CRITERION-VI

EVIDENCE(S), AS PER SOP

METRIC No. 6.3.3	Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.
• Event brochures and reports of the programmes	

UGC Refresher Course in 'CHEMISTRY'

Human Resource Development Centre

Pt. Ravishankar Shukla University, Raipur (Chhattisgarh)

The UGC-Human Resource Development Centre , PRSU, Raipur is organizing the Refresher Course in 'CHEMISTRY, during **2nd. July to 22nd. July 2016.**

Course Module:

Recent trends in Chemistry, Spectroscopy, Chemical Kinetics, Nanochemistry, Surface Chemistry , Instrumental Method of Analysis, Polymer, Environmental Chemistry, Bioorganic chemistry, Physical organic chemistry , Stereochemistry, Quantum Mechanics

Resource Persons(Tentative) : *Prof. S.G. Tandon, Prof. P. S. Kalsi , Ludhiana Prof. T.S.Pal, IIT KGP, Prof. R N Prasad, Jaipur, Prof. V. Jagannadham, Hyderabad, , Dr. Anjali Pal,IITKGP,Prof Goutam Patra, Bilaspur, Prof. L J Paliwal, Nagpur, Prof. Sudhakar Dhondge, Nagpur ,Prof. Promila Mishra, Sambalpur, Prof. P.K. Behera, Sambalpur, Prof. B. K. Mishra, Sambalpur , Prof. Rama Pande, Raipur, Prof. K S Patel, Raipur, Prof M K Deb, Raipur, Prof. Shamsh Pervej, Raipur, Prof. S A. Bhoite, Raipur Prof. Piyush Kant Pandey, Prof. A.K. Panda, Midnapur.Prof. M. K. Mahanty, Bhubaneswar*

Course Coordinator:
Dr. Kallol K. Ghosh, Professor and Head,
School of Studies in Chemistry, PRSU, Raipur. Email: kallolkghosh@yahoo.com
Mob:+91-9425216204 Office: 0771-2262249
Contact : Prof. B.K. Sharma, Director HRDC
Email: sharmabk07@gmail.com; brijpandey09@gmail.com; dr.arvind02@gmail.com;
Voice: +91-9754233057; 9827159831; 9406030873; 9926315781
Website: www.prsu.ac.in
Venue: Human Resource Development Centre Lecture Hall, Pt. Ravishankar Shukla University, Raipur. Date & Time: July 2- 22, 2016 from 10:30 to 17:00
Who can participate? Interested College / University teachers in Chemistry subjects with at least three years experiences can apply through email to any of the above IDs mentioning their name, designation, subject, and institution. However, they are required to fill up the application form of HRDC(www.prsu.ac.in) and produce reliving certificate from their Institution when they come for participation working in those universities and colleges that are included under Section 2(f) of the UGC Act, even though they may not yet be fit to be included under Section 12(B), may participate in the Refresher Course. The teachers of college that do not yet come within the purview of Section 12(B), but have been affiliated to a university for at least two years, will be permitted to participate in the programme. However, they won't be paid TA/DA and other allowances for attending these courses. Part time/Ad hoc/temporary/contract/ teachers who have been teaching for at least three academic sessions in an institution which has been affiliated to a university for at least two years may be permitted to participate in the Refresher Course to enhance their skills.

Note. For registration, each participant will report to the Office (HRDC) at 10.30 a.m. on the date specified in the selection letter along with relieving order of the Institution. Applicants have to pay a Registration fee of Rs. 1,000/- (non refundable) in the shape of demand draft drawn in favor of the Registrar, Pt. Ravishankar Shukla University, Raipur, payable at Raipur (C.G.) along with acceptance

Last Date For Receiving Applications is 15th. June 2016

DIRECTOR
Human Resource Development Centre
Pt. Ravishankar Shukla University
RAIPUR-492010

Refresher Course-Chemistry
(02/07/2016 to 22/07/2016)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Dr. Rajmani Patel Govt. College, Bhanpuri, Dist.-Bastar (C.G.)
02.	Dr. Ghanat Kumar Joshi Govt. Naveen College, Mohala, Dist.-Rajnandgaon (C.G.)
03.	Miss Jyoti Rathore Govt. College, Kartala, Korba (C.G.)
04.	Dr. Alka Shukla Govt. Naveen College, Khursipar, Bhilai, Dist.-Durg (C.G.)
05.	Smt. Madhurani Shukla Govt. College, Gobra-Nawapara, Dist.-Raipur (C.G.)
06.	Dr. Aruna Sao Dept. of Chemistry, Govt. College, Arjunda, Dist.-Balod (C.G.)
07.	Amol Ashok Kadam Ram Niranjan Jhunjhunwala College, Opp. Ghatkopar Station, Ghatkopar, Mumbai (M.S.)
08.	Prabijna Suyasha Shaka Babu Ram Niranjan Jhunjhunwala College, Opp. Ghatkopar Station, Ghatkopar, Mumbai (M.S.)
09.	Dr. Alpa Shrivastava Indira Gandhi Govt. Commerce & Arts College, Bhilai, Dist.-Durg (C.G.)
10.	Arunendra Kumar Tiwari Govt. College, Jamgaon (R), Dist.-Durg (C.G.)
11.	Dr. (Smt.) Anju Jha Govt. Digvijay P.G. College, Rajnandgaon (C.G.)
12.	Dr. Vinod Jena Govt. College, Sarona, Dist.-Kanker (C.G.)
13.	Jnanojjal Chanda Sonamukhi College, Sonamukhi, Dist.-Bankura (W.B.)
14.	Dr. Birendra Kumar Govt. Rajmata Vijayraje Sindhiya Girls College, Kawardha, Dist.-Kabirdham (C.G.)
15.	Dr. (Smt.) Deepti Govt. Naveen College, Nawagarh, Dist.-Janjgir-Champa (C.G.)
16.	Smt. Anita Patel Govt. Naveen College, Mangchuwa, Dist.-Balod (C.G.)
17.	Goutam Mahata Gokhale Memorial Girl's College, Harish Mukherjee Road, Kolkata (W.B.)
18.	Dr. Alekh Kumar Sutar Ravenshaw University, Cuttack (Odisha)
19.	Dr. Ravi Kumar Banjare Govt. Gundadhur College, Kondagaon, Dist.- Kondagaon(C.G.)
20.	Dr. Madhusudan Mandal Mahadev Ananda Mahavidyalaya, Monirampore, Barrackpore, North 24-Parganas, Kolkata (W.B.)
21.	Dr. Rakesh Lal Taigar S.M.S. Govt. Model Science College, Gwalior (M.P.)

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22.	Dr. Rammohan Pal Acharya Jagadish Chandra Bose College, 1/1B, A.J.C. Bose Road, Kolkata (W.B.)
23.	Kowthalam Anitha S.K. University, Ananthpur (A.P.)
24.	Dr. Manmohan Lal Satnami S. o. S. in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.)
25.	Dr. Shiv Prasad Singh Govt. Vrinda Sahai P.G. Degree College, Dabra, Dist.-Gwalior (M.P.)
26.	Kalyankar Tukaram Mohanrao SRTM University, Vishnupuram, Nanded (M.S.)
27.	Surendra Kumar Sinha Govt. Arvind College, Kirandul, Dist.-Dantewada (C.G.)
28.	Tarachand Nargawe, Govt. P.G. College, Dhar (M.P.)
29.	Dr. Gorelal Badole, Govt. P.G. College, Dhar (M.P.)
30.	Dr. Ram Bhajan Sonwani Govt. College, Jaijaipur,Dist.-Janjgir-Champa (C.G.)
31.	Miss. Mousami Jangde Govt. Mata Karma Girls College, Mahasamund (C.G.)
32.	Anupama Pradhan T.S.S. College, Pathalgaon, Dist.-Jashpur (C.G.)
33.	Mrs. Kundan Anand Govt. E.V.P.G. College, Korba (C.G.)
34.	Dr. Sunita Sanwaria Deshbandhu College, Kalkaji, New Delhi
35.	Dr. Mukesh Kumar Armo Govt. Chandra Vijay College, Dindori, Dist.-Dondori (M.P.)
36.	Dr. Anand Kumar Singh, Govt. K.R.P.G. Autonoums College, Gwalior (M.P.)
37.	Dr. (Smt.) Divya Nema, C.L.C. Govt. College, Dhamdha,Dist.-Durg (C.G.)
38.	Manoj Kumar Jangde, Govt. S.N. College, Nagri, Dist.-Dhamtari (C.G.)
39.	Rakesh Kumar Patle, Govt. P.G. College, Balaghat (M.P.)
40.	Dr. Sandhya Patre, Department of Chemistry,Govt. College, Sargaon, Dist.-Mungeli (C.G.)
41.	N.V. Ravi Shekhar Rungta College of Engineering & Technology, Near Nandan Van, Raipur (C.G.)
42.	Dr. Jeevan Singh Solanki, Govt. Madhav Science P.G. College, Ujjain (M.P.)
43.	Baba Rahul Meshram, Swami Vivekanand Govt. College,Lakhnadon, Dist.-Seoni (M.P.)
44.	Sachin Shivgoving Choursia M.B. Patel College, Deori, Dist.-Gondia (M.S.)
45.	Sunil Kumar Diwakar Govt. Narmada College, Hoshagabad, (M.P.)
46.	Vaishali Nagorao Rathod, Pratap College, Amalner, Dist.-Jalgaon (M.S.)

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47.	Dr. Rama Sarojinee, Govt. D.B. Girls P.G. Auto. College, Raipur (C.G.)
48.	Sangita Dayanand Katre, C.J. Patel College, Tirora, Dist.- Gondia (M.S.)
49.	Dr. Pankaj Soni, Govt. D.T. College, Utai, Dist.-Durg (C.G.)
50.	Barna Majumdar, Bhilai Mahila Mahavidyalaya, Bhilai, Dist.-Durg (C.G.)
51.	Dr. (Smt.) Pratibha Buxy, Govt. J.Y. Chhattisgarh P.G. College, Raipur (C.G.)

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Human Resource Development Centre

Pt. Ravishankar Shukla University
Raipur - 492 010
Refresher Course-Chemistry
(02/07/2016 to 22/07/2016)
Attendance Sheet

22.07.2016

	Name of the Participants	Session - I 10:30 to 12:00	Session - II 12:00 to 13:30	Session - III 14:00 to 15:30	Session - IV 15:30 to 17:00
1.	Dr. Rajmani Patel				
2.	Dr. Ghanat Kumar Joshi				
3.	Miss Jyoti Rathore				
4.	Dr. Alka Shukla				
5.	Smt. Madhurani Shukla				
6.	Dr. Aruna Sao				
7.	Amol Ashok Kadam				
8.	Prabijna Suyasha Shaka Babu				
9.	Dr. Alpa Shrivastava				
10.	Arunendra Kumar Tiwari				
11.	Dr. (Smt.) Anju Jha				
12.	Dr. Vinod Jena				
13.	Jnanojjal Chanda				
14.	Dr. Birendra Kumar				
15.	Dr. (Smt.) Deepti				
16.	Smt. Anita Patel				
17.	Goutam Mahata				
18.	Dr. Alekha Kumar				
19.	Dr. Ravi Kumar				
20.	Dr. Madhusudan Mandal				
21.	Dr. Rakesh Lal Taigar				
22.	Dr. Rammohan Pal				
23.	Kowthalam Anitha				
24.	Dr. Manmohan Lal Satnami				

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	Dr. Shivprasad Singh				
26.	Kalyankar Tukaram Mohanrao				
27.	Sur[illegible]ra Kumar Sinha				
28.	Tarachand Nargawe				
29.	Dr. Gorelal Badole				
30.	Dr. Ram Bhajan Sonwani	22/7/16			
31.	Miss. Mousami Jangde				
32.	Anupama Pradhan				
33.	Kundan Anad				
34.	Dr. Sunita Sanwaria				
35.	Dr. Mukesh Armo				
36.	Dr. Anand Kumar Singh	22.7.16	22.7.16	22.7.16	22.7.16
37.	Dr. Divya Nema				
38.	Manoj Kumar Jangde				
39.	Rakesh Kumar Patle				
40.	Dr. Sandhya Patre				
41.	N.V. Ravi Shekhar	22/07/16	22/07/16	22/07/16	22/07/16
42.	Dr. Jeevan Singh Solanki	22.7.2016			
43.	Baba Rahul Meshram				
44.	Sachin Shivgovind Chourasia	22/07/2016	22/07/2016	22/07/2016	22/07/2016
45.	Sunil Kumar Diwakar	22-7-16	22-7-16	22-7-16	22-7-16
46.	Vaishali Rathod	22/07/16	22/07/16	22/07/16	22/07/16
47.	Dr. Rama Sarojinee	22/7/16	22/7/16	22/7/16	22/7/16
48.	Sangita Dayanand Katre	22.7.16	22.7.16	22.7.16	22.7.16
49.	Dr. Pankaj Soni,	22/7/16			
50.	Ms. Barna Mazumdar	22.7.16	22.7.16	22.7.16	22.7.16
51.	Ms. Pratibha Buxy	22/7/16	22/7	22/7	22/7

DIRECTOR
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Pt. Ravishankar Shukla University
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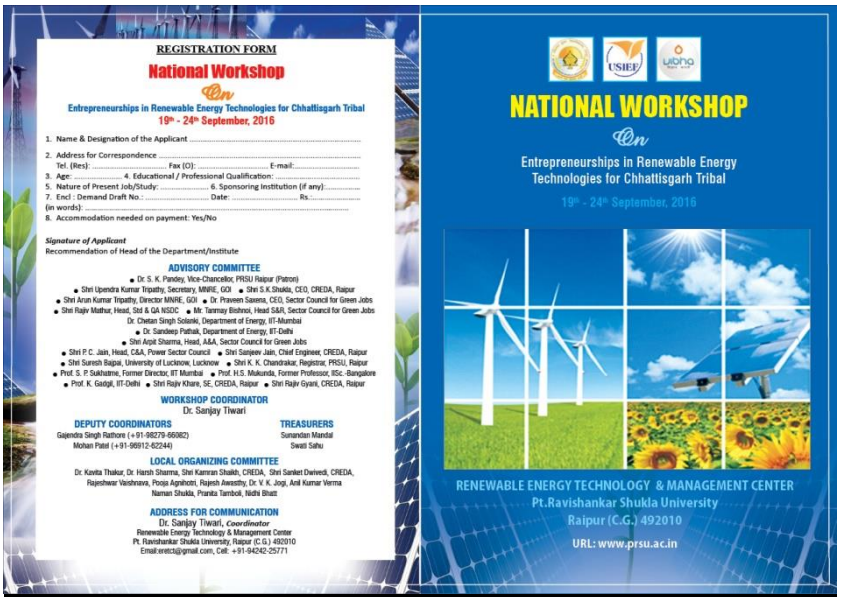
Course Coordinator

EVENT REGISTER OF INSTITUTE OF RETM

06 DAYS NATIONAL WORKSHOP ON "ENTREPRENEURSHIPS IN RENEWABLE ENERGY TECHNOLOGIES FOR CHHATTISGARH TRIBAL"



REGISTRATION FORM

National Workshop

On

Entrepreneurships in Renewable Energy Technologies for Chhattisgarh Tribal

19th - 24th September, 2016

1. Name & Designation of the Applicant .....
2. Address for Correspondence .....
Tel. (Res): ..... Fax (O): ..... E-mail: .....
3. Age: ..... 4. Educational / Professional Qualification: .....
5. Nature of Present Job/Study: ..... 6. Sponsoring institution (if any): .....
7. Encl : Demand Draft No.: ..... Date: ..... Rs. .....
(in words): .....
8. Accommodation needed on payment: Yes/No

Signature of Applicant

Recommendation of Head of the Department/Institute

ADVISORY COMMITTEE

- Dr. S. K. Pandey, Vice-Chancellor, PRSU Raipur (Patron)
- Shri Upendra Kumar Tripathy, Secretary, MNRE, GOI
- Shri S.K.Shukla, CEO, CREDA, Raipur
- Shri Arun Kumar Tripathy, Director MNRE, GOI
- Dr. Praveen Saxena, CEO, Sector Council for Green Jobs
- Shri Rajiv Mathur, Head, Std & QA NSDC
- Mr. Tanmay Bishnoi, Head S&R, Sector Council for Green Jobs
- Dr. Chetan Singh Solanki, Department of Energy, IIT-Mumbai
- Dr. Sandeep Pathak, Department of Energy, IIT-Delhi
- Shri Arpit Sharma, Head, A&A, Sector Council for Green Jobs
- Shri P.C. Jain, Head, C&A, Power Sector Council
- Shri Sanjeev Jain, Chief Engineer, CREDA, Raipur
- Shri Suresh Baipai, University of Lucknow, Lucknow
- Shri K. K. Chandrakar, Registrar, PRSU, Raipur
- Prof. S. P. Sukhatme, Former Director, IIT Mumbai
- Prof. H.S. Mukunda, Former Professor, IISc.-Bangalore
- Prof. K. Gadgil, IIT-Delhi
- Shri Rajiv Khare, SE, CREDA, Raipur
- Shri Rajiv Gyani, CREDA, Raipur

WORKSHOP COORDINATOR

Dr. Sanjay Tiwari

DEPUTY COORDINATORS

Gajendra Singh Rathore (+91-98279-66982)
Mohan Patel (+91-96912-62244)

TREASURERS

Sunandan Mandal
Swati Sahu

LOCAL ORGANIZING COMMITTEE

Dr. Kavita Thakur, Dr. Harsh Sharma, Shri Kamran Shaikh, CREDA, Shri Sanket Dwivedi, CREDA, Rajeshwar Vaishnava, Pooja Agnihotri, Rajesh Awasthy, Dr. V. K. Jogi, Anil Kumar Verma
Naman Shukla, Pranita Tamboli, Nidhi Bhatt

ADDRESS FOR COMMUNICATION

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Renewable Energy Technology & Management Center
Pt. Ravishankar Shukla University, Raipur (C.G.) 492010
Email:eretc@gmail.com, Cell: +91-94242-25771

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NATIONAL WORKSHOP

On

Entrepreneurships in Renewable Energy Technologies for Chhattisgarh Tribal

19th - 24th September, 2016

RENEWABLE ENERGY TECHNOLOGY & MANAGEMENT CENTER
Pt.Ravishankar Shukla University
Raipur (C.G.) 492010
URL: www.prsu.a.c.in

हरिभूमि रायपुर | रायपुर, मंगलवार, 20 सितंबर 2016

रविवि में अक्षय ऊर्जा नेशनल सेमिनार में बोले डॉ. विजय भाटकर

अब भावनाओं को समझेगा कंप्यूटर

क्या आपने कभी सोचा है कि कंप्यूटर आपकी भावनाओं को समझ सकता है। ब्रेकेट्रोसिटी से चलने वाला वही निर्जीव कंप्यूटर जिस पर आप रोज अपना काम करते हैं। दावों पहले कंप्यूटर के जन्म से लेकर अब तक कंप्यूटर में लगातार बदलाव होते आए हैं। लेकिन शायद ही आपने यह कल्पना की होगी कि ऐसा कोई कंप्यूटर आपके पास हो सके जो आपकी भावनाओं को आपके दोस्त, माता-पिता जी परिवार जितना समझ सके।

रायपुर। आपने भले ही कल्पना नहीं कि होगी लेकिन हमारे देश के साइंटिस्टस ने यह कल्पना जाग कर ली है और उसके इस कल्पना को सच करने की शुरुआत हो चुकी है। पं. रविशंकर शुक्ल विश्वविद्यालय में सोमवार से शुरू हुए अक्षय ऊर्जा कार्यशाला के उद्घाटन सत्र में पहुंचे सुपर कम्प्यूटर के फॉदर पद्मश्री डॉ. विजय भाटकर ने 'रिसी लाइव' से चर्चा करते हुए चौंकाने वाले खुलासे किए।

चर्चा के दौरान आपने बचपन की यादों को ताजा करते हुए डॉ भाटकर ने कहा कि बचपन से आज तक मेरी चाहत थी। हमेशा मन में कुछ नया करने की सोच पैदा होती थी। साइंस के क्षेत्र में हमेशा लगता था कि जिन्दगी हमेशा साथ रही। नया करने के जुनून में कई बार जिन्दगी ने भी जवाब दिया लेकिन धीरे में लिखे सपनों ने हमेशा से आगे बढ़ने की सीख दी यही वजह रही की भारत में अपना खुद का सुपर कम्प्यूटर इजाद कर लिया।

भविष्य में ईंधन का एक ही स्त्रोत होगा अक्षय ऊर्जा

अक्षय ऊर्जा को भविष्य का सबसे बड़ा संसाधन माना जा रहा है। इसके इस्तेमाल से लेकर इसकी आवश्यकता का अंदाजा इसी से लगाया जा सकता है कि सौर और इसकी और लगातार बढ़ते जा रहे हैं। घरों से लेकर बड़े बड़े प्लांटों में भी अक्षय ऊर्जा की जरूरत अब महसूस होने लगी है। आने वाले समय में अक्षय ऊर्जा पर ही पूरा विश्व निर्भर हो जाएगा। अक्षय ऊर्जा को लेकर पं. रविशंकर शुक्ल विश्वविद्यालय में छह दिवसीय कार्यशाला का सोमवार को उद्घाटन किया गया। छह दिनों तक चलने वाले इस कार्यशाला में देशभर के कई वैज्ञानिक व विषय विशेषज्ञ अक्षय ऊर्जा अंश और कल को लेकर अपने विचार रखेंगे। इसके साथही विश्व में बढ़ रही इसकी उपयोगिता व इसके भविष्य को लेकर चर्चा की जाएगी। अक्षय ऊर्जा को लेकर आयोजित कार्यशाला में पहुंचे देश के जाने माने वैज्ञानिक व भारत में सुपर कम्प्यूटर के निर्माता पद्मश्री डॉ. विजय भाटकर ने कहा कि किस तरह से विश्व में ऊर्जा के क्षेत्र को लेकर नए नए प्रयोग किए जा रहे है उन प्रयोग को देखे तो आने वाला समय पूरी तरह से अक्षय ऊर्जा का होगा। रविवि में आयोजित कार्यक्रम में मुख्य अतिथि के तौर पर पहुंचे केन्द्रीय कृषि राज्य मंत्री पं. रविशंकर शुक्ल विश्वविद्यालय के कुलपति एसके पाटेरिया उपस्थित थे। कार्यक्रम के दौरान सोलर सेल टेक्नोलॉजी के विषय को लेकर आईआईटी मुम्बई के प्रोफेसर चेतन सिंह सोलंकी ने सोलर सेल के संबंध में कहा कि आने वाले समय में सोलर सेल की डिमांड सबसे ज्यादा होगी।

जिंदगी लाइव की सुपर कंप्यूटर के जनक से विशेष बातचीत

पांचवी क्लास में बनाया पहला फिजिक्स लैब

जिंदगी लाइव से चर्चा के दौरान डॉ. विजय भाटकर ने कहा कि बचपन से साइंस को लेकर कई सपना उठते रहे है। इन सपनों के बारे में भाटकर ने कहा कि हमेशा से भाटकर रहा है लेकिन घर का माहौल ऐसा रहा कि सपनों सपनों के जवाब मिल नहीं पाते थे। आगे स्कूल के दौरान की बात बताते हुए डॉ. भाटकर कहते है कि जब हम स्कूल में पढ़ा करते थे तो मन में एक अलग ही उत्साह रहता था। जिन चीजों को सपनों महसूस होती उसे खुद ही तैयार कर लिया करते थे। उन्होंने कहा कि पांचवी कक्षा में जब मैं पढ़ा रहा था तब मेरी लैब की जरूरत है जहां से हम अपने मन के साइंसों को हल कर सकते है उन सपनों को शांत करने के लिए पहली बार सन् 1955 में स्कूल में ही फिजिक्स लैब तैयार कर लिया।

मन की बातों को सुना और मिलता रहा आइडिया

सुपर कम्प्यूटर के निर्माण को लेकर चर्चा कर रहे डॉ. भाटकर ने कहा कि सुपर कम्प्यूटर के निर्माण के लिए 1988 में प्रोजेक्ट शुरू हुआ जब अमेरिका ने भारत को सुपर कम्प्यूटर देने से इंकार कर दिया। इस प्रोजेक्ट के शुरू होने के साथ ही मन में अलग करने का उत्साह था इसके साथ ही संघर्ष भी रहा। सुपर कम्प्यूटर के निर्माण को लेकर बहुत सी परेशानी सामने आई, कभी पावरसेव की समस्या हुई तो कभी टैक्नोलॉजी की समस्या भी हुई लेकिन सभी समस्याओं को फैलेंज के रूप में लिया जब भी फैलेंज मिला मन की बातों को सुना और मन से मिले आइडिया को फॉलो करता रहा। जब मन की बातों को सुना तो फैलेंज हमेशा आसान ही लगा।

2030 तक भारत अमेरिका व चीन से होगा आगे

रविवि के कार्यक्रम में पहुंचे डॉ भाटकर ने जिंदगी लाइव के सवाल कि आने वाले समय में अब भारत को कहां देखते है। इसके जवाब पर उन्होंने कहा कि अने वाले 2030 तक भारत अमरीका और चीन से आगे होगा। इसीने कहा कि सपनों पास प्रतिभा की कमी नहीं है। स्वामी विवेकानंद जी कि बातों को लेकर डॉ. भाटकर ने कहा कि शिकागो भाषण के बाद स्वामीजी ने भविष्यवाणी की थी कि आने वाले 50 साल में भारत को स्वतंत्रता मिल जाएगी और उसके आगे 100 साल में भारत विश्वगुरू बनकर विश्व में छा जाएगा। उनकी पहली भविष्यवाणी 1947 में सच साबित हो गई और दूसरी अब होने को है।

2050 तक विश्व में आधी आपूर्ति होगी अक्षय ऊर्जा से

कार्यक्रम के दौरान कार्यक्रम के संचालक डॉ. संजय तिवारी ने बताया कि वैश्विक परिपेक्ष्य प्रदूषण को संचालकों लगातार इसमें बढ़ती जा रही है कि आने वाले समय में अक्षय ऊर्जा ही एक मात्र विकल्प होगा। इसका अंदाजा इसी से लगाया जा सकता है कि 21 वी शताब्दी के मुख्य रोते ही अक्षय ऊर्जा प्रौद्योगिकी को आवश्यकता व महत्व महसूस होने लग गया है। विशेषज्ञ के वैज्ञानिक अब अक्षय ऊर्जा को बढ़ावा देने को लेकर लगातार प्रयासरत है अनुमान लगाया जा रहा है कि वर्ष 2050 तक ऊर्जा की मांग की आधी आपूर्ति अक्षय ऊर्जा से होगी व यह भविष्यवाणी भी की जा रही है कि वर्ष 2100 तक ऊर्जा की दो तिहाई मांग अक्षय ऊर्जा से ही होगी।

प्रदेश के सुदूर अंचल में सोलर पैनल से पहुंच रही बिजली

क्रेडा के निदेशक शैलेन्द्र शुक्ला ने बताया कि छत्तीसगढ़ के सुदूर आदिवासी अंचलों में जहां बीएसईबी नहीं पहुंचती है। वहां अक्षय ऊर्जा विशेषकर सोलर पैनल द्वारा ऊर्जा व बिजली क्रेडा द्वारा आपूर्ति की जा रही है। आदिवासियों के जीवन स्तर में गुणवत्ता के प्रयास किये जा रहे हैं। क्रेडा के निदेशक की सूचना में बताया कि भारत ने 2030 तक अक्षय ऊर्जा से 40% विद्युत उत्पादन का लक्ष्य रखा है उसमें 2022 तक 175% ऊर्जा को अक्षय ऊर्जा से आपूर्ति होगी।

Coverage of Inaugural function of Entrepreneurships in Renewable Energy Technologies for Chhattisgarh Tribal Chief Guest Padma Bhushan Dr Vijay Bhatkar [Father of Indian Super Computer] inaugurating the 06 days national workshop

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2022 तक 10 लाख नौकरियों की संभावना

पत्रिका PLUS रिपोर्टर

रायपुर • अक्षय ऊर्जा देश के विकास में एक महत्वपूर्ण भूमिका निभा रहा है। गांव हो या शहर हर जगह सोलर ऊर्जा की उपयोगिता लगातार बढ़ रही है। यह बातें अक्षय ऊर्जा प्रौद्योगिकी एवं प्रबंधन केन्द्र पं. रविशंकर शुक्ल विश्वविद्यालय द्वारा आयोजित छह दिवसीय कार्यशाला के चौथे दिन क्रेडा के इंजीनियर संजीव जैन ने कही। उन्होंने आगे कहा कि सोलर पॉवर सिस्टम में तीन चीजें महत्वपूर्ण है - उत्पादन, स्थानन्तरण और वितरण। उत्पादित पॉवर का एक बड़ा हिस्सा स्थानन्तरण एवं वितरण में नष्ट हो जाता है। अगर हम अपने घर मे पॉवर का उत्पादन करते हैं तो इसे बचा सकते हैं। घर की छतों में लगने वाले सोलर पैनल के उपयोग कर सकते है।

सोलर ऊर्जा क्षेत्र में उम्मीद

सोलर सेल के क्षेत्र में 2014 में 7.7 मिलियन और 2015 में 8.1 मिलियन नौकरियां पूरे विश्वभर मे मिलीं। भारत में 2022 तक 10 लाख नौकरियों की संभावना है। छत्तीसगढ़ में सभी सरकारी इमारतें तथा बैंकों की छतों में सोलर पैनल लगाना अनिवार्य है। नया रायपुर में बनने वाले घरों में सोलर छत अनिवार्य है। कार्यशाला के दौरान विभिन्न सोलर उपकरणों जैसे सोलर पंप ड्रिंकिंग वाटर सिस्टम, सोलर बोतल लाइट, सोलर इन्सेक्ट लैंप सोलर, बेक पैक स्प्रे सिस्टम आदि के बारे में छात्र-छात्राओं को बताया गया। इसके बाद एक्साइड बैटरीज इंडिया के इंजीनियर सुशील भट्टाचार्य ने अक्षय ऊर्जा स्रोतों में उपयोग में आने वाले बैटरियों के महत्व को बताया। अंत में क्रेडा के इंजीनियर अमिताभ शर्मा ने सोलर थर्मल ऊर्जा के बारे में बताया। उन्होंने सूर्य की तापीय ऊर्जा का उपयोग कर बायोमास गैसीफायर, कुक स्टोव, सोलर वाटर हीटर के बारे में बताया।

patrika Fri, 23 September 2016
epaper.patrika.com/c/13414949

Mr. Sanjeev Jain, Chief Engineer, CREDA, Chhattisgarh addressing the participants

दैनिक भास्कर रायपुर, गुरुवार, 22 सितंबर 2016

रिन्युएबल एनर्जी और एंटरप्रिन्योरशिप पर रविशंकर यूनिवर्सिटी में रखी गई वर्कशॉप, आईआईटी दिल्ली के असिस्टेंट प्रोफेसर संदीप पाठक हुए शामिल, मूलतः छत्तीसगढ़ के संदीप ने शेयर किया अपनी लाइफ का स्ट्रगल टाइम, बोले-

लोग फ्रेंच, जर्मन और स्पैनिश सीख रहे हैं, हम इंग्लिश में ही अटके हैं...

