboration with Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi and The National Academy of Sciences India, Prayagraj

The objectives of the workshop:

- To give the opportunity to B. Sc.T.Y. students to learn about Fundamental Chemistry in greater detail than it is possible during their regular classes as part of curriculum.
- To develop more interest in chemistry.
- To increase numerical problem-solving skills than memorization.
- To motivate these students to complete their PG (M.Sc.) in chemistry.
- To develop greater interest for research in chemistry after completion of UG/PG.

To keep these objectives in mind, we arrange this workshop for the benefit of B.Sc. T.Y. Chemistry students.

Date and Venue:

The workshop took place on 23rd – 25th October 2021 at Dayanand science college, Latur.

Course Content

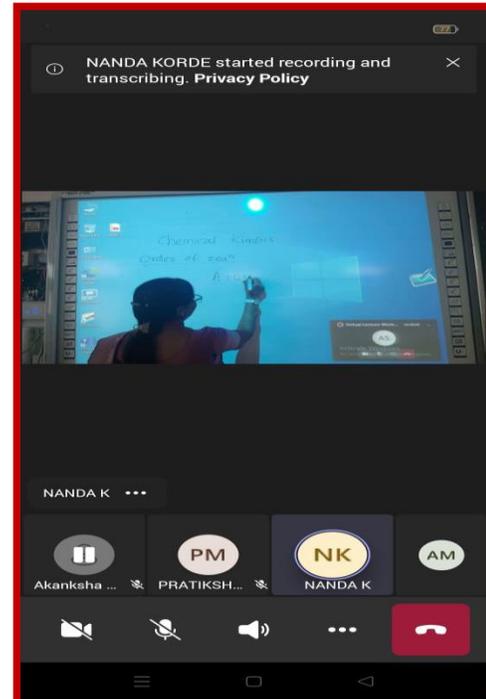
- 1) Nanomaterial Chemistry
- 2) Bio-organic chemistry
- 3) Short lived species: Characterization and Dynamics
- 4) Fluorescence Spectroscopy: Fundamentals and some applications
- 5) Chemical Biology
- 6) Coordination chemistry

7) Chemical Kinetics



Day-1
(23.10.2021)
Agenda:

- Welcome and Inauguration (9:45am-10:00am)
- Session-I on Nanomaterial Chemistry
- Session-II on Chemical Kinetics
- Session-III on Chemical Kinetics



The inaugural ceremony was inaugurated by the auspicious hands of Chief guest and Convener of this virtual workshop Prof. Anand Pathak, Dr. Jaiprakash Dargad, Principal, Dayanand Science College, Dr. S.S. Bellale, Vice-Principal, Dayanand Science college, Dr. Yuvraj Sarnikar, Head of chemistry department, Dr. Nanda Sheshrao Korde, Co-ordinator of this workshop.

After inaugural ceremony Prof. Anand Pathak conducted a highly interactive session I on Nanomaterial Chemistry. He explained very systematic way typical energies, energy diagrams for single atom, bulk crystal and quantum dot.

Second session on Chemical kinetics was delivered by Dr. N.S.Korde She explained basic terms involved in chemical kinetics. She derived equation of velocity constant for third order reaction with equal concentration and explained characteristics of third order reaction.

After lunch break third session began with Chemical Kinetics by Dr. N.S.Korde. She derived kinetic equation for complex reaction such as opposing reaction and chain reaction. Also derived kinetic equation for photochemical reaction with suitable examples.

Session IV was started with Nanometerial chemistry by Prof.Anand Pathak. The session converted to the student participant in a dialogue that generates knowledge.



Day-2
(24.10.2021)
Agenda:

- Session-I on Bio-organic Chemistry
- Session-II on Coordination chemistry
- Session-III on Coordination chemistry
- Session-IV on Bio-organic Chemistry



On second day 24 Oct 2021, workshop began with the session I on Bio-organic chemistry by Prof. Nattu A.A. in which he described several points on chemical origins of biology as DNA, RNA, lipids, cell energy requirements and importance of ATP to ADP conversions.

After this a session II on Coordination Chemistry delivered by Prof. B.C.Khade. He discussed about the importance of coordination chemistry, difference between primary valency and secondary valency, application of Werners theory, the shape of d orbital.

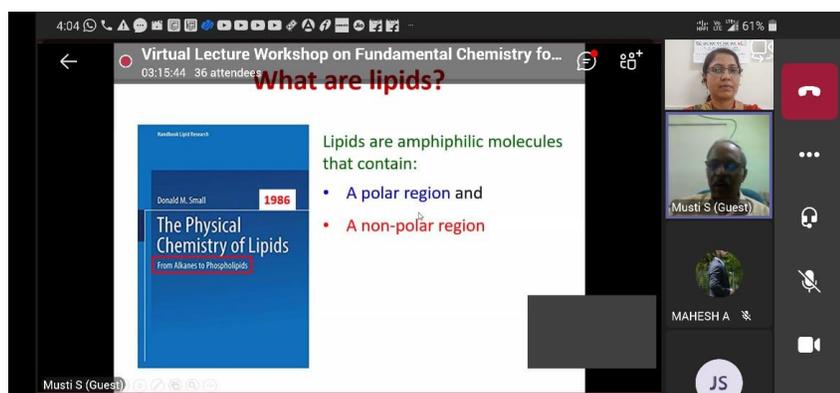
In post lunch session III, the first talk was given by Prof. B.C.Khade. In this session he focused on postulates of CFT, splitting of d orbital in octahedral, tetrahedral, tetragonal and square planar complexes, calculation of crystal field stabilization energy. Participant solved many numerical given by Prof. B.C.Khade. The session was very interactive and many of our participants were actively interacted with the resource person.

Last session IV started by Prof. Nattu A.A. on Bio-organic chemistry. He focused nucleoside to nucleotide to oligometer to genes to chromosome travel, application of synthetic oligo nucleotides in diagnostics as well as recently developed Antisense Technology using examples of contemporary drug molecules. The session was very informative and many of our participants were actively interacted with Prof. Arvind Natu.



