

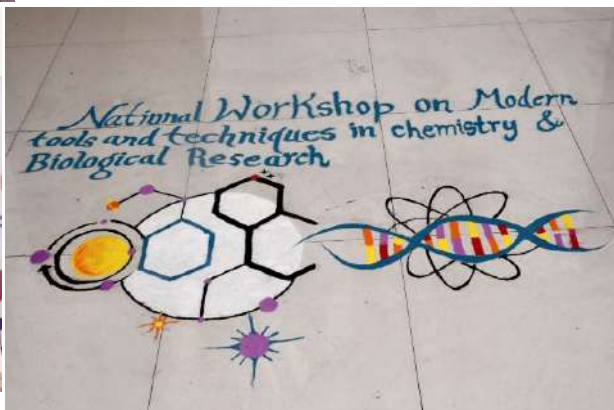
Report on National Workshop on Modern Tools and Techniques in Chemical and Biological Research (13th Feb. – 17th Feb. 2023)

A five-day national workshop on “Modern Tools and Techniques in Chemical and Biological Research” was organized at Center for Basic Sciences (CBS), Pt. Ravishankar Shukla University (PRSU) Raipur from 13th Feb. to 17th Feb. 2023. The idea behind organizing this workshop was to provide exposure to the latest techniques and tools used in the current research in Chemical and Biological Sciences, which will help to lay a strong foundation of theoretical and practical knowledge in young faculties, PhD students and M.Sc. students. 45 participants from different parts of Chhattisgarh including Pathalgaon (Raigarh) Mahasamund, Sakti, Ambikapur, Bilaspur, Durg, Bhilai, Raipur and also from Anand, Gujrat including 15 in house students had participated in the workshop. Total 19 lectures (5 online and 14 offline lectures) with hands- on training of various softwares, were delivered by eminent resource persons from reputed institutions like (Boston University USA, Indian Institute of Technology, Delhi and Bhilai, Banaras Hindu University, Bhabha Atomic Research Center, Department of Biotechnology, AIIMS, Raipur, NIT Raipur etc).

The inaugural session of the national workshop was conducted on 13.02.2023 at 10:30 am in the gracious presence of Prof. Keshari Lal Verma, hon’ble Vice Chancellor, Pt. Ravishankar Shukla University, Prof. A. K. Gupta, School of Studies in Life Sciences and Prof. M. K. Deb, Director, National Center for Natural Resources had graced the occasion. The chairman of the national workshop, Prof. Kallol K. Ghosh, Director, Center for Basic Sciences welcomed the participants to the center. Convener of the workshop, Dr. Bhanushree Gupta shared a report about the workshop. Dr. Veenu Joshi, convener concluded the session with a vote of thanks. The lectures and hands-on training sessions began on same day.

Glimpses of the Inaugural session on 13.02.2023







First Technical Session of Workshop (13-02-2023)

On the first day, lecture, as well as hands-on training on Computational Chemistry, was given by Dr. Md. Mehboob Alam, Department of Chemistry, IIT Bhilai. The lecture was titled “Application of Computational Chemistry tools in Chemical and Biological Sciences” in which he explained the software “Gauss View” and gave hands-on training. In the post-lunch session hands-on –training on SPSS statistical software was given by Prof. Arti Parghania, SoS in Life Sciences, PRSU, Raipur. Then in the last session, the participants were given training in Rotary Evaporator and Fluorescence Spectrophotometer.



Lecture and hands-on training delivered by Dr. Md. Mehboob Alam, IIT Bhilai, 13.02.2023