सिटी रिपोर्टर • देश के दूसरे राज्यों में स्टूडेंट्स अब फोकस कर रहे हैं जर्मन, स्पैनिश, चायनीज और फ्रेंच जैसी भाषाओं में। नई भाषा का ज्ञान हमेशा उससे जुड़े क्षेत्रों में एजुकेशन और जॉब के चांसेस बढ़ाता है। मैं यहीं से पढ़ा हूं, सब जानता हूं। हमारे यहां के स्टूडेंट्स अब तक एक मामूली अंग्रेजी भाषा से ही जूझ रहे हैं। ऐसे में उन्हें कई ऐसे मौकों के बारे में पता ही नहीं चलता जिसके वो असल हकदार होते हैं। हमारे गांवों तो दूर शहर के सरकारी स्कूल के बच्चे भी इंग्लिश में कमजोर हैं। टीचर्स भी इस तरह पढ़ाते हैं कि इंग्लिश एक ऐसा सब्जेक्ट बनकर रह गया है जिसमें पासिंग मार्क्स लाना ही स्टूडेंट्स का मकसद हो चला है। ये ठीक नहीं। प्रदेश के मौजूदा हालातों पर कुछ इन्हीं शब्दों में अपना नजरिया रखा आईआईटी दिल्ली के असिस्टेंट प्रोफेसर संदीप पाठक ने। संदीप आईआईटी प्रोफेसर से पहले छत्तीसगढ़िया हैं। पं रविशंकर शुक्ल यूनिवर्सिटी में रिन्युएबल एनर्जी पर आयोजित वर्कशॉप में वे बतौर स्पीकर पहुंचे। सिटी भास्कर से बात-चीत में

• डॉ. संदीप पाठक वे पर्वोस्काइट सोलर सेल की टेक्निक की जानकारी स्टूडेंट्स को दी।

उन्होंने बताया कि उनकी स्कूलिंग मुंगेली से लगे गांव में हुई। बीएससी करने के लिए बिलासपुर आए। यहां छत्तीसगढ़ी में बातें किया करते थे।

आलम ये था कि मैं टीचर्स और दूसरे स्टूडेंट्स की इंग्लिश यहां तक की हिंदी सुनकर डरता था। मुझे हिंदी भी ठीक से नहीं आती थी। यहीं समझ आया कि कुछ बड़ा करना है तो इंग्लिश से नाता जोड़ना ही होगा। फिर सिलसिला हुआ हर रोज 5 घंटे अंग्रेजी पढ़ने के साथ। मेहनत के दम पर भारत सरकार की हैदराबाद स्थित नेशनल ग्रीमिंयर लैबॉरेटरी में पीजी करने का मौका मिला। यहां से कैंब्रिज यूनिवर्सिटी में प्रोफेसर डेविट कार्डवेल, अलरिच स्टेनर, सोलर सेल्प पर अपनी पीएचडी पूरी की। प्रो. पाठक ने कहा कि जब इस भाषा का ज्ञान मेरे इतने काम आया तो यकीं मानिए अन्य स्टूडेंट्स को भी इसका फायदा मिलेगा। स्कूल-कॉलेजों को चाहिए कि हफ्ते में कम से कम एक दिन स्टूडेंट्स को इस भाषा की ग्रॉपर गाइडेंस दें।

सस्ती होगी सोलर एनर्जी

रिन्युएबल एनर्जी की फील्ड में आंत्रेप्रेन्योरशिप की जानकारी देने आयोजित की गई वर्कशॉप में स्टूडेंट्स से प्रो. संदीप पाठक ने इंटरैक्ट किया। टेक्निकल सेशन में उन्होंने कहा की वैज्ञानिकों ने सोलर सेल बनाने में सस्ती और ज्यादा क्षमता वाली तकनीक डेवलप की है। पर्वोस्काइट सोलर सेल की तकनीक आसान है इसलिए यह सस्ती है और एक्युरेसी 22 परसेंट है। सिलिकॉन सोलर सेल की एक्युरेसी 25 परसेंट है। इस लिहाज से पर्वोस्काइट सेल इस्तेमाल लायक है। सबसे पहला सोलर सेल 'बेल लेबोरेटरी' ने 1954 में विकसित किया था। पर्वोस्काइट सोलर सेल तकनीक चार साल पुरानी ही है। इस टेक्निक को पॉप्युलर करने का काम साइंटिस्ट कर रहे हैं ताकि लोगों को सस्ते दामों पर एनर्जी ऑप्शन अवेलेबल कराया जा सके।

Dr. Sandeep Pathak, Professor, IIT Delhi delivering his lecture during the event

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सोलर सेल महंगा, सिर्फ लोगों का भ्रम

पत्रिका PLUS रिपोर्टर

रायपुर ● हमारे देश मे अभी भी सोलर ऊर्जा को लेकर कई तरह की भ्रांतियां फैली फैली हुई है। सब को यह लगता है यह एक महंगी प्रक्रिया है, जबकि सोलर प्लांट से ऊर्जा पैदा करना बेहद सस्ता और सरल है। सूर्य की रोशनी जिसकी कोई भी कीमत नही है। यह बाते अक्षय ऊर्जा को लेकर अक्षय ऊर्जा प्रौद्योगिकी एवं प्रबंधन केन्द्र पं. रविशंकर शुक्ल विश्वविद्यालय द्वारा छह दिवसीय कार्यशाला के पांचवे दिन एसआर कॉर्पोरेट्स के डायरेक्टर ऋतु जैन ने कही। आगे उन्होंने यह भी कहा कि वैज्ञानिक नई तकनीक को लेकर काम कर रहे है और जल्द ही और आसान माध्यमों को लेकर भी काम किया जा रहा है।

अक्षय ऊर्जा बेहतर विकल्प

अक्षय ऊर्जा कार्यशाला में पूर्व सांसद प्रदीप गांधी ने प्रतिभागियों का मनोबल बढ़ाते हुए कहा की आप नौकरी मांगने वाले नहीं नौकरी देने वाले बनें। आज के समय में अक्षय ऊर्जा के क्षेत्र में बेहतर विकल्प है।

उन्होंने यह भी कहा की प्रधानमंत्री का लक्ष्य 2022 तक 175 मेगावाट अक्षय ऊर्जा स्त्रोतों से उत्पन्न करने का है। आगे उन्होंने बताया कि अक्षय ऊर्जा के लिए हमें एकजुट होने की आवश्यकता है, क्योंकि उंगलियों की मुट्ठी बनाए बिना विकास संभव नही है। उन्होंने कहा कि प्रधानमंत्री द्वारा सौर ऊर्जा के क्षेत्र में काम करने के लिए 121 देशों का सूर्य मित्र संगठन बनाया गया है, जिसका मुख्यालय भारत में है।

patrika Sat, 24 September 2016
epaper.patrika.com/c/13447487

Ms. Ritu Jain, MD, SR Corporate Consultant Private Limited, giving keynotes on Proposal Preparation

नवभारत

रायपुर शनिवार 24 सितम्बर 2016

सोलर प्लांट लगाने के लिए उपयुक्त जगह होना जरूरी

■ राजधानी रिपोर्टर | रायपुर.

पंडित रविशंकर शुक्ल विश्वविद्यालय में आयोजित 6 दिवसीय वर्कशॉप के पांचवें दिन स्किल काउंसिल फॉर ग्रीन जॉब्स के तन्मय विश्नोई ने कहा कि सोलर प्लांट लगाने के लिए उपयुक्त जगह होना जरूरी है. सोलर प्लांट स्टैंड अलोन, ग्रिड कनेक्टेड और यूटिलिटी स्केल होता है. स्टैंड अलोन सिस्टम में एक पूरा सिस्टम सौर ऊर्जा से चलता है. उसको बाहर से कोई इनपुट नहीं मिलता. ग्रिड कनेक्टेड सिस्टम लोकल ग्रिड से जुड़ा होता है और अपने उपयोग के बाद बची हुई बिजली को हम ग्रिड में भेज सकते है जिसके बदले हमें पैसे मिलते हैं. जबकि यूटिलिटी स्केल सिस्टम बड़े पैमाने पर विकसित सोलर प्लांट होता है.

सांसद रह चुके प्रदीप गांधी ने छत्तीसगढ़ी कहावत, डाल के चूके बेंदरा, आषाढ़ के चूके किसान के जरिए कहा कि अक्षय ऊर्जा के क्षेत्र में आने का वही सही समय है. अब अगर चूक गए तो चूक गए. उन्होंने कहा कि इस क्षेत्र में नौकरियों की अपार संभावनाएं है. आप नौकरी मांगने वाले नहीं नौकरी देने वाले बनो. इस मौके पर क्रेडा के इंजीनियर एसएस देशपांडे, डॉ. संजय तिवारी, गोविंद पटेल समेत अन्य स्टूडेंट्स मौजूद रहे.

Covering of workshop in Navbharat Newspaper

EVENT REGISTER OF INSTITUTE OF RETM

Workshop on Entrepreneurship in Renewable Energy Technologies for C'garh Tribal from 19th

- The workshop will help in sharing of innovative information on the latest trends of smart renewable energy development for the 21st century which is linked with global economy growth

Staff Reporter
RAIPUR, Sept 13

A NATIONAL Workshop on "Entrepreneurship in Renewable Energy Technologies for Chhattisgarh Tribal" is being organised from September 19 to 24 by Renewable Energy Technology & Management Center, Pt Ravishankar Shukla University, Raipur, The United States – India Educational Foundation (USIEF), Chhattisgarh Renewable Energy Development Agency (CREDA) and Vijnana Bharti (VIBHA) for entrepreneurs, researchers working in the area of renewable energy, engineers, managers from industry, and personnel from academics and R&D institutions. The main objective of the workshop is disseminating relevant information on various aspects and current trends in renewable energy technologies for power generation. The Sector Council Green Jobs under National Skill Development Council, Government of India, is participating in the workshop and its experts not only will impart training but give Govt of India Skill Certificate to the participants.

The workshop has already got overwhelming response and participants from all corners of Chhattisagrh, Maharashtra, Madhya Pradesh, Delhi , Uttar Pradesh, Himachal Pradesh etc. have registered for the same. However, the number is restricted to 80.

The coordinator of programme Dr Sanjay Tiwari said India has made some moral commitments on tackling climate change, one of which is to make the country's GDP more emission-efficient. India is a vital player in addressing climate change and we look forward to increasing our partnership to expand clean energy deployment and access and our PM Shri Modi has committed use of Renewable Energy at COP 21 summit to be 40 % by India by 2030. The Jawaharlal Nehru National Solar Mission was launched by the Prime Minister with the Mission to set the ambitious target of deploying 100,000 MW of grid connected solar power by 2022 is aimed at reducing the cost of solar power generation in the country

CREDA Director Shukla said Chhattisgarh Biomass in available abundantly at rural areas. It could be tapped efficiently to generate power. With depletion of fuels, hydrogen will become an ultimate fuel to the world.

The workshop would include national experts and practitioners, environmental NGOs, in-country development organisations, finance experts, Indian companies and philanthropic organisations as well as India's top national and state decision-makers,

If India achieves its new target of 100 gigawatts (GW) of installed solar energy by 2022, as many as 1 million FTE jobs could be created. Approximately 183,500 FTE jobs would be generated if India were to reach its target of installing 60 GW of wind energy capacity by 2022. Looking ahead, solar and wind companies in India can support the clean energy market by reporting their projects' job creation numbers.

Eminent Speakers from all corners of country e.g. Dr A N Tripathy, Advisor Ministry of New and Renewable Energy, Govt of India, Chetan Singh Solanki, IIT Mumbai, Sandeep Pathak IIT Delhi, Dr Behari, CEO, Sector Council Power Sector, Tanmay Bishnoi, Head Assessment Green Jobs, are going to share their views in the workshop.

पं. रविवि शुक्ल विवि में वर्कशॉप का आयोजन

बढ़ रहा अक्षय ऊर्जा का दायरा, बढ़ेंगे अवसर

रायपुर. विश्व मे लगातार क्लाइमेट चेज को लेकर चिंतन हो रहा है। दूसरी ओर पेट्रोलियम व कोल के बढ़ते दोहन के साथ ही कमी भी हो रही है। ऐसे मे ऊर्जा के नए स्त्रोतों की तलाश लगातार हो रही है। नवीनीकृत ऊर्जा व अक्षय ऊर्जा इसी का हिस्सा है। अक्षय ऊर्जा को बढ़ावा देने सरकारें योजनाएं ला रही है, ऐसे मे इसका दायरा बढ़ रहा है। जाहिर है अब मे अवसर भी बढ़ रहे हैं। अक्षय ऊर्जा के साथ युवाओं के लिए संभावनाओं के द्वार खुल रहे है। यह कहना था पंडित रविशंकर शुक्ल विवि मे पहुंचे विशेषज्ञों का। यहां इन दिनो रिन्यूएबल एनर्जी टेक्नोलॉजी एण्ड मैनेजमेंट सेंटर की ओर से 'एंटरप्रेन्योरशिप इन रिन्यूएबल एनर्जी

टेक्नोलॉजिस फॉर छत्तीसगढ़ ट्राइबल' विषय पर नेशनल वर्कशॉप का आयोजन किया जा रहा है। आगामी 24 सितंबर तक चलने वाली इस वर्कशॉप मे रोजाना एक्सपर्ट, पार्टिसिपेट्स को इस क्षेत्र में संभावनाओं पर जानकारी दे रहे है।

वर्कशॉप के दूसरे दिन सेंव एनर्जी के सीईओ अविनाश शुक्ल ने सोलर फोटो वोल्टिक पैनल के संबंध मे तकनीकी जानकारी दी। उन्होंने बताया कि देश वर्तमान मे अक्षय ऊर्जा तकनीक से एक मेगावाट ऊर्जा उत्पादन के लिए लगभग 50 लोगों की जरूरत है। जवाहर लाल नेहरू सोलर मिशन के तहत वर्ष 2022 तक 1 लाख मेगावाट पॉवर जनरेशन का लक्ष्य है। इस लिहाज से तकरीबन 40 लाख फील्ड एक्सपर्ट की जरूरत होगी। वही उन्होंने सोलर पैनल लगाने के तरीकों पर भी जानकारी दी। बताया कि इसमें अक्षांश व देशांतर रेखाओं का महत्व होता है। साथ ही सोलर पैनल मैंटेनेस पर तकनीकी जानकारी दी।

इस दौरान एक सत्र को संबोधित करते हुए एमएसएमई के डिप्टी डायरेक्टर राजीव नायर ने बताया कि गवर्नमेंट ऑफ इंडिया अनेक योजनाओं लॉन्च कर रही है। वहीं, सुविधाएं भी दे रही है। अक्षय ऊर्जा सहित माइक्रो व स्माल इंडस्ट्री स्टेब्लिशमेंट के लिए गवर्नमेंट के लोन स्कीम्स है। इसमें यूनाइटेड नेशन डेवलपमेंट प्रोग्राम के तहत भी लाभ लिए जा सकते है। कार्यक्रम मे छत्तीसगढ़ बायोफ्यूल डवलपमेंट अथॉरिटी के सुमित सरकार ने बॉयोफ्यूल के उत्पादन व उपयोग पर चर्चा की।

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Covering of workshop in Hitavada & Patrika Newspaper

EVENT REGISTER OF INSTITUTE OF RETM

नईदुनिया
रायपुर, शुक्रवार 23 सितंबर 2016

छात्रों को शहर में घुमाया, सोलर पावर दिखाकर बताया कैसे बनाते हैं सिस्टम

रायपुर। निप्र

पंडित रविशंकर शुक्ल विश्वविद्यालय में आयोजित सेमिनार के चौथे दिन विद्यार्थियों को शहर घुमाया गया। अक्षय ऊर्जा प्रौद्योगिकी व प्रबंधन केंद्र की ओर से छह दिवसीय इस आयोजन में गुरुवार को एंटरप्रेन्योरशिप इन रिन्यूवल एनर्जी टेक्नोलॉजी फॉर ट्राइबल पर एक्सपर्ट ने सौर पावर बनाने की जानकारी विद्यार्थियों को दी। आयुष विवि, क्रेडा दफ्तर और बूढ़ातालाब में सोलर पावर सिस्टम छूकर उसकी बारीकियां बच्चों को बताई गई। तकनीकी सत्र में क्रेडा के इंजीनियर संजीव जैन, एक्साइड बैटरीज इंडिया के इंजीनियर सुशील भट्टाचार्य और क्रेडा के इंजीनियर अमिताभ शर्मा ने व्याख्यान दिए।

गुजरात को बताया मॉडल

क्रेडा के इंजीनियर संजीव जैन ने कहा कि गुजरात के सोलर प्लांट योजना पावर सिस्टम में तीन चीजें महत्वपूर्ण हैं। पावर प्रोडक्शन, ट्रांसफर और डिस्ट्रीब्यूशन। पावर प्रोडक्शन का एक बड़ा हिस्सा ट्रांसफर और डिस्ट्रीब्यूशन में नष्ट हो जाता है। यदि आप अपने घर में पावर प्लांट लगाते हैं तो इसे नष्ट होने से बचा सकते हैं। घरों और छतों पर लगने वाले सोलर पैनल के उपयोग से इस हानि से बचा जा सकता है। छतों पर लगने वाले सोलर के विभिन्न लाभ जैसे जमीन की

रविशंकर विश्वविद्यालय में सेमिनार का चौथा दिन

आवश्यकता, पावर ग्रिड पर निर्भरता आदि कम हो जाती है। राज्य की सभी इमारतों में सोलर पावर अनिवार्य है। नया रायपुर में बनने वाले घरों में सोलर छत अनिवार्य है। कोई भी व्यक्ति अपने घर में सोलर पैनल लगा सकता है, जो कई तरह के होते हैं। ऑन ग्रिड और ऑफ ग्रिड। ऑन ग्रिड सिस्टम से उत्पादित पावर को ग्रिड से भेजा जा सकता है। उन्होंने बताया कि गुजरात और तमिलनाडु में सोलर पंप लगाने वाले किसानों को बिजली मुफ्त में दी जाती है। सोलर उपकरणों में सोलर पंप डिक्रिंग वाटर सिस्टम, सोलर बोतल लाइट, सोलर इंसेक्ट लैंप, बेक पैक स्प्रे सिस्टम, सोलर डिस्टीलेशन सिस्टम, सोलर फेसिंग आदि प्रमुख हैं।

विद्यार्थियों ने जाना कितना जरूरी है बैटरी

एक्साइड बैटरीज इंडिया के इंजीनियर सुशील भट्टाचार्य ने अक्षय ऊर्जा स्रोतों में इस्तेमाल होने वाली बैटरीज का महत्व बताया। बैटरीज की आकृतियां, चार्ज करने की तकनीक, बैटरीज में इस्तेमाल होने वाले कैमिकल आदि के आंकड़ों को समझाया। उन्होंने बताया कि जब बैटरी बनाई जाती है तो प्लेट कैरेक्टरिस्टिक की जांच, उच्च वोल्टता, उच्च रिचार्ज पर उसकी गुणवत्ता सुधारी जाती है। कई विषम परिस्थितियों में जहां विद्युत नहीं है, वहां बैटरी काम आती है, ज्यादातर रिसर्च भी इसी के सहारे हो रहे हैं।

Covering of Industrial Visit during the workshop

EVENT REGISTER OF INSTITUTE OF RETM

नवभारत रायपुर बुधवार 21 सितम्बर 2016

हर व्यक्ति कर सकता है बायोफ्यूल का उत्पादन और वितरण :सुमित

■ राजधानी रिपोर्टर। रायपुर.

हर व्यक्ति बायोफ्यूल का उत्पादन और वितरण कर सकता है. पहले ये अधिकार बड़ी तेल कंपनियों के पास थे. जट्रोफा, नीम, कुसुम, साल, महुआ के बीज से बायोफ्यूल बनाया जा सकता है. यह कहना है छत्तीसगढ़ बायोफ्यूल अथॉरिटी के प्रोजेक्ट ऑफिसर सुमित सरकार का. मौका था पंडित रविशंकर शुक्ल विश्वविद्यालय में आयोजित 6 दिवसीय वर्कशॉप के दूसरे दिन का. उन्होंने कहा कि देश में 12.20 लाख टन ऑयल, बायोफ्यूल से निर्मित होता है. तेल निकलने के बाद बचे हुए बीज से खाद बना कर उसे बेचा भी जा सकता है.

सेव अर्थ टेक्नोलॉजीज, रायपुर के इंजीनियर अभिनव शुक्ला ने कहा कि सोलर पावर प्लांट का उन क्षेत्रों में बहुत लाभ होता है, जहां पर बिजली बहुत कम आती है. इसमें सोलर उर्जा बिजली की तरह इस्तेमाल किया जाता है. सोलर से मिलने वाली बिजली से हर यंत्र चलाया जा सकता है और खर्चा भी कम होता है. उन्होंने कहा कि सोलर पैनल का ठीक तरीके से इस्तेमाल न किया जाए तो इसमें कई समस्याएं आ जाती है.

सौर ऊर्जा के उपकरणों से दूध का उत्पादन

इंदिरा गांधी कृषि विश्वविद्यालय के डेयरी टेक्नोलॉजी के प्रोफेसर एके अग्रवाल ने कहा कि दूरस्थ स्थानों पर सौर उर्जा से चलने वाले उपकरणों से दूध, दही, घी और मक्खन का उत्पादन किया जाता है. उन्होंने कहा कि दूरस्थ स्थानों पर सौर उर्जा के उपकरणों का इस्तेमाल बड़ी तेजी से किया जा रहा है. इसके साथ ही एमएसएमई, रायपुर के डिप्टी डायरेक्टर इंजीनियर राजीव नायर ने इंटरप्राइजेज और क्रेडा के चीफ इंजीनियर एसएस देशपांडे ने बायोमास की उपयोगिता के बारे में बताया.

Mr. Sumit Sarkar from CREDA, Chhattisgarh delivering lecture during event

ANCHOR

सोलर एनर्जी में हैं भविष्य के लिए अपार संभावनाएं

वैज्ञानिकों ने सोलर उर्जा का विकास तो पूर्ण रूप से कर लिया गया है। लेकिन अभी भी इसका उपयोग कम ही लोग कर रहे हैं। जबकि सोलर तकनीकी से प्राप्त ऊर्जा ज्यादा क्षमता युक्त है। सोलर ऊर्जा को लेकर सबसे ज्यादा जरूरी है, इसकी जानकारी को ज्यादा से ज्यादा लोगों तक पहुंचाना। यह बातें चर्चा अक्षय ऊर्जा पर केंडा व यूएस इंडिया फाउंडेशन नई दिल्ली के संयुक्त तत्वावधान में पं. रविशंकर शुक्ल विश्वविद्यालय एवं प्रबंधन केन्द्र में आयोजित छह दिवसीय राष्ट्रीय कार्यशाला के तीसरे दिन बुधवार को विषय विशेषज्ञों ने प्रतिभागियों को बताई।

पत्रिका PLUS रिपोर्टर

रायपुर ● बुधवार को सोलर सेल विषय पर चर्चा की गई। इसमें आईआईटी दिल्ली के प्रोफेसर डॉ. संदीप पाठक ने बताया कि वैज्ञानिकों ने सोलर सेल बनाने सस्ती और ज्यादा क्षमता वाली तकनीकी का विकास कर लिया है। सोलर सेल की दक्षता 22 प्रतिशत है, जो की सिलिकॉन सोलर सेल की दक्षता 25 प्रतिशत के बहुत ही करीब है। डॉ. पाठक ने बताया की आईआईटी दिल्ली के शोधकर्ताओं ने पेरोवस्काइट सोलर सेल की कुछ विशिष्ट गुणों का पता लगाया है, जो की इस सेल के कार्यविधि को समझने में सहायक होगी। साथ, डॉ. पाठक ने यह भी कहा कि भविष्य में ऊर्जा के अन्य माध्यमों और जरूरतों को ध्यान में रखते हुए अक्षय ऊर्जा स्त्रोतों में से सौर ऊर्जा सबसे अच्छा विकल्प है, जो कभी भी समाप्त न होने वाला है।

संग्रहित ऊर्जा साइन वेव में परिवर्तित

कार्यक्रम में एनआईटी नागपुर के प्रो. मोहन वी. अवरे ने अक्षय ऊर्जा स्त्रोतों में उपयोग होने वाले कॅपेसिटर की गुणवत्ता और दक्षता पर उनके के बारे में जानकारी दी। उन्होंने कॅपेसिटर के विभिन्न आयामों की जानकारी देते हुए बताया की अक्षय ऊर्जा ऊर्जा को बैटरी में इकट्ठा किया जाता है और इसे उपयोग करने के लिए साइन वेव में परिवर्तित किया जाता है।

सोलर ऊर्जा के फायदे

यह कभी खत्म न होने वाला संसाधन है।

वातावरण को कोई भी नुकसान नहीं।

इसका उपयोग खाना बनाने, उष्णता के लिए, बिजली के रूप में, वाहन में, हवाई जहाज में भी किया जा सकता है।

सस्ता और सरल है।

घर की छत में आसानी से लगाया जा सकता है।

patrika Thu, 22 September 2016 epaper.patrika.com/c/13399827

Prof. Mohan V. Aware, VNIT Nagpur explaining the job opportunities in Renewable Sector

STC-Gender Issues
(18/10/2016 to 24/10/2016)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Lone Rajendra Kumar Laxmanrao Shri Renukadevi College, Mahur, Dist.-Nanded (M.S.)
02.	Jadhav Datta Udhav Shree Renukadevi College, Mahur, Dist.-Nanded (M.S.)
03.	Dr. Hemlata Borkar S. o. S. in Sociology, Pt. Ravishankar Shukla University, Raipur (C.G.)
04.	Rathod Vilas Tukaram Shri Renukadevi College, Mahur, Dist.-Nanded (M.S.)
05.	Dr. Pushpa Minj V.A.B Govt. College,Chhuikhadan, Dist.-Rajnandgaon (C.G.)
06.	Dr. Sandhya S. Lanjewar S.N. Agrawal Govt. College, Kohka-Neora (Tilda), Dist.-Raipur (C.G.)
07.	Riya Tiwari Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
08.	Dr. Ahilya Tiwari Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
09.	Dr. (Smt.) Usha Chandel Govt. Dr. W.W.P. Girl's P.G. College, Durg (C.G.)
10.	Dr. Pratibha Katiyar Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
11.	Smt. Subhi Nishad Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
12.	Dr. Sandhya R. Gaur Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
13.	Diptimayee Dash Dept. of Agricultural Microbiology, Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
14.	Mrs. Sonali Deole Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
15.	Sanjay Motiram Nandagawali, Dr. L.D. Balkhande College of Arts & Commerce, Pauni, Dist.-Bhandara (M.S.)
16.	Dr. Karmishtha Shambharkar, Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
17.	Dr. Vrinda Sengupta T.C.L. Govt. P.G. College, Janjgir (C.G.)
18.	Dr. Priya Rao S. o. S. in Law, Pt. Ravishankar Shukla University, Raipur (C.G.)
19.	Sarita Sharma Kalindi College,Lalpur, Raipur (C.G.)
20.	Sheela Sharma Kalindi College,Lalpur, Raipur (C.G.)
21.	Madhulika Pandaw Rajeev Gandhi Govt. College, Simga, Dist.-Balodabazar-Bhatapara (C.G.)
22.	Dr. (Smt.) Nanda Gurwara Govt. Kamla Devi Rathi Girls College, Rajnandgaon (C.G.)

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23.	Rosemeena Kujur Rajeev Gandhi Govt. College, Simga, Dist.-Balodabazar-Bhatapara (C.G.)
24.	Dr. Amia Ekka S. o. S. in Life Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
25.	Dr. Suchitra Sharma Govt. V.Y.T.P.G. Auto. College, Durg (C.G.)
26.	Dr. Sujata Atul Sharma Mahatama Gandhi College, Raipur (C.G.)
27.	Dr. (Smt.) Laxmi Sonekar Vivekanand Institute of Education, Kota, Raipur (C.G.)
28.	Dr. Biji Nair Vivekanand Institute of Education, Kota, Raipur (C.G.)
29.	Mithilesh Kumar Singh RITEEE College, Mandhir Hasaud, Raipur (C.G.)
30.	Dr. Archana Sethi S. o. S. in Economics,Pt. Ravishankar Shukla University, Raipur (C.G.)

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Refresher Course in Hindi
at
Raipur

3-23 November, 2016

Organized by
Human Resource Development Center, Pt. Ravishankar Shukla University
Raipur 492010, Chhattisgarh, India

Course Coordinator: Dr. Brijendra Pandey

Raipur and its Surroundings: The city of Raipur is the capital of Chhattisgarh. It represents the administrative, educational, business and industrial seat of the State. In its immediate neighbourhood lies, Bhilai, the steel city of India, where the largest steel plant of Asia is located. In the south of Raipur is the tribal heart of India-the Bastar, where the tribal culture, art and philosophy are still preserved in original form along with the natural settings in deep and thick woods. Bastar is also famous for its numerous waterfalls and subterranean lime stone caves, besides the lush green Sal forest. In July the climate of Raipur is quite pleasant. Normal clothing and other outfit will suffice. Raipur is located about 300 Km from Nagpur in the East on the Mumbai-Kolkata trunk line. It is well connected by Air, Rail and Road.

Contact
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Voice: +91-9827159831; 9754233057; 9406030873; 9926315781
Website: www.prsu.ac.in
Venue: Human Resource Development Center Lecture Hall, Pt. Ravishankar Shukla University, Raipur
Date & Time: 3-23 November, 2016 from 10:30 to 17:00 everyday
Who can participate College / University teachers in Hindi subject with at least three years of experiences can apply through email to any of one of the above IDs mentioning their name, designation, subject, and institution. However, they are required to fill up the application form of ASC and produce reliving certificate from their Institution when they come for participation. Those working in universities and colleges that are included under Section 2(f) of the UGC Act, even though they may not yet be fit to be included under Section 12(B), may participate in the Refresher Course. The teachers of college that do not yet come within the purview of Section 12(B), but have been affiliated to a university for at least two years, will be permitted to participate in the program. However, they won't be paid TA/DA and other allowances for attending these courses. Part time/Ad hoc/temporary/contract teachers who have been teaching for at least three academic sessions in an institution which has been affiliated to a university for at least two years may be permitted to participate in the Refresher Course to enhance their skills.

Note: For registration, each participant will report to the Office (HRDC) at 10.30 a.m. on the date specified in the selection letter along with relieving order from the Institution. Applicants have to pay a Registration fee of Rs. 1,000/- (non refundable) in the shape of demand draft drawn in favor of the Registrar, Pt. Ravishankar Shukla University, Raipur, payable at Raipur (C.G.).

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RAIPUR-492010

Refresher Course - Hindi
Date - 03/11/2016 to 23/11/2016

S. No.	Name of Resource Person
01.	Prof. Siyaram Sharma Department of Hindi, Govt. College, Utai, Dist.-Durg (C.G.)
02.	Prof. K.L. Verma
03.	Shri Lalit Surjan
04.	Dr. Urmila Shukla Dept. of Hindi, Govt. Chhattisgarh College, Raipur (C.G.)
05.	Shri Tagendar Singh Gagan Rtd. Deputy Director General, Doordarshan, Raipur (C.G.)
06.	Dr. Sushil Trivedi Ex. State Election Commissioner, Raipur (C.G.)
07.	Dr. R.P. Kosaria, Principal, Rani Durgavati College, Wadrafnagar, Balrampur (C.G.)
08.	Dr. C.R. Kar
09.	Prof. Shail Sharma
10.	Leeladhar Mandloi Director, Bhartiya Gyanpeeth, New Delhi
11.	Dr. Pawan Agrwal Dept. of Hindi, University of Luknow, Luknow (U.P.)
12.	Prof. V.N. Dubey
13.	Dr. Satyabhama Adil Rtd. Professor, Govt. D.B. Girls P.G. Collee, Raipur (C.G.)
14.	Prof. Superna Sen Gupta
15.	Dr. Sudheer Sharma Dept. of Hindi, Kalyan P.G. College, Durg (C.G.)
16.	Dr. Jaiprakash Sao Govt. V.Y.T.P.G. Science College, Durg (C.G.)
17.	Dr. Sanjeev Kumar Dubey Professor, Dept. of Hindi, Central University of Gujarat, Gandhinagar (Gujarat)
18.	Dr. Gorelal Chandel Rtd. Professor, Indira Kala Sangeet Vishwavidyalaya, Khairagarh (C.G.)
19.	Dr. Ashish Tripathi Professor, Dept. of Hindi, Banaras Hindu University, Banaras (U.P.)