**Day-3
(25.10.2021)
Agenda:**

- Session-I on Short lived species: Characterization and dynamics
- Session-II on Chemical Biology
- Session-III on Fluorescence Spectroscopy: Fundamentals and some applications
- Session IV on Chemical Biology
- Valedictory session



On last day 25 Oct 2021, workshop began with the session I on Short lived species: Characterization and dynamics by Professor A. Samantha in which he described reactions that occurs in timescales ranging from a few seconds to a few femtoseconds. Also he

discussed about the difficulties associated with precise estimation of the kinetics of these fast and ultrafast reactions.

After this a session II on Chemical Biology delivered by Prof. Musty J. Swamy. He gave information about chemical structure, conformation and 3-dimensional structure of biomolecules such as proteins, polysaccharides, RNA and DNA .

In post lunch session III, the first talk was given by Prof. A. Samantha. In this session he focused on flow techniques, relaxation techniques, pump-probe techniques and fluorescence based techniques. The session was very interactive and many of our participants were actively interacted with the resource person.

Last session IV started by Prof. Musty J. Swamy on Chemical Biology. He focused on synthesis, supramolecular aggregation, phase behavior of bio-inspired lipids and amphiphilics.

At the end of the workshop, the Valedictory session was held at 5:30pm-6:00pm which was chaired by Prof. Musty J. Swamy, FNASc, FASc, School of chemistry, University of Hyderabad, Hyderabad, Prof. Anand Pathak, FNASc, F. Inst. P(London), School of Physics, University of Hyderabad, Hyderabad Dr. Jaiprakash Dargad, Principal, Dayanand Science College, Latur .Prof. Musty J. Swamy during his speech motivate the student participants for higher education in chemistry. He gave information about the admission process of summer camp-2022 sponsored by Indian Academy of Sciences, Bengaluru. Prof. Anand Pathak expressed his trust that the participants would gain the knowledge from such workshop that shape up their personality, life. Three student participants namely Miss Dhanashri Landge, Dyanopasak college Parbhani, Mr. Bajrang Karad, Rajarshi Shahu Mahavidyalaya Latur and Miss Pratiksha More, Dayanand Science College, Latur gave very positive and appreciated feedback during valedictory session. Prof. Musty J. Swamy congratulated all the participants and organizers for successful completion of workshop. During the presidential talk, Principal Dr. Jaiprakash Dargad said that the National, International conferences, workshops, Inspire camp, Ph.D.courses, Refresher courses organized by Dayanand science college regularly due to which college provides quality education to students as well as teachers.

Outcomes from the workshop:

- 1) This workshop helped the students to learn and understand the impact of the chemistry in societal and environmental context and demonstrate the knowledge & need for sustainable development.
- 2) This workshop assists participant students to communicate the views and opinion
- 3) This workshop boosts the students to apply the knowledge of chemistry to the solution of complex chemistry problems.
- 4) Participant students learned new techniques to enhance knowledge
- 5) This workshop provided opportunity to the students to interact with Sr. Scientists, Researchers and Professors

No. of Beneficiaries:

Total 125 student participants get benefited.

Acknowledgement:

I would like to express my sincere gratitude to Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi and The National Academy of Sciences India, Prayagraj for sponsoring this virtual lecture workshop.

I would like to acknowledge my obligation to Prof. Anand Pathak, FNASc, F. Inst. P(London), School of Physics, University of Hyderabad, Hyderabad who worked as a Convener for entire workshop and his guidance has contributed to the successful execution of workshop. My deepest sense of appreciation to Dr. J.S. Dargad, Principal, Dayanand Science college, Latur Latur for his constant motivation and encouragement during entire workshop. I would like to mention my sincere thanks to all resource persons for sharing their knowledge and gracing the entire workshop

Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_NDliODdjNTQtOTI5Yy00MTliLTk5NmMtM2UwZjEzZWnkODEz%40thread.v2/0?context=%7b%22Tid%22%3a%229f2250c0-771c-42ad-ad5c-909b9281220e%22%2c%22Oid%22%3a%2243a3d581-82be-49d3-9977-99591963f785%22%7d

दयानंद विज्ञान महाविद्यालयात 'मूलभूत रसायनशास्त्र' या विषयावरील तीन दिवसीय ऑनलाईन व्याख्यान कार्यशाळेचे उद्घाटन

लातूर/प्रतिनिधी : आज कोरोना काळातही ऑनलाईन शिक्षणामुळे शिक्षणाची दारे उघडी आहेत. ऑनलाईन शिक्षण हा कोरोना काळातील शिक्षणासाठीचा योग्य पर्याय आहे. विद्यार्थी हे देशाचे भवितव्य आहेत. विद्यार्थ्यांनी समाजात काळजीपूर्वक वावरावे आणि कुठल्याही चुकीच्या गोष्टीचे समर्थन करू नये. याचबरोबर रसायनशास्त्रसारखा विषय विद्यार्थ्यांच्या भवितव्यासाठी अत्यंत महत्त्वाचा आहे, त्यात करिअर करावे, असे प्रतिपादन हैदराबाद विद्यापीठाच्या

भौतिकशास्त्र विभागातील माजी प्रो. डॉ. आनंद पाठक यांनी केले.

येथील दयानंद विज्ञान महाविद्यालयातील रसायनशास्त्र विभाग व इंडियन अँकॅडमी ऑफ

सायन्ससेस, बेंगलोर यांच्या संयुक्त विद्यमाने दिनांक २३ ऑक्टोबर ते २५ ऑक्टोबर २०२१ दरम्यान आयोजित करण्यात आलेल्या

'मूलभूत रसायनशास्त्र' या विषयावरील तीन दिवसीय कार्यशाळेचे उद्घाटन झाले. त्यावेळी ते प्रमुख पाहुणे, कार्यशाळा संयोजक व साधन व्यक्ती म्हणून बोलत होते. कार्यशाळेच्या उद्घाटन प्रसंगी अध्यक्षस्थानी महाविद्यालयाचे प्राचार्य डॉ. जयप्रकाश दरगड होते. याप्रसंगी उपप्राचार्य डॉ. एस. एस. बेळगाळे,

रसायनशास्त्र विभाग प्रमुख डॉ. युवराज सारणीकर, कार्यशाळा समन्वयक डॉ. नंदिनी कोरडे, तांत्रिक समन्वयक शिंदे, प्रा. अमोल सांजेकर यांची प्रमुख उपस्थिती होती.