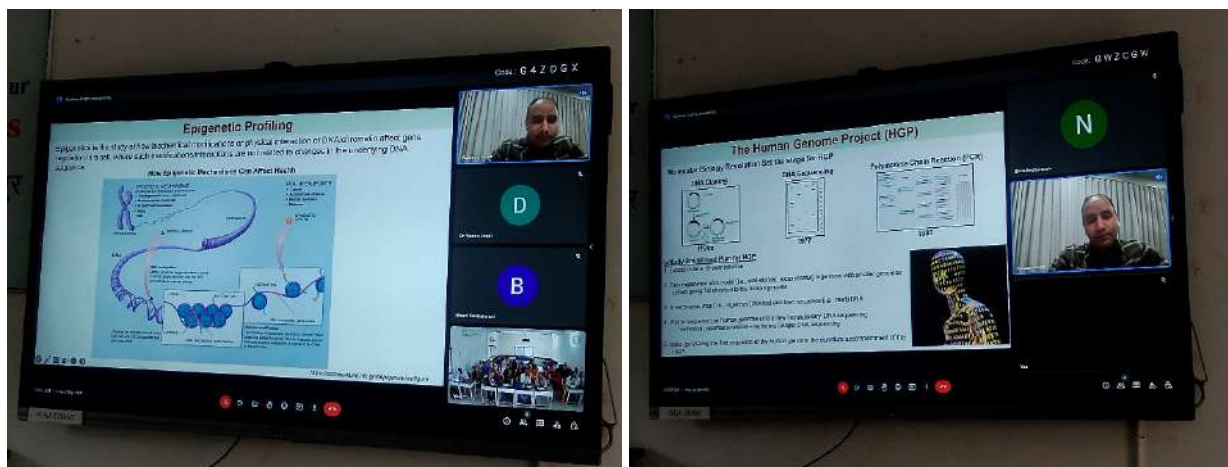
Lecture and hands-on training delivered by Prof. Arti Parghania, PRSU, 13.02.20

Day 2 (14-02-2023)

On the second day, there were separate parallel sessions for Biology and Chemistry in which lecture on Molecular tools and techniques for Functional Genomics was delivered by Dr. Kuldeep Singh, Boston, USA (Online), Genome Editing Technologies including CRISPER and their application in healthcare was delivered by Dr. Amit Tripathi, Scientist C, DBT, Ministry of S&T, Delhi for Biology participants and for Chemistry participants there was a lecture on Click Chemistry by Prof. Vinod Kumar Tiwari Dept. of Chemistry, BHU. Then there was a hands-on session on ChemDraw software by Dr. Indrapal Karbhal, SoS in Chemistry, PRSU Raipur. And in the end, there was hands-on training for DNA isolation technique and quantification using a NanoDrop Spectrophotometer instrument.



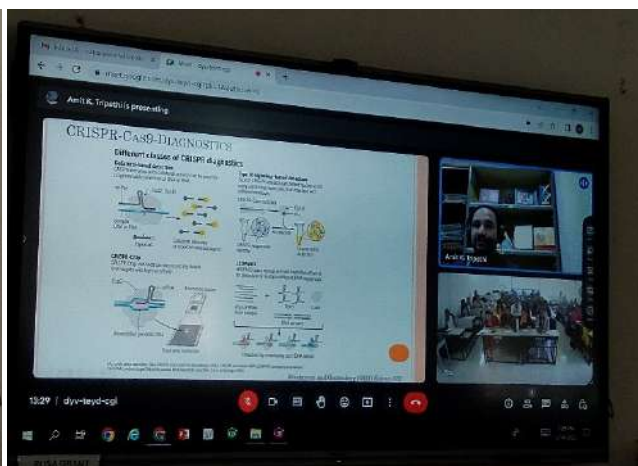
Lecture delivered by Prof. Vinod Kumar Tiwari, BHU, 14.02.2023



Lecture delivered by Dr. Kuldeep Singh, Boston University USA, 14.02.2023



Lecture and hands-on training delivered by Dr. Indrapal Karbhal, PRSU, 14.02.2023



Lecture delivered by Dr. Amit Tripathi, DBT, Ministry of S&T, 14.02.2023

Day 3 (15-02-2023)

On the third day, there was a lecture of Dr Sanjib Banerjee, IIT Bhilai for chemistry participants and rest all sessions were common for chemistry and Biology in which there was a lecture on Material research by Dr. Mohan Lal Verma from Shankaracharya College, Bhilai. Then a session on Lab Safety and Hygiene by Dr. Rahul Sharma, Assistant Director, Industrial Hygiene, Department of Labour and a session on Plagiarism checking Tools by Dr. Nagendra Singh Chauhan, Scientific Officer, AYUSH, Raipur and in the last there was Hands-on training on Synthesis of Metal nanoparticles, Quantum dots and Carbon dots.