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Refresher Course-Hindi
(03/11/2016 to 23/11/2016)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Rajkumar Lahare Govt. P.G. Commerce & Arts College, Raigarh (C.G.)
02.	Dr. Aarti Dhruw Borkar Govt. D.K.P.G. College, Balodabazar (C.G.)
03.	Smt. Margreat Kujur Govt. College, Dharamjaigarh, Dist.-Raigarh (C.G.)
04.	Dr. Prabhakar Darshan Govt. College, Kartala, Dist.-Korba (C.G.)
05.	Sushil Kumar Tiwari Govt. Larangsai P.G. College, Ramanujganj (C.G.)
06.	Ram Kumar Sahu Govt. College, Ramanujnagar, Dist.-Surajpur (C.G.)
07.	Lawan Singh Kawar Govt. Rajmata Vijaya Raje Sindhiya Girl's College, Kawardha (C.G.)
08.	Tikeshwar Singh Markam Govt. Pt. Shyam Shankar Mishra College, Deobhog, Dist.-Gariyaband (C.G.)
09.	Dr. Kalpana Mishra Govt. D.B. Girls P.G. College, Raipur (C.G.)
10.	Dr. (Smt.) Shubha Tiwari Govt. R.N.M. College, Bhatgaon, Dist.-Balodabazar-Bhatapara (C.G.)
11.	Shri Shribachha Bhoy, Govt. Sant Gahira Guru Rameshwar College, Lailunga, Dist.-Raigarh (C.G.)
12.	Bansori Lal Inwati Govt. College, Barghat, Dist.-Seoni (M.P.)
13.	Pitambar Sidar Govt. College, Magarlod, Dist.-Dhamtari (C.G.)
14.	Dharampal Sahu Govt. Degree College, Kusmi, Dist.-Balrampur (C.G.)
15.	Dr. Lalchand Sinha Govt. Navin College, Konta, Dist.-Sukma (C.G.)
16.	Dr. Dwarika Prasad Chandrawanshi Govt. College, Pandatarai, Dist.-Kabirdham (C.G.)
17.	Dr. Astha Tiwari Govt. Naveen College, Berla, Dist.-Bemetara (C.G.)
18.	Rajesh Kumar Naveen Govt. College, Salhewara, Dist.-Rajnandgaon (C.G.)
19.	Dr. Rajesh Kumar Sethiya Govt. S.B.R. College, Sukma (C.G.)
20.	Praveen Kumar Sahu Govt. Veer Gaind Singh College, Pakhanjore, Dist.-Kanker (C.G.)
21.	Vijay Manohar Lohar Moolgi Jatha College, Jalgaon (M.S.)

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22.	Dr. Rajesh Kumar Thakur Govt. Art & Commerce College, Keolari, Dist.-Seoni (M.P.)
23.	Piyush Kumar Tandey Govt. College, Ramchanrapur, Dist.-Balrampur (C.G.)
24.	Khedu Ram Satyarthi Bharti Govt. N.C.J. College, Dallirjahara, Dist.-Balod (C.G.)
25.	Namrata Dhruw N.R.M. Govt. Girls College, Dhamtari (C.G.)
26.	Dr. Rita Yadav Govt. Rajeev Lochan College, Rajim, Dist.-Gariaband (C.G.)
27.	Dr. Baban Shankar Satpute Miraj Mahavidyalaya, Miraj, Dist.-Sangli (M.S.)
28.	Ms. Vandana Pandey T.C.L. Govt. P.G. College, Janjgir, Dist.-Janjgir-Champa (C.G.)
29.	Dr. Saraswati Verma Govt. Mata Karma Girls College, Mahasamund (C.G.)
30.	Dr. Satyendra Kumar Kashyap Govt. Laxmaneshwar College, Khari, Dist.-Janjgir-Champa (C.G.)
31.	Kasarpu Padma Rani Govt. Degree College, Garla, Dist.-Mehaboobabad (Telangana)
32.	Dr. Daizi Kujur Govt. College, Dipika, Dist.-Korba (C.G.)

DIRECTOR
Human Resource Development Centre
Pt. Ravishankar Shukla University
RAIPUR-492010

Refresher Course in Research Methodology in Arts, Social Science, Commerce and Humanities

AT

Raipur

19 December to January 08, 2017

Organized by

Human Resource Development Centre, Pt. Ravishankar Shukla University

Raipur 492010, Chhattisgarh, India

Course Coordinator: Dr. Ashok Pradhan

Theme: Research Methodology

Raipur and its Surroundings: The city of Raipur is the capital of Chhattisgarh. It represents the administrative, educational, business and industrial seat of the State. In its immediate neighborhood lies, Bhilai, the steel city of India, where the largest steel plant of Asia is located. In the south of Raipur is the tribal heart of India-the Bastar, where the tribal culture, art and philosophy are still preserved in original form along with the natural settings in deep and thick woods. Bastar is also famous for its numerous waterfalls and subterranean lime stone caves, besides the lush green Sal forest. In July the climate of Raipur is quite pleasant. Normal clothing and other outfit will suffice. Raipur is located about 300 Km from Nagpur in the East on the Mumbai-Kolkata trunk line. It is well connected by Air, Rail and Road.

Contact

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Voice: +91-9754233057; 9827159831; 09425511967; 9926315781

Website: www.prsu.ac.in

Venue: Human Resource Development Centre Lecture Hall, Pt. Ravishankar Shukla University, Raipur.

Date & Time: 19 December to January 08, 2017 from 10:30 to 17:00

Who can participate? Interested College / University teachers in Arts, Social Science, Commerce and Humanities subjects with at least three years experiences can apply through email to any of the above IDs mentioning their name, designation, subject, and institution. However, they are required to fill up the application form of HRDC and produce reliving certificate from their Institution when they come for participation working in those universities and colleges that are included under Section 2(f) of the UGC Act, even though they may not yet be fit to be included under Section 12(B), may participate in the Refresher Course. The teachers of college that do not yet come within the purview of Section 12(B), but have been affiliated to a university for at least two years, will be permitted to participate in the programmes. However, they won't be paid TA/DA and other allowances for attending these courses. Part time/Ad hoc/temporary/contract/ teachers who have been teaching for at least three academic sessions in an institution which has been affiliated to a university for at least two years may be permitted to participate in the Refresher Course to enhance their skills.

Note. For registration, each participant will report to the Office (HRDC) at 10.30 a.m. on the date specified in the selection letter along with relieving order of the Institution. Applicants have to pay a Registration fee of Rs. 1,000/- (non refundable) in the shape of demand draft drawn in favor of the Registrar, Pt. Ravishankar Shukla University, Raipur, payable at Raipur (C.G.) along with acceptance.

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Human Resource Development Centre
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RAIPUR-492010

Refresher Course - Research Methodology in Arts, Social Science, Commerce & Humanity

Date - 19/12/2016 to 08/01/2017

S. No.	Name of Resource Person
01.	Dr. J.L. Bhardwaj
02.	Dr. Ashish Kumar Shrivastav
03.	Dr. Rajeev Choudhary
04.	Dr. Tapesh Gupta Govt. J.Y. Chhattisgarh P.G. Autonomous College, Raipur (C.G.)
05.	Dr. C.D. Agashe
06.	Dr. Chitranjan Kar
07.	Dr. Arjun Dasgupta Rtd. Professor, University of Calcutta, Kolkata (W.B.)
08.	Prof. Amitbabh Chatterjee Rtd. Professor & Head, Dept. of Library & Information Science, Jadavpur University, Kolkata (W.B.)
09.	Dr. Shantilata Francis Head, Dept. of Education, Vipra College of Commerce & Physical Education, Raipur (C.G.)
10.	Dr. Suparna Sengupta
11.	Dr. A.K. Pati
12.	Dr. Pradiip Kumar Chourasia
13.	Dr. M.L. Naik Former Professor, S. o. S. in Life Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
15.	Dr. S.K. Singh
16.	Dr. S.K. Jadhav
17.	Dr. Shailendra Saraf
18.	Dr. Reeta Venugopal
19.	Dr. Priyambada Shrivastav
20.	Dr. Ravindra Brahme
21.	Dr. Sanjay Kumar Tiwari

DIRECTOR
Human Resource Development Centre
Pt. Ravishankar Shukla University
RAIPUR-492 010

Refresher Course - Arts, Social Science, Commerce & Humanities
(19/12/2016 to 08/01/2017)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Ghanshyam Thakur Govt. K.P.G. College, Jagdalpur, Dist.-Bastar (C.G.)
02.	Bhoopendra Karwande Govt. J.Y. Chhattisgarh P.G. College, Raipur (C.G.)
03.	Digambar Abaji Chimankar P.G. Dept. of Population Studies, Fakir Mohan University, Nuapadhi Campus, Balasore (Odisha)
04.	Sunil Kumar Tiwari Govt. J.Y. Chhattisgarh P.G. College, Raipur (C.G.)
05.	Hansraj Rahangdale Govt. Kaktiya P.G. College, Jagdalpur, Dist.-Bastar (C.G.)
06.	Dr. Avinash Samal Hidyatullah National Law University, Uparwara, Raipur (C.G.)
07.	Dr. Rajesh Kumar Pal Goswami Tulsidas Govt. P.G. College, Karwi, Dist.-Chitrakoot (U.P.)
08.	Anamika Modi Govt. J.Y. Chhattisgarh P.G. College, Raipur (C.G.)
09.	Rajput Shraddha Bhausingh Hidyatullah National Law University, Uparwara, Raipur (C.G.)
10.	Rana Navneet Roy Hidyatullah National Law University, Uparwara, Raipur (C.G.)
11.	Yamala Papa Rao Hidyatullah National Law University, Uparwara, Raipur (C.G.)
12.	Dr. Sampada Bais Govt. J.Y. Chhattisgarh P.G. College, Raipur (C.G.)
13.	Manjulata Sao Govt. College, Bori, Dist.-Durg (C.G.)
14.	Dr. Prabha Gupta Govt. College, Tamnar, Dist.-Raigarh (C.G.)
15.	Dr. (Smt.) Pragati Dongre J.H. Govt. P.G. College, Betul (M.P.)
16.	Dr. Archana Sethi S. o. S. in Economics, Pt. Ravishankar Shukla University, Raipur (C.G.)
17.	Mrs. Bhumika Sharma Govt. K.L. Arts, Commerce & Science College, Bagbahara, Dist.-Mahasamund (C.G.)
18.	Dr. Mahimati Salen Toppo Govt. Kavyopadhyay Hiralal College, Abhanpur, Dist.-Raipur (C.G.)
19.	Tilak Ram Aditya Govt. College, Jaijaipur, Dist.-Janjgir-Champa (C.G.)
20.	Dr. Nudrat Parveen Nalini Prabha Deo Prasad Roy Arts & Commerce College, Sarkanda, Bilaspur (C.G.)

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21.	Smt. Anita Meshram Govt. Naveen College, Khursipar, Bhilai, Dist.-Durg (C.G.)
22.	Mrs. Purnima Kumari Asst. Librarian, Pt. Sunder Lal Sharma Library, Pt. Ravishankar Shukla University, Raipur (C.G.)
23.	Dr. Susheel Kumar Indurkar Institute of Management, Pt. Ravishankar Shukla University, Raipur
24.	Dr. C. Anupa Tirkey Govt. G.N.A. P.G. College, Bhatapara (C.G.)
25.	Kamal Kishor Pradhan Govt. M.V.P.G. College, Bhanupratappur, Dist.-Kanker (C.G.)
26.	B. Abhay Rathore Govt. Bala Saheb Deshpande College, Kunkuri, Dist.- Jashpur (C.G.)
27.	Dr. S.C. Walke Govt. P. Sanskrit College, Khajurital, Dist.-Satna (M.P.)
28.	Sunil Agrawal Mahant Laxminarayan Das Mahavidyalaya, Raipur (C.G.)
29.	Raju Jangade Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
30.	Dr. Riya Tiwari Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
31.	Mrs. Kusum Sahu Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
32.	Mrs. Sarika Kumari Dewangan Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
34.	Sushma Dubey Shri Shankaracharya Mahavidyalaya, Bhilai, Dist.-Durg (C.G.)
35.	Dr. Rajat Kumar Jain Shri Shankaracharya Mahavidyalaya, Bhilai, Dist.-Durg (C.G.)
36.	Dr. Divya Sharma Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)

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PT. RAVISHANKAR SHUKLA UNIVERSITY , RAIPUR (CG)

Tally.ERP9 Training 02 JANUARY TO 21 JANUARY 2017

Syllabus for Training

- Fundamentals of Computer
- Fundamentals of Accounting
- Basics of Tally.ERP9
- Creating Masters in Tally.ERP 9
- Creating Heads in Tally.ERP 9
- Voucher Entry
- Editing & Canceling of Data
- Cheque Printing
- Reports Generation
- Multiyear working
- Security Controls
- Printing of Reports

TIME TABLE

WEEK	DAY	DATE	DURATION	TITLE OF LECTURE
1ST STC	MONDAY	02-01-2017	1:30 Hr.	INTRODUCTION OF COMPUTER & TALLY
	TUESDAY	03-01-2017	1:30 Hr.	WORKING STYLE OF TALLY [CO.CREATION]
	WEDNESDAY	04-01-2017	1:30 Hr.	CONCEPT OF GROUPING & LEDGER CREATION
	THURSDAY	05-01-2017	1:30 Hr.	PROJECT WORK ON GROUPING
	FRIDAY	06-01-2017	1:30 Hr.	CONCEPT OF VOUCHER AND DATA ENTRY
	SATURDAY	07-01-2017	1:30 Hr.	PROJECT WORK ON ABOVE TOPICS
2ND STC	MONDAY	09-01-2017	1:30 Hr.	TYPES OF RECEIPTS AND PAYMENTS
	TUESDAY	10-01-2017	1:30 Hr.	CHECKING AND VERIFICATIONS OF ENTRY
	WEDNESDAY	11-01-2017	1:30 Hr.	FINDING ERROR & RECTIFICATIONS
	THURSDAY	12-01-2017	1:30 Hr.	CONCEPT OF SUB GROUPING
	FRIDAY	13-01-2017	1:30 Hr.	REPORT GENERATION
	SATURDAY	14-01-2017	1:30 Hr.	FUND MANAGEMENT & BANK RECONSILATION
3RD STC	MONDAY	16-01-2017	1:30 Hr.	LIVE TRAINING AT OWN TABLE [INDIVIDUAL]
	TUESDAY	17-01-2017	1:30 Hr.	LIVE TRAINING AT OWN TABLE [INDIVIDUAL]
	WEDNESDAY	18-01-2017	1:30 Hr.	LIVE TRAINING AT OWN TABLE [INDIVIDUAL]
	THURSDAY	19-01-2017	1:30 Hr.	LIVE TRAINING AT OWN TABLE [INDIVIDUAL]
	FRIDAY	20-01-2017	1:30 Hr.	LIVE TRAINING AT OWN TABLE [INDIVIDUAL]
	SATURDAY	21-01-2017	1:30 Hr.	LIVE TRAINING AT OWN TABLE [INDIVIDUAL]

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Tally Training for Non-Teaching Employee of Pt. Ravishankar Shukla University (02/01/2017 to 22/01/2017)

List of Participants

S. No.	Name of Participants	Designation	Department
01.	Mr. R. Mandavi	Section Officer	Finance
02.	Mr. Rameshwar Rathore	Section Officer	Finance
03.	Mr. K.K. Singh Thakur	Senior Superintendent	Finance
04.	Mr. B.S. Rajput	Senior Superintendent	Finance
05.	Ku. Duleshwari	Senior Superintendent	Finance
06.	Mr. Ganesh Prasad Verma	Junior Superintendent	Finance
07.	Mr. D.K. Shrivastava	Junior Superintendent	Finance
08.	Harish Kumar Pandey	Junior Superintendent	Finance
09.	Smt. Mamta Godeswar	UDC-I	Finance
10.	Mr. Rajesh Sharma	UDC-II	Finance
11.	Mr. Prakash Thakur	UDC-II	Finance
12.	Mr. Radehshyam Yadav	UDC-II	Finance
13.	Mr. Yagwal Sahu	UDC-II	Finance
14.	Mr. Banshi Lal Tekam	UDC-I	Finance
15.	Smt. Manjusha Tirpude	UDC-II	Finance
16.	Mr. Purushottam Kahar	UDC-II	Finance
17.	Mr. M.S. Patel	LDC	Finance
18.	Mr. A.K. Dewanagan	LDC	Finance
19.	Mr. Pushkar Diwan	LDC	Finance
20.	Mr. N.K. Banjare	Data Entry Operator	Finance
21.	Mr. Prabhat Kumar Jha	LDC	Finance
22.	Mr. Thaneshwar Rao Ingle	LDC	Finance
23.	Smt. Sapna Sinha	LDC	Finance
24.	Ku. Archana Sharma	Lab Attended	Finance
25.	Ku. Rukmani Dhruw	LDC (Contract)	Finance
26.	Mr. Chaman Lal Thakur	UDC-I	General Administration
27.	Mr. K.K. Choudhari	UDC-I	General Administration
28.	Ku. Nutan Sahu	UDC-II	General Administration
29.	Smt. Swapna Pal	LDC	General Administration
30.	Smt. Praveena Yadav	LDC	General Administration

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31.	Mr. Pritam Das	LDC (Contract)	General Administration
32.	Smt. Bharti Shori	UDC-II	Exam Section
33.	Smt. Dulari Thakur	UDC-II	Exam Section
34.	Mr. Anurag Shrivastav	LDC	Exam Section
35.	Mr. Girish Kumar Sen	LDC	Grant Cell
36.	Mr. Paleshwar Thakur	LDC	Academic Section
37.	Ku. Maya Choudhari	Data Entry Operator	Academic Section
38.	Mr. Ranjeet Singh Ratre	LDC	Dean Student Welfare
39.	Mr. Manoj Yadu	Data Entry Operator	Dean College Developing Council
40.	Mr. Bimal Kumar Dhurwey	LDC	Registrar Office

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Tally Training for Non-Teaching Employee of Pt. Ravishankar Shukla University (02/01/2017 to 22/01/2017)

List of Participants

S. No.	Name of Participants	Category	Designation	Department	Signature
01.	Mr. R. Mandavi	ST	Section Officer	Finance	
02.	Mr. Rameshwar Rathore	SC	Section Officer	Finance	
03.	Mr. K.K. Singh Thakur	Gen	Senior Superitendent	Finance	
04.	Mr. B.S. Rajput	Gen.	Senior Superitendent	Finance	
05.	~~Smt.~~ Duleshwari Ku.	ST	Senior Superitendent	Finance	
06.	Mr. Ganesh Prasad Verma	OBC	Junior Superitendent	Finance	
07.	Mr. D.K. Shrivastava	GEN	Junior Superitendent	Finance	
08.	Harish Kumar Pandey	Gen.	Junior Superitendent	Finance	
09.	Smt. Mamta Godeswar	SC	UDC-I	Finance	
10.	Mr. Rajesh Sharma	Gen.	UDC-II	Finance	
11.	Mr. Prakash Thakur	Gen -	UDC-II	Finance	
12.	Mr. Radehshyam Yadav	OBC	UDC-II	Finance	
13.	Mr. Yagwal Sahu	OBC	UDC-II	Finance	
14.	Mr. Banshi Lal Tekam	ST	UDC-I	Finance	
15.	Smt. Manjusha Tirpude	SC	UDC-II	Finance	
16.	Mr. Purushottam Kahar	OBC	UDC-II	Finance	

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S. No.	Name of Participants	Category	Designation	Department	Signature
17.	Mr. M.S. Patel	OBC	LDC	Finance	
18.	Mr. A.K. Dewanagan	OBC	LDC	Finance	
19.	Mr. Pushkar Diwan	ST	LDC	Finance	
20.	Mr. N.K. Banjare	SC	Data Entry Operator	Finance	
21.	Mr. Prabhat Kumar Jha	GEN	LDC	Finance	
22.	Mr. Thaneshwar Rao Ingle	GEN	LDC	Finance	
23.	Smt. Sapna Sinha	OBC	LDC	Finance	
24.	Ku. Archana Sharma	GEN	Lab Attended	Finance	
25.	Ku. Rukmani Dhruw	ST	LDC (Contract)	Finance	
26.	Mr. Chaman Lal Thakur	ST	UDC-I	General Administration	
27.	Mr. K.K. Choudhari	GEN	UDC-I	General Administration	
28.	Ku. Nutan Sahu	OBC	UDC-II	General Administration	
29.	Smt. Swapna Pal	GEN	LDC	General Administration	
30.	Smt. Praveena Yadav	OBC	LDC	General Administration	
31.	Mr. Pritam Das	SC	LDC (Contract)	General Administration	
32.	Smt. Bharti Shori	SC	~~UDC-I~~ Sr. Sup.	Exam Section	
33.	Smt. Dulari Thakur	ST	~~UDC-II~~	Exam Section	
34.	Mr. Anurag Shrivastav	GEN	LDC	Exam Section	
35.	Mr. Girish Kumar Sen	General	LDC	Grant Cell	

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S. No.	Name of Participants	Category	Designation	Department	Signature
36.	Mr. Paleshwar Thakur	ST	LDC	Academic Section	
37.	Ku. Maya Choudhari	OBC	Data Entry Operator	Academic Section	
38.	Mr. Ranjeet Singh Ratre	SC	LDC	Dean Student Welfare	
39.	Mr. Manoj Yadu	GEN	Data Entry Operator	Dean College Developing Council	
40.	Mr. ~~Vimal Dhruw~~ Bimal Kumar Dhurwey	ST	LDC	Registrar Office	

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Orientation Program
Date - 07/01/2017 to 03/02/2017

S. No.	Name of Resource Person
01.	Dr. Sanjay Tiwari, Associate Professor, Human Resource Development Centre, Banaras Hindu University, Varanasi (U.P.)
02.	Dr. Suparna Sengupta
03.	Dr. Basheer Hasan
04.	Dr. Ashish Kumar Shrivastava
05.	Dr. Ashok Kumar Pradhan
06.	Dr. M.L. Naik
07.	Shri Lalit Surjan Chief Editor, Deshbandhu Group of Publications, Raipur (C.G.)
08.	Dr. Mohammad Imtiaz Ahmed
09.	Dr. C.D. Agashe
10.	Dr. A.K. Pati
11.	Dr. Ravindra Brahme
12.	Dr. J.C. Ajawani Dept. of Psychology, Govt. Arts & Commerce Girls College, Devendra Nagar, Raipur (C.G.)
13.	Shri Dilraj Prabhakar Indian Forest Service, Chhattisgarh Goverment
14.	Dr. Arti Parganiha
15.	Dr. Rajeev Choudhary
16.	Dr. Reeta Venugopal
17.	Dr. Pradeep Shukla Faculty, Chhatisgarh Academy of Administration, Raipur (C.G.)
18.	Dr. O.P. Chandrakar Principal, Sant Guru Ghasidas Govt. P.G. College, Kurud, D ist.-Dhamtari (C.G.)
19.	Dr. Ninad Bodhankar
20.	Dr. Kallol Kumar Ghosh
21.	Dr. K. Subramanian Indian Forest Service, Chhattisgarh Government
22.	Dr. S.K. Jadhav
23.	Dr. (Smt.) Prabha Rohatgi
24.	Shri Chandrahas Behar Rtd. IAS, Chhattisgarh Govt., Raipur (C.G.)
25.	Dr. Girish Kant Pandey Registrar, Kushabhau Thakre Patrakarita Avam Jansanchar Vishwavidyalaya, Raipur (C.G.)

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Orientation Program
(07/01/2017 to 03/02/2017)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Omprakash Meravi Govt. Khemraj Laxmichand Arts, Science & Commerce College, Bagbhara, Dist.-Mahasamund (C.G.)
02.	Dr. Shankuntla Raj Govt. Kranti Kumar Bhartiya College, Sakti, Dist.-Janjgir-Champa (C.G.)
03.	Dr. (Mrs.) Reema Rani Das Govt. D.K.P.G. College, Balodabazar (C.G.)
04.	Dr. Swati Sahu Govt. K.H. College, Abhanpur, Dist.-Raipur (C.G.)
05.	Deepali Rajwade Govt. N.P.G. College of Science, Raipur (C.G.)
06.	Sant Kumar Khandekar Govt. Larangsai College, Ramanujganj, Dist.-Balrampur (C.G.)
07.	Rekhraj Sahu TCB College of Agriculuture & Research Station, Bilaspur (C.G.)
08.	Dalganjan Singh Mahipal Sahed Gundadhur College of Agriculture & Research Station, Jagdalpur, Dist.-Bastar (C.G.)
09.	Shrawan Yadav RMD College of Agriculture & Research Station, Ambikapur, Dist.-Sarguja (C.G.)
10.	Dr. Jaipal Singh Prajapati Department of Hindi,Pandit Sundarlal Sharma (Open) University, Bilaspur (C.G.)
11.	Mrs. Monika Tripathi Sharma Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
12.	Premnath Bharti B.C.S. Govt. P.G. College, Dhamtari (C.G.)
13.	Dr. Suresh Mani Tripathi Govt. Naveen Law College, Bhatapara, Dist.-Balodabazar-Bhatapara (C.G.)
14.	Dr. Ajay Manoharrao Ghatole D.B. Science College, Ram Nagar, Kudwa Road, Gondia (M.S.)
15.	Dinesh Malviya B.P.D. Govt. P.G. College, Kanker (C.G.)
16.	Deepak Umrao Sarwe Dept. of Mathematics, University of Mumbai, Santacruz (E), Mumbai (M.S.)
17.	Dhanraj Sirame Govt. SSP College, Waraseoni, Dist.-Balaghat (M.P.)
18.	Hemant Kumar Mandale Govt. SSP College, Waraseoni, Dist.-Balaghat (M.P.)
19.	Dr. Ghanat Kumar Joshi Govt. Naveen College, Mohala, Dist.-Rajnandgaon (C.G.)
20.	Ghanshyam Kumar Dewangan Govt. College, Magarlod, Dist.-Dhamtari (C.G.)
21.	Dr. Sandhya Gupta Gurukul Mahila Mahavidyalaya, Raipur (C.G.)

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22.	Dr. Pranay Punj Pankaj Nagaland University, Lumani, Dist.-Zuhneboto (Nagaland)
23.	Dr. Simanchala Pradhan Barpali College, Barpali, Dist.-Bargarh (Odisha)
24.	Mrs. Madhuri Gautam Pt. K.L.S. College & Research Station, Rajnandgaon (C.G.)
25.	Dr. (Smt.) Sangita Devi Sharma Naveen Govt. College, Bori, Dist.-Durg (C.G.)
26.	Dr. Sarla Dwivedi B.C.S. Govt. P.G. College, Dhamatari (C.G.)
27.	Dr. Amol Keshawrao Dhawas Janata Mahavidyalaya, Civil Lines, Chandrapur (M.S.)
28.	Dr. (Smt.) Shashi Kashyap Govt. W.W. Patankar Girls P.G. College, Durg (C.G.)
29.	Smt. Kavita Sakure Govt. Nehru P.G. College, Dongargarh, Dist.-Rajnandgaon (C.G.)
30.	Niresh Kumar Kurre Govt. Lal Chakradhar Shah College, Ambagarh Chowki, Dist.-Rajnandgaon (C.G.)
31.	Smt. Veena Meshram Govt. Narmada College, Hoshangabad (M.P.)

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16-17

Participants List
Orientation Program
(07/01/2017 to 03/02/2017)
02.02.2017

Sr. No.	Name of participants				
01.	Omprakash Meravi				
02.	Dr. ~~Shankuntal~~ Raj SHAKUNTLA				
03.	Dr. (Mrs.) Reema Rani Das	02/02/17	02/02/17	02/02/17	02/02/17
04.	Dr. Swati Sahu	2.2.17	2.2.17	2.2.17	2.2.17
05.	Deepali Rajwade				
06.	Sant Kumar Khandekar				
07.	Rekhraj Sahu				
08.	Dalganjan Singh Mahipal				
09.	Shrawan Yadav				
10.	Dr. Jaipal Singh Prajapati				
11.	Mrs. Monika Tripathi Sharma				
12.	Premnath Bharti				
13.	Dr. Suresh Mani Tripathi				
14.	Dr. Ajay Manoharrao Ghatole				
15.	Dinesh Malviya				
16.	Deepak Umrao Sarwe				
17.	Dhanraj Sirame				
18.	Hemant Kumar Mandale				
19.	Dr. Ghanat Kumar Joshi	2-2-17			
20.	Ghanshyam Kumar Dewangan				
21.	Dr. Sandhya Gupta				
22.	Dr. Pranay Punj Pankaj				

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	...ànchala Pradhan				
	...rs. Madhuri Gautam				
	Dr. (Smt.) Sangita Devi Sharma				
26.	Dr. Sarla Dwivedi				
27.	Dr. Amol Keshawrao Dhawas				
28.	Dr. Shashi Kashyap				
29.	Kavita Sakure				
30.	Niresh Kr. Kuree				
31.	Veena Meshram				

Course Coordinator

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SCHOOL OF STUDIES IN COMPUTER SCIENCE & IT
PT. Ravishankar Shukla University, Amanaka, G.E. Road,
Raipur, Chhattisgarh-492010

A Report on the Workshop on "On-Line Admission"

A one day workshop on "On-Line Admission" was organized by the School of Studies in Computer Science & IT, in the auditorium of Pt. Ravishankar Shukla University, Raipur in collaboration with CHIPS on the 2nd May, 2017.

Experts from CHIPS gave live demonstration and imparted training to numerous Principals and IT experts of various colleges from the region. Dr Sanjay Kumar, Head, Computer Science & IT introduced the relevance of the workshop.

There were 79 dignitaries present as attendants representing numerous institutions from around the region. During the workshop, the processes of online admission like filling up the admission form, generating lists and reports etc. were demonstrated. The participants were benefitted and expressed satisfaction on the training provided in the workshop.

03-05-2017

Dr. Sanjay Kumar
Head
S.o.S. in CS & IT
PRSU, Raipur

HEAD
SoS In Computer Science & IT
Pt. Ravishankar Shukla University,
RAIPUR (C.G.)

SHORT TERM COURSE
Developing the Communication Skills

At

Raipur 19 February to 25 February, 2017

Organized by

Human Resource Development Centre

Pt. Ravishankar Shukla University

Raipur 492010, Chhattisgarh, India

Course Coordinator: Dr. Meeta Jha

Theme: Developing the Communication Skills

Quality of life is said to be a function of our ability to communicate. As teachers are committed to the well being of our students and therefore it is our sacred duty to teach them the proper skills of communication which will help them to live a happy and contended life to achieve this. The teacher themselves are required to be excellent communicators. The proposed workshop takes the holistic look upon communication and is intended to provide deep insight into the communication spectrum. Those attending the workshop will learn and appreciate the dimensional aspects of communication. It is needless to add that it also improve their teaching skills and facilitate them to enjoy better relation with their students.