अध्यक्षीय समारोप करताना प्राचार्य डॉ. जयप्रकाश दरगड असे म्हणाले की, बी. एस्सी. तृतीय वर्ष

रसायनशास्त्र विषयाच्या विद्यार्थ्यांसाठी आयोजित केलेली ही कार्यशाळा मार्गदर्शक, स्फूर्तीदायी,

रसायनशास्त्र या विषयाचे सखोल असे ज्ञान देणारी आहे. या कार्यशाळेतील तज्ज्ञ मार्गदर्शकांच्या मार्गदर्शनातून विद्यार्थ्यांना भावी उज्वल आयुष्यासाठी अनमोल असे ज्ञान मिळणार आहे. ही मूल्यवर्धित कार्यशाळा आहे. विद्यार्थ्यांचा सर्वांगीण विकास आणि शिक्षणाचा गुणात्मक दर्जा उंचावणे या उद्येशातून या कार्यशाळेचे आयोजन करण्यात आले आहे, असे ते म्हणाले.

कार्यशाळेचे प्रास्ताविक डॉ. नंदिनी कोरडे यांनी केले तर आभार डॉ. युवराज सारणीकर यांनी मानले. सूत्रसंचालन प्रा. अक्षता माने यांनी केले. याप्रसंगी डॉ. जमन अनगुलवार, डॉ. आण्णाराव चौगुले, प्रा. श्रेयस माहुरकर, डॉ. रवींद्र शिंदे, प्रा. राहुल जाधव, डॉ. श्याम इबाते, प्रा. बी. डी. कमाले, प्रा. नवनाथ डेकणे, प्रा. मनीषा मुंडे, प्रा. भाग्यश्री काळे, प्रा. तांबोळी आदि प्राध्यापक, विविध महाविद्यालयातील प्राचार्य, विद्यार्थी आणि शिक्षकेत्तर कर्मचारी उपस्थित होते.



पुरोगामी विचारांचे एकमत

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25 Oct 2021

विद्यार्थ्यांच्या भवितव्यासाठी रसायनशास्त्र विषय महत्त्वाचा

लातूर : आज कोरोना काळातही ऑनलाईन शिक्षणामुळे शिक्षणाची दारे उघडी आहेत.

ऑनलाईन शिक्षण हा कोरोना काळातील शिक्षणासाठीचा योग्य पर्याय आहे. विद्यार्थी हे देशाचे भवितव्य आहेत. विद्यार्थ्यांनी समाजात काळजीपूर्वक वावरावे आणि कुठल्याही चुकीच्या गोष्टीचे समर्थन करू नये. याचबरोबर रसायनशास्त्रसारखा विषय विद्यार्थ्यांच्या भवितव्यासाठी अत्यंत महत्त्वाचा आहे, त्यात करिअर करावे, असे प्रतिपादन हैदराबाद विद्यापीठाच्या भौतिकशास्त्र विभागातील माजी प्रो. डॉ. आनंद पाठक यांनी केले.

दयानंद विज्ञान महाविद्यालयातील रसायनशास्त्र विभाग व इंडियन अँकॅडमी ऑफ

सायन्ससेस, बेंगलोर यांच्या संयुक्त विद्यमाने दि. २३ ते २५ ऑक्टोबर दरम्यान आयोजित

करण्यात आलेल्या 'मूलभूत रसायनशास्त्र' या विषयावरील तीन दिवसीय कार्यशाळेचे उद्घाटन प्रसंगी डॉ. पाठक बोलत होते. कार्यशाळेच्या उअध्यक्षस्थानी प्राचार्य डॉ. जयप्रकाश दरगड होते. याप्रसंगी उपप्राचार्य डॉ. एस. एस. बेळगाळे, रसायनशास्त्र विभाग प्रमुख डॉ. युवराज सारणीकर, कार्यशाळा समन्वयक डॉ. नंदिनी कोरडे, तांत्रिक समन्वयक डॉ. रोहिणी शिंदे, प्रा. अमोल सांजेकर यांची प्रमुख उपस्थिती होती.

अध्यक्षीय समारोपात प्राचार्य डॉ. दरगड म्हणाले की, बी. एस्सी. तृतीय वर्ष रसायनशास्त्र विषयाच्या विद्यार्थ्यांसाठी

आयोजित केलेली ही कार्यशाळा मार्गदर्शक, स्फूर्तीदायी, रसायनशास्त्र या विषयाचे सखोल असे ज्ञान देणारी आहे. या कार्यशाळेतील तज्ज्ञ मार्गदर्शकांच्या मार्गदर्शनातून विद्यार्थ्यांना भावी उज्वल आयुष्यासाठी अनमोल असे ज्ञान मिळणार आहे. ही मूल्यवर्धित कार्यशाळा आहे. विद्यार्थ्यांचा सर्वांगीण विकास आणि शिक्षणाचा गुणात्मक दर्जा उंचावणे या उद्येशातून या कार्यशाळेचे आयोजन करण्यात आले आहे, असे ते म्हणाले. कार्यशाळेचे प्रास्ताविक डॉ. नंदिनी कोरडे यांनी केले. सूत्रसंचालन प्रा. अक्षता माने यांनी केले. तर आभार डॉ. युवराज सारणीकर यांनी मानले. याप्रसंगी डॉ. जमन अनगुलवार, डॉ. आण्णाराव चौगुले, प्रा. श्रेयस माहुरकर, डॉ. रवींद्र शिंदे, प्रा. राहुल जाधव, डॉ. श्याम इबाते, प्रा. बी. डी. कमाले, प्रा. नवनाथ डेकणे, प्रा. मनीषा मुंडे, प्रा. भाग्यश्री काळे, प्रा. तांबोळी आदि उपस्थित होते.