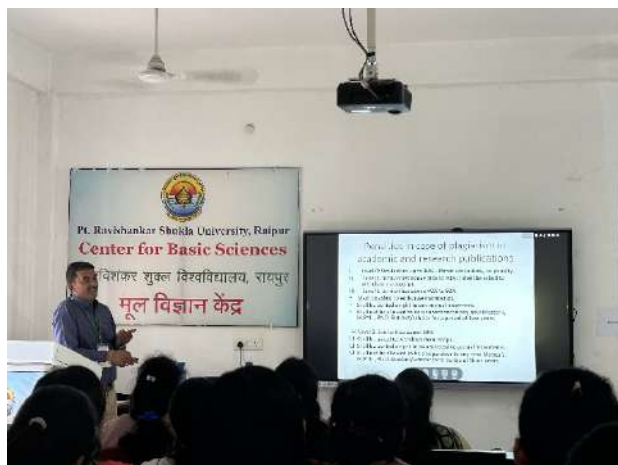
Lecture delivered by Dr. Sanjib Banerjee, IIT Bhilai, 15.02.2023



Lecture delivered by Dr. Mohan Lal Verma, Shankaracharya College, Bhilai, 15.02.2023



Lecture delivered by Dr. Rahul Sharma, Department of Labour, 15.02.2023



Lecture delivered by Dr. Nagendra Singh Chauhan, AYUSH, 15.02.2023

Day 4 (16-02-2023)

On the fourth day, Dr. Bhanushree Gupta, Center for Basic Sciences, PRSU Raipur gave a lecture and hands-on training on Referencing tools for Research. Then, there were parallel sessions in which for Biology participants a lecture on Bioinformatics Tools in Drug Target Identification was delivered by Dr Awnish Kumar, Assoc Prof. Dept of Biotech., NIT, Raipur and a lecture on PCR and Real Time PCR Techniques by Dr. S.S. Negi, Dept of Microbiology, AIIMS, Raipur. For chemistry participants there was a lecture on UV vis Spectroscopy by Prof Kamlesh K Srivas, SoS in Chemistry, PRSU. And a lecture on Fluorescence Spectroscopy by Dr Prabhat K Singh, BARC, Mumbai. In the last there was hands-on training on PCR, Gel electrophoresis and Gel documentation techniques for Biology participants and Potentiostat and and UV-Visible spectrophotometer for chemistry participants.



Lecture delivered by Dr. Bhanushree Gupta, Center for Basic Sciences 16.02.2023



Lecture delivered by Dr Awnish Kumar, NIT, Raipur, 16.02.2023



Lecture delivered by Dr. S.S. Negi, Dept of Microbiology, AIIMS, Raipur, 16.02.2023



Lecture delivered by Prof Kamlesh K Srivas, SoS in Chemistry, PRSU, 16.02.2023



Lecture delivered by Dr Prabhat K Singh, BARC, Mumbai,16.02.2023

Day 5 (17-02-2023)

On the last day of workshop there were 2 lectures on Biological Responses of nanomaterials by Dr. Manmohan Lal Satnami, SoS in Chemistry, PRSU and a lecture on Introduction to electrochemical techniques for research by Dr Bishwarup Chakraborty Dept. of Chemistry, IIT Delhi.



Lecture delivered by Dr. Manmohan Lal Satnami, PRSU,17.02.2023



Lecture delivered by Dr Bishwarup Chakraborty, IIT Delhi,17.02.2023

The valedictory ceremony was organized at the end of the last day of the workshop, where the program's Chief Guest Prof. Keshari Lal Verma Hon'ble Vice Chancellor, Pt Ravishankar Shukla University, Raipur motivated the participants and extended best wishes for their bright career in research. He also assured that Pt Ravishankar Shukla University will always try to provide best

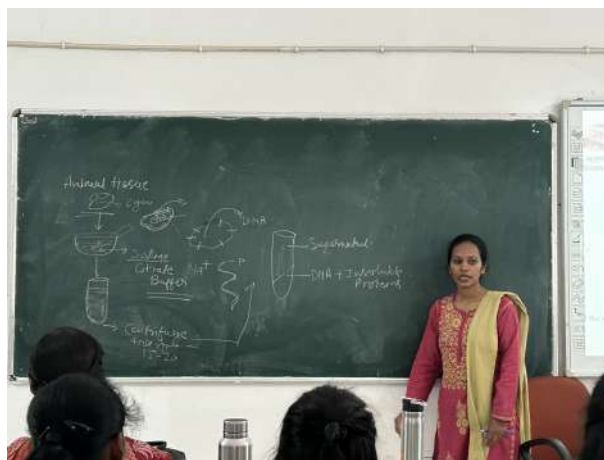
instrumentation facilities and will keep on organizing such workshops for the betterment of scientific community. Guest of Honour, Prof. D.P. Kuity, Retd. Prof Geology, PRSU Raipur and Dr. Bishwarup Chakraborty, from Dept. of Chem, IIT, Delhi also encouraged the participants to participate in such workshops to improve their laboratory skills. Chairman of the workshop Prof. Kallol K Ghosh, Director, Center for Basic Sciences, PRSU addressed the participants and extended his best wishes for their bright future. Convener of the workshop Dr Veenu Joshi presented the detailed report of lectures and hands-on training of softwares and instruments done in the 5 days of workshop. And in the end other Convener of the workshop Dr Bhanushree Gupta proposed vote of thanks to all the Guests, speakers, participants and also to student volunteers who worked hard to make the program successful. With these 5 days of workshop organizers have tried to bridge the gap in the theoretical knowledge and its practical training with the hope of inculcating new thoughts and ideas with the hope to bring new dimensions in the research career of the participants.