Raipur and its Surroundings

The city of Raipur is the capital of Chhattisgarh. It represents the administrative, educational, business and industrial seat of the State. In its immediate neighborhood lies, Bhilai, the Steel City of India, where the largest steel plant of Asia is located. In the south of Raipur is the tribal heart of India-the Bastar, where the tribal culture, art and philosophy are still preserved in original form along with the natural settings in deep and thick woods. Bastar is also famous for its numerous waterfalls and subterranean limestone caves, besides the lush green Sal forest. In July the climate of Raipur is quite pleasant. Normal clothing and other outfit will suffice. Raipur is located about 300 Km from Nagpur in the East on the Mumbai-Kolkata trunk line. It is well connected by Air, Rail and Road.

Contact

Email:meetajha2010@gmail.com;brijpandey09@gmail.com;dr.arvind02@gmail.com; amitshuklam@gmail.com Voice: +91-9754233057; 9827159831; 09826180809; 9926315781

Website: www.prsu.ac.in

Venue: Human Resource Development Centre Lecture Hall,
Pt. Ravishankar Shukla University, Raipur.

Date & Time: 19 February to 25 February 2017 from 10:30 to 17:00

Who Can Participate?

Interested College / University teachers in Arts, Social Science, Commerce and Humanities subjects with at least three years experiences can apply through email to any of the above IDs mentioning their name, designation, subject, and institution. However, they are required to fill up the application form of HRDC and produce reliving certificate from their Institution when they come from participation working in those universities and colleges that are included under Section 2 (f) of the UGC Act, even though they may not yet be fit to be included under Section 12 (B), may participate in the Short Term Course. The teachers of college that do not yet come within the purview of Section 12 (B), but have been affiliated to a university for at least two years, will be permitted to participate in the programmes. However, they won't be paid TA/DA and other allowances for attending these courses. Part time/Adhoc/temporary/contract/ teachers who have been teaching for at least three academic sessions in an institution which has been affiliated to a university for at least two years may be permitted to participate in the Refresher Course to enhance their skills.

Note.

For registration, each participant will report to the Office (HRDC) at 10.30 a.m. on the date specified in the selection letter along with the relieving order of the Institution.

Applicants have to pay a Registration fee of Rs. 1,000/- (non refundable) in the shape of demand draft drawn in favor of the Registrar, Pt. Ravishankar Shukla University, Raipur, payable at Raipur (C.G.) along with acceptance.

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Short Term Course – Developing Communication Skills
Date - 19/02/2017 to 25/02/2017

S. No.	Name of Resource Person
01.	Dr. A.S. Kalele Rtd. Professor, Durga College, Raipur (C.G.)
02.	Mohammed Tausif UR Rahman
03.	Dr. Chitranajan Kar Rtd. Professor, S.o.S. in Literature & Language, Pt. Ravishankar Shukla University, Raipur (C.G.)
04.	Dr. Neelanjana Pathak, Head, Department of English, St. Aloysuis College, Jabalpur (M.P.)
05.	Dr. Ajeya Jha, Sikkim Manipal Insitute of Technology, Gangtok, Sikkim
06.	Dr. G.A. Ghanshyam Assitant Professor, Govt. Lahiri College, Chirimri, Dist.-Korea (C.G.)

Short Term Course - NAAC Accreditation, IQAC Cell Functioning & Recognition of Colleges under section 2(f) & 12 (B) of the UGC Act 1956
Date - 15/02/2017

S. No.	Name of Resource Person
01.	Dr. A.K. Gupta
02.	Dr. Swarnlata Saraf
03.	Dr. Shailendra Saraf
04.	Dr. A.K. Pati

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STC-Developing Communication Skills
(19/02/2017 to 25/02/2017)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Ms. Charlotte M. D'Souza BPD Govt. College, Kanker (C.G.)
02.	Dr. Rakesh Tiwari BPD Govt. College, Kanker (C.G.)
03.	Dr. Tanjeen Ara Khan Govt. College, Barpali, Dist.-Korba (C.G.)
04.	Mrs. Ritesh Mishra RITEE College of Education,Dumartalab, Raipur (C.G.)
05.	Harbhajan Kaur RITEE College of Education, Dumartalab, Raipur (C.G.)
06.	Dr. R.K.S. Thakur BPD Govt. College, Kanker (C.G.)
07.	Ku. Namrata Ghore Sandipani Academy, Pendri, Masturi, Dist.-Bilaspur (C.G.)
08.	Sona Ram Verma Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
09.	Dr. Shampa Chaubey Govt. D.B. Girls P.G. College, Raipur (C.G.)
10.	Dr. Pushpa Tiwari Govt. D.B. Girls P.G. College, Raipur (C.G.)
11.	Dr. Shobha B. Jambhulkar Dhanwate National College, Nagpur (M.S.)
12.	Dr. Dhyneshwar N. Khadse Dhanwate National College, Nagpur (M.S.)
13.	Kulbhushan D. Meghe Dhanwate National College, Nagpur (M.S.)
14.	Dr. Kishor A. Wangal Dhanwate National College, Nagpur (M.S.)
15.	Mrs. Reena Nayak Institute of Teachers Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
16.	Dr. Kailash Sharma Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
17.	Smt. Suman Pandey Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
18.	Smt. Rasika Malviya Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
19.	Dr. Karmishtha Shambharkar Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
20.	Smt. Reena Shukla Vipra Arts, Commerce & Physical Education, Raipur (C.G.)

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21.	Shikha Behera S.N. Agrawal College Govt. Arts & Commerce College, Kohka-Neora (Tilda), Dist.-Raipur (C.G.)
22.	Sandhya Pujari Sandipani Academy, Achhoti, Dist.-Durg (C.G.)
23.	Jagelal Gahare S. o. S. in Philosophy, Pt. Ravishankar Shukla University, Raipur (C.G.)
24.	Dr. Vinod Yadaorao Waghale Dhanwate National College, Congress Nagar, Nagpur (M.S.)
25.	Dr. Surendra Ramchandra Jichkar Dhanwate National College, Congress Nagar, Nagpur (M.S.)
26.	Dr. Radha Gupta Confluence College of Higher Education, Rajnandgaon (C.G.)
27.	Dr. Gautami Bhatpahari Govt. D.K.P.G. College, Balodabazar (C.G.)
28.	Smt. Sangita Banjare S.N. Agrawal College Govt. Arts & Commerce College, Kohka-Neora (Tilda), Dist.-Raipur (C.G.)
29.	Dr. Aruna Pandey Pragati College, Choubey Colony, Raipur (C.G.)
30.	Chandni Sawlani Vipra Arts, Commerce & Physical Education, Raipur (C.G.)
31.	Mrs. Nisha Dubey Rajeev Gandhi Govt. College, Simga, Dist.-Balodabazar-Bhatapara (C.G.)
32.	Dr. (Smt.) Smita Barge Govt. K.H. College, Abhanpur, Dist.-Raipur (C.G.)
33.	Dr. Mrinalini Karmoker S. o. S. in Literature & Languages, Pt. Ravishankar Shukla University, Raipur (C.G.)
34.	Ku. Lalita Sahu Govt. Mata Shabari Naveen Girls College, Bilaspur (C.G.)
35.	Richa Shukla Gracious College of Education, Belbhata, Abhanpur, Dist.-Raipur (C.G.)
36.	Rekha Vivek Agrawal Kruti School of Business Management, Raipur (C.G.)
37.	Dr. Saroj Chakradhar S. o. S. in Literature & Languages, Pt. Ravishankar Shukla University, Raipur (C.G.)
38.	Ku. Gauri Pidwani Kalindi College of Education, Lalpur , Raipur (C.G.)
39.	Dr. Rashmi Dubey Govt. D.B. Girls P.G. College, Raipur (C.G.)
40.	Dr. Geeta Rai Govt. College, Gobra-Nawapara, Dist.-Raipur (C.G.)
41.	Dr. Manjulata Sao Govt. College, Bori, Dist.-Durg (C.G.)
42.	Dr. Savita Verma MATS University, Arang, Dist.-Raipur (C.G.)
43.	Tulendra Kumar Verma Kamlakant Shukla Institute, Deori Road, Bhatapara, Dist.-Balodabazar-Bhatapara (C.G.)
44.	Dr. Smita Sharma S. o. S. in Literature & Languages, Pt. Ravishankar Shukla University, Raipur (C.G.)

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45.	Smt. Ujjwala Singh Govt. D.B. Girls College, Raipur (C.G.)
46.	Dr. Premlata Tiwari Govt. College, Badwaha (M.P.)
47.	Piyali Hore Kalandi College, Lalpur, Raipur (C.G.)

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Workshop on
Accreditation and Recognition of HEIs
15/02/2017

Sr. No.	Name of Principal and College Name
01.	Dr N. P Yadav Registrar , KD Rungta college of science & Technology, Raipur (C.G.)
02.	Mr Narender Singh (Coordinator IQAC) KD Rungta college of science & Technology , Raipur (C.G.)
03.	Mr Narender Singh (Coordinator IQAC) KD Rungta college of science & Technology , Raipur (C.G.)
04.	Jograj Singh In charge Principal, Central College of IT, Fafadih Raipur (C.G.)
05.	Dr. Devesh Sharma Abhyudaya College, Chandrakhuri Farm, Raipur (C.G.)
06.	Dr. Preeta Lall I/C IQAC, Dr. Radhabai Govt. Navin Girls College, Raipur (C.G.)
07.	Dr. Sanjit Kumar Sahu Principal, Shri Rawatpura Sarkar College of Education, Dhaneli, Raipur (C.G.)
08.	Dr. M.P. Gupta, Principal, Govt. College, Simga, Dist.-Balodabazar-Bhatapara (C.G.)
09.	Dr. O.P. Chandrakar, Govt. P.G. College, Kurud , Dist.-Dhamtari (C.G.)
10.	Dr. Samir Thakur Principal, Maharaja Agrasen College, Raipur (C.G.)
11.	Mrs. Rishi Pandey IQAC Member, Maharaja Agrasen College, Raipur (C.G.)
12.	Miss. Abha Dubey IQAC Member, Maharaja Agrasen College, Raipur (C.G.)
13.	Dr. Yulendra Singh Rajput Principal, Agrasen College, Purani Basti, Raipur (C.G.)
14.	Dr. Rajeev Tiwari, NAAC Coordinator, Vaishnav Das P.G. Sanskrit College, Raipur (C.G.)
15.	Dr. A.K. Tiwari Principal, Disha College, Raipur (C.G.)
16.	Dr. Preeti Soni IQAC Cell In charge, Govt. Gajanand Agrawal P.G. College, Bhatapara (C.G.)
17.	Dr. Vikas Gulhare IQAC Cell Member, Govt. Gajanand Agrawal P.G. College, Bhatapara (C.G.)
18.	Dr. S.B. Kumar Asst. Professor, Govt. M.V.P.G. College, Mahasamund (C.G.)
19.	Dr. Vaishali Gautam Hirway Asst. Professor,Govt. M.V.P.G. College, Mahasamund (C.G.)
20.	Dr. Sarita Sinha Govt. Mata Karma Girls College, Macheva, Mahasamund (C.G.)
21.	Dr. Lakhapti Patel Assistant Professor, Govt. College, Badhbhara, Dist.-Mahasamund (C.G.)

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22.	Dr. S.S. Diwan Assist. Professor, In charge UGC and IQAC, Govt. College, Pithora, Dist.-Mahasamund (C.G.)
23.	Dr. Arun Prakash Govt. K.H. College, Abhanpur, Dist.-Raipur (C.G.)
24.	Dr. Divya Chaturvedi Govt. K.H. College, Abhanpur, Dist.-Raipur (C.G.)
25.	Dr. B.K. Prasad Principal, Govt. Naveen College, Mainpur, Dist.-Gariaband (C.G.)
26.	Mr. Satrughan Bhoi Principal, Gracious College of Education, Belbhata, Dist.-Raipur (C.G.)
27.	Dr. Jitendra Gajbhiye Principal, Pt. Ramsakha Upadhyay College, Kkta Nagar, Gudhiyari, Raipur (C.G.)
28.	Dr. Kuldeep Dubey Principal, St. Vincent Palloti College, Kapa, Raipur (C.G.)
29.	Mrs. Pooj Rathi NAAVC & IQAC Coordinator, St. Vincent Palloti College, Kapa, Raipur (C.G.)
30.	Dr. Lubhawani Tripathi Principal, Columbia College, Tekari, Raipur (C.G.)
31.	Mrs. Nirmala Haider NAAC Coordinator, SNA Govt. College, Tilda, Dist.-Raipur (C.G.)
32.	Dr. Biji Bahadur Spectrum College of Education, Nardaha, Raipur (C.G.)
33.	Dr. T.S. Sonwani I/C Principal, Govt. V.S. Sai P.G. College, Gariaband (C.G.)
34.	Ms. Ekta Rani Makkad Asst. Professor, Govt. K.L. College, Bagbhara, Dist.-Mahasamund (C.G.)
35.	H.L. Verma Govt. B.P. College, Arang, Dist.-Raipur (C.G.)
36.	K.L. Sahu Om Shri Sainath College, Parastarai (Dharsiwa), Dist.-Raipur (C.G.)
37.	Degree Lal Patel Maharaja Agrasen International College, Raipur (C.G.)
38.	Dr. Devashish Mukherjee Principal, Mahant Laxminaryana Das College, Raipur (C.G.)
39.	Dr. V. K. Mishra Principal, Netaji Subhash College, Belbhata, Abhanpur, Dist.-Raipur (C.G.)
40.	Dr. Pitambar Sahu Asst. Professor (Hindi), Late Raja Virendara Bahadur Singh Govt. College, Saraipali, Dist.-Mahasmund (C.G.)
41.	Dr. Jayprakash Dhiwar Principal, Shiksha Snatak College, Mandhar, Dist.-Raipur (C.G.)
42.	Dr. Kiran Shrivastava Principal, Aryabhat Arts & Science College, Gariaband (C.G.)
43.	Mr. Maheshwar Singh Jagat Principal, Shree Pairi Ganga College, Mainpur, Dist.-Gariabad (C.G.)

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44.	Dr. Abhilasha Rajak Principal, Adarsh Mahavidyalaya, Raipur (C.G.)
45.	C.L. Tarak Principal, Govt. P.S.S.M. College, Deobhog, Dist.-Gariaband (C.G.)
46.	Chandan Soni Govt. P.S.S.M. College, Deobhog, Dist.-Gariaband (C.G.)
47.	Kalpana Upadhyay Govt. Minimata Girls College, Balodabazar (C.G.)
48.	Dr. Mandeep Khalsa IQAC Coordinator, B.C.S. Govt. P.G. College, Dhamtari (C.G.)
49.	Dr. Usha Kiran Agrawal In charge IQAC, Govt. D.B. Girls P.G. College, Raipur (C.G.)
50.	Dr. Sukhdev Ram Sahu Principal, Kalindi College, Lalpur, Raipur (C.G.)
51.	Dr. N.P. Yadav Registrar, K.D. Rungta College of Science &Technology, Raipur (C.G.)
52.	P.K. Bhoi Govt. Kachna Dhurua College, Chhura, Dist.-Gariaband (C.G.)
53.	Dr. V.M. Jurri, Govt. College, Gurur, Dist.-Balod (C.G.)
54.	Tulendra Kumar Verma Kamlakant Shukla Institute, Deori Road, Bhatapara (C.G.)
55.	Dr. P.K. Nag, Govt.Rajeev Lochan College, Rajim (C.G.)
56.	Gowardhan Yadu Govt.Rajeev Lochan College, Rajim (C.G.)
57.	Dr. Savita Chandrakar Principal, Shantria Bai College, Mahasamund (C.G.)
58.	Devanand Borkar Govt. College, Lawan, Dist.-Raipur (C.G.)
59.	Amit Sahu Shantria Bai College, Mahasamund (C.G.)
60.	Bhupendra Sahu Principal, Gurukul Institute, Gariaband (C.G.)
61.	Anand Soni Asst. Professor, Govt. V.S.S. College, Gariaband (C.G.)
62.	Chowa Ram Yadav Incharge Principal, Govt. College, G-Jamgaon, Dist.-Dhamtari (C.G.)
63.	Shailendra Sahu Principal, Chhattisgarh Mahatari College, Bhakhara, Dist.-Dhamtari (C.G.)
64.	Jograj Singh, Incharge Principal, Central College of IT, Fafadih, Raipur (C.G.)
65.	Dr. J.N. Kesharwani, Govt. D.K.P.G. College, Balodabazar (C.G.)
66.	Dr. Balram Prasad Jahariya Shambhavi School of Education, Dhusera (Abhanpur), Dist.-Raipur (C.G.)

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67.	Dr. Raju Mahobia Asst. Professor Botany, Govt. D.K.P.G. College, Balodabazar (C.G.)
68.	Pratap Singh Chauhan Asst. Professor Physics, Govt. D.K.P.G. College, Balodabazar (C.G.)
69.	Dr. Shailja Nigam Principal, S.N.A Govt. Arts & Commerce College, Kokha-Neora, Dist.- Raipur (C.G.)
70.	Dr. Ashish Kumar Namdeo Comptech Mahavidyalaya, Dhamtari (C.G.)

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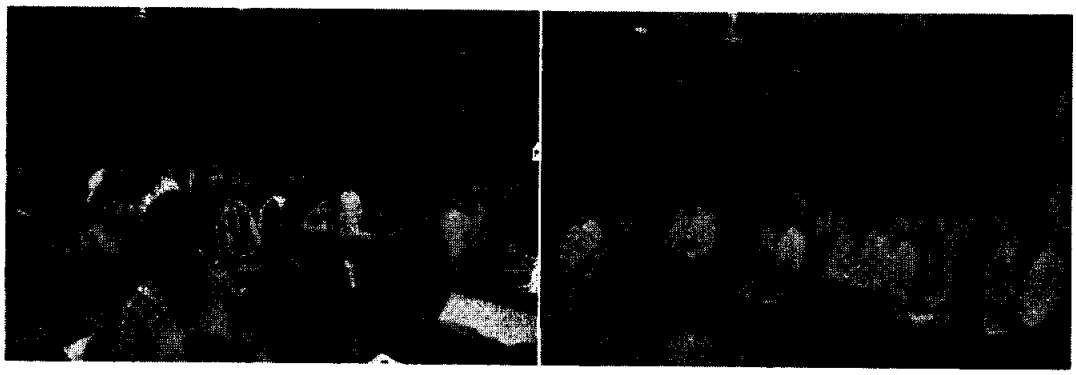
6.3.3 Training Prog

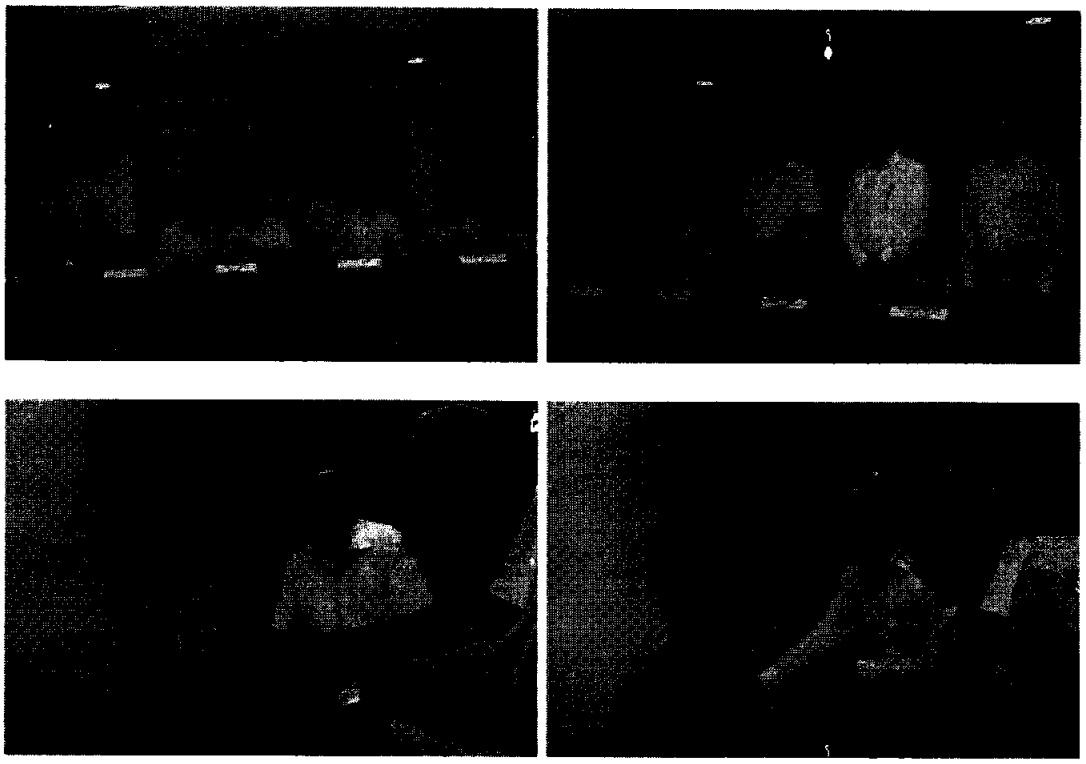
Detailed Report
of
One Day Workshop
on
"Opportunities and Entrepreneurship in Biotechnology"
held on
Friday, March 31, 2017

Last day of the financial year 2016-17 was wrapped up with a worthwhile payback in the form of a "**One Day Workshop**" graciously organized jointly by **School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur** and **Chhattisgarh Biotechnology Promotion Society, Government of Chhattisgarh, Raipur** on the most demanded and crowd pleasing issue "**Opportunities and Entrepreneurship in Biotechnology**". The workshop was hosted by and scheduled at the School of Studies in Biotechnology on March 31, 2017. A total of 185 participants, mostly M Sc students and Research Scholars along with a few faculties, from various teaching departments of both colleges and universities of Raipur, Durg, Bhilai, Rajim, *etc.* regions attended this workshop and became the attestants of the successful event.



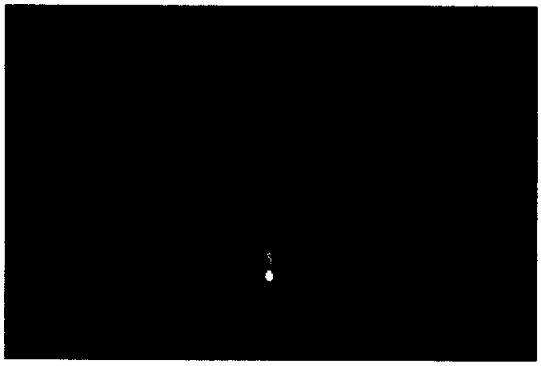
Honourable's guests on the dice, **Prof. S.K Pandey** (Vice Chancellor of Pt. Ravishankar Shukla University, Raipur), **Prof. Girish Chandel** (CEO, Chhattisgarh Biotechnology Promotion Society, Raipur), **Prof. K.L Tiwari** (Registrar, Pt. Deendayal Upadhyay Health and Ayush University, Raipur) were the Chief Guest, Special Guest and Guest of Honour respectively of the Inaugural Function of the event. The workshop was inaugurated by the dignitaries by lightening the lamp and taking the blessings of Goddess Saraswati.

Thereafter, honourable Prof. S. K. Pandey, Vice Chancellor of the University, commenced the program by sharing his advisory and motivating words with the faculties, young scholars and students of the arena of Biotechnology background. He addressed the gathering by being directive and showered his experiences that practical implementation of Biotechnology or any applied Sciences can only be built upon the strong pillars of basic and root sciences like physics, chemistry and biology. He suggested to be focused and determined towards the exchange and learning of technological advance



-ments and applying it for the betterment of mankind as well as for the economic growth of the state. He ended up his words with the positivity that this workshop will mould the attitude of the young and upcoming Biotechnologists and woven the dream for the great future of Chhattisgarh as well as India.

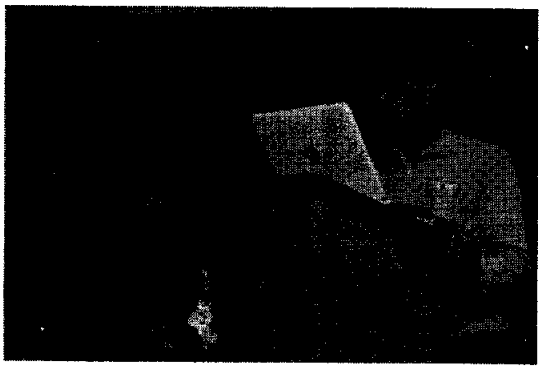
The workshop was moved forward in the direction and **Prof. Girish Chandel** (CEO, Chhattisgarh Biotechnology Promotion Society, Raipur) showed the right direction for the fulfilment of the dreams of an innovative individual. He beautifully and briefly explained about the purpose and plans hidden inside the title chosen for the workshop. He introduced that every technology user and provider needs a regulatory body. He pinpointed about the regulatory needs of any biotech industry approved by the Government of India. Prof. Chandel has familiarized every participant with the one year old grown Chhattisgarh Biotechnology Promotion Society. He said that the aim of this society is to merge biotechnology with the agricultural sciences and also to utilize the vast diversity of natural resources of the state. The assurance of this society is to create employment for the youth section and also to encourage the innovative ideas and business model. The society guarantees to provide Incubation Park, Incubation Centres and eco-friendly zone for the purposes. The society motivates the start-up projects and accepts more and more projects under this agenda. The principle of the society is to stand on Start-up India, Start-up Chhattisgarh thought and want to bring an industrial revolution and technological improvement in the state. He frequently emphasized on the development of great entrepreneur to make Chhattisgarh smart and scientifically, technologically and environmentally a rich state.



In continuation with the words of Prof. Chandel, **Ms. Medha Singh** (Manager, Chhattisgarh Infotech Promotion Society, Government of Chhattisgarh, Raipur) also elaborated the activities of Chhattisgarh Biotechnology Promotion Society. She added about the establishment of Incubation Park which would provide the platform for young researchers to submit their innovative proposals and utilize the facilities to produce the beneficial outcomes. Moving upon ahead, **Prof. K.L. Tiwari** (Registrar, Pt. Deendayal Upadhyay Health and Ayush University, Raipur) lightened on the role and importance of Biotechnology Department in every student's life. He also encouraged students to do good jobs in the field of Biotechnology and make the department grow day-by-day and also make it feel proud. With all these words, the Inaugural Function came to an end and simultaneously the two fruitful sessions has been started.

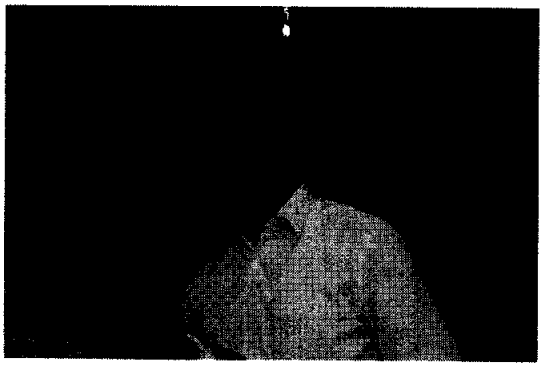
In the very first session, the participants heard and interacted with **Dr. Hemant Panigrahi** from Department of Horticulture, IGKVV, Raipur. He very well demonstrated about the cropping pattern and its merits and de-merits. He introduced to everyone a classic and wonderful cultivation technology *i.e.* "Protective Farming" using polyhouse and shade-net technologies. He explained about the output of this technology, use in terms of improved crop quality and increased productivity. He detailed about every steps and pitfalls of the technology. He provided various practical proofs for many crops, fruits, exotic varieties and ornamental flowers. He emphasized especially towards varieties of Watermelon, Mastmelon and Gerbera. These technology grown fruits and flowers are being consistently and profitably used by the farmers. His words gave up an idea of adopting this technology and fulfilling the supply demand ratio. He boosted up the students to opt for this wonderful technology and move ahead in the business and market of Biotechnology. After his wonderful words and good interaction, the session moved further and the participants heard another leading scientist and speaker in the field of Biotechnology **Dr. Rakesh Kumar Meena**, Chief Scientist, Devleela Biotech, Raipur. Dr. Meena introduced the gathering towards various job opportunities and prospects after pursing B. Sc., M. Sc. and Ph. D in the area of Biotechnology. He is a renowned scientist and gave several contributions in the area of plant tissue culture. He has successfully provided varieties of banana in the market. He briefly introduced the various requirements and steps involved in plant tissue culture. He produced an estimation regarding setting

up of a plant tissue culture laboratory in the available area. He beautifully resolved the curiosity of the participants regarding quality of the tissue cultured raised fruit varieties. He showed at a glance the investments and returns involved with the tissue culture projects. Finally, Dr. Meena encouraged the skilled Biotechnologist to become a great entrepreneur and also suggested the options available in the area of seed multiplication, secondary hardening, Agri-clinic and many more to start-up.

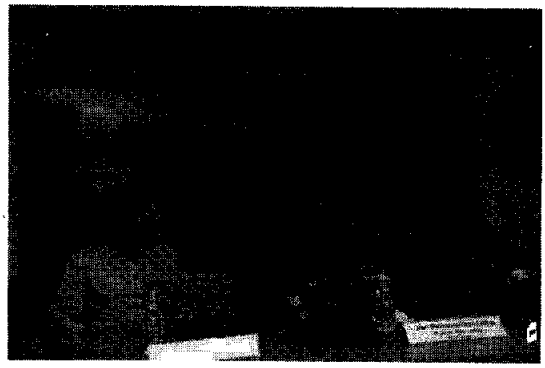
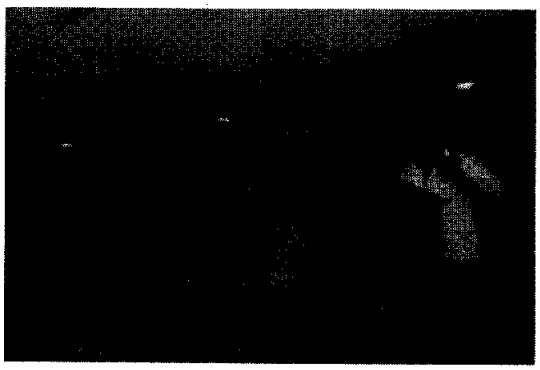


In the post lunch session, the attendees heard to **Dr. Ashok Mishra** (Director, Akash Laboratories, Raipur). A Great saying "The only source of knowledge is Experience", by Albert Einstein. He is absolutely the true picture of experience and knowledge. He took participants towards a voyage of his professional journey and encouraged them to be focused, determined and self confident. By various practical sharing he had sown a seed of entrepreneurship in minds of every attestant of the event. He emphasized the importance of food and farmer. He assured the importance of Biotechnologist in the coming future and encouraged to become independent, honest and hard working entrepreneur for the state. He has up-surged the skilled individual to contribute to start-up India, start-up Chhattisgarh and assured his full support and assistance.

With his influential words, the session moved to the next speaker **Mr. Abhijit Chakravarty** (Senior Consultant, SeMT, Chhattisgarh). Mr Chakravarty introduced the Chhattisgarh Infotech Promotion Society, Raipur, in his lecture. He emphasized on the rapidly expanding entrepreneurship and start-up projects and assured towards the leading to a great revolution in the area of Biotechnology. Mr. Chakravarty explained the aim and purpose of the Incubation Centre which will be going to set up in City Central Mall, Pandri, Raipur. The only aim and assurance of the Chhattisgarh Infotech Promotion Society is to provide space and other facilities as well as the investments for an innovative idea. He detailed every aspect of different policies provided by Government of Chhattisgarh like 36INC for the innovative minds as well as advancements and improvement in the technological section by putting some examples. He said that the agenda of the society is to bring into limelight the great discoveries which are based on the great innovations. He explained all the "Terms and Conditions" required to apply and encouraged the participants to come-up with innovative ideas individually or in a group and build the scientific future of the state.