सक्राळ

रसायनशास्त्र विषयातही विद्यार्थ्यांनी करिअर करावे

डॉ. आनंद पाठक ; रसायनशास्त्र विषयावर कार्यशाळा

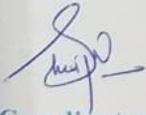
लातूर, ता. २३ (बातमीदार)
: कोरोना काळातही ऑनलाइन शिक्षणामुळे शिक्षणाची दारे उघडी आहेत. ऑनलाइन शिक्षण हा कोरोना काळातील शिक्षणासाठीचा योग्य पर्याय आहे. विद्यार्थी हे देशाचे भवितव्य आहेत. विद्यार्थ्यांनी समाजात काळजीपूर्वक वावरावे, कुठल्याही चुकीच्या गोष्टीचे समर्थन करू नये. यासोबत रसायनशास्त्रसारखा विषय विद्यार्थ्यांच्या भवितव्यासाठी अत्यंत महत्त्वाचा असून, त्यातही करिअर करावे, असे आवाहन हैदराबाद विद्यापीठाच्या भौतिकशास्त्र विभागाचे माजी प्राध्यापक डॉ. आनंद पाठक यांनी केले.

दयानंद विज्ञान महाविद्यालयातील रसायनशास्त्र विभाग व बेंगलोरच्या इंडियन अॅकडमी ऑफ सायन्ससेसच्या वतीने आयोजित 'मूलभूत रसायनशास्त्र' या विषयावरील तीन दिवसीय कार्यशाळेच्या उद्घाटनप्रसंगी ते बोलत होते. अध्यक्षस्थानी प्राचार्य डॉ. जयप्रकाश दरगड होते. उपप्राचार्य

डॉ. एस. एस. बेल्लाळे, रसायनशास्त्र विभाग प्रमुख डॉ. युवराज सारणीकर, कार्यशाळा समन्वयक डॉ. नंदिनी कोरडे, तांत्रिक समन्वयक डॉ. रोहिणी शिंदे व प्रा. अमोल सांजेकर यांची प्रमुख उपस्थिती होती. प्राचार्य डॉ. दरगड यांनी कार्यशाळा मार्गदर्शक व स्फूर्तिदायी तसेच रसायनशास्त्र विषयाचे सखोल असे ज्ञान देणारी असून, कार्यशाळेतील तज्ञ मार्गदर्शकांच्या मार्गदर्शनातून विद्यार्थ्यांना भावी उज्वळ आयुष्यासाठी अनमोल ज्ञान मिळणार असल्याचे सांगितले.

कार्यशाळेत डॉ. जमन अनगुलवार, डॉ. आण्णाराव चौगुले, प्रा. श्रेयस माहुरकर, डॉ. रवींद्र शिंदे, प्रा. राहुल जाधव, डॉ. श्याम इवाते, प्रा. बी. डी. कमाले, प्रा. नवनाथ डेक्कणे, प्रा. मनीषा मुंडे, प्रा. भाग्यश्री काळे यांच्यासह विविध महाविद्यालयाचे प्राचार्य, प्राध्यापक व विद्यार्थी सहभागी झाले होते. प्रा. अक्षता माने यांनी सूत्रसंचालन केले.

Aurangabad, Latur-Today
24/10/2021 Page No. 1



Coordinator

Dr. Nanda S. Korde
Dept. of Chemistry,
Dayanand Science college
Latur-413512



Principal

Dr. J. S. Dargad
PRINCIPAL
Dayanand Science College
LATUR



Indian Academy of Sciences, Bengaluru
 Indian National Science Academy, New Delhi
 The National Academy of Sciences, India, Prayagraj
 SEP/LW/October/2021

**SCIENCE ACADEMIES'
 EDUCATION PROGRAMME**
 P. B. No. 8005, C.V. Raman Avenue, Sadashivanagar Post, Bengaluru 560 080
 Telephone: (080) 2266 1207, 2266 1210, Fax: (080) 2361 6094
 Email: sep@ias.ac.in Website: www.ias.ac.in

18 August 2021

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Dr N.S. Korde
 Asst. Professor
 Dept. of Chemistry
 Dayanand Science College
 Latur 413 512

Sub: Virtual Lecture Workshop on "Fundamental Chemistry" at Dayanand Science College, Latur during 23-25 October 2021.

Dear Madam,

Thank you for submitting the proposal for conducting the virtual Lecture Workshop on "Fundamental Chemistry" at Dayanand Science College, Latur during 23-25 October 2021. The budget of Rs. 41,500/- (Rupees forty-one thousand and five hundred only, capital items ie., webcam, microphone etc. will not be paid by the Academy) has been approved by the Academy. Please note that the ~~workshop~~ platform charges and incidental charges are limited to Rs.10,000 and Rs.3000/- respectively. Honorarium for supporting staff is not applicable for virtual workshops.

After the completion of the Workshop we need the following:

1. a brief report of the workshop
2. time-table of the workshop
3. Statement of receipts and payments certified by finance personnel of your institution or a Chartered accountant.
4. Detailed statement of accounts (in the prescribed format) along with copies of vouchers/bills.
5. Utilization certificate as per GFR 19A (enclosed)

Please settle all the claims at your end and send us the final expenditure statement for releasing the amount.

We wish the Workshop all success.

With regards,


 C S Ravi Kumar
 Coordinator, Science Education Programmes

Please find below a note about the 75th year of Indian independence (Azadi ka Amrut Mahotsav). We would like you to include this note in all the publication material about the workshop. You might even consider displaying this prominently at the venue.