Glimpses of the Valedictory session on 17.02.2023





Glimpses of Hands on Training of Instruments and Presentation



Five-day national workshop at CBS of PRSU gets under way



Vice-Chancellor Dr K L Verma along with other dignitaries.

■ Staff Reporter
RAIPUR, Feb 14

A FIVE-DAY national workshop on 'Modern Tools and Techniques in Chemical and Biological Research' has begun at Centre for Basic Sciences (CBS), Pandit Ravi Shankar Shukla University (PRSU) Raipur. Vice-Chancellor of PRSU Professor Kesari Lal Verma inaugurated the workshop.

Speaking on the occasion, Vice Chancellor Professor Verma congratulated all the participants for their selection in the workshop and encouraged them for learning more of scientific techniques. CBS Director Professor Kallol Kumar Ghosh gave the welcome speech and he threw light on the aim of this workshop.

Professor A K Gupta from School of Studies in Biology, PRSU and Professor Manas Kanti Deb from School of Studies in Chemistry also addressed the programme.

45 participants from different districts of Chhattisgarh are participating in the workshop. These participants are being taught about latest techniques and instruments used

in the researches of Chemistry and Biology.

The programme coordinators Dr Bhanushree Gupta and Dr Veenu Joshi said, 18 lectures (both offline and online) will be delivered in this workshop by the professors and scientists from renowned institutions. These institutions are IIT Delhi, IIT Bhilai, BHU, BARC Mumbai, AIIMS Raipur and Department of Biotechnology Delhi. Hands on Training of different softwares (Computational Chemistry SPSS, ChemDraw) will also be given in the workshop.

In the first technical session, Dr Mahaboob Alam, Chemistry Department, IIT Bhilai delivered a lecture on Computational Chemistry and its uses in Chemistry and Biology apart from hands on training through software.

The second lecture was of Professor Aarti Parghania, School of Studies in Biology, PRSU along with hands on training on SPSS software.

Later participants receive hands on training on rotary evaporator and fluorescence spectrophotometer. The workshop will conclude on February 17.



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इवेंट : रविवि में पांच दिवसीय नेशनल वर्कशॉप के लिए चयनित हुए 45 प्रतिभागी टॉप इंस्टीट्यूट के प्रोफेसर बता रहे हैं केमेस्ट्री-बायोलॉजी में रिसर्च के तरीके

पत्रिका plus रिपोर्टर

रायपुर • पं. रविशंकर शुक्ल विश्वविद्यालय में पांच दिवसीय राष्ट्रीय कार्यशाला की शुरुआत सोमवार को हुई। मूल विज्ञान केंद्र की ओर से आयोजित कार्यक्रम की अध्यक्षता कुलपति प्रो. केशरी लाल वर्मा ने की। कार्यशाला के लिए चयनित हुए अलग-अलग जिलों के 45 प्रतिभागी शामिल हुए। सभी को रसायन शास्त्र और जीवविज्ञान के शोध में आने वाले नवीन तकनीक व उपकरणों के उपयोग के तरीकों के बारे में बताया जा रहे हैं। प्रथम तकनीकी सत्र में आईआईटी भिलाई के रसायन विभाग के महबूब आलम ने कम्प्यूटेशनल रसायन विज्ञान और जीव विज्ञान में उसके उपयोग पर व्याख्यान दिया। सॉफ्टवेयर के द्वारा हेंड ऑन ट्रेनिंग दी गई। इसके बाद रविवि के जैविकी अध्ययनशाला की प्रो. आरती परगनिहा ने एसपीएसएस सॉफ्टवेयर पर हेंड ऑन ट्रेनिंग दिया। आखिर में छात्रों को रोटी प्रवाह रोधी वायक और प्रतिदीप्त स्पेक्ट्रोफोटोमीटर में ट्रेनिंग दी गई। कार्यक्रम के विशिष्ट अतिथि प्रो. एके गुप्ता थे।