Every session was accompanied with the exciting discussions between the speaker and the audience. Many questions were put forwards which were beautifully and satisfactorily resolved by the eminent speakers. After the mesmerizing, exciting and knowledge based sessions, the One Day Workshop came to an end with new scopes and new dreams in the eyes of participants. The Valedictory Function of the event was started around 05:00 p.m. Honorable **Shri Dharmesh Sahu** (IAS), Registrar, Pt. Ravishankar Shukla University, Raipur, was the Chief Guest for the function. He addressed the gathering to stand-up with the altitudes set up for them in the field of Biotechnology and make Chhattisgarh, a proud and beautiful state.

Everyone was pleased and expressed a heart-filled gratitude to the Registrar of the University, **Shri Dharmesh Sahu**, Convener of the workshop **Prof. S.K. Jadhav** (Head, School of Studies in Biotechnology) and Organizing Secretary, **Prof. Keshav Kant Sahu** (School of Studies in Biotechnology). Participants also expressed their thanks to the hospitality and opportunity provided by the Department of Biotechnology and Chhattisgarh Biotechnology Promotion Society. At the end, feedbacks were collected in which participants demanded to organize many more such sessions in coming future.

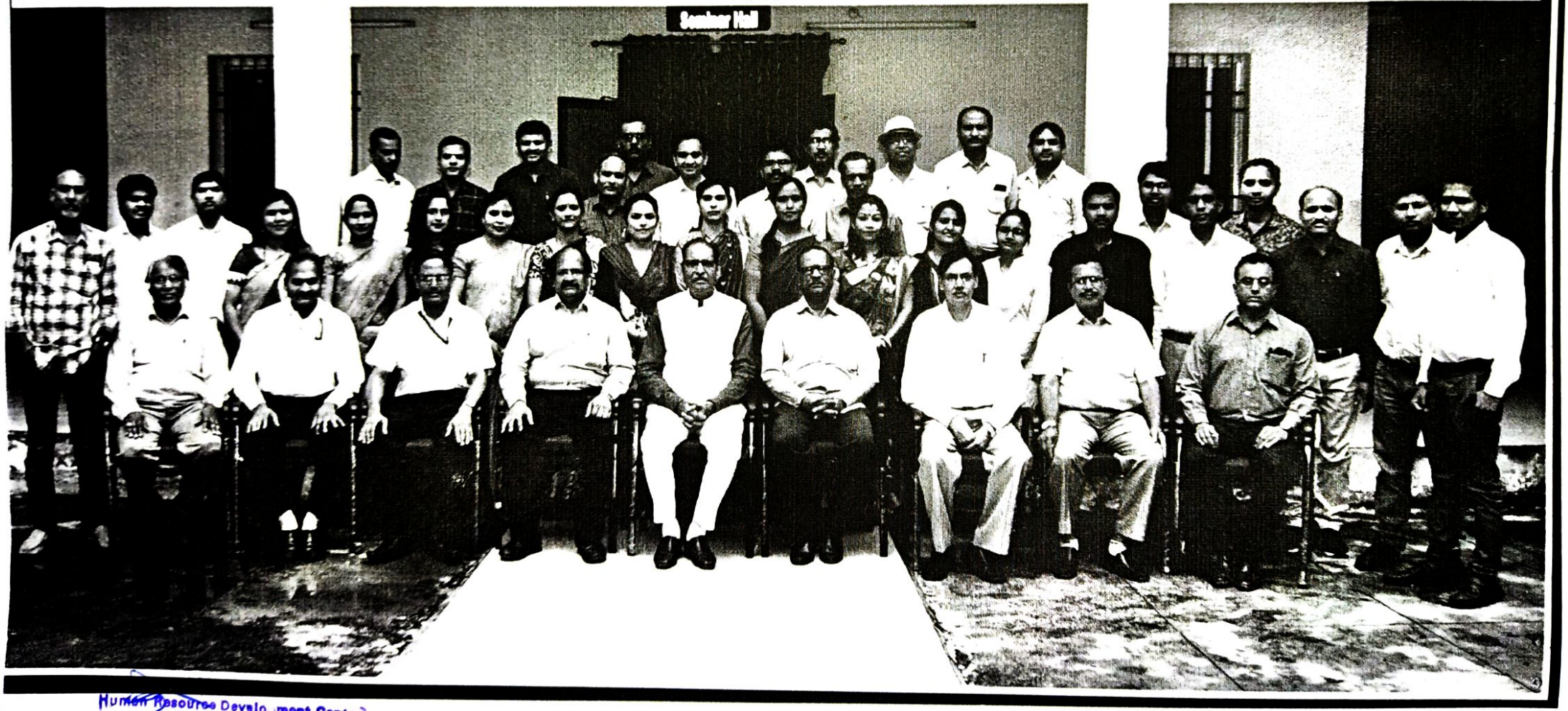
(Keshav Kant Sahu)
Organizing Secretary

Human Resource Development Centre

Refresher Course (Chemistry) : 06.09.2018 - 26.09.2018

Theme- " Sustainable Chemistry : Frontiers & Challenges"

Pt. Ravishankar shukla University, Raipur



Refresher Course - Chemistry
(06/09/2018 to 26/09/2018)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Dr. Gyan Singh Uchcharia Govt. Girls College, Morena (M.P.)
02.	Dr. Bharatkumar Madhukar Sapkal M.G.S.M.'s Arts, Science & Commerce College, Chopda, Dist.-Jalgaon (M.S.)
03.	Satyendra Singh Gautam Dr. B.S. Porte Govt. College, Pendra, Dist.-Bilaspur (C.G.)
04.	Dr. Swapan Kumar Biswas Sree Chaitanya College, Habra, Prafullanagar, P.O.-Habra, Dist.-North 24 Parganas (W.B.)
05.	Meena Chakraborty Govt. Naveen College, Bori, Dist.-Durg (C.G.)
06.	Sovaran Singh Nigam Govt. College, Chachoda Binaganj, Dist.-Guna (M.P.)
07.	Ramkrishna Yograj Patle Mahatama Gandhi College of Science, Ganchandur, Dist.-Chandrapur (M.S.)
08.	Dr. Madhukar Hemamalini Mother Teresa Women's University, Kodalkanal, Attuvampatti Campus (Tamil Nadu)
09.	Dr. Bhanushree Gupta Center for Basic Sciences, Pt. Ravishankar Shukla University, Raipur (C.G.)
10.	Reenu Mishra K.G. Arts & Science College, Raigarh (C.G.)
11.	Dr. Purak Das Rishi Bankim Chandra College for Women, East Kantalpara, Naihati, Dist.-North 24 Parganas (West Bengal)
12.	Dr. Bidyut Debnath Basirhat College, Basirhat, Dist.-North 24 Parganas (West Bengal)
13.	Dr. David Swami Ambrose S.B.N. Govt. P.G. College, Barwani (M.P.)
14.	Dr. (Mrs.) Kiran Thakur Govt. Pataleshwar College, Masturi, Dist.-Bilaspur (C.G.)
15.	Rakesh Kumar Sonkar Govt. P.G. College, Kurud, Dist.-Dhamtari (C.G.)
16.	Mrs. Shabya Patel Govt. College, Baloda, Dist.-Mahasamund (C.G.)
17.	Shukdeo Prasad Ahirwar Amar Shahid Chandrashekhar Azad Govt. P.G. College, Niwari, Dist.-Tikamgad (M.P.)
18.	Dr. Dinesh Solanki Govt. Girls College, Bandhan Road, Barwani (M.P.)
21.	Deepak Kumar Pandey Govt. Veerangna Avanti Bai Lodhi College, Patharia, Dist.-Mungeli (C.G.)
22.	Dr. Rajani Dewan St. Josephs College, North Point, Darjeeling (West Bengal)
23.	Dr. Chandra Singh Kanesh Govt. P.G. College, Dohad, Alirajpur, Dist.-Alirajpur (M.P.)

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24.	Dileep Dewangan Govt. Naveen College, Fasterpur (Setganga), Dist.-Mungeli (C.G.)
25.	Hemlata Sahu Govt. Rajeev Lochan College, Rajim, Dist.-Gariaband (C.G.)
26.	Dr. Jolly Pal Smt. P.G. Daga Girls College, Raipur (C.G.)
27.	Indrapal Karbhal S. o. S. in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.)
28.	Sanjay Kumar Shriwas Govt. Naveen College, Pipariya, Dist.-Kabirdham (C.G.)
29.	Ramsingh Kurrey S. o. S. in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.)
30.	Dr. Toshikee Yadav Centre for Basic Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
31.	Swati Chandrawanshi Centre for Basic Science, Pt. Ravishankar Shukla University, Raipur (C.G.)

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STC-Communication Skills
(22/12/2018 to 27/12/2018)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Sunil Kumar Sahu Govt. Indru Kewat Girls College, Kanker (C.G.)
02.	Smt. Purnima Kaushik Kamlakant Shukla Institute , Bhatapara, Dist.-Balodabazar-Bhatapara (C.G.)
03.	Dr. Saumya Tiwari Disha College, Ram Nagar, Kota, Raipur (C.G.)
04.	Miss. Pushpa Yadav Gracious College of Education, Abhapur, Dist.-Raipur (C.G.)
05.	Ratna Shrivas RITEE College of Education, Raipur (C.G.)
06.	Vijay Kumar Sinha Birendra Deepak Shiksha Mahavidyalaya, Jamgaon, Dist.-Gariaband (C.G.)
07.	Roshani Dubey Birendra Deepak Shiksha Mahavidyalaya, Jamgaon, Dist.-Gariaband (C.G.)
08.	Dr. Milind Bhandeo Vipra College, Raipur (C.G.)
09.	Gajendra Vaishnav RITEE College of Management, Raipur (C.G.)
10.	Dinesh Kumar Kosaley K.G. Arts & Science College, Raigarh (C.G.)
11.	Priya Rao S. o. S. in Law, Pt. Ravishankar Shukla University, Raipur (C.G.)
12.	Dr. Umesh Yadav S. o. S. in Law, Pt. Ravishankar Shukla University, Raipur (C.G.)
13.	Dr. Harish Kumar Sahu S. o. S. in Library & Information Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
14.	Dr. Girija Shankar Gautam Center for Basic Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
15.	Dr. Hemlata Borker Wasnik S. o. S. in Sociology, Pt. Ravishankar Shukla University, Raipur (C.G.)
16.	Jyoti Bala Rai Institute of Teacher Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
17.	Ms. Priti Singh Institute of Teacher Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
18.	Dr. Nagendra Kumar Chandrawanshi S. o. S. in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.)
19.	Dr. Govind Prasad Sahu Center for Basic Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
20.	Prachi Sharma Raipur Institute of Technology, Raipur (C.G.)
21.	Dr. Pradeep Kumar Chourasia S. o. S. in Statistics, Pt. Ravishankar Shukla University, Raipur (C.G.)
22.	Raju Jangde Institute of Teacher Education, Pt. Ravishankar Shukla University, Raipur (C.G.)

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23.	Dr. Sonali N. Chhannawar Mahatma Gandhi College, Raipur (C.G.)
24.	Bhumika Dewanagan Mahatma Gandhi College, Raipur (C.G.)
25.	Alka Mehta RITCOM, Dumartalab, Raipur
26.	Sona Ram Verma Institute of Teacher Education, Pt. Ravishankar Shukla University, Raipur (C.G.)
27.	Gautami Bhatpahari Govt. D.B. Girls P.G. (Auto) College, Raipur (C.G.)
28.	Arpana Dubey Govt. D.B. Girls P.G. (Auto) College, Raipur (C.G.)
29.	Sippy Dewangan S. o. S. in Statistics, Pt. Ravishankar Shukla University, Raipur (C.G.)
30.	Rabiya Khan RITCOM, Dumartalab, Raipur (C.G.)
31.	Lalita Sahu Govt. Mata Shabari Naveen Girls College, Bilaspur (C.G.)
32.	Dr. Madhekar Vaishali Vesantrao Late Venktrao Deshmukh College, Balbhalgaon, Dist.-Latur (M.S.)
33.	Dr. Halse Balaji Pandurang Shivneri College,Shirur Anantpal, Dist.-Latur (M.S.)
34.	Dr. Anupama Patel S. o. S. in Law, Pt. Ravishankar Shukla University, Raipur (C.G.)
35.	Dr. Sushma Mishra Govt. Pt. Shyamacharan Shukla College, Dharsiwa, Dist.-Raipur (C.G.)
36.	Dr. Shruti Jha Chandrapal Dadsena Govt. College, Pithora, Dist.-Mahasamund (C.G.)

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Refresher Course - Hindi
(12/01/2019 to 01/02/2019)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Jayram Shriram Suryawanshi Shri Sant Gadge Maharaj Mahavidyalaya, Loha, Dist.-Nanded (M.S.)
02.	Kalyan Shivajirao Patil K.R.M. Mahila Mahavidyalaya, Nanded (M.S.)
03.	Dr. Sunita Rathore Govt. M.M.R. P.G. College, Champa,Dist.-Janjgir-Champa (C.G.)
04.	Vijay Prakash Sahu B.P.D. P.G. College, Kanker (C.G.)
05.	Seema Rani Pradhan Govt. Mahaprabhu Vallabhacharya P.G. College, Mahasamund (C.G.)
06.	Mrs. Rosemeena Kujur Govt. Naveen College, Birgaon, Raipur (C.G.)
07.	Karuna Gaikwar Govt. Agrasen College, Bilha, Dist.-Bilaspur (C.G.)
08.	Dr. Girja Shankar Gautam Center for Basic Sciences, Pt. Ravishankar Shukla University, Raipur (C.G.)
09.	Dr.Kalpana Mishra Govt. D.B. Girls P.G. College, Raipur (C.G.)
10.	Dr. Tarnish Gautam Govt. Bilasa Girls P.G. College, Bilaspur (C.G.)
11.	Dr. Madhulata Bara S. o. S. in Literature & Language, Pt. Ravishankar Shukla University, Raipur (C.G.)
12.	Dr. SunitaKujur Govt. College, Bargi, Dist.-Jabalpur (M.P.)
13.	Dr. Alok Shukla Shree Kuleshwar Mahadev Govt. College, Gobra-Nawapara, Dist.-Raipur (C.G.)
14.	Dr. Durga Shukla Seth R.C.S. Arts & Commerce College, Durg (C.G.)
15.	Dr. Astha Tiwari Govt. Naveen College, Berla, Dist.-Bemetara (C.G.)
16.	Dr. Gaukaran Prasad Jaiswal Sant Guru Ghasidas Govt. P.G. College, Kurud, Dist.-Dhamtari (C.G.)
17.	Biru Lal Bargah Rajiv Gandhi Govt. College, Simga, Dist.-Balodabazar-Bhatapara (C.G.)
18.	Kranti Kumar Sinha Govt. J.P. Verma P.G. Arts & Commerce College, Bilaspur (C.G.)
19.	Abhishek Kumar Patel Govt. Shahid Kaushal Yadav College, Gunderdehi, Dist.-Balod (C.G.)
20.	Dr. (Mrs.) Payal Kashyap Maharaja Agrasen International College, Samta Colony, Raipur (C.G.)
21.	Dr. Dinesh Shriwash Govt. E.V.P.G. College, Korba (C.G.)
22.	Sangita Rangari Govt. College, Ramatola, Dist.-Rajnandgaon (C.G.)

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23.	Dr. Raksha Nikose Govt. S.S.P. College, Waraseoni, Dist.-Balaghat (M.P.)
24.	Dr. Vibhashas Mishra S. o. S. in Literature & Languages, Pt. Ravishankar Shukla University, Raipur (C.G.)
25.	Dr. Sudhir Sharma Kalyan College, Bhilai, Dist.-Durg (C.G.)
26.	Dr. Ambarish Tripathi Govt. Dr. W.W. Patankar Girls P.G. College, Durg (C.G.)
27.	Dr. Rajeev Yadav Govt. Naveen College, Mainpur, Dist.-Gariaband (C.G.)
28.	Dr. Amit Kumar Singh Govt. College, Fasterpur - Setganga, Dist.-Mungeli (C.G.)
29.	Dr. Bhuwal Singh Thakur Govt. College, Bhakhara, Dist.-Dhamtari (C.G.)
30.	Dr. Aruna Pandey Pragati College, Raipur (C.G.)
31.	C.L. Chamguitya Govt. College, Birsinghpur Pali, Dist.-Umaria (M.P.)
32.	Shivashankar Rajwade Pt. J.P. Upadhayay Govt. College, Patna, Dist.-Korea (C.G.)
33.	Bhaddari Lal Sandey Govt. College, Gharghoda, Dist.-Raigarh (C.G.)

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Human Resource Development Centre

Refresher Course (Hindi) : 12 Jan. to 01 Feb. 2019

Pt. Ravishankar shukla University, Raipur

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UGC HRDC, PRSU, RAIPUR

STC - Communication Skills

(22/07/2019 to 27/07/2019)

List of Participants

Sr. No.	Name of participants	College/University Name
01.	Sneha Thawait	Naveen Govt. College, Nawagarh, Dist.-Janjgir-Champa (C.G.)
02.	Vinit Kumar Sahu	Govt. Kachana Dhurva College, Chhura, Dist.-Gariaband (C.G.)
03.	Dr. Subuhi Nishad	Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
04.	Dr. Anshumala Chandangar	Govt. V.Y.T.P.G. Autonomous College, Durg (C.G.)
05.	Dr. Praveen Kumar	K.A. P.G. College, Kasganj (U.P.)
06.	Dr. Manish Kumar Mishra	Jamuna Devi Nareshchandra Mahavidyalaya, Orai (Jalaun) (U.P.)
07.	Dr. Devender Prakash	R.S.S. College, Pilkhuwa , Dist.-Hapur (U.P.)
08.	Mrs. Shilpa Kulkarni	Shri Shankracharya Mahavidyalaya, Junwani, Bhilai, Dist.-Durg (C.G.)
09.	Dr. Jaishree Wakankar	Shri Shankracharya Mahavidyalaya, Junwani, Bhilai, Dist.-Durg (C.G.)
10.	Mrs. Seema Dwivedi	Shri Shankracharya Mahavidyalaya, Junwani, Bhilai, Dist.-Durg (C.G.)
11.	Pramod Dalal	S.B.J. Degree College, Bisawar Hathras (U.P.)
12.	Dr. Harpreet Kaur	Govt. Jajwalyadev Naveen Girls College, Janjgir (C.G.)
13.	Shameena Bano	Govt. Co-Ed. Polytechnic, Byron Bazar, Raipur (C.G.)
14.	Dr. Simrann R. Vermaa	Gurukul Mahila Mahavidyalaya,Raipur (C.G.)
15.	Usha Rathore	Govt. E.R.P.G. Science College, Bilaspur (C.G.)
16.	Divya Sharma	Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
17.	Niresh Kumar Kurre	Govt. College, Ambagarh-Chowki, Dist.-Rajanandgaon (C.G.)
18.	Chandrashekhar Bandhe	St. Vincent Pallotti College, Raipur (C.G.)
19.	Santosh Sharma	Netaji Subhash College, Belbhata, Abhanpur, Dist.-Raipur (C.G.)
20.	Dr. Smita Sharma	Center for Basic Sciences
21.	Dr. (Smt.) Sandhya Lanjewar	S.N. Agrawal Govt. College, Kohka-Neora, Dist.-Raipur (C.G.)
22.	Dr. Giraja Shankar Gautam	Center for Basic Sciences, Pt. Ravishankar Shukla University Raipur (Chhattisgarh)

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List of Resource Person with Topic

S. No.	Resource Person Name & Address	Topic
01.	Dr. Basheer Hasan Professor, S. o. S. in Psychology, Pt. Ravishankar Shukla University, Raipur (C.G.)	सम्प्रेषण के मूल तत्व
02.	Dr. Chitranjan Kar Rtd. Professor, S. o. S. in Literature & Language, Pt. Ravishankar Shukla University, Raipur (C.G.)	भाषा विज्ञान से संबंधित सम्प्रेषण की समस्याओं तथा निवारण।
03.	Prof. Indu Bora Professor, Laxmibai National Institute of Physical Education, Gwalior (M.P.)	विभिन्न भाषायी त्रुटियों के निराकरण हेतु उपाय एवं उनकी सम्प्रेषण में उपाय
04.	Dr. G.A. Ghanshyam Professor,Dau Uttam Sao Govt. College, Machandur, Dist.-Durg (C.G.)	प्रभावी सम्प्रेषण की कला।
05.	Dr. Raksha Singh Principal & Director, Shri Shankracharya Mahavidyalaya, Bhilai, Dist.-Durg (C.G.)	संचार व सम्प्रेषण संबंधित गतिविधियों का आयोजन करते हुए निरर्थक व गलत संचार से बचने के उपाय।

Time Table

Date	10:30 to 12:00	12:00 to 13:30	13:30 to 14:00	14:30 to 15:30	15:30 to 17:00
22/07/2019	Registration	Prof. B. Hasan (Pt. Ravishankar Shukla University, Raipur)	LUNCH	Prof. Chitranjan Kar (Pt. Ravishankar Shukla University, Raipur)	
23/07/2019	Prof. Indu Bora [Laxmibai National Institute of Physical Education, Gwalior (M.P.)]			Prof. Chitranjan Kar (Pt. Ravishankar Shukla University, Raipur)	
24/07/2019	Prof. Indu Bora [Laxmibai National Institute of Physical Education, Gwalior (M.P.)]			Dr. G.A. Ghansham [Dau Uttam Sao Govt. College, Machandur, Dist.-Durg (C.G.)]	
25/07/2019	Prof. B. Hasan (Pt. Ravishankar Shukla University, Raipur)			Dr. Raksha Singh Principal [Shankaracharya College, Bhilai, Dist.-Durg (C.G.)]	
26/07/2019	Dr. Sameer Thakur RITCOM, Dumartalab, Raipur (C.G.)			Dr. Basumati Nadig S. o. S. in Literature & Language, Pt. Ravishankar Shukla University, Raipur (C.G.)	
27/07/2019	Dr. Manish Shrivastava [Guru Ghasidas University, Bilaspur (C.G.)]			Dr. G.A. Ghansham [Dau Uttam Sao Govt. College, Machandur,	

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STC - Communication Skills
(22/07/2019 to 27/07/2019)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Sneha Thawait Naveen Govt. College, Nawagarh, Dist.-Janjgir-Champa (C.G.)
02.	Vinit Kumar Sahu Govt. Kachana Dhurva College, Chhura, Dist.-Gariaband (C.G.)
03.	Dr. Subuhi Nishad Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.)
04.	Dr. Anshumala Chandangar Govt. V.Y.T.P.G. Autonomous College, Durg (C.G.)
05.	Dr. Praveen Kumar K.A. P.G. College, Kasganj (U.P.)
06.	Dr. Manish Kumar Mishra Jamuna Devi Nareshchandra Mahavidyalaya, Orai (Jalaon) (U.P.)
07.	Dr. Devender Prakash R.S.S. College, Pilkhuwa , Dist.-Hapur (U.P.)
08.	Mrs. Shilpa Kulkarni Shri Shankracharya Mahavidyalaya, Junwani, Bhilai, Dist.-Durg (C.G.)
09.	Dr. Jaishree Wakankar Shri Shankracharya Mahavidyalaya, Junwani, Bhilai, Dist.-Durg (C.G.)
10.	Mrs. Seema Dwivedi Shri Shankracharya Mahavidyalaya, Junwani, Bhilai, Dist.-Durg (C.G.)
11.	Pramod Dalal S.B.J. Degree College, Bisawar, Hathras (U.P.)
12.	Dr. Harpreet Kaur Govt. Jajwalyadev Naveen Girls College, Janjgir (C.G.)
13.	Shameena Bano Govt. Co-Ed. Polytechnic, Byron Bazar, Raipur (C.G.)
14.	Dr. Simrann R. Verma Gurukul Mahila Mahavidyalaya, Raipur (C.G.)
15.	Usha Rathore Govt. E.R.P.G. Science College, Bilaspur (C.G.)
16.	Divya Sharma Vipra Arts, Commerce & Physical Education College, Raipur (C.G.)
17.	Niresh Kumar Kurre Govt. College, Ambagarh-Chowki, Dist.-Rajanandgaon (C.G.)
18.	Chandrashekhar Bandhe St. Vincent Palloti College, Raipur (C.G.)
19.	Santosh Sharma Netaji Subhash College, Belbhata, Abhanpur, Dist.-Raipur (C.G.)
20.	Dr. Smita Sharma Centre for Basic Science, Pt. Ravishankar Shukla University, Raipur (C.G.)
21.	Dr. (Smt.) Sandhay Lanjewar S.N. Agrawal Govt. College, Kohka-Neora, Dist.-Raipur (C.G.)
22.	Dr. Girijashankar Gautam Centre for Basic Science, Pt. Ravishankar Shukla University, Raipur (C.G.)

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HRDC पं. रविशंकर शुक्ल विश्वविद्यालय द्वारा दिनांक 22/07/2019 से 27/07/2019 तक सम्प्रेषण पर आयोजित Short Term Course का तकनीकी विवरण

दिनांक 22/07/2019

कार्यक्रम के प्रथम दिवस दिनांक 22/07/2019 को प्रातः 10:30 से 12:00 तक पंजीयन रखा गया जिसमें समस्त आवेदकों ने संदर्भित दस्तावेज़ों के साथ अपना पंजीयन पूर्ण किया। पंजीयन उपरांत 12:00 से 13:30 प्रो. बशीर हसन, मनोविज्ञान अध्ययनशाला, पं. रविशंकर शुक्ल विश्वविद्यालय, छ.ग. द्वारा प्रथम तकनीकी सत्र का संचालन किया गया तथा सम्प्रेषण के मूल तत्वों पर व्याख्यान दिया गया। अपरान्ह 13:30 से 14:30 तक भोजन अवकाश दिया गया। तत्पश्चात् प्रो. चितरंजन कर, पं. रविशंकर शुक्ल विश्वविद्यालय द्वारा अपरान्ह 14:30 से 16:00 तक तथा 16:00 से 17:30 दो तकनीकी सत्रों का संचालन किया गया तथा भाषा विज्ञान से संबंधित सम्प्रेषण की समस्याओं तथा निवारणों पर व्याख्यान दिया गया।

दिनांक 23/07/2019

द्वितीय दिवस प्रातः 10:30 से अपरान्ह 12:00 तक प्रथम तकनीकी सत्र तथा 12:00 से 13:30 तक द्वितीय तकनीकी सत्र का संचालन प्रो. इन्दु बोरा, लक्ष्मीबाई राष्ट्रीय शारीरिक शिक्षा संस्थान, ग्वालियर, मध्य प्रदेश द्वारा किया गया। दोनों सत्रों में प्रो. बोरा ने प्रभावी सम्प्रेषण के उपायों की चर्चा की। अपरान्ह 13:30 से 14:30 तक भोजन अवकाश दिया गया। तत्पश्चात् प्रो. चितरंजन कर, पं. रविशंकर शुक्ल विश्वविद्यालय द्वारा अपरान्ह 14:30 से 16:00 तक तथा 16:00 से 17:30 दो तकनीकी सत्रों का संचालन किया गया तथा विभिन्न भाषायी त्रुटियों के निराकरण हेतु उपाय एवं उनकी सम्प्रेषण में उपादेयता पर व्याख्यान प्रस्तुत किया गया।

दिनांक 24/07/2019

तृतीय दिवस प्रातः 10:30 से अपरान्ह 12:00 तक प्रथम तकनीकी सत्र तथा 12:00 से 13:30 तक द्वितीय तकनीकी सत्र का संचालन प्रो. इन्दु बोरा, लक्ष्मीबाई राष्ट्रीय शारीरिक शिक्षा संस्थान, ग्वालियर, मध्य प्रदेश द्वारा किया गया। अपरान्ह 13:30 से 14:30 तक भोजन अवकाश दिया गया। तत्पश्चात् प्रो. जी.ए. घनश्याम, दाउ उत्तम साव शासकीय महाविद्यालय मचान्दूर, जिला–दुर्ग, छ.ग. द्वारा अपरान्ह 14:30 से 16:00 तक

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तथा 16:00 से 17:30 दो तकनीकी सत्रों का संचालन किया गया तथा विभिन्न ऑडियो व वीडियो के प्रदर्शन तथा अन्तःकिया के माध्यम से प्रभावी सम्प्रेषण की कला के विषय में विस्तार से चर्चा की गई।

दिनांक 25/07/2019

चतुर्थ दिवस प्रातः 10:30 से अपरान्ह 12:00 तक प्रथम तकनीकी सत्र तथा 12:00 से 13:30 तक द्वितीय तकनीकी सत्र का संचालन प्रो. बशीर हसन, मनोविज्ञान अध्ययनशाला, पं. रविशंकर शुक्ल विश्वविद्यालय, छ.ग. द्वारा किया गया। दोनों सत्रों में प्रो. हसन ने वैवाहिक सम्प्रेषण के विषय में विस्तार से व्याख्यान प्रस्तुत करते हुये पावर पांइट के माध्यम से हर प्रकार के सम्प्रेषण में आने वाली मनोवैज्ञानिक बाधाओं पर प्रकाश डाला। अपरान्ह 13:30 से 14:30 तक भोजन अवकाश दिया गया। तत्पश्चात् डॉ. रक्षा सिंग, प्राचार्य, शंकराचार्य महाविद्यालय, भिलाई, जिला–दुर्ग, छ.ग. द्वारा तृतीय तकनीकी सत्र का संचालन अपरान्ह 14:30 से 16:00 तक किया गया तथा समस्त प्रतिभागियों के मध्य संचार व सम्प्रेषण संबंधित गतिविधियों का आयोजन करते हुये निरर्थक व गलत संचार से बचने के उपायों की विस्तृत चर्चा की गई। चतुर्थ दिवस के अंतिम तकनीकी सत्र का संचालन सायं 16:00 से 5:30 तक प्रो. राजीव चौधरी द्वारा किया गया जिसमें उन्होनें सम्प्रेषण के मूल तत्वों के साथ–साथ प्रभाविता तथा उपयोगिता पर प्रकाश डाला।

दिनांक 26/07/2019

पंचम प्रातः 10:30 से अपरान्ह 12:00 तक प्रथम तकनीकी सत्र तथा 12:00 से 13:30 तक द्वितीय तकनीकी सत्र का संचालन डॉ. समीर ठाकुर, आर.आई.टी., डूमर तालाब, रायपुर, छ.ग. द्वारा किया गया जिसमें उनके द्वारा कुछ गतिविधियों के माध्यम से सम्प्रेषण के विभिन्न आयामों पर व्याख्यान प्रस्तुत किया गया। अपरान्ह 13:30 से 14:30 तक भोजन अवकाश दिया गया। तत्पश्चात् डॉ. बसुमति नाडिग, भाषा एवं साहित्य अध्ययनशाला, पं. रविशंकर शुक्ल विश्वद्यिालय द्वारा अपरान्ह 14:00 से 16:00 तक तथा 16:00 से 17:30 दो तकनीकी सत्रों का संचालन किया गया तथा सम्प्रेषण विषयक् भाषायी कारकों पर प्रकाश डाला।

दिनांक 27/07/2019

Short Term Course के अंतिम दिवस दिनांक 27/07/2019 के प्रथम व द्वितीय तकनीकी सत्रों का संचालन प्रो. मनीष श्रीवास्तव, गुरू घासीदास विश्वविद्यालय, रायपुर, छ.ग. द्वारा प्रातः 10:30 से 12:00 व 12:00 से 13:30 के मध्य किया गया जिसमें उन्होनें प्रमुख रूप अशाब्दिक सम्प्रेषण के अर्न्तगत Kinesics, Paralanguage and Proxemics की गहन चर्चा की व अनेक उदाहरणों के माध्यम से सम्प्रेषण के इन आयामों पर प्रकाश डाला। अपरान्ह 13:30 से 14:30 तक भोजन अवकाश दिया गया। तत्पश्चात् प्रो. जी.ए.