The Science Academies have been supporting two/three-day lecture workshops and fifteen-day refresher courses on topics of current interest throughout the country. All the programmes conducted by the Joint Science Education Panel of the Academies are fully supported by the Department of Science and Technology, Govt. India. DST has undertaken a series of activities to mark 75 years of India's Independence (Azadi ka Amrut Mahotsav). The Mahotsav is a series of S&T programmes and events to be organised to commemorate the 75th anniversary of India's Independence. The curtain raiser activities began from 12 March, 75 weeks prior to 15 August 2022. The lecture workshops/refresher courses are part of the series in these programmes. The Academy will also organize periodic lectures by eminent scientists. These programs will be adequately expanded in the celebration of the 75 years of Indian Independence



UNIVERSITY OF HYDERABAD
SCHOOL OF PHYSICS
CENTRAL UNIVERSITY P.O., HYDERABAD 500 046, INDIA

Prof Anand P Pathak
F Inst. P, C Phys. : F N A Sc

08Aug 2021

To
Dr J S Dargad
Principal, Dayanand Science College
LATUR , Maharashtra

Dear Dr Dargad

Thank you for your letter dated 04th August 2021, asking me to be the convener for three days short duration Science Academies virtual Lecture workshop on Fundamental Chemistry for B Sc III year students during 23-25 Oct 2021. I am glad to give my consent and accept the assignment.

Anand P Pathak

**Final Time Table for Virtual Lecture workshop on Fundamental Chemistry
(23-25th October 2021)**

1.

Date	Period <u>I</u>		Period <u>II</u>		Period <u>III</u>		Period <u>IV</u>	
	10:00 am	11:30 am	11:45 am	1:15 pm	2:15 pm	3:45 pm	4:00 pm	5:30 pm
	11:30 am	11:45 am	1:15 pm	2:15 pm	3:45 pm	4:00 pm	5:30 pm	6:00 pm
23/10/2021	Nanomaterial Chemistry Prof. Anand Pathak	Interval	Chemical Kinetics Dr. N.S.Korde	Lunch Break	Chemical Kinetics Dr. N.S.Korde	Tea Break	Nanomaterial Chemistry Prof. Anand Pathak	Valedictory function
24/10/2021	Bio-organic chemistry Prof. Nattu A. A		Coordination chemistry Prof. B. C. Khade		Coordination chemistry Prof. B. C. Khade		Bio-organic chemistry Prof. Nattu A. A	
25/10/2021	Short lived species: Characterization and Dynamics Prof. Anunay Samanta		Chem. Biology Prof. Musty J. Swamy		Fluorescence Spectroscopy: Fundamentals and some applications Prof. Anunay Samanta		Chem. Biology Prof. Musty J. Swamy	

V. S.
PRINCIPAL
Dayanand Science College
LATUR

List of Resource Person with Topic

	Prof. Anand P. Pathak F Inst. P (London), F Inst. P, C Phys. F N A Sc School of Physics, University of Hyderabad- 500046 Email: anandp5@yahoo.com	Nanomaterial Chemistry
	Prof. A. A. Natu IISER Pune Email: aanatu@iiser.pune.ac.in	Bio-organic Chemistry
	Prof. Musti J. Swamy F A Sc, F N A Sc Scholar of Chemistry University of Hyderabad Hyderabad -500046 Email: mjswamy@uohyd.ac.in	Chemical Biology
	Prof. Anunay Samanta F A Sc, F N A Sc, F N A J.C.Bose National Fellow School of Chemistry University of Hyderabad Hyderabad -500046 Email: anunay@uohyd.ac.in	Short lived species, Fluorescence Spectroscopy
	Prof. Bhimrao C. Khade Head of Dept. (Chemistry) Dnyanopasak College, Parbhani-431401 Email: bckhade@yahoo.com	Coordination Chemistry
	Dr. Nanda Sheshrao Korde (Member, Board of Studies in Chemistry, SRTMU, Nanded) Dept of Chemistry Dayanand Science College, Latur - 413512 Email: nandineekorde0@gmail.com	Chemical Kinetics

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Hon. Sureshji Jain
(Joint - Secretary of Dayanand Education Society,
Latur)

Organizing Chair
Dr. Jaiprakash Dargad ,
Principal -Dayanand Science College, Latur

Co-ordinator
Dr. Nanda Sheshrao Korde

Convenor
Prof. Anand P. Pathak
F Inst. P (London), F Inst. P, C Phys.
F N A Sc
School of Physics,
University of Hyderabad -500046

Organization Committee

Dr. Y. P. Sarnikar (HoD, Dept. of Chem, DSCL)	Dr. R. S. Shinde
Dr. S. N. Ibatte	Dr. S. S. Mahurkar
Dr. J. A. Angulwar	Dr. A. M. Chougule
	Mr. R. K. Jadhav

Registration Link

<https://bit.ly/3ITuzJ7>

No Registration fees
Only 100 Seats available

**Last Date of
Registration**
21.10.2021



Dayanand Education Society's
DYANAND SCIENCE COLLEGE, LATUR
(UGC-CPE,DST-FIST,NAAC Re-Accredited
"A" Grade College, Best College Award by
SRTMUN, Best Principal Award by SRTMUN)
Organizing Virtual Lecture Workshop on
Fundamental Chemistry
(For B.Sc III Yr Chemistry Students)

23-25th October 2021



In collaboration with



Indian Academy of Sciences, Bengaluru
Indian National Science Academy, New Delhi
The National Academy of Sciences India,
Prayagraj

ABOUT THE INSTITUTION & COLLEGE

Dayanand Arts, Science and Commerce college established in 1961 and separated in three different colleges in 1967. Now "Dayanand Science College, Latur" is one of the well-known and reputed Science College in Maharashtra State. Initially, the college offered under graduate (UG) course with the basic subjects like Physics, Chemistry, Mathematics, Botany and Zoology. Keeping the pace with time and sensing the needs of the students, applied subjects like Industrial Chemistry, Microbiology, Fishery Science and Electronics were introduced.

Post Graduate (PG) courses in Chemistry and microbiology introduced in 1992 and now a days college introduced PG courses in Physics, Computer Science, Biotechnology, Mathematics, Botany and Zoology. Our college runs Ph.D. courses (In Chemistry, Physics, Mathematics, Microbiology) and different COC and Value added courses.