होंगे 18 लेक्चर

कार्यक्रम के संयोजक मानुश्री गुप्ता ने बताया, 18 व्याख्यान देश के प्रतिष्ठित संस्थानों के प्रोफेसरों और वैज्ञानिकों द्वारा दिए जाएंगे, जिनमें प्रमुख रूप से आईआईटी दिल्ली, आईआईटी भिलाई, बनारस हिंदू यूनिवर्सिटी, बीएआरसी मुंबई, एआईआईएमएस रायपुर, दिल्ली से दिए जाएंगे। इसमें विभिन्न सॉफ्टवेयर की हेंड ऑन ट्रेनिंग दी जाएगी।



वर्कशॉप में प्रैक्टिस करते छात्र। सॉफ्टवेयर की जानकारी देते प्रो. आलम

पारंपरिक ज्ञान व चिकित्सा पद्धति पर संगोष्ठी आज से

भारत में आदिवासियों का विकास, परंपरागत ज्ञान एवं देशज व्यवस्था के विभिन्न आयामों पर मंगलवार से रविवि में तीन दिवसीय राष्ट्रीय सेमिनार का आयोजन किया जा रहा है। आईसीएसएसआर नई दिल्ली, युनिसेफ और छत्तीसगढ़ शासन के सहयोग से मानव विज्ञान अध्ययनशाला की ओर से कार्यशाला में देशभर के समाज-

विज्ञानी, मानव-शास्त्री, प्राध्यापक और शोधार्थी शिरकत करेंगे। सोलह तकनीकी सत्र में 130 से ज्यादा शोध-पत्र पढ़े जाएंगे। कार्यशाला का उद्घाटन आईसीएसएसआर नई दिल्ली के अध्यक्ष पद्मश्री जेकेबजाज करेंगे। कार्यक्रम के विशिष्ट अतिथि दिल्ली विश्वविद्यालय के पूर्व कुलपति पीसी जोशी व पद्मश्री अजय कुमार मंडावी

होंगे। अध्यक्षता कुलपति केशरीलाल वर्मा करेंगे। कार्यशाला में पारंपरिक चिकित्सा पद्धति पर आधारित निःशुल्क शिविर भी लगाना जाएगा, जिसमें 10 पारंपरिक चिकित्सक (आदिवासी बैगा) व औषधियों से माध्यम से लोगों का इलाज किया जाएगा। नाड़ी वेद्य भी उपस्थित रहेंगे। चिकित्सा शिविर पूरी तरह से निःशुल्क होगा।

रायपुर, 14 फरवरी 2023

क्लिक केमिस्ट्री पर दिया लेक्चर

रायपुर @पत्रिका. रविवि के मूल विज्ञान केंद्र में चल रहे नेशनल वर्कशॉप के दूसरे दिन बनारस हिंदू विश्वविद्यालय के प्रोफेसर विनोद कुमार तिवारी ने क्लिक केमिस्ट्री पर लेक्चर दिया। प्रतिभागियों को चेम ड्रॉ सॉफ्टवेयर का प्रशिक्षण दिया गया। बायोलॉजी में बोस्टन विश्वविद्यालय, यूएसए कुलदीप सिंह ने फंक्शनल जीनोमिक्स पर लेक्चर दिया। उन्होंने आएनए अनुक्रम व अन्य गुणसूत्रों को जानने की तकनीकों को बताया। जैव प्रौद्योगिकी विभाग नई दिल्ली के प्रो. अमित कुमार त्रिपाठी ने गुणसूत्रों को बदलने की तकनीकों की जानकारी दी। बायोलॉजी के विभिन्न उपकरणों पर व्यक्तिगत प्रशिक्षण दिया गया।

मटेरियल रिसर्च के तरीके बताए

रायपुर @पत्रिका. रविवि के मूल विज्ञान केंद्र में चल रहे नेशनल वर्कशॉप के तीसरे दिन आईआईटी भिलाई के असिस्टेंट प्रोफेसर संजीव बैनर्जी ने सैनेटाइज्ड पॉलीमर का एंटी फॉलिंग हाइब्रिड

के रूप में इस्तेमाल के तरीकों को बताया। प्रो. मोहन लाल वर्मा ने डेंसिटी फंक्शनल थ्योरी का उपयोग मटेरियल रिसर्च में सिएस्टा सॉफ्टवेयर के इस्तेमाल के तरीकों को भी बताया।