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घनश्याम, दाउ उत्तम साव शासकीय महाविद्यालय मचान्दूर, जिला–दुर्ग, छ.ग. द्वारा अपरान्ह 14:30 से 16:00 तक तथा 16:30 से 17:30 दो तकनीकी सत्रों का संचालन किया गया तथा समस्त प्रतिभागियों को चार समूहों में विभाजित करते हुये एक गतिविधि का आयोजन किया गया तथा प्रत्येक समूह से एक सदस्य द्वारा उक्त गतिविध का प्रस्तुतीकरण करवाया गया व अन्य समूह के सदस्यों के प्रतिप्रश्नों द्वारा सम्प्रेषण की प्रकिया को समझाया गया।

उक्त छः दिवसीय Short Term Course में छत्तीसगढ़ राज्य के विभिन्न जिलों के शासकीय तथा अशासकीय महाविद्यालयों के साथ–साथ मेरठ वि.वि., कासगंज, बुंदेलखण्ड वि.वि. तथा अन्य स्थानों से कुल 22 प्रतिभागियों ने अपनी सहभागिता दर्ज की। अंतिम दिवस में चार तकनीकी सत्रों के पूर्ण होने के पश्चात् प्रो. जी.ए. घनश्याम के मुख्य आतिथ्य में कार्यकम समन्वयक प्रो. राजीव चौधरी व डॉ. बिजेन्द्र पाण्डेय की अध्यक्षता व विशिष्ट आतिथ्य में समस्त प्रतिभागियों को प्रमाण पत्र वितरित किये गये।

29/07/2019

COURSE COORDINATOR
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पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छत्तीसगढ़)

आज के हिंदी साहित्य में वैचारिक विमर्श महत्वपूर्ण है। इन विमर्शों से स्थापित मानव मूल्य को नई दिशा दे रहे है। साहित्य का संसार संवेदनात्मक है इसलिए अब दलित, स्त्री, आदिवासी, किसान, बाल, वृद्ध, किन्नर और विकलांग आदि विमर्श साहित्य के केंद्र में हैं। ये ज्ञानात्मक विमर्श संवेदना के धरातल पर रचनाकार एवं पाठक को नया अनुभव देते हैं, जिनकी उत्तर आधुनिकता के इस दौर में महती आवश्यकता है। हमें हर्ष है कि हिंदी के उच्च अध्ययन–अध्यापन एवं शोध से जुड़े संकाय सदस्य इस अकादमिक पाठ्यक्रम कार्यक्रम 'हिंदी साहित्य : आधुनिक विमर्श' से लाभान्वित होंगे।

//आवेदन आमंत्रित//

पुनश्चर्या पाठ्यक्रम – 'हिंदी साहित्य : आधुनिक विमर्श'

04/12/2019 से 17/12/2019

प्रतिभागी : महाविद्यालय/विश्वविद्यालय शिक्षक (हिंदी)

संपर्क : डॉ. मधुलता बारा, साहित्य एवं भाषा–अध्ययनशाला, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छत्तीसगढ़), मोबाइल नं. : 94255–42755, ई मेल : madhubara23@gmail.com

उद्देश्य : इस पुनश्चर्या पाठ्यक्रम का उद्देश्य मुख्यतः यू. जी. सी. द्वारा निर्धारित किए गए चार घटकों का परस्पर क्रियान्वयन करना है। ये चार धटक हैं –

1 समाज, पर्यावरण विकास एवं शिक्षा के मध्य संपर्क की जागरूकता एवं समन्वय।
2 शिक्षा का दर्शनशास्त्र, भारतीय शैक्षणिक प्रणाली एवं शिक्षाशास्त्र/शिक्षा तकनीक।
3 संसाधन अभिता/जागरूकता एवं ज्ञानोत्पति।
4 प्रबंधन एवं व्यक्तित्व विकास।

लक्षित समूह : विश्वविद्यालय/महाविद्यालय के हिंदी संकाय के समस्त स्थायी/अंशकालिक/तदर्थ/अस्थायी/संविदा प्राध्यापक इस कार्यक्रम में भाग लेकर लाभान्वित हो सकते हैं।

ई–मेल : hrdcprsu@gmail.com, madhubara23@gmail.com, brijpandey09@gmail.com, dr.aruind02gmail.com

संपर्क : 9754233057,9827159831

Website : prsu.ac.in

पंजीयन शुल्क : Rs. 1000/- का DD जो Registrar, Pt. Ravishankar Shukla University, Raipur के नाम पर बना होना चाहिए। Drown at State Bank of India, R.S.U. Branch.

स्थान : HRDC, Pt. Ravishankar Shukla University, Raipur, (C. G.)

प्रतिभागिता : इस कार्यक्रम में भाग लेने के इच्छुक विश्वविद्यालयीन/महाविद्यालयीन प्राध्यापकगण ऊपर दिए गए (उपर्युक्त) ईमेल पर आवेदन कर सकते हैं। उन्हें अपने नाम, पदनाम, विषय, संस्था एवं आवास सुविधा की आवश्यकता है या नहीं इसकी जानकारी देनी होगी। प्रतिभागी के रूप में उपस्थित होने पर उन्हें HRDC के आवेदन–पत्र को भरना होगा एवं अपनी संस्था से कार्यमुक्त अनुमति प्रमाण–पत्र (Reliving Certificate) लाना होगा। उन्हें UGC के नियमानुसार यात्रा भत्ता (TA) का भुगतान किया जाएगा।

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Refresher Course - Hindi
(04/12/2019 to 17/12/2019)
List of Participants

Sr. No.	Name of Participants	College/ University
01.	Ugren Kumar Sahu	Govt. College, Bhairamgarh (C.G.)
02.	Leena Dehariya	Govt. College, Lodhikheda, Chhindwara (M.P.)
03.	Gavaskar Kaushik	Govt. Shahid Bapu Rao P.G. College, Sukma (C.G.)
04.	Narendra Kumar Saluja	Rajiv Gandhi Govt. Arts & Commerce College, Lormi (C.G.)
05.	Dr. Manjula Pandey	Govt. J.P. Verma P.G. Arts & Commerce College, Bilaspur (C.G.)
06.	Dr. Balmiki Sahu	Govt. Naveen College, Kharora (C.G.)
07.	Dr. Kusum Madhuri Toppo	New Govt. College, Kansabel (C.G.)
08.	Dr. Rita Yadav	Govt. D.K.P.G. College, Balodabazar (C.G.)
09.	Dr. Aarti Borker	Govt. D.K.P.G. College, Balodabazar (C.G.)
10.	Fakir Mastan Shah Mahbub Shah	N.M.D. College, Gondia (M.S.)
11.	Meenakshi Sandilya	Govt. Minimata Girls College, Korba (C.G.)
12.	Ghanshyam Prasad Yadu	Govt. Rajeevlochan P.G. College, Rajim (C.G.)
13.	Dr. Nilabh Kumar	Govt. Science College,Ambikapur (C.G.)
14.	Dr. Vijaylaxmi Shastri	Rajeev Gandhi Govt. P.G. College, Ambikapur (C.G.)
15.	Dr. Shubha Tiwari	Govt. R.N.M. College, Bhatgaon (C.G.)
16.	Dinbandhu Nirala	Govt. Naveen College, Samoda (C.G.)
17.	Dr. Malti Solanki	Swami Vivekanand Govt. P.G. College, Harda (M.P.)
18.	Dr. Sharmila Chouhan	B.S.P.G. College, Jaora (M.P.)
19.	Sitaram Anare	Govt. College, Khategaon (M.P.)
20.	Dr. Keshar Sharma	Govt.College, Badnawar (M.P.)
21.	Dr. Patil Abhimanyu Narsingrao	Vai Dhunda Maharaj Degloorkar Mahavidyalaya, Degloor (M.S.)
22.	Dr. Rajeshwari Markam	Govt. Degree College, Bhua-Bichhiya (M.P.)
23.	Dr. Praveen Kumar Sahu	Govt. Nemichand Jain College, Dallirajhara (C.G.)
24.	Dr. Lalchand Sinha	Govt. Naveen College, Thelkadih (C.G.)
25.	Dr. Uttam Rajaram Alatekar	Prof. Sambhajirao Kadam College, Deur (M.S.)
26.	Dr. Shinde Prakash Bhagwanrao	Pansare Mahavidyalaya, Arjapur (M.S.)
27.	Smt. Pratima Chandrakar	Chandrapal Dadsena Govt. College, Pithora (C.G.)
28.	Namrata Dhruw	N.R.M. Govt. Girls College, Dhamtari (C.G.)
29.	Dr. Jadhav Devidas Bhimrao	Pansare Mahavidyalaya Arjpur (M.S.)
30.	Dr. Shashi Bhushan Mishra	Govt. Girls P.G.College, Banda (U.P.)
31.	Devanand Borker,	Govt. Naveen College Mopka, Nipnia (C.G.)
32.	Dr. Hemant Pal Ghritlahare	Govt. College, Sanawal (Balrampur) (C.G.)
33.	Dr. Mridula Singh	Holy Cross Women's College, Ambikapur (C.G.)
34.	Mrs. Sunita Vikram Koshle	Govt. SVNS College Biligarh (C.G.)
35.	Piyush Kumar	Govt. College, Ramchandrapur (C.G.)
36.	Dr. Jaipal Singh Prajapati	Dept. of Hindi, Pt. Sunderlall Sharma Open University Bilaspur

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Resource Person List

Sr. No.	Name of Resource Persons
1	**प्रो. प्रेम नारायण दुबे**, समता कालोनी, रायपुर
2	**डॉ. चंद्रकुमार जैन**, शासकीय दिग्विजय स्वशासी स्नातकोत्तर महाविद्यालय, राजनाँदगाँव,491441
3	**श्री संजीव खुदशाह,**रचनाकार, कोटा, रायपुर
4	**प्रो. सुभद्रा राठौर,**शासकीय जे. योगानंद छत्तीसगढ़ महाविद्यालय, रायपुर, 492001
5	**प्रो. मृदुला शुक्ला,**प्रोफेसर एवं अध्यक्ष, इंदिरा कला संगीत विश्वविद्यालय, खैरागढ़, जिला– राजनाँदगाँव
6	**प्रो. अरूण होता,**प्रोफेसर, पश्चिम बंगाल राज्य विश्वविद्यालय, कोलकता, 700126,
7	**प्रो. प्रमोद कोवप्रत,**प्रोफेसर हिंदी विभाग, कालिकट विश्वविद्यालय, जिला–मलाप्पुरम, केरल, 673635
8	**प्रो. सूरज बहादुर थापा,**प्रोफेसर हिंदी विभाग, लखनऊ विश्वविद्यालय, लखनऊ, 226001
9	**श्री परेश कुमार राव**, आकाशवाणी रायपुर, 492001
10	**डॉ. सुधीर शर्मा**, हिंदी विभाग, कल्याण स्नातकोत्तर महाविद्यालय, भिलाई, दुर्ग, 490006,
11	**प्रो. आरती परगनिया,** प्रोफेसर, जीव विज्ञान विभाग, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर, 492010
12	**प्रो. आभा तिवारी,**अंवति विहार, रायपुर मो.
13	**डॉ. सुपर्ण सेन गुप्ता,** ग्रंथपाल, पं. सुंदर लाल शर्मा ग्रंथालय, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर, 492010,
14	**श्री संजीव बख्शी,**रचनाकार, एफ. 23, न्यू, पंचशील नगर, रायपुर, छत्तीसगढ़ 492001
15	**प्रो. एस. के. जाधव** प्रोफेसर, जैव विज्ञान विभाग, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर, 492010
16	**प्रो. राजेश दुबे,** प्राचार्य, शासकीय नवीन महाविद्यालय, खरोरा, 493441,
17	**प्रो. करूणा शंकर उपाध्याय,**प्रोफेसर एवं अध्यक्ष, हिंदी विभाग मुंबई विश्वविद्यालय, मुंबई, 400098
18	**डॉ. नीरज खरे,**एसोसिएट प्रोफेसर, हिंदी विभाग, काशी हिंदू विश्वविद्यालय, वाराणसी, उ. प्र. 221005
19	**डॉ. दीपक पाचपोर,**
20	**प्रो. सियाराम शर्मा,**शासकीय दानवीर तुलाराम महाविद्यालय, उतई, जिला–दुर्ग, 491107
21	**जया जादवानी,**रचनाकार,टैगोर नगर, पंचपडी नाका, पुजारी चेम्बरस ब्लाक– बी 1, रायपुर, 492001,
22	**श्री ललित सुरजन**, रचनाकार,देशबंधु कार्यालय, रामसागर पारा रायपुर, मो. – 9827141800

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Time Table

Date	10:30 To 12:00	Tea Brack	12:15 To 13:45	Lunch	14:15 To 15:45	Tea Brack	16:00To 17:30
4/12/2019	**Arrival/Registration/ Introduction**		**प्रो. प्रेम नारायण दुबे** विषय– आधुनिकता विमर्श–आरंभ से वर्त्तमान दौर तक		**डॉ. चंद्रकुमार जैन,** विषय – विमर्श साहित्य : प्रवृत्तियाँ और प्रभाव		**श्री संजीव खुदशाह,** विषय – दलित विमर्श
5/12/2019	**प्रो. सुभद्रा राठौर,** विषय – हिंदी साहित्य में आधुनिक विमर्श		**प्रो. सुभद्रा राठौर,** विषय– यात्रा–साहित्य		**प्रो. मृदुला शुक्ला,** विषय – हिंदी में दलित विमर्श : परिचयात्मक आयाम		**प्रो. मृदुला शुक्ला,** विषय– हिंदी साहित्य में दलित विमर्श : सोदाहरण चर्चा
6/12/2019	**प्रो. अरूण होता,** विषय– समकालीन स्त्री कथाकारों में निहित विमर्श	**12.00 to 12.15**	**प्रो. अरूण होता,** विषय– राख ही नहीं जानती जलने की पीड़ा	**13.45 to 14.15**	**प्रो. प्रमोद कोव्वप्रत,** विषय– नव औपनिवेशवाद : सैद्धांतिक पक्ष	**15.45 to 16.00**	**प्रो. प्रमोद कोव्वप्रत,** विषय– समकालीन कविता में नव औपनिवेशवादी स्वर
Date	**10:00 To 11:30**		**11:45 To 13:15**		**14:00 To 15:30**		**15:45To 17:00**
7/12/2019	**प्रो. अरूण होता,** विषय– समकालीन कविता में निहित विमर्श		**प्रो. अरूण होता,** विषय– पर्यावरण विमर्श और समकालीन कविता		**प्रो. प्रमोद कोव्वप्रत,** विषय– पर्यावरण विमर्श : सैद्धांतिक पक्ष		**प्रो. प्रमोद कोव्वप्रत,** विषय– पर्यावरण विमर्श : समकालीन हिंदी कविता
9/12/2019	**प्रो. सूरज बहादुर थापा,** विषय– विमर्श की अवधारणा एवं स्वरूप	**11.30 to**	**प्रो. सूरज बहादुर थापा,** विषय– हिंदी के विमर्शमूलक साहित्य की रूपरेखा		Micro Teaching	**15.30 to**	Micro Teaching

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		11.45	: स्त्री विमर्श के संदर्भ में			15.45	
10/12/2019	**प्रो. सूरज बहादुर थापा,** विषय– हिंदी दलित एव आदिवासी साहित्यांदोलन		**प्रो. सूरज बहादुर थापा,** विषय– हिंदी में अल्पसंख्यक विमर्श	**13:15 To 14:00**	**श्री परेश कुमार राव,** विषय– मीडिया की भाषा		Library
11/12/2019	**डॉ. सुधीर शर्मा**, विषय– अस्मिता और समकालीन विमर्श		**प्रो. आरती परगनिया,** विषय– IQAC		Seminar **प्रो. आभा तिवारी,** विषय– सेमिनार का मूल्यांकन		Seminar **प्रो. आभा तिवारी**, विषय– सेमिनार का मूल्यांकन
12/12/2019	**डॉ. सुपर्ण सेन गुप्ता,** विषय– Plagiarism		**श्री संजीव बख्शी,** विषय– आदिवासी विमर्श पर चर्चा		Micro Teaching Review		**प्रो. केशरी लाल वर्मा** कुलपति
13/12/2019	Project Presentation- **प्रो. राजेश दुबे**		Project Presentation -**प्रो. राजेश दुबे**		**प्रो. करूणा शंकर उपाध्याय,** विषय– उत्तर आधुनिकता विमर्श : स्वरूप और वैशिष्टय		**प्रो. करूणा शंकर उपाध्याय,** विषय– उत्तर आधुनिकता का साहित्य पर प्रभाव
14/12/2019	**प्रो. करूणा शंकर उपाध्याय,** विषय– वैश्वीकरण का स्वरूप वैशिष्टय		**प्रो. करूणा शंकर उपाध्याय,** विषय– वैश्वीकरण का हिंदी कविता पर प्रभाव		**डॉ. नीरज खरे,** विषय– हिंदी कहानी में आधुनिक विमर्श समकालीन कहानी में स्त्री विमर्श के विशेष संदर्भ में		**डॉ. नीरज खरे,** विषय– समकालीन हिंदी उपन्यासों में स्त्री विमर्श
16/12/2019	**डॉ. दीपक पाचपोर**, विषय– साहित्य का अध्यापन, वैचारिकता व नवाचार		**प्रो. सियाराम शर्मा,** विषय– भारतीय किसान : दशा और दिशा		**प्रो. सियाराम शर्मा**, विषय– भारतीय किसान		Exam

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					और हिंदी कविता		
17/12201 9	**जया जादवानी**, विषय– स्त्री विमर्श – विविध आयाम		**जया जादवानी**, विषय– कहानी की रचना प्रक्रिया		**श्री ललित सुरजन**, विषय– विमर्श के दायरे में लेखन		फीड बैक प्रमाण पत्र वितरण

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Refresher Course - Hindi
(04/12/2019 to 17/12/2019)
List of Participants

S. No.	Name of Participants & Name of College/University
01.	Ugren Kumar Sahu Govt. College, Bhairamgarh (C.G.)
02.	Leena Dehariya Govt. College, Lodhikheda, Chhindwara (M.P.)
03.	Gavaskar Kaushik Govt. Shahid Bapu Rao P.G. College, Sukma (C.G.)
04.	Narendra Kumar Saluja Rajiv Gandhi Govt. Arts & Commerce College, Lormi (C.G.)
05.	Dr. Manjula Pandey Govt. J.P. Verma P.G. Arts & Commerce College, Bilaspur (C.G.)
06.	Dr. Balmiki Sahu Govt. Naveen College, Kharora (C.G.)
07.	Dr. Kusum Madhuri Toppo New Govt. College, Kansabel (C.G.)
08.	Dr. Rita Yadav Govt. D.K.P.G. College, Balodabazar (C.G.)
09.	Dr. Aarti Borker Govt. D.K.P.G. College, Balodabazar (C.G.)
10.	Fakir Mastan Shah Mahbub Shah N.M.D. College, Gondia (M.S.)
11.	Meenakshi Sandilya Govt. Minimata Girls College, Korba (C.G.)
12.	Ghanshyam Prasad Yadu Govt. Rajeevlochan P.G. College, Rajim (C.G.)
13.	Dr. Nilabh Kumar Govt. Science College, Ambikapur (C.G.)
14.	Dr. Vijaylaxmi Shastri Rajeev Gandhi Govt. P.G. College, Ambikapur (C.G.)
15.	Dr. Shubha Tiwari Govt. R.N.M. College, Bhatgaon (C.G.)
16.	Dinbandhu Nirala Govt. Naveen College, Samoda (C.G.)
17.	Dr. Malti Solanki Swami Vivekanand Govt. P.G. College, Harda (M.P.)
18.	Dr. Sharmila Chouhan B.S.P.G. College, Jaora (M.P.)
19.	Sitaram Anare Govt. College, Khategaon (M.P.)
20.	Dr. Keshar Sharma Govt.College, Badnawar (M.P.)
21.	Dr. Patil Abhimanyu Narsingrao Vai Dhunda Maharaj Degloorkar Mahavidyalaya, Degloor (M.S.)
22.	Dr. Rajeshwari Markam Govt. Degree College, Bhua-Bichhiya (M.P.)

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23.	Dr. Praveen Kumar Sahu Govt. Nemichand Jain College, Dallirajhara (C.G.)
24.	Dr. Lalchand Sinha Govt. Naveen College, Thelkadih (C.G.)
25.	Dr. Uttam Rajaram Alatekar Prof. Sambhajirao Kadam College, Deur (M.S.)
26.	Dr. Shinde Prakash Bhagwanrao Pansare Mahavidyalaya, Arjapur (M.S.)
27.	Smt. Pratima Chandrakar Chandrapal Dadsena Govt. College, Pithora (C.G.)
28.	Namrata Dhruw N.R.M. Govt. Girls College, Dhamtari (C.G.)
29.	Dr. Jadhav Devidas Bhimrao Pansare Mahavidyalaya Arjpur (M.S.)
30.	Dr. Shashi Bhushan Mishra Govt. Girls P.G.College, Banda (U.P.)
31.	Devanand Borker, Govt. Naveen College Mopka, Nipnia (C.G.)
32.	Dr. Hemant Pal Ghritlahare Govt. College, Sanawal (Balrampur) (C.G.)
33.	Dr. Mridula Singh Holy Cross Women's College, Ambikapur (C.G.)
34.	Mrs. Sunita Vikram Koshle Govt. SVNS College Biligarh (C.G.)
35.	Piyush Kumar Govt. College, Ramchandrapur (C.G.)
36.	Dr. Jaipal Singh Prajapati Dept. of Hindi, Pt. Sundarlal Sharma (Open) University Chhattisgarh, Bilaspur (C.G.)

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HRDC, Pt. Ravishankar Shukla University, Raipur (C.G.)
Online Refresher Course in Chemistry
Theme: Recent Trends in Teaching and Research in Chemistry
September 14-26, 2020

REPORT

The online refresher course in Chemistry was organized successfully during **September 14-26, 2020** under the aegis of Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur. The main theme was "**Recent Trends of Teaching and Research Chemistry".** This course was formulated keeping in view the need to strengthen chemistry program in the undergraduate and postgraduates levels in the country. Special emphasis has been given to design a variety of interesting and meaningful topics which would be useful for all the Chemistry teachers irrespective of their specializations. In addition to that New Roles of teachers in technology driven higher education and research ethics have also been covered.

36 teachers from 7 states, Chhattisgarh, West Bengal, Maharasthra, Kerala, Jharkhand, Kashmir and Uttarakhand have attended this course. **21** resource persons delivered **37** lectures **(Please see Annexure I)**. Each day was started with a lecture by a resource person giving a brief outline of their research activities followed by the fundamental details of their respective topics. Some of the important topics like Quantum Statistics and Quantum Mechanics, Atomic Structure, Phase rule, Molecular organization, Solid State Chemistry , Linearfree energy relationship. Role of Bulk and Trace Metals in Human Body,Chemistry – For Healthy Future Structure Directed Delivery : Design ofCoordination Polymers (CPs) or Metal Organic Frameworks (MOFs) Optical Sensing Platforms: Opportunities and Challenges, Environmental Atmospheric Chemistry, imperfections in solids Nanomaterials and Spectroscopy have been covered. The daily activity report is enclosed **(Annexure -II)**. All the resource persons were strongly interacted with the participants.

The course began with a welcome address by the Director HRDC, Prof. A K Gupta. He discussed about the policies of HRDC and other important aspects of this on line refresher course. Course coordinator, Prof. Kallol K Ghosh briefly outlined the framework of the course and importance of this course in the context of New Education Policy. Hon'ble Vice-Chancellor of Pt. Ravishankar Shukla University Prof. Keshari Lal Verma presented his views on the refresher course.

He emphasized on knowledge economy and role of higher education for the overall development, prosperity and quality of life. According to him during this Covid-19 pandemic problem these online initiatives are surely going to help and enrich and empower the teaching and research activities of all the stakeholders of higher education. The distinguished guest Prof. A K Bakhshi, Vice Chancellor PDM University and Chairman National Resource Centre Chemistry discussed about the recent trends in chemistry teaching and research. Dr. Bhanushree Gupta of Centre for Basic Sciences proposed vote of thanks and conducted the program.

All the participants enthusiastically participated in the various activities conducted like Microteaching, Seminar and Research Project presentation (Annexure **III, IV and V).**The Participants of this Refresher Course also gave their Feedback on the format prescribed by the HRDC. Besides, the Participants provided the general Feedback about the course during various presentations and the Valedictory Function. They opined that this unique online course refreshed their knowledge and motivated them to be aware of the recent trends of research and teaching in the field of chemical sciences. They also appreciated the theme and proper selection of renowned academicians and experts.

On the concluding day of refresher course Prof. Kallol Ghosh, Course Coordinator, Refresher Course presented the report for the course. He discussed the various facets of the lectures delivered. He expressed satisfaction over the performances of the participants in regards to microteaching, seminars, project presentations and test. He expressed sincere gratitude to HRDC and Director, Asst. Director, Dr. Arvind Agrawal , Dr. Bhanushree Gupta and Ms. Srishti Sharma for their co-operation and university as a whole. After this Prof. A. K Gupta in his concluding remark congratulated HRDC in-general and Prof. Kallol K. Ghosh and his team in particular for successfully organizing the course. He wished good luck to the entire participant for future work. Finally, Prof. Keshari Lal Verma, Vice-chancellor, Pt. Ravishankar Shukla University Raipur addressed online assembly. Prof Verma expressed his satisfaction after hearing the feedback of participants for the course and congratulated them for choosing Pt. Ravishankar Shukla University Raipur for refresher course.

Annexure -I

Online Refresher Course in Chemistry

HRDC, Pt. Ravishankar Shukla University, Raipur

September 14-26, 2020

S. No.	Name of the Resource Person	Address	Title of the Lecture
1.	**Prof. A. K. Bakhshi** Vice Chancellor, PDM University, Bahadurgarh, Haryana. Chairman, National Resource Centre of Chemistry of MHRD	akbakhshi2000@yahoo.com; **M: 08826676577**	Towards Excellence in Chemistry in India in the 21st Century : Some Useful Tips
2.	**Prof. D. C. Mukherjee** Retd. Professor of Chemistry, University of Kolkata, Kolkata	dcm_chem@yahoo.co.in **M: 9007009171**	Genesis of Quantum Statistics and Quantum Mechanics (Two lectures)
3.	**Prof. S. K. Mehta** *Department of Chemistry, Panjab University, Chandigarh*	skmehta@pu.ac.in **M: 9417786061**	1. Quality research at higher education Institutions: Initiative and promotion 2. Significance of Ethics in Research
4.	**Prof. R. D. Kaushik** Head, Department of Chemistry, GurukulKangri University, *Haridwar*	rduttkaushik@yahoo.co.in; **M: 7351739000**	1.Linear Free Energy Relationships 2.S/N Ratio, Sensitivity, Detection limit, Types and Reduction of Noise, Basic Idea of FT
5.	**Prof. R. N. Prasad** Senior Advisor & Dean, Faculty of Science, JECRC University, *Jaipur, Rajasthan*	rnp_1949@yahoo.co.in; **M: 098282 48078**	Role of Bulk and Trace Metals in Human Body (Two Lectures)
6.	**Prof. C. R. Sinha** Head, Department of Chemistry, Jadavpur University, Kolkata	crsjuchem@gmail.com; **M: 9433621872/ 7044231277**	1.Chemistry –For Healthy Future 2. Structure Directed Delivery : Design of Coordination Polymers (CPs) or Metal Organic Frameworks (MOFs)
7.	**Prof. Goutam Patra** Department of Chemistry, GuruGhasidasVishwavidyalaya, *Bilaspur*	patragoutam137@gmail.com; **M: 8910136164**	1. (a) Optical Sensing Platforms: Opportunities and Challenges (b)A Tribute to Acharya PC Ray: Father of Indian Chemistry
8.	**Prof. Pramila Misra** *Department of Chemistry, Sambalpur* University, Sambalpur, Odisha	pramilamisra@rediffmail.com; **M: 9938333244**	Construction of the phase diagram of one, two and three component systems
9.	**Prof. B. K. Mishra** *Professor of Chemistry (Retd,), Sambalpur* University, Sambalpur, Odisha	bijaym@hotmail.com; **M: 9861046813**	Molecular Organizations (Three lectures)

10.	**Prof. A. P. Mishra** Department of Chemistry, Dr. H. S. Gour University, *Sagar, M.P.*	apmishrasagar@gmail.com; **M: 9425425938**	Chemistry at the Interface with biology. 1. Bioinorganic Chemistry : Metal ions in Biology 2. Metal Chelates in Medicine: Practices and Prospects
11.	**Prof. Ram Sagar Misra** Department of Chemistry, Banaras Hindu University, Varanasi	ramsagar.bhu@gmail.com; **M: 9971119402**	1.Stereoselective Synthesis of Natural Product Inspired CarbohydridsasAntiproliferative Agents 3. Intervention in plant signalling through light-activation of an exogenous sugar signalling-precursor increases yield and resilience in wheat crop.
12.	**Dr. Anjali Pal** Department of Civil Engineering, Indian Institute of Technology, Kharagpur,W.B	anjalipal@civil.iitkgp.ac.in, **M: 9474448946**	Recovery and reuse of organic and inorganic pollutants and their further application towards catalyst development (Two Lectures)
13.	**Prof. Tarasankar Pal** Professor of Chemistry (Retd.), Indian Institute of Technology, Kharagpur,W.B	tarasankar.pal@gmail.com; **M: 9434342349**	1. Reactions of Metals in Aqueous Solutions 2. A stimulating Phosphomolybdate-Dye Matrix for Chromism and Nitrogen Oxygen Binding
14.	**Dr. (Mrs.) Vimal Rarh** Coordinator, National Resource Centre of Chemistry, MHRD Project Head & Joint Director, Guru AngadDev Teaching Learning Centre of MHRD Deputy Director, Centre for e-Learning, SGTB Khalsa College, University of Delhi, Delhi	vimalrarh@gmail.com; **M: 9810094703**	1.New Roles of Teachers in Technology Driven Higher Education. 2.Development of OERs for Blended and Flipped Classroom Teaching
15.	**Prof. Manas Kanti Deb** School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, C.G	debmanas@yahoo.com **M: 94255-03750**	1.Atmospheric Chemistry: Fundamental Aspects 2.Atmospheric Chemistry: Analytical Aspects
16.	**Prof. Shamsh Pervez** Head, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, C.G	shamshpervez@gmail.com; **M: 9425242455**	Air Quality Monitoring, Assessment , and Management
17.	**Prof. Anand S. Aswar** Head, Department of Chemistry, SantGadge Baba *Amravati* University, *Amravati , MH*	aswaranand@gmail.com; **M: 9421790866**	Imperfections in solids (Two Lectures)
18.	**Dr. Kamlesh Shrivas** School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur	kshrivas@gmail.com **M:7999926856**	1.UV-Vis: Basic Instrumentation and Application in Chemical Analysis" 2.Surface and Materials Characterization Techniques

19.	**Prof. Amiya K. Panda** Department of Chemistry, Vidyasagar University Midnapur , WB	**akpanda@mail.vidyasagar.ac.in** **M:9433347210**	A Cursory Glance on Colloid and Interface Science with Special Reference to Nanoparticles
20.	**Prof. Sanjiv Kumar** Professor in Physical Chemistry, School of Sciences, Indira Gandhi National Open University, MaidanGarhi, N. Delhi	**sanjiv_sos@ignou.ac.in;** **Sanjiv685@yahoo.com** **M: 9810473149**	1."Electronic Structure of Atom: Conceptual Development" 2.NMR spectroscopy: principle and applications"
21.	**Prof. K. S. Patel** **Retd. Professor,** S.o.S. in Chemistry, Pt. Ravishankar University, Raipur Present Address: AMITY University, Raipur	**patelks_55@hotmail.com** **M: 9993013290**	Water Pollution and Health Hazard

Annexure -II

Online Refresher Course in Chemistry

HRDC, Pt. Ravishankar Shukla University, Raipur

September 14-26, 2020

(Daily Activity Report)

Human Resource Development Centre

Pt. Ravishankar Shukla University Raipur, Chhattisgarh

Online Refresher Course in Chemistry

Refresher Course: New Trends of Teaching and Research In Chemistry

14th September to 26th September 2020

Lecture Title: "Towards Excellence in Chemistry in India in the 21st Century: Some Useful Tips" (Monday, September 14, 2021, 12:15AM -13:45 PM)
Speaker: Prof. A. K. Bakhshi

For the Financial Year 2020-2021, UGC has sanctioned Nine Refresher Courses. The Refresher Course in Chemistry for College and University Teachers was the fourth in the series of nine and it was inaugurated on 14.09.2010, at 10:30 am via online Google meet platform. Forty participants had registered for the Programme across the country. In the Inaugural Session, Prof A.K. Gupta, Director, HRDC, Pt. Ravishankar Shukla University Raipur, welcomed the gathering. Prof. A. K. Bakhshi Vice Chancellor, PDM University, Bahadurgarh, Haryana. Chairman, National Resource Centre of Chemistry of MHRD, inaugurated the Course, Prof K.L. Verma Vice Chancellor Pt. Ravishankar Shukla University Raipur, delivered the keynote Address. Prof Kallol Ghosh (Course Coordinator) explained the Theme of the Course, "New trends of Teaching and Research in Chemistry". He also underlined the duties and responsibilities of teachers to update themselves in their areas of specialization. After the completion of inaugural session first technical session was started with the lecture of Prof. A.K. Bakhshi, Vice Chancellor, PDM University, Bahadurgarh, Haryana. In his inspiring lecture Prof. A.K Bakhshi introduced the challenge in teaching and Research in Chemistry subject with its own growth. He described transformation of teaching and learning from talk and chalk method to techno savvy ICT methods. Prof. Bakhshi motivated the teachers to upgrade their learning attitude via online courses through MOOC, Swayam, ARPIT, e-PG Pathshala etc. He nicely explained the concept of basic clarity with out of box thinking with quantum mechanics examples. Moreover, He added the Combinations of 4Cs Curious, Creative, Courageous, Commitment need to be added in the researchers and teachers' attitude. He pointed out the significance of Communication and Presentation Skills in Carrier growth with carrier development. The session was designed around the theme to empower, enrich and upgrade the teaching, learning and research aptitude of participants. The lecture covered seven most widely explained topics for being outstanding teacher and researcher's

- Clarity of concept and sound knowledge, out of box thinking aptitude

Human Resource Development Centre

Pt. Ravishankar Shukla University Raipur, Chhattisgarh

- Talk to chalk to ICT techniques in Chemistry teaching
- Qualities for being Outstanding Teachers and Researchers with 4Cs
- Carrier management: Carrier Growth and Carrier Development
- Need to Reform in Chemistry Education: Focus on activity-based learning
- Science Education in India:
- Common Misconceptions in Chemistry

Report Submitted by

Archana Asatkar
Asst. Professor, Chemistry Shaheed Veer Narayan
Singh Govt College Jobi-Barra
Dist. Raigarh. CG. -496665

Report on Lecture Session

Name of the Event: Lecture session on selected topic (Lecture No 03 & 04)

Date of Event: September 14, 2020

Time: 2: 15 pm – 5:30pm)

Location of Event: HRDC, Pt. Ravishankar Shukla university, Raipur

Resource Persons:

(1) Prof. T. S. Pal

Distinguished visiting professor in the University of Johannesburg, South Africa.