Due to the quality education, the college received different National and International awards and schemes. In the year 2012, our institution received Shahu-Phule-Ambedkar Award by Maharashtra State Government. In 2013, the college received DST- FIST recognition. In the year 2014, College had been awarded "A" grade in NAAC Accreditation 2nd cycle with CGPA 3.14 out of 4.00. In the year 2015, College received **Best College** (Urban) Award from SRTM University, Nanded. In the year 2016, College has been awarded "**College with Potential for Excellence Award (CPE)**" by UGC and able to receive grant of Rs.5 Crore in three phases. Our Principal Dr. J.S. Dargad has been recently awarded by "**Best Principal Award**" by SRTM University, Nanded. The college is well known about the development of "Latur pattern of Education" in the state of Maharashtra for the meritorious pattern.

In last five years college organized 15 Inspire camps, 3 refresher courses, 3 International, 17 National, 14 State/ Regional conferences and workshops. Dayanand Science college having 22 acres fully **Eco-Friendly** Campus with solar system. Highly Qualified Teaching Faculty is working in this college. Digital Classrooms and Laboratory facilities are available with Wi-Fi campus.

Mission

- To establish and sustain a Meritorious Dayanand Pattern striving for excellence
- To enlighten students of rural area and empower them to contribute their services for national development

GOALS AND OBJECTIVES

- To provide quality academic environment for effective teaching, learning and research in basic sciences
- To develop a scientific temperament through a strong academic foundation coupled with practical exercises
- To acquaint students with modern technology, advance research and its applications to enable them to face global challenges
- To motivate students for acquiring scientific skills and creativity
- To collaborate with stakeholders of higher education for quality science education and research
- To create socio-environmental awareness among students and masses around
- To build multidimensional personality of students

ABOUT THE DEPARTMENT

- UG as well as PG courses
- SET/ NET cell
- Students got university gold medals in UG as well as in PG.
- Available instruments such as:

1. Infrared Spectrophotometer - FTIR-7600 (lambda scientific)
2. PC based double beam spectrophotometer 2202 (systronic)
3. Chemito UV 2100
4. Gas Chromatography (GC 8204)
5. Digital muffle furnace
6. Rota evaporator etc.

OBJECTIVES OF THE WORKSHOP

- To give the opportunity to B. Sc. T.Y. students to learn about Fundamental Chemistry in greater detail than it is possible during their regular classes as part of curriculum.
- To develop more interest in chemistry.
- To increase numerical problem-solving skills than memorization.
- To motivate these students to complete their PG (M.Sc.) in chemistry.
- To develop greater interest for research in chemistry after completion of UG/PG.



Dayanand Education Society's

DAYANAND SCIENCE COLLEGE, LATUR

(UGC-CPE,DST-FIST,NAAC Re-Accredited "A" Grade College, Best College Award by SRTMUN, Best Principal Award by SRTMUN)

Organized Science Academies' Virtual Lecture Workshop

On

"FUNDAMENTAL CHEMISTRY"

(For B.Sc. III Chemistry Students)

(Ref. No: SEP/LW/October/2021 Date: 18/08/2021)

In collaboration with

Indian Academy of Sciences, Bengaluru

Indian National Science Academy, New Delhi

The National Academy of Sciences India, Prayagraj

Certificate of Participation

This is to certify that Mr/Miss **Landge Dhanashree** of **Dnyanopasak Mahavidyalaya, Parbhani** actively participated in Virtual Lecture Workshop on **"FUNDAMENTAL CHEMISTRY"** for B.Sc. III Chemistry Students organized by Department of Chemistry, Dayanand Science college, Latur on 23rd to 25th October, 2021.

Coordinator

Dr.N.S. Korde

Prof. Anand Pathak

Principal

Dr.J.S.Dargad



Dayanand Education Society's

DAYANAND SCIENCE COLLEGE, LATUR

(UGC-CPE,DST-FIST,NAAC Re-Accredited "A" Grade College, Best College Award by SRTMUN, Best Principal Award by SRTMUN)

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The National Academy of Sciences India, Prayagraj

Certificate of Participation

This is to certify that Mr/Miss Pawar Abhijeet of shri hawagiswami collage udgir actively participated in Virtual Lecture Workshop on **"FUNDAMENTAL CHEMISTRY"** for B.Sc. III Chemistry Students organized by Department of Chemistry, Dayanand Science college, Latur on 23rd to 25th October, 2021.

Coordinator

Dr.N.S. Korde

Prof. Anand Pathak

Principal

Dr.J.S.Dargad

Name and Address of Mentors

<p>Prof. Anand P.Pathak F Inst. P (London), F Inst. P, C Phys. F N A Sc School of Physics, University of Hyderabad Hyderabad-500046 Email:anandp5@yahoo.com</p>	
<p>Prof. Arvind A.Natu IISER Pune Email:aanatu@iiser.pune.ac.in</p>	
<p>Prof. Musti J. Swamy F A Sc, F N A Sc School of Chemistry University of Hyderabad Hyderabad-500046 Email:mjswamy@uohyd.ac.in</p>	
<p>Prof. Anunay Samanta F A Sc, F N A Sc, F NA J.C.Bose National Fellow School of Chemistry University of Hyderabad Hyderabad -500046 Email:anunay@uohyd.ac.in</p>	
<p>Prof. Bhimrao C. Khade Head of Dept. (Chemistry) Dnyanopasak College, Parbhani-431401 Email:bckhade@yahoo.com</p>	
<p>Dr. Nanda Sheshrao Korde (Member, Board of Studies in Chemistry, SRTMU, Nanded) Dept of Chemistry Dayanand Science College, Latur -413512 Email: nandineekorde0@gmail.com</p>	

Attendance list of the student
Lecture Workshop On Fundamental Chemistry
Date: 23rd- 25th October 2021

Sr. No.	Name of the student	Name of the institution
1	Aakash Singare	Shri. Kumarswami Mahavidyalaya Ausa
2	Landge Dhanashree Madhavrao	DSM College Parbhani
3	SHINDE DIPAK MANIKRAO	Dnyanopasak mahavidyalay Parbhani
4	Govind Siral	DSM COLLEGE PARBHANI
5	Waghmare shubham attam	DSM college parbhani
6	Landage Pooja Vijaykumar	SRTMUN fundamental chemistry
7	Shaikh Nishad Shaikh Maheeb	D.S.M College Parbhani
8	Nikita anant suryawanshi	Dayanand science college latur
9	Ambhure Savita Ashok	DSM college parbhani
10	Pratiksha Laxman More	Dayanand science College latur
11	Kendre Suchita Madhav	Dayanand science college Latur
12	Reshma gore	Dayanand science college latur
13	Kadam Satyesh Bhagwan	DSM College parbhani
14	Mule Rutuja Rajkumar	Dayanand science college latur
15	JANARDHAN NANDKUMAR BHATANE	DAYANAMD SCIENCE COLLEGE ,LATUR
16	Kadam Hanuman Balasaheb	DSM College Parbhani
17	Gutte Anuja Gopalrao	Rajshri shahu Mahavidyalaya latur
18	Pawar omkar rajendra	Dayanand Science College Latur
19	Pooja Sanjit Jadhav	Dayanand Science College Latur
20	Sayyad Lajina Sayyad Musa	Dhyanopasak mahavidyalay Parbhani
21	Shinde Dipali Balaji	Dyanopasak college
22	Samale Nikita Anil	DSM college Parbhani
23	Shastri Apoorva Anil	Dayanand science Clg latur
24	Anuja Ghumbre	DSM college Parbhani Maharashtra
25	kale Shridevi Laxman	Dayanand science college latur
26	Chavan Sachchidanand shyam	Dayanand science College latur
27	Anuradha harishchandra vibhute	Dayanand science college latur
28	Aboli dhondiram kamble	Dayanand science College latur
29	Shirure Nishant Suryakant	Dayanand Science College,Latur
30	Kshitija lahu waghmare	Dayanand science collage latur
31	Karuna santoshrao Deshpande	Dayanand science College latur
32	Vaishnavi bhujang kamble	Dayanand science College Latur
33	Sana Shafi Gadiwan	Dayanand science College, Latur

34	JATAL NAGESH TRIMBAK	DSM College Parbhani
35	Barse Anuradha Tukaram	D.S.M college parbhani
36	Sayyad Lajina Sayyad Musa	D S M college parbhani
37	Komal Raosaheb Kute	DSM COLLEGE PARBHANI
38	GAIKWAD MOHIT MAHADEV	Dayanand science college, latur
39	Priya sadashiv chavan	dayanand science College Latur
40	Chetke virbhadra Rameshwar	Dayanand sci College latur
41	Vyas vaishnavi sanjay	Dayanand science college latur
42	Deshmukh shamal Chandrakant	Dnynopasak shikshan mandal parbhani
43	Jogdand Sandhyarani Satish	Shivaji College, Renapur
44	Qureshi Humera Abdulrauf.	Shivaji College Renapur.
45	Bajrang Karad	Shahu college latur
46	Shaikh shireen mohammed	Rajarshi shahu mahavidyalay, latur
47	More Madhav Narsing	Kai. Rashika Mahavidyalaya, Deoni
48	Kukade Nitin Ashok	Shivaji Mahavidhyalaya Renapur
49	dhoble ganesh jaysing	shivaji mahavidyalay renapur
50	Vitthal panchal	Shivaji mahavidhyalay renapur
51	Maniyar saba nasim	Shivaji mahavidyalay renapur
52	Shaikh shahana farid	Shivaji collage renapur
53	Patil Aditi ramchandra	Shree kumarswami college Ausa.
54	Varekar Pratibha dnyneshvar	Shree kumarswami college Ausa
55	Rathod Vijay Baburao	Nagnath Arts Commerce and Science College Aundha
56	Ganesh Gulabrao Jadhav	Mahatma Basweshwar Mahavidyalaya , Latur.
57	Jadhav prashant jayprakash	Mahatma basweshwar collage latur
58	Ambegave Kapil Rajendra	Dayanand science College Latur
59	Dhabekar Rupali Ramhari	Dayanand science college ,latur
60	Kshirsagar puja sopan	Shankarrav chavan mahavidyalya aardhapur
61	Sayyed Sadiya Begum Rahimali	Shivaji Collage, Renapur.
62	Kulkarni keyur krishna	Dayanand science college latur
63	Wagh Shreya Uttamkumar	Dayanand science college latur
64	Gadekar shushama ajay	Aazad Mahavidyalaya ausa
65	Satish Ramesh Pawar	Shivaji Mahavidyalaya, Renapur
66	Parit Pooja Vasantryao	Dayanand Science College, Latur
67	SURAJ RAJKUMAR BARAMADE	Shivaji college renapur
68	Sapte vaishnavi Gunderao	Shivaji mahavidyalaya udgir
69	Rani Shyam Bhale	Shivaji mahavidyalaya Udgir