(2) Professor M. K. Deb

School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.).

Session Chair: Dr. Saugata Konar

First of all, I would like to thank respected director of HRDC, Prof. A. K. Gupta, & coordinator of this Online Refresher Course (ORC) Prof. K. K. Ghosh, for giving me the opportunity to participate this ORC in Chemistry and to be the Rapporter of **IInd** session today (Lecture No 03 & 04).

Lecture session was started at 2:15 pm. Dr. Saugata Konar chaired the session and introduced both speakers.

In 1st lecture Professor Tarasankar Pal, distinguished visiting professor in the University of Johannesburg, South Africa. Professor Tarasankar Pal introduced the participants to the behavior of pure metals in solution discussed in the presentation. He introduced pure and impure metals in his lecture. He discussed how to work under normal condition of redox phenomenon especially for metals, W. Nernst equation and its related to osmotic pressure. The lecture covered the changes of redox potential generalized from (i) size effect of bulk metal (ii) solution pressure and (iii) effect of nuleophile with the idea of the shift of Fermi level. He also received considerable attention for applications in photocatalysis, solar cells, drug delivery, surface enhanced Raman spectroscopy and many other important areas. So, from this lecture, the deliverables are as follows:

- Clearing the concept of 'behavior of pure metals', 'redox phenomenon' & 'Fermi level' in the synchronized manner

- Presenting and analysing the well-known industrial processes of silver and gold extraction with cyanide ions.
- Explained the concept of osmotic pressure and electroneutrality.

In 2nd lecture Professor M. K. Deb, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.). Prof. M. K. Deb introduced to the participants an atmospheric chemistry studies concerned with determining the major gases in the Earth's atmosphere. He discussed air pollution became an increasing problem in many large cities, attention turned to identifying the sources, properties, and effects of the myriad of chemical species that exist in the natural and polluted atmosphere. The lecture covered the smog in London in 1952 and in Los Angeles in 1970 that created havoc resulted in researches in the field of photochemical smog formation and in understanding their origin mechanism. He also discussed the identification in 1985 of significant depletion of ozone in the Antarctic stratosphere focused attention on stratospheric chemistry and the susceptibility of the stratosphere to modification. So, from this lecture, the deliverables are as follows:

- Clearing the concept of atmospheric chemistry concerned with determining the major gases in the Earth's atmosphere.
- The focus of this presentation was on some of the basic concepts and principles underlying atmospheric chemistry, as illustrated by the effects of both natural and anthropogenic trace constituents.

Report submitted by

Dr. Mukesh Kumar Tyagi
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Human Resource Development Centre

Pt. Ravishankar Shukla University Raipur, Chhattisgarh

Online Refresher Course in Chemistry

Refresher Course: New Trends of Teaching and Research in Chemistry

14th September to 26th September 2020

Lecture Title: "UV-Vis: Basic Instrumentation and Application in Chemical Analysis" " (Tuesday, September 15, 2021,10:00 AM to 12:00PM)

Speaker: Dr. Kamlesh Shrivas

School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur

In his inspiring lecture, Dr. Kamlesh Shrivas, Associated Prof. School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, Basic Principals of UV-Vis Spectroscopy. In this context he has pointed out some modern type of instruments for UV -Vis in various laboratories which serve according to the purpose and convenience of researchers and academicians.

Dr. Shrivas Further explained UV-Vis spectral analysis of various organic and inorganic molecules chemicals. He extended the discussion towards the application of UV-Vis spectroscopy in recent researches along with few very much inspiring publications. Within one and half lecture he nicely summarized this very vast subject with making the environment very interesting and motivating for all participants.

The session was designed around the theme to empower, enrich and upgrade the participants in UV-Vis spectroscopy and its applications for chemical analysis to research and innovation. The lecture covered most widely explained all sections of the topics and it will really boost all the participants towards being outstanding teacher and researchers even in limited resources availability at college.

Report Submitted by
Archana Asatkar
Asst. Professor, Chemistry Shaheed Veer Narayan Singh Govt College Jobi-Barra
Dist. Raigarh. CG. -496665

Human Resource Development Centre

Pt. Ravishankar Shukla University Raipur, Chhattisgarh

Online Refresher Course in Chemistry

Refresher Course: New Trends of Teaching and Research in Chemistry

14th September to 26th September 2020

Lecture Title: "Water Pollution and Health Hazard"
" (Tuesday, September 15, 2021,12:15 PM to 13:45 PM)

Speaker: Prof. K S Patel
Retd. Professor, S.O.S. in Chemistry, Pt. Ravishankar University, Raipur
Present Address: AMITY University, Raipur

In his inspiring lecture, **Prof. K S Patel**, Retd., Prof. School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, presently working at AMITY University, Raipur, Talked about water quality assessment, disease born with water and their health hazardous and various parameter of water quality analysis.

Prof. Patel discussed about pure water, its quality and present scenario of the availability of water. He extended his lecture towards various parameter of water quality analysis like COD, BOD, DO, Turbidity, Alkalinity, Surfactants, NPK etc. Prof Patel explained the water borne diseases and associated metal ions along with the diseases and affected areas of Chhattisgarh state. He nicely explained the different type of fluorosis disease its symptom, causes and its solution with pictorial representation. He further added causes, symptom of Psoriasis and Minamata diseases, nitrate poisoning and the instruments which is being used to detect nitrate poisoning in water.

The lecture covered most widely explained all sections of the topics and it was awakening and awareness creating towards safe drinking water uptake. The talk of the Prof Patel will help us to understand the various parameter of water and boost us towards the research work related to water quality measurements.

Report Submitted by

Archana Asatkar
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Singh Govt College Jobi-Barra
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Refresher Course in Chemistry

(From14thSept.to26thSept.2020)

Date-15/09/2020

Resource Person- Dr.S.K.Mehta, Professor in department of Chemistry ,Punjab University Chandigarh.

Topic- Quality Research at Higher Education Institutions.

In the third session resource person Dr.S.K Mehta was introduced by Dr. Gaurishankar Roymahapatra. In his deliberation of lecture Dr. S.K Mehta defined research and told us that how can get a good research outcome by using the potential of the student. He also explained SAIF and SRISTI portal and their usages. He also give brief knowledge about CRIKC which is very beneficial and facilitated for all young teachers. He also threw light on these following topics:

1) Important of research cluster.

2) Objectives of CRIKC.

3) Need for soft skill development.

4) Innovative teaching methods.

5) Project based learning.

6) Teaching and Research assistants.

7) Importance of research communication.

8) How to promote science and technology.

At last he quenched the thirst of the participants by giving their answers.

In the fourth session Dr.A.P Mishra , Professor department of Chemistry, Dr. H.S.G. University Sagar (M.P) was resource person. His

topic was on Bio-Inorganic Chemistry Metal Ions in Biology. He was heartily welcomed by the chairperson Dr. Gourisankar Mohapatra. He started his lecture with recent issues and concept of food. He told the bio inorganic chemistry has emerged as a new interdisciplinary research area. Bio-coordination chemistry has been used in medical sciences in medical science in many ways. He also told about the importance of chelate and how chelates are used in the treatment and daigonosis of diseases. In his lecture he explained the importance of metal ions in bio-chemistry. He shared his personal experience which is very useful for us. At last he answered the questions of the participants.

Some important points of his lecture were following these---

1) Components of aayurvedic medicines.

2) Some metalloenzymes and their biochemical functions.

3) Indicators of biologically important elements.

4) Biological Roles of Metallic elements.

5) Physiological Roles of Metal ions.

6) Factors affecting metal toxicity.

Chairperson

Dr. Gourisankar Mohapatra

Report submitted by

Mrs. Aarati Sao
Assist. Prof. (Chemistry)

Lt. Shri Jaidev Satpathi govt. College Basna

Dist.- Mahasamund (C.G.)

ONLINE REFRESHER COURSE IN CHEMISTRY

NEW TRENDS OF TEACHING AND RESEARCH IN CHEMISTRY

(14th – 26th Sept., 2020)

Organised by Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur (C.G.)

Lecture Title : " Electronic Structure of Atom : Conceptual Development" (16th September, 2020; 10.30 AM to 12.00 noon)

Speaker – Prof. Sanjiv Kumar

In his inspiring lecture, **Prof. Sanjiv Kumar**, Professor of school of Sciences, Indira Gandhi National Open University, Maidan Garhi, New Delhi has introduced the interesting and more fundamental topics Electronic Structure of Atom : Conceptual Development. He has enlightened his lecture from the philosophical foundation of atom through the big journey to Quantum Mechanical treatment of Hydrogen atom. Prof. S. Kumar has explained lucidly about the discovery of atom of John Dalton (1803), discovery of Structure of atom by Rutherford, Neils Bohr and line spectra of H-atom. He has nicely presented about the Classical Mechanics, Challenges to Classical Mechanics, Wave Mechanics, postulates of Quantum Mechanics, physical significance of wave function , De Broglies matter wave, Schrodingers approach and its wave equation, Quantum mechanical treatment of H- atom, Radial distribution function of different orbitals etc. more clearly. At the end of the lecture some participants asked him different types of question relating to the topics in the interaction session. All participants have fully satisfied him for his all appropriate answers. It is also worth mentioning that all participants have been benefited for his inspiring lecture.

Report Submitted by

Dr. Monirul Islam

Assistant Professor

Seth Anandram Jaipuria College

Kolkata –700005 (W.B.)

ONLINE REFRESHER COURSE IN CHEMISTRY

NEW TRENDS OF TEACHING AND RESEARCH IN CHEMISTRY

(14th – 26th Sept., 2020)

Organised by Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur (C.G.)

Lecture Title : " NEW ROLES OF CHEMISTRY TEACHERS IN TECHNOLOGY DRIVEN HIGHER EDUCATION" (16th September, 2020; 12:15 to 13:45)

Speaker – Dr. Vimal Rarh

In her inspiring lecture, **Dr. Vimal Rarh**, Coordinator, National Resource Centre of Chemistry of MHRD, Project Head & Joint Director, Guru Angad Dev Teaching Learning Centre of MHRD, SGTB ,Khalsa College, University of Delhi, Delhi has introduced the more interesting topics *NEW ROLES OF CHEMISTRY TEACHERS IN TECHNOLOGY DRIVEN HIGHER EDUCATION*. She has enlightened his lecture about the new roles of teacher by ICT empowered dissemination of knowledge. ICT enabled education e- learning is related to (a) curriculam and content development methodology (b) blended/online teaching and learning and (c) assessments like formative and summative online and offline. She has properly differentiated between the traditional roles of teachers and new roles of teachers. Formal education is associated with syllabi, teaching learning and assessment. Teacher have play a key role in the teaching learning and assessment. She has nicely presented about the Innovative and Unique modules in chemistry class room that associated with chem news, chem talks, chem safe labs, chem Nobel Laureate, chem pedagogy, chem. Simplified, chem ICT tools, Chem error, chem. Industry, chem history, chem misconceptions, chem Application, chem quest etc. more clearly. She has nicely explained about the role of teachers in developing and delivering MOOCS and online courses, developing E-content methodology. At the end of the lecture some participants asked her different query relating to the topics in the interaction session. All participants have fully satisfied for her well conversatation. It is also worth mentioning that this talk focus on how the roles of the chemistry teachers are changing in this technology driven higher education and what all thay need to do in order to be successful in these new roles.

Report Submitted by

Dr. Monirul Islam

Assistant Professor

Seth Anandram Jaipuria College

Kolkata –700005 (W.B.)

Report of Prof. R. D. Kaushik, Professor and Head, Department of Chemistry, Gurukul Kangri Vishwavidyalaya, Haridwar-249404 (Uttarakhand), India

Today on 16th Sept, 2020 at 2:15 pm, Prof. Kaushik delivered on "Linear Free Energy Relationships"

He discussed about different types of LFERs like Hammett, Taft, Van Bekkum, Sekigawa, and Brown & Okamoto and also gave brief information about application of LFERs alongwith other kinetics features including the isokinetics relationships also focussed on oxidation of aromatic amines and well explained on many correlation between rate or rate constant and equilibrium constant.

He mainly focussed on LFERS and LFER plot.

So from the above relationship, he said that, above theories failed due to some errors.

Next, for the aliphatic reaction series, he focussed on Tafts relationship but by default this theory was also failed due to some errors.

After this Tafts relationship, he discussed on Brown Okamoto. In this theory, he focussed on solvolysis of cumyl chloride in 90% acetone-water system. Also he discussed on Van-Bekkum Relationship.

Last but not the least, he focussed on Sekigawa relationship for the evaluation of new substituent constant. Finally, Prof. Kaushik explained deviation from linear behaviour in the plots between $\log(K/K_0)$ and substitution constant and also focussed on isokinetic relationship.

With this brief and informative lecture, he concluded the fruitful discussion on the topic Linear free energy relationship.

Report submitted by;

Mr. Bharat Chandoba Sonkamble, (Sr. No. 11)

Asst. Professor,

Department of Chemistry,

Bhagwantrao Arts & Science College, Etapalli dist. Gadchiroli (M.S.)

Report of Prof. Anjali Pal, Department of Civil Engineering, Indian Institute of Technology, Kharagpur – 721302, India.

Today on 16th Sept, 2020 at 4:00 pm, Prof. Anjali Pal delivered on "Recovery and Reuse of Organic and Inorganic Pollutants and their further Application towards Catalyst Development"

She focussed on how to do recovery from waste products and recycle lead to zero waste management. So, to recover the waste material, madam said that adsorption process is an efficient process.

Also she discussed on, to decide the adoptability of material, the kinetics and efficiency plays a key role.

She also discussed on, proper condition should be maintained for the recovery of the water sample. Micellar layers can be formed on solid surfaces also called as admicelle.

She basically focussed on how the admicellar layer can be formed or some suitable solid support and also might be applied to recover organic and inorganic pollutant from the water media

She also explained that how to develop some effective catalyst can degrade organic pollutant with the synergistics effect of the admicellar layer.

To overcome the waste and contaminated water, she briefly explained about 12 principle of Green Chemistry.

Also, she focussed on various treatments for the contaminated waste water with the help of physical methods and briefly explained on direct and indirect effect of water.

Mainly she focussed on dyes and structures of dyes like Methyl red, Crystal violet and Malachite green and gave explanation about the classification of surfactant, Classification of SMA.

She discussed that for the extraction of any dyes, fixed bed study is used and for the processing of chemical reactions of some metal ions the Fenton reaction is mostly useful.

Last but not the least, she explained advantages and disadvantages of Fenton rection.

Lastly, she described on heterogeneous catalysts is very efficient, fastly recovery rate and can be strongly re-utilise.

With this brief and informative lecture, she concluded the fruitful discussion on the topic Recovery and Reuse of Organic and Inorganic Pollutants and their further Application towards Catalyst Development

Report submitted by;

Mr. Bharat Chandoba Sonkamble, (Sr. No. 11)

Asst. Professor,

Department of Chemistry,

Bhagwantrao Arts & Science College, Etapalli dist. Gadchiroli (M.S.)

HRDC PRSU Raipur 492010 Chhattisgarh

ONLINE REFRESHER COURSE IN CHEMISTRY

(14th Sept 2020 – 26th Sept 2020)

Lecture Title: *"Stereoselective Synthesis of Natural Product Inspired Carbohybrids for Biological Applications" (Thursday, Sept 17, 2020, Session-10:30 AM -12:00)*

Speaker: *Prof R S Misra*

In his inspiring lecture, Prof. R. S. Misra, Department of Chemistry, Banaras Hindu University, Varanasi introduced the participants to stereoselective synthesis of natural product inspired carbohybrids for biological applications. In this context, Prof. Misra described the regioselective synthesis of chirally enriched tetrahydrocarbozolones and tetrahydrocarbozolones. The participants were informed that Pinacol is used as green oxo acceptor for reductive cyclisation. The speaker well explained the new and efficient methods for the synthesis of a natural product inspired library of carbohydrate fused Pyranol(3,2-C) quinolones hybrids. The participants were also informed that these methods had been successfully applied to diverse substituted substrates bearing electron-donating and withdrawing groups. He narrated how antiproliferative activity of these synthesized carbohybrids were determined against MCF-7 (breast) and HepG2 (liver) cancer cells. The speaker also mentioned that the selected library members of Pyranol (3,2-C) and quinolones hybrids displayed low micromolar and selective antiproliferative activity. He also described a new route for the preparation of chirally enriched tetrahydrocarbazolones and tetrahydrocarbazoles

So, from this lecture, the deliverables are as follows:

- Application of stereoselective synthesis in the field of Carbohybrids
- Expressing the new and efficient methods for the synthesis of a natural product inspired library of carbohydrate fused Pyranol(3,2-C) quinolones hybrids
- Stereoselective synthesis of library of molecules is tolerable with the broad range of EDG and EWG
- Expressing the antiproliferative activity of Pyranol (3,2-C) and quinolones hybrids

Report Submitted By

Sanjay Kumar Jain
Assistant. Prof. Chemistry
Govt. RMD Girls PG College, Ambikapur

HRDC PRSU Raipur 492010 Chhattisgarh

ONLINE REFRESHER COURSE IN CHEMISTRY

(14th Sept 2020 – 26th Sept 2020)

Lecture Title: *"S/N Ratio, Sensitivity, Detection limit, Noise and their reduction, the idea of FT" (Thursday, Sept 17, 2020, Session-12:15 PM-1:45PM)*

Speaker: *R.D. Kaushik*

In his inspiring lecture, Prof. R. D. Kaushik, Head, Department of Chemistry, Gurukul Kangri University, Haridwar, introduced the participants to different terms used in analytical chemistry. In this context, he has pointed out that the ability of equipment to distinguish between the signal and noise is expressed as a signal to noise ratio. He nicely explained the sensitivity of a spectrophotometric method. Sandell's sensitivity, sensitivity in terms of molar extinction coefficient and comparison of sensitivity and detection limits were discussed in detail. The participants were informed about sources of noise and different types of noises in instruments. Professor Koushik also described different types of environmental noise and fundamental noise such as white noise and flickered noise along with their sources and methods of reduction. The participants also learned the basic idea of Fourier transformation technique and its applications in emissions and absorption spectroscopy. Through his initiative talk, Prof. Koushik well explained the different terms, S/N Ratio, Sensitivity, Detection limit, sources, types and reduction methods of noise and Fourier transform technique in a straightforward and exciting manner.

So, from this lecture, the deliverables are as follows:

- Role of instruments to distinguish between the signal and noise.
- Optimizing sensitivity keeping the S/N ratio within the limit of tolerance
- Presenting the classification of different types of noises – sources and remedy
- Explaining the basic principles of FT technique
- Demonstrating applications of FT in different types of emission and absorption spectroscopy.

Report Submitted By

Sanjay Kumar Jain
Assistant. Prof. Chemistry
Govt. RMD Girls PG College, Ambikapur

UGC-Human Resource Development Centre
Pt. Ravishankar Shukla University, Raipur (C. G.)

Online Refresher Course in Chemistry, New Trends of Teaching and Research in Chemistry (14th - 26th September. 2020)

Lecture Title: "**Construction of the Phase Diagram of One, Two and Three Component systems**" (Thursday, 17 September, 2020, Session – III, 14:15 to 15:45)

Speaker: Prof. Pramila K. Misra

The lecture delivered by Prof. Pramila K. Misra, Centre of studies in the surface science and technology, School of Chemistry, Sambalpur University, Odisha, India, emphasized on the construction of the phase diagram of one, two and three component systems. She started with basics of phase diagram like introduction of phase, components, degree of freedom and derivation of phase rule.

She was taking appropriate examples of different systems to describe phenomenon of components. She utilized the basics to describe the applications of the rules in the phase diagram of one component Water system and Sulphur system. She also described the Polymorphism and Enantiotropy phenomenon. In the two-component system, she described Eutectic Phase Diagram and also shown a table with examples exhibiting the formation of more than one congruent compound. In the three-component system, she emphasized triangular plot and described systems of three liquid components exhibiting partial miscibility. In this part, one by one she has taken one pair, two pair and three pair of partially miscible liquids and gave idea of composition calculation, plait point, binodal curve, effect of temperature, critical temperature, relative mass calculation and miscible pair. She also described crystallization of pure components, formation of binary compounds such as a salt hydrate, formation of two salt hydrate and formation of a double salt.

Finally, I would like to say that it was a great lecture on Phase Diagram and Phase Rule.

Submitted by –

Name: **Dr. Sumit Srivastava**

Department: Chemistry

College/University: Govt. Swami Atmanand PG College Narayanpur (C.G.) affiliated to Bastar University

UGC-Human Resource Development Centre
Pt. Ravishankar Shukla University, Raipur (C. G.)

Online Refresher Course in Chemistry, New Trends of Teaching and Research in Chemistry (14th - 26th September. 2020)

Lecture Title: "**Catalyst formation in waste beads: Efficient utilization of modified chitosan beads generated after metal ion adsorption process**" (Thursday, 17 September, 2020, Session – IV, 16:00 to 17:30)

Speaker: Prof. Anjali Pal

The lecture delivered by Prof. Anjali Pal, Civil Engineering Department, Indian Institute of technology Kharagpur, Kharagpur, India exhibited the use of chitosan beads for the adsorption of Ni (II) metal ion from the water waste and utilized this Ni based chitosan beads as a reusable and heterogeneous catalyst. She has successfully developed a methodology to minimize the pollution in water. It was a very interesting lecture, I heard after a very long time. She has shown many years of her work within one-and-a-half-hour time. The important points of her lecture were as follows:

- Surfactant, Micelles and their formation.
- Preparation, properties and application of Chitosan bead.
- Preparation and properties of sodium dodecyl sulphate (SDS) modified Chitosan beads.
- Adsolubilization approach for removal of Ni (II) ions from water using POSTCS (CS bead with SDS above the CMC)
- Kinetic and thermodynamic studies have been performed for the removal of Ni (II) ions.
- The Ni (II) adsorption onto the surfactant-modified chitosan beads the material can be converted to a suitable catalyst for the transformation of Nitro compounds into Amino compounds in presence of Sodium borohydride as reducing agent.

Submitted by –
Name: **Dr. Sumit Srivastava**
Department: Chemistry
College/University: Govt. Swami Atmanand PG College Narayanpur (C.G.) affiliated to Bastar University

Repport

Online Refresher Course in Chemistry

UGC HRDC PRSU Raipur (CG)

Session : I time 10:30am **Date:18/09/2020**

Topic: "Intervention In Plant Signaling Through Exogenous Sugar Signaling Precursor Increases Yeild and Resilience

Resource Person : Prof Ram Sagar Misra department of ChemistryInstitute of Science, Banaras Hindu University, Varanasi, Uttar Prades

This lecture is provided by aProfessor Ram Sagar Misra the department of Chemistry Institute of Science, Banaras Hindu University, Varanasi, Uttar Prades has organized a Resource Person on topic "Intervention In Plant Signaling Through Exogenous Sugar Signaling Precursor Increases Yeild and Resilience" on 18.09.2020 for Online Refresher cource in Participant . The objective of this resource person is to create knowledge among the participant on the steps for success in lecture. The Program was started with invocation followed by brief introduction about the resource person. The session started with the key points for preparation to a successful interview and practice. The suggestions given during lecture sessions are as follows: (i) Introduction,Trehaloge in plant (ii) T6P and signalling ,goal of the project (iii) Exploiting the T6P signaling, (iv) Synthesis T6P precursors, Two words photolabile precursorse, (v) Design of signalling precursors, Invitro UNCAGING kinetics, SnRK1 activity of precursors, in planta uptake of signalling precursors, in planta uptake in planta toxicity study, in planta measurement of T6P, in planta quantification of T6P, Effect of release intermediate SnRK1 activity of control precursors, synthesis of C^{13} labelled T6P precursors, distribution of T6P precursors in plants, in plantasugar metabolism, Biosynthetic effect of T6P release, Inceased crop yield (wheat), increased crop biomass (wheats), increased crop reilience (wheats), Conclusion: We have shown here for the first time that a chemical strategy can directly control amount of an important sugar – signalling molecule (T6P) in vivo,etc.At the end, session ended up with vote of thanks delivered by Welcome address & Introduction about the Resource Person Lecture Session Refreshing activity Interaction with the resource person Mock interview Feedback by the participant.

Report Submited by
Sandeep Kumar Tandon
Asst. Professor
Govt. PMRS College Pendra Road(Gaurella)

Repport

Online Refresher Course in Chemistry
UGC HRDC PRSU Raipur (CG)

Session :II time 12:15pm **Date:18/09/2020**

Topic: "Role of Bulk And Trace Metals In Human Body

Resource Person : Prof. R. N. Prasad

This lecture is provided by a Professor R N Prasad senior advisor & Dean, science faculty, JECRC University, Jaipurhas organized a Resource Person on topic "Role of Bulk And Trace Metals In Human Body." on 18.09.2020 for Online Refresher cource in Participant . The objective of this resource person is to create knowledge among the participant on the steps for success in lecture. The Program was started with invocation followed by brief introduction about the resource person. The session started with the key points for preparation to a successful interview and practice. The suggestions given during lecture sessions are as follows: (i) The bio elements, (ii) Abundance of major element, (iii) Amount of metals per kg of body weight & food source, (iv)Classification of cations in biological systems, (v) potassium sodium pump, calsium, (vi) Muscle contraction and relaxation (siding filament model), (vii) Megnesium, chlorophyll, (viii) Two phases of photosynthesis, photosynthetic electron transport, (ix) Crown ether (PEDERSEN), crown ether selectivity, (x) Cryptands (LEHN). At the end, session ended up with vote of thanks delivered by Welcome address & Introduction about the Resource Person Lecture Session Refreshing activity Interaction with the resource person Mock interview Feedback by the participant.

Report Submited by
Sandeep Kumar Tandon
Asst. Professor
Govt. PMRS College Pendra Road(Gaurella)

Report on Microteaching

Name of the Event :- Microteaching
Date of Event :- September 18, 2020 (Time- 2.15pm to 5.30pm)
Location of Event :- HRDC, Pt. Ravishankar Shukla university, Raipur

First of all, I would like to thank Director of HRDC & also coordinator of this Online Refresher Course in Chemistry (Dr. Kallol Kumar Ghosh Sir) for giving me the opportunity to attend the Online Refresher Course in Chemistry. Microteaching session was started on 18-09-2020 at 2.15pm, Dr. Gourisankar Roymahapatra & Dr. Neeraj chaired the first session & second session respectively. Ten participants were allowed for each session but eight attendees joined each session. Three participants were absent & one part could not present his presentation due to technical issue. The session was divided into two segments (First segment – 14.15 p.m. to 15.45 p.m. & Second Segment – 16.00 p.m. to 17.30 p.m.). During the session attendees shared their opinions and thoughts on the varieties topic. The session was very interesting and gave me the opportunity to learn the following issues:

1. Skill of introduction.
2. Skill of explaining.
3. Presentation components.
4. Skill of stimulated variation.
5. Skill of reinforcement.
6. Skill of questioning.
7. Skill of demonstration
8. Skill of closer.

As a participant, I found both the sessions very enriching. The experience gathered here would be of great help for me.