70	Shradha Dilip Potdar	Shivneri Mahavidyalaya, Shirur Anantpal
71	Madiha Khanam Musa Khan	Shivaji Mahavidyalaya Udgir
72	Sontakke Dropadi Kishan	Shivneri mahavidhyalaya shirur anantpal
73	Devarshe Shradha Ganpatrao	Shivaji Mahavidyalay Udgir
74	Mangesh Balaji Somase	Shivaji Mahavidyala, Udgir
75	Dhanshette Akanksha suryakant	Shivaji mahavidyalay, udgir.
76	More Shankar venkatrao	Shivaji Mahavidyalaya udgir
77	Kale Pratiksha Gyanbarao	Narayanrao Waghmare college Ak. Balapur
78	Rutuja Rajesh Patange	Narayan waghmare college Akhada balapur
79	Poonam prabhakar sonale	Narayan Waghmare college Akada Balapur
80	Upare vaishnavi vitthalrao	Narayanrao Waghmare Mahavidya ak. Balapur
81	Nirmal Sushma sunil	Narayanrao Waghmare MhaVidhyalaya AK Badlapur
82	Bayas Ajitsinh Surendrasinh	Narayanrao Waghmare College Ak. BALAPUR
83	Patange Vishal Rajkumar	N W College Ak Balapur
84	Avinash Devidas Bondhare	Narayanrao Waghmare Ak.Balapur
85	Krishna Prabhakar Ingole	N.W COLLEGE AKHADA BALAPUR
86	Patange Vishal Rajkumar	N W College Ak Balapur
87	Bayas Ajitsinh Surendrasinh	Narayanrao Waghmare College Ak. Balapur
88	Shridhar pandurangrav patange	Narayan vaghmare coolej akakhada balapur
89	Shaikh shaista Anam MD khaja pasha	Narayan Rao WaghmareCollage
90	Kalyankar Sandhya Sakharam	Naraynrao waghmare college Ak.Balapur
91	Sapte Vaishnavi Gunderao	Shivaji Mahavidyalaya Udgir
92	Bhagawt Prakash Mudhol	NW College Ak Balapur
93	Waghmare vaishnavi purbhaji	Narayanrao waghmare college Ak Balapur
94	Dawangave sneha balaji	Shivneri mahavidyalaya shirur anantpal
95	Prathmesh patange	Narayanrao waghmare ak. Balapur
96	Rutuja Patange	Narayan waghmare college Akhada balapur
97	Sandip Rameshrao patange	N.W college .akhada balapur
98	Kashide Pooja gajanan	N.W.collage ak .balapur
99	Kale Arti Dnyaneshwar	Narayanrao Waghmare college Akhada Balapur
100	Upare sandhya sahebrao	Narayanrao waghmare college ak balapur
101	Vaibhav Subhashrao Khandare	Narayanrao Waghmare college akhada balapur
102	Mundkar shivshankar	Shri Havagi Swami mahavidyalaya udgir
103	Khede Swati Dattatreya	Shri Havgiswami college Udgir
104	Ghughe Gajanan Ashok	Shri Havgiswami college Udgir
105	Saware haridas shamrao	Shri havgiswami collage udgir

106	Gaikwad Rohit Milind	Shri hawgiswami mahavidhyalay, Udgir	7249822028
107	Kamble shivaji Kashinath	Shri Hawagiswami college Udgir	9885481253
108	Gurushant chaudhari	Sri hawagisawmi collage udgir	9804533878
109	Himanshu Devkumar somwanshi	Shri Hawagiswami COLLEGE UDGIR	93255 15389
110	Yash Jadhav	Shri hawagiswami college udgir	9581422282
111	Patil shivkanya Ramling	Havgiswami college udgir	9873808835
112	Khede Swati Dattatreya	Havgiswami college Udgir	8282973817
113	Narhare shilpa vitthal	Havgiswami college udgir	9899950283
114	Poomima Prashant deshमुख	Havgiswami college Udgir	8296201857
115	Gavhane Pranita yadavrao	Havagiswami college	8767937820
116	Gurushant chaudhari	Shri hawagisawmi vidalaya udgir	9804533878
117	Wadgaonkar yogini dattatray	Shri Hawgiswami mahavidyalay udgir	7498532544
118	Kapil Sonwale	Dayanand science college latur	9370438932
119	Nagapalle swapnali Nagnath	Hawgiswami mahavidyalay udgir	8830838301
120	Pratiksha umakant hippalge	Havagiswami college	9148542733
121	Sushma sanjay patange	NW college AK balapur	9021924845
122	Samrin. Mehtab. Kasar	Shivaji mahavidyalay udgir	7798428983
123	Priyanka Gulabrao Deshmukh	N W college AK balapur	8767192827
124	Munde Pooja Babruvan	Shivaji mahavidyalay udgir	9370047713
125	Pawar Abhijeet	shri hawagiswami collage udgir	9890938342



Coordinator

Dr.N.S.Korde



Principal

Dr.J.S.Dargad

PRINCIPAL
Dayanand Science College
LATUR



Dayanand Science College, Latur.
Department of Chemistry
Events organized during the Academic year 2021-22

*(Conference/Workshop/Symposium/Seminar/Guest Lecture/Special Day
Celebration/open day/Exhibition/welcome function/ farewell function/Sport
activities /NSS activities/ NCC activities/ Portfolio activities etc.)*

1. Name of the Department : Chemistry
2. Complete name/ title of the Activity : : Fundamental chemistry workshop
3. Dates or Duration (from-----to) :23rd -25th October 2021
4. Venue of the Event : Dayanand Science College, Latur
- 5.Sponsor/Collaborations (if any) : Indian Academy of Sciences, Bengaluru
Indian National Science Academy, New Delhi
The National Academy of Sciences India, Prayagraj
6. Level of the event (encircle) : State
International / National / State / University / District / College / Department etc.
7. Purpose / aim / objective and outcome of the event:

Objectives:

- To give the opportunity to B. Sc.T.Y. students to learn about Fundamental Chemistry in greater detail than it is possible during their regular classes as part of curriculum.
- To develop more interest in chemistry.
- To increase numerical problem-solving skills than memorization

Outcomes:

- This workshop helped the students to learn and understand the impact of the chemistry in societal and environmental context and demonstrate the knowledge & need for sustainable development.
- This workshop assists participant students to communicate the views and opinion
- This workshop provided opportunity to the students to interact with Sr. Scientists, Researchers and Professors

8. Beneficiaries / participants (Type/number, etc.):

- Total of 125 students , 06 Resource Persons

9. Other major staff/ student / Institution involved in the organization of the activity:



Dayanand Science College, Latur.
Department of Chemistry
Events organized during the Academic year 2021-22

- Principal, Vice-Principal, Head of Department, Coordinator, Co-coordinator
10. Any other information / comment / qualitative remarks:
- This workshop boosts the students to apply the knowledge of chemistry to the solution of complex chemistry problems and Participant students learned new techniques to enhance knowledge
11. Photographs (with captions) submitted (number) :
- 06
12. Evidence produced (Certificate, letters, newspaper cuttings etc.)
- Sanction Letters from Indian academy of Sciences, Bengaluru
 - Sample certificate of Participation
 - Sample certificate of Participation
 - Brochure of workshop
 - News paper cutting

13. Name and Signature of Coordinator: Dr. Nanda Sheshrao Korde


HOD,
HEAD
& U.G. in Chemistry
Dayanand Science College
LATUR


IQAC-Coordinator
IQAC - Coordinator
Dayanand Science College,
Latur, M.S. (INDIA)


Principal
Principal
Dayanand Science College
LATUR 413512