Report submitted by

Amit Das (Sl. No- 20)

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ONLINE REFRESHER COURSE IN CHEMISTRY
"New Trends of Teaching and Research in Chemistry"
HRDC, Pt. Ravishankar Shukla University Raipur
(14^{th} to 26^{th} September 2020)

Report of 19^{th} September 2020

Schedule of the day:

Session	Time	Activity
First Session	10:30 am to 12:00 noon	Micro teaching
Second Session	12:15 pm to 1:45 pm	Invited Talk of Prof. R.N.Prasad

On 19^{th} September 2020, Micro teaching of Batch C was scheduled. Ten participants of Batch C presented their micro teaching. Participants taught topic, chosen by them through power point presentation. Each participant was allotted a time slot of six minutes. Assessment of micro teaching was done by Prof. Kuite and Prof. Manish Rai. Topic selected by participants is listed below:

Participant's No.	Name of the Participant	Title /Topic of Microteaching
21	Mukesh Kumar Tyagi	Stereochemistry
22	Neeraj	Auto ionization of water- A pictorial perception
23	Rama Sarojinee	Significance of Activation Energy
24	Rashmi Verma	Polymer and its type
25	Rita Bajpai	Term symbol
26	Rohit Kumar Bargah	Green Chemistry and its Basic Principles
27	Samir Kumar Mandal	Nucleophilic Substitution (S_N) Reaction
28	Sandeep Kumar Tandon	Chemical Kinetics
29	Sandhya Patre	Intermolecular Forces
30	Sanjay Kumar Jain	Lanthanide Contraction: Causes and Consequences '

In the second session, a lecture was delivered by **Prof. R. N. Prasad**, Senior Advisor & Dean, Science Faculty, JECRC University; Jaipur on the topic "Role of Bulk and Trace Metals in Human Body". In his lecture, he describe the role of bulk metals such as Na, K, Mg and Ca and trace metal such as Fe, Cu, Zn, Co, Mn, Al, V, Mo, Sn, Ni, Cr etc. in human system. He also explained the diseases caused due to deficiency of these metals in body. Through his lecture participants learn about the importance of these metals in body.

Report Submitted By:

Dr. Meena Chakraborty
Asst. Prof. Chemistry
Govt. Naveen College Bori, Durg

ONLINE

REFRESHER COURSE

in

CHEMISTRY

New Trends of Teaching and Research in Chemistry

14.09.2020 to 26.09.2020

Organized by

HRDC
PRSU
Raipur 492010
Chhattisgarh

ज्ञान-विज्ञान विमुक्तये

Course Coordinator

Prof. Kallol K Ghosh
SoS in Chemistry
PRSU
Raipur

Lecture Title: "**AIR QUALITY ISSUES OF INDIA**"

(Saturday September 19, 2020, 2:15 PM-3:45 PM)

Speaker: Prof. Shamsh Pervez, School of Studies in Chemistry, Pt. Ravishankar Shukla University

Professor Pervez in his commendable lecture addressed that we are facing increased number of diseases day by day due to air pollution. He stated that air pollution is the 4th highest cause of death among all health risks and airborne particulate matter (PM) is the main culprit for public health in the urban areas. He introduced that he is working in this areas with National and International collaboration all over the world. His statistical and graphical data gave well explanation that PM causes diseases such as bronchitis, impaired lung function, and cardiopulmonary problems. According to him, PM with the aerodynamic diameter of less than 2.5μm (PM 2.5) can deeply penetrate into the human lung. He introduced why IQ level of the new born babies after 2005 is raised. From the lecture we came to know that Pb-free world is the main reason, earlier which came from the petroleum fuel with ethyl tetra-acetate as anti-knocking agent but currently we are noticing more number of cancer patients due to use of benzene. He addressed that low and middle income countries are facing this issues e.g. India, China's people death rate is more than other countries due to air pollution. He maintained with the statistical data that death rate of baby and age greater than 40-50 yrs are the sufferer whereas ages with greater than 80 yrs are more sufferers. He shared his observation that 132276 peoples in 2016 of Chhattisgarh were suffering from acute respiratory ailments which becomes almost double in 2017 (239128 peoples). He clearly maintained that PM2.5 is more vulnerable than PM10. He introduced that significant level of black carbon (BC), organic carbon (OC) and other atmospheric pollutants into local communities, resulting in severe health and environmental impacts. He claimed that Kedarnath incident in 2013 is due to increases black carbon (BC) and organic carbon (OC) in the environment but agreed with the reduction of carbonaceous aerosol emission during the COVID-19 lockdown. As per the air pollution concern he introduced the issues to be taken into account due to particle size, chemical nature and concentration. There were many e.g. mass, physico-chemical and biological properties of air pollution; optical, thermal, molecular properties of atmospheric carbonaceous matter; impact and accumulation status of air toxins to susceptible bio-geo-environment to address adverse effect; atmospheric chemistry to address secondary aerosols formation; measurement and impact study of bioaerosol. The goal of ambient particle sampling has been introduced nicely to determine compliance with air quality standards; examine the extent and causes of elevated concentrations; apportion PM chemical constituents to pollution sources; evaluate adverse effects on health, visibility, climate and ecosystem. He introduced the air pollution study that designing the study, sampling plan and sample handling, analysis must follow standard protocol. Requirement of an ambient sampling system were well explained along with the some instruments. According to his statistical data we came to know that India contributed 18·1% of the global population but had 26·2% of the global air pollution in 2017. He described air sampling methods and results of some case studies and ended with an appeal to start multidisciplinary research.

So, from this lecture, the deliverables are as follows:

- Several diseases occurring due to air pollution
- Air pollution is the 4th highest cause of death among all health risks.

- Particulate Matter (PM) with the aerodynamic diameter of less than 2.5μm (PM 2.5) in the polluted air is the main culprit of the several diseases.
- IQ level of the new born babies after 2005 is raised due to lead free air.
- Babies and peoples greater than 40-50 yrs old are the sufferer whereas peoples with greater than 80 yrs are more sufferers.
- Increased level of black carbon (BC) and organic carbon (OC) in the air is alarming.
- Particle size, chemical nature and concentration of the pollutants are crucial.
- Ambient particle sampling is essential for air quality measurement.

Report submitted by
Dr. Samir Kumar Mandal
Assistant Professor
Saldiha College
Applicant ID: 26

Report on Lecture Session

Name of the Event: Lecture session on selected topic (Lecture No 20 & 21)

Date of Event: September 21, 2020

Time: 10: 30 am – 13:45pm

Location of Event: HRDC, Pt. Ravishankar Shukla university, Raipur

Resource Persons:

(1) **Prof. D. C. Mukherjee**

Retired Professor, Dept. of Chemistry, University of Calcutta, Kolkata

(2) **Professor C. R. Sinha**

Professor and HOD, Dept. of Chemistry, Jadavpur University, Kolkata

Session Chair: Dr. Gourisankar Roymahapatra, Haldia Institute of Technology, Haldia

First of all, I would like to thank respected director of HRDC, Prof. A. K. Gupta, & coordinator of this Online Refresher Course (ORC) Prof. K. K. Ghosh, for giving me the opportunity to participate this ORC in Chemistry and to be the Rapporter of 1st lecture session today (Lecture No 20 & 21).

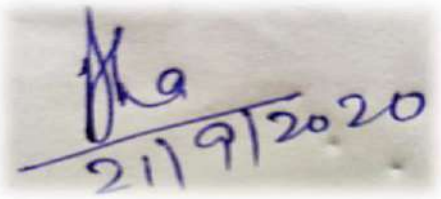
Lecture session was started at 10:30 am. Dr. Gourisankar Roymahapatra of Haldia Institute of Technology chaired the session and introduced both speakers in a humble and graceful way. Prof. Mukherjee, who is the senior most among all speakers in the list, sailed us all to the history of our own Indian science heritage with a very simple title 'A HISTORIC LETTER THAT LED TO QUANTUM STATISTICS'. His style of delivering lecture made all of us 'refreshed' in true sense after having some technical topics in last week. He tailed us the history of 'Qunta', and its relation with Acharya S. N. Baose, the 2nd National Professor of our country.

In 2nd lecture Prof. Sinha lucidly explained the use of chemistry in our life in his own style within the topic 'Chemistry-For Better Future'. From his lecture we learned how to plan our research work towards real problem solving. Specially the sensing and separation of Pd(0), Pd(II) and total Pd is a remarkable development of our own Indian Science. It was a nice elaboration how to use fluorescence spectroscopy towards metal sensing analysis and validation. He also explained

us vividly about the Metal Organic Framework (MOF), Coordination polymer and use of Co-ordination compounds in designing Photosensitive Optoelectronic devices.

Apart from scheduled lectures, a memorable moment came to all of us, when our session chair Dr. Roymahapatra, requested Prof. D. C. Mukherjee, to share his own memory with Acharya S. N. Bose. The tale of 'Two Cups of Coffee' transformed all of us emotional and it is truly a blessing to all participants of ORC to get valuable lecture from Prof. Mukherjee, who got the blessings and 'ORDER' from Achraya Bose to teach Bose-Einstein statistics to the end of his life. All participants expressed ovation to Prof. Mukherjee for the completion of his 60 years of teaching carrier. The session ended with vote of thanks delivered by the chairman of the session.

Report submitted by



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ONLINE

REFRESHER COURSE IN

CHEMISTRY

New Trends of Teaching and Research in Chemistry

14th-26th September, 2020

Organized by

Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur (C.G.)

Date- 21/09/2020 (Monday)

Report of Post lunch session (III And IV)

Session III – Title- Understanding nature through molecular interaction

Resource Person- Prof. B. K. Mishra Professor of Chemistry (Retd,), Sambalpur University, Sambalpur, Odisha.

Lecture – 22

The deliberation /talk delivered by honourable Dr B K Mishra . It has been very nice explanation on Material and its interaction . He has been given very nice and interesting talk on the topic . The basis of these organizations are mostly due to different types of interactions – both attractive and repulsive; polar and nonpolar, ionic and neutral Some key points of the lecture are as follows

- About disintegration is a strategy for analysing organization in other words a focus on the basic unit of organism.
- Discussed about composition.
  Precursor ⟶ Monomer unit ⟶ Macromolecules ⟶ Supramolecules
  Amino Acids, aromatic bases , glucose ,ribose to cell
- A brief knowledge given about the elements which are important part of molecules. In all living systems we can always find 4 basic elements: carbon, oxygen, nitrogen and hydrogen. Carbon is the basic building unit contained in living matter. The percentage of carbon in the mass of living matter is 19.4 %. Oxygen and hydrogen are present in almost all organic compounds which create living **organisms**.

- Also talked about Chemical makeup of organism. And discussed about water and 30 common molecules.
- The nature of intermolecular forces.
- Types of intermolecular interaction.
    a. Short range repulsion
    b. Electrostatic interaction
    c. Dipolar interaction
    d. Fluctuating dipoles
    e. Cation interaction
    f. Hydrogen bonding
    g. Hydrophobic interaction
    h. pi –pi stacking
- Last section of lecture was about why water so important.

Session IV

Title- Imperfection in solids

Resource Person- Dr A S Aswar Prof. and Head Department of Chemistry ,Sant Gadge Baba Amravati University.

Lecture – 23

In this session honourable resource person delivered lecture on solid state and its imperfection or defects. He started session by some quotation which is very interesting. He has been given introduction about Solid-state chemistry sometimes referred as materials chemistry which is the study of the synthesis, structure, and properties of solid phase materials. The important point of the session was discussion on perfect and imperfect type of crystals with suitable examples. Some key points of the lecture are as follows

- Process of crystallization.
- Ideal and perfect crystal
- About defects which is deviation from perfect atomic periodicity.
- Why defects are important
- Brief discussion on line defect, Line defects weakens the structure along a one-dimensional space, and the defects type and density affects the mechanical properties of the solids.
- The higher internal energy state of crystal is stabilized by an increase in entropy and crystal become disordered
- Very nice explanation of classification of defects by flow chart. On atomic , subatomic and lattice.
- Latter on discussed about classification of imperfections based on dimensionality very nice explanation of zero dimensional, one dimensional, two dimensional and three dimensional pattern.
- Separately given collective knowledge on defects in solid impurity defects , stoichiometric defects and non stoichiometric defects.

- Consequences of defects.
- Interesting explanation of four types of non stoichiometry in non transition metals MOs.
- Impurity defects discussed it is a defect in which a foreign atom occupies a regular lattice site. Or it is present at the vacant interstitial site , semiconductor properties and example of NaCl and $SrCl_2$
- Last section of lecture was about creating color center with special reference to F center and hole center.

Submitted by

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UGC- Human Resource Development Center
Pt. Ravishankar Shukla University, Raipur

Online Refresher Course in Chemistry new Trends of Teaching and Research in Chemistry
(14th September 2020 - 26th September 2020)

Lecture Title: "PATH TO QUANTUM MECHANICS FROM CLASSICAL MECHANICS"

(TUESDAY, SEPTEMBER, 22, 2020, 10:30 AM - 12:00 PM)

Speaker: *Prof. D. C. Mukherjee*

In his inspiring lecture, Prof. D. C Mukherjee, Advisor & Former President, Indian Chemical Society Former Professor, Department of Chemistry, Calcutta University Emeritus Professor, Heritage Institute of Technology, Kolkata introduced the participants to the Quantum and Classical Mechanics. In this context, he has pointed out Classical Mechanics give accurate description of the motion of particles that are considerably heavier than individual atom and the move with velocities much smaller that of light and Quantum Mechanics is an improvement on Classical Mechanics that may be used in studying the motion of atomic and sub-atomic particles. The limitation to particles moving slowly compared to the velocity of light continues to apply in most of the Quantum Mechanics. He explained the kinetic and potential energy, Newton's equation of motion, lagrangian equation of motion, invariant under any co-ordinate transformation and Coupled equation is Hamilton's equation of motion and Hamoilton's function represent the total energy rule for constructing the Quantum mechanical is to replace momentum $p_x = h/2\pi i.\delta/\delta x$ and to leave the co-ordinate. He also mentioned Schrodinger Postulate the wave function (ψ) should satisfy the equation $\hat{H}\psi = E\psi$ (this is Schrodinger wave equation) were discussed in detail. The lecture covered the molecular quantum mechanics, is a branch of chemistry focused on the application of quantum mechanics in physical models and experiments of chemical systems. Understanding electronic structure and molecular dynamics using the Schrödinger equations are central topics in quantum chemistry. The participants were informed about history of development of Quantum Statics and Quantum Mechanics *etc*. Post completion of this lecture, the participants learned Quantum mechanics is an important tool to understand at the theoretical level the electronic structure of chemical compounds and the mechanism, thermodynamics, and kinetics of chemical reactions. Quantum mechanics involves the study of material at the atomic level. This field deals with probabilities since we cannot definitely locate a particle.

So, from this lecture, the deliverables are as follows:

- Quantum and Classical Mechanics
- Hamoilton's function represent
- Newton's equation of motion
- Schrodinger Postulate the wave function

Report Submitted By

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Online Refresher Course in Chemistry new Trends of Teaching and Research in Chemistry
(14th September 2020 - 26th September 2020)

Lecture Title: "**STRUCTURE DIRECTED DELIVERY: DESIGN OF COORDINATION POLYMERS (CPs) OR METAL ORGANIC FRAMEWORKS (MOFs)**"

(TUESDAY, SEPTEMBER, 22, 2020, 12:15 PM - 13:45 PM)

Speaker: *Prof. Chittaranjan Sinha*

In his inspiring lecture, Professor & Head, Department of Chemistry, Jadavpur University, Kolkata-700 032, India, introduced the participants to the design of coordination polymers or MOFS. In this context, he has pointed out spatially adjustable donor centers design is a challenging task for making multinuclear coordination compounds. One of the articulate is the organic linker to bridge metal centers for the generation of coordination polymers which may extend in one (1D), two (2D) or three dimensions (3D). At present popular term is MOF or porous PCPs. He explained the potential applications of these materials are many, such as, gas storage and separation, catalysis, electrical conductivity, sensing, magnetism, drug delivery solar cell etc. He also mentioned the role of linker, metal knots and reaction condition. The lecture covered the coordination polymers (CPs) or metal-organic frameworks (MOFs) containing guest molecules are very attractive research field, not only owing to their designable structure, unusual flexibilities, but also on their tunable functional application. Post completion of this lecture, the participants learned linkage is isomers differ in the atom of ligand bonded to the metal in the complex, vitamin C, L-ascorbic acid strong antioxidant, reduces risk of heart disease, LDL level, blood urea; lower blood pressure boost immunity, anticancer drugs, sulphonamides are structure analoges and competitive antagonists of PABA, photochemical behavior in solvent media, The field has impacted many areas of science including commercial applications from gas storage agents to new investigations as drug-delivery vehicles.

So, from this lecture, the deliverables are as follows:

- Coordination polymers (cps) or metal organic frameworks.
- Discovery of Sulpha Drugs and Anticancer Drugs.
- SMX has developed antitumor, antifungal, anticarbonic anhydrase, protease inhibitor activity.
- PABA is used for the synthesis of folic acid an important metabolic in DNA synthesis
- Hydrogen Bonded Interaction, π-π interaction and photochromic behavior in solvent, solid media

Report Submitted By

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Pt. RAVISHANKAR SHUKLA UNIVERSITY

TWO WEEK ONLINE REFRESHER COURSE IN CHEMISTRY
New Trends of Teaching and Research in Chemistry

(14th September – 26th September, 2020)

Day 8 Report
(Afternoon Session)

Reported by: Yogita Thakur
Government Ghanshyam Singh Gupt P.G College, Balod, Chhattisgarh

Chairperson: Dr. Rita Bajpai
Dr. JPM Government Science College, Mungeli, Chhattisgarh

Introduction:
Pt. Ravishankar Shukla University conducted a two-Week Online Refresher Course in Chemistry from 14th September to 26th September 2020 co-ordinated by Prof. Kallol K. Ghosh.

Report of the Afternoon session

Today is the 8th day of our Online Refresher program. In the afternoon session online lecture of the program.

- First lecture delivered by **Dr. A.P.Mishra** , D.Phil, D.Sc(Alld) from Dr. H.S Gour Central University, Sagar (MP)
- Second lecture delivered by **Dr. B.K. Mishra**, Professor of Chemistry (retd), Sambalpur University.
- Both the Resource person were introduced to the google meet class by Dr. Rita Bajpai.
- During the intermittent after first lecture our Honourable Vice chancellor Prof. K.L Verma significantly joined the online program and interacted actively with participants of RC chemistry.

Summary Report of the 1st Lecture:

In the session, first lecture delivered by Prof. A.P. Mishra on topic- **"Metal Chelates in Medicine: Practices and Prospects"**
He explained various topic:

- Utility of metal ions in life (Nutritionally important, medically important
- Role of inorganic constituents in life and biochemical process

- Biomedical inorganic chemistry ("Elemental Medicine") is an important new of chemistry
- Metal chelates in Medicine
- Explain what kind of compounds become drugs
- Chelation therapy, Pharmacokinetics, pharmacodynamics
- Explain the treatment of metal deficiencies
- Some inorganic compounds administered as drugs
- Radiation therapy for cancer
- Metals in body imaging (Radio-imaging)
- Nanotechnology in medicine-Quantum dots
- Metal and metal chelate in chemotherapy
- Neuropharmacology, photodynamic therapy
- Medicinal properties of organometallic compounds
- Antibacterial and Antifungal activity of bioactive ligands(drugs)-metal(ll) complexes
- Metal complexes can interact in the body by binding to DNA, affecting cellular equilibrium and inhibit protein function.

SUMMARY REPORT OF THE 2ND LECTURE

Second lecture delivered by Prof. B.K. Mishra on topic- **"Understanding Nature through Molecular interaction"**

- He explained: Molecular interaction and types, nature of molecular interaction
- It deals various interactions: hydrogen bonding, Vander Waal interaction, hydrophobic, ion-dipole interaction, dipole-dipole interaction, pi-pi interaction.
- Folding and assembly of biological macromolecules: Molecular interaction is important in Protein folding (It is the conversion from a denatured state to native state)
- Molecular interaction within a protein native state/denatured state (with surrounding water molecules)
- Molecular interaction in water:
    - Anatomy, geometry, cooperativity of hydrogen bonding.
    - Hydrogen bonding in Biological system
    - water is a biochemical reagent (biopolymer formation)
    - empirical description, molecular basis, thermodynamic basis of the hydrophobic effect.
- Application of Molecular interaction: Intermolecular force, Molecular docking, Interaction between ubiquitin and its binding protein etc.
- Biomolecular organization.

Lessons learnt and the outcome of the session:

During this lesson we learned about role of metallodrug, inorganic medicine and molecular interaction in Biological system.

End of session

Dr. A.P. Mishra and Dr. B. K. Mishra class ended with the votes of thanks from the chairperson of the day, Dr. Rita Bajpai.

Lecture Title: "A Stimulating Phosphomolybdate -Dye Matrix for Chromism and Nitrogen or Oxygen Binding"
(Wednesday September 23, 2020, 10:30 AM to 12:00 PM)
Speaker: Prof. Tarasankar Pal, Distinguished Visiting Professor in the University of Johannesburg, S. A.

Today Prof. Pal in his inspiring lecture, discussed the beauty of "throw away chemicals", ammonium phosphomolybdate (APM) [$(NH_4)_3PMo_{12}O_{40}$], in his basic research. The genesis of the research have been explained from the concept and observation obtained from the hydroxylation of benzophenone using APM under photochemical condition [*chem. comm.* **2009**, 7119]. He uttered that one of his fellow inspired and intuitively designed the material from APM that is prepared in UG lab with cationic dye like malachite green (MG). Prof. Pal expressed that the new material was robust and he abbreviated the green complex phosphomolybdate-malachite as PMMG. He nicely explained his thought and observation with heating and cooling of PMMG from green to yellow and vice-versa. He explained the observation nicely from the experiment in a vial with green copper sulphate ($CuSO_4.5H_2O$) and PMMG complex in alternative heating and confirmed that yellow PPMG is becoming moisture sensor. Prof. Pal claimed that he then thoughtfully developed the mechanism by which the material absorbed inert nitrogen gas or oxygen gas and changes colour. He concluded with how he established the chromism by binding the nitrogen or oxygen with the PMMG.

So, from this lecture, the deliverables are as follows:

- Throw away chemicals may be useful as new materials.
- The new material PMMG green complex display chromism property.
- The new material PMMG yellow complex able to bind N_2 or O_2.
- The new material PMMG bind with O_2 may open for oxidative catalyst.

Report submitted by
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Saldiha College
Applicant ID: 26

Organized by

HRDC
PRSU
Raipur 492010
Chhattisgarh

ONLINE

REFRESHER COURSE

in

CHEMISTRY

New Trends of Teaching and Research in Chemistry

14.09.2020 to 26.09.2020

ज्ञान-विज्ञान विमुक्तये

Course Coordinator

Prof. Kallol K Ghosh
SoS in Chemistry
PRSU
Raipur

Lecture Title: "Understanding Nature through Molecular Interaction"
(Wednesday September 23, 2020, 12:15 PM to 1:45 PM)
Speaker: Prof. B. K. Mishra, Sambalpur University

With the continuation of the previous lecture, today Prof. Mishra in his informative and commendable lecture nicely introduced with molecular organisation which is a result of different molecular interaction e.g. ionic, dipole-dipole, ion-dipole, dipole-induced-dipole, London force, H-bond etc. He explained over the audience that it is only due to lowering of energy. Prof. Mishra explained the model of selective interaction of metal ions with crown ethers, cryptands, spherands, lariat ether and calixarene that are responsible for metal ion transport in living system. He introduced how podands gives different structures depending on the different metals. From his lecture we were enriched with the term molecular tweezer and came to know how light energy changes the tapping of guest molecule. Based on this he discussed the model of molecular lock that undergoes on-off with salt in-out mechanism. Then he nicely explored the idea of molecular mechanical machine. In his lecture he nicely introduced various rotaxane model that work like mechanical ball-bearing system. In this model molecular movement had been explained using chemical energy, electrical energy, solvation energy, photochemical energy, optoelectronic energy etc. Prof. Mishra also explained the preparation of fullerene and from this introduced nanotrucks, consisting of rotating axle and nanocars, a model of single molecular cars.

So, from this lecture, the deliverables are as follows:

- Atomic interaction is somewhat different from molecular machine.
- Interaction occurs to attain the stable system.
- Molecular interaction is the basis of natural phenomena.
- Tapping of metal ion with suitable ligand is the basis of metal transport in living system.
- Structures of host and guest molecules are responsible for molecular interaction.
- Movement of molecules in a locked system depends on molecular interaction.
- Understanding molecular interaction of small to large molecule is important to make molecular machine.

Report submitted by
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Assistant Professor
Saldiha College
Applicant ID: 26

HRDC, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh

Online Refresher Course In Chemistry

(14th – 26th September, 2020)

Seminar Presentation has been done by 35 participants in this RC as an extempore and the session was judged by Prof. M. K. Deb, School of Studies in Chemistry, PRSU, Raipur.

Among various topics like: i)National Education Policy 2020, ii)Research Oriented Teaching, iii)Covid 19 and Role of Chemistry, iv)Holistic and Multidisciplinary Education, v)Catalyzing Quality Education Research through National Research Foundation and vi)Online Teaching and Learning, each participant choose one topic and give the extempore lecture within 4 minutes. The list of the participants with their topic name and main points highlighted in their lecture is given below :

Name of the participants	Topic of the seminar
1. Aatma Ram Verma 2. Archana Asatkar 3. Bameshwar Prasad Sinha 4. Sandhya Patre 5. Sanjay Kumar Jain 6. Shabir Hussain Lone 7. Sudip Kumar De 8. Sumit Srivastava 9. Yogita Thakur	**National Education Policy 2020**
1. George T M 2. Gourisankar Roymahapatra 3. Sougata Sarkar	**Research Oriented Teaching**
1. Alka Shukla 2. Averi Guha 3. Bharat Chandoba Sonkamble 4. Bhaskar Sharma 5. Monirul Islam 6. Mukesh Kumar Tyagi 7. Rashmi Verma 8. Rohit Kumar Bargah 9. Samir Kumar Mandal 10. Shilpa Yadav 11. Waheed Ahmad Khanday	**COVID 19 and Role of Chemistry**
1. Aarati Sao 2. Amit Das 3. Ashutosh Pal 4. Hena Paul	**Online Teaching and Learning**

Name of the participants	Topic of the seminar
5. Indrajit Chakraborty 6. Meena Chakraborty 7. Neeraj 8. Rama Sarojinee 9. Rita Bajpai 10. Sandeep Kumar Tandon 11. Saugata Konar 12. Vitthal Nanaji Gowardipe	**Online Teaching and Learning**

From the lectures given by the participants and the expert's comments in this seminar session, the deliverables on each topic are as follows:

- **National Education Policy 2020**- This is the third education policy in the country and the need of it is to move atleast 50% students in the higher education. The 10+2 level is proposed to be replace by the 5+3+3+4 level in order to give emphasis on the foundation period of a child where the preschool has given importance. In this policy it is stated that assessment should be multi-directional such that report card of a student will be based on his/her analytical and critical thinking and not on their memorizing power only. This policy also give chance to pursue education in one's mother language and focused on holistic, vocational and skill-based education.
- **Research Oriented Teaching**- The role of the teachers are transformer and for this it is the duty of the teachers to make the subject interesting to the students so that they get motivated to learn that subject and this is only possible if the students can be engaged in some simple research activities. Such research exposure from early stages will also make the students become more passionate about the subjects and it will make them motivated to persue higher education which is the need of the hour.
- **COVID 19 and Role of Chemistry-** As SARS-CoV-2 continues to spread at an alarming rate, chemists around the world are making major contributions to the global fight against the novel coronavirus. Starting from the prevention to cure of this disease COVID 19 chemistry is playing a very crucial role. We all are aware of the fact about the hygiene measures which include washing our hands and other materials with soaps and doing proper sanitization regularly and in preparation of all these sanitization products contribution of chemistry is indispensable. Also now masks are being produced by nanomaterials to prevent the virus. In addition to these prevention measures for the cure of COVID 19 all over the country research is going on over the invention of vaccines

which is based on the knowledge of chemistry. The three different types of vaccines that are already in progress has been discussed along with the mention of the antiviral drugs that are in use for the treatment of COVID 19.

- **Online Teaching and Learning-** Although this online teaching is introduced long back all over the world but in this pandemic situation its use has become enormous since now we have no option for the offline education mode. Discussions occurred both on the advantages and disadvantages of this online teaching and learning mode. Among the advantages of this mode emphasis has been given to the flexibility, cost-effectiveness. Anyone can access the teaching of any teacher from any part of the world staying at home like distance education which is really a good opportunity for the students. But long time screen exposure is very harmful specially for the children and also the family feeling between the teacher and students is missing here. The practical classes also faced a lots of problem in this online learning mode and the financially weaker sections of the society is also facing a lots of problems due to their lack of resources to provide this education to their family members.

Report Submitted by

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ONLINE

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Report For: Session (I And II) : Date- 24/09/2020 (Thursday):

(A)Report For: Session (I) : Date:24/09/20 (Lecture-30):

Title- Nuclear Magnetic Resonance (NMR), Principle And Applications

Resource Person/Speaker: Dr Sanjiv Kumar, Professor of Physical Chemistry, School of Science, Indra Gandhi National Open University(IGNOU), Maidan Garhi, New Delhi

Lecture No. 30

To begin with the 30th lecture of this Refresher Course in the session-I, on 24th of September,2020, the talk delivered by honourable Dr Sanjeev kumar, Professor of Physical Chemistry School of Science Indra Gandhi National Open University, Maidan Garhi, New Delhi was really an inspiring one in which through his cognitive approach, he introduced all the Participants with the significant Principle & effective applications of NMR Spectroscopy. The lecture was very nicely initiated with excellent presentation outlines of NMR & its working principle and applications including a number of examples. The lecture was very beautifully deliberated with too useful & informative contents as well as respective examples & key takeaways such as "What is NMR–Spectroscopy" "question and its answers", Structure determination & elucidation of Organic compounds, significance of NMR in chemical sciences etc. & the participants were informed subsequently & simultaneously. The following were the deliverables of the Talk of session-I

- Nuclear magnetic resonance spectroscopy (NMR), known as NMR spectroscopy or magnetic resonance spectroscopy (MRS), which is a technique to observe and analyze magnetic fields around atomic nuclei.
- This is a type of spectroscopic technique which is based on the absorption of electromagnetic radiation in the radio frequency region of 4 to 900 MHz by nuclei of the atoms.

- Now a days NMR has become the very important technique for the determination of structure of organic compounds, hence NMR has various significant aspects.
- Among all the spectroscopic methods, this is the only method for which a complete analysis and interpretation of the entire spectrum is normally expected.
- Signals were demonstrated by taking examples of 1 bromo ethane.
- NMR spectroscopy is routinely used by chemists to study chemical structure using simple one-dimensional techniques. Two-dimensional techniques are used to determine the structure of more complicated molecules.

(B)Report For: Session (II): Date:24/09/2020 (Lecture-31):

Title: A Tribute to Acharya Prafulla Chandra Ray-Father of Indian Chemistry & Optical Sensing platform opportunity and challenges

Resource Person/Speaker: Dr G. K Patra, Professor, Department of Chemistry, Guru Ghasidas Vishvavidyalaya Bilaspur.

Lecture – 31

In this session The honourable Resource Person Dr G. K Patra, Professor, Department of Chemistry, Guru Ghasidas Vishvavidyalaya Bilaspur, began his lecture with a Tribute to Acharya Prafulla Chandra Ray –Father of Indian chemistry and Started the session with an introduction & explanation of the History of Hindu Chemistry' which is one of the Rare book & one of the significant as well as important books published in twentieth century. His lecture covered the various key aspects & crucial features of Acharya Prafulla Chandra Ray such as...'Sir Prafulla Chandra Ray was the author of this book History of Hindu Chemistry & also a Chemist by profession & greatly gave his contribution to the field of Rasashastra . He was a very great teacher who donated his whole salary to students interested for the study. Further in his lecture, Prof Patra focussed on Some key features about the research areas of Acharyaji which were search for the elements missing in the periodic table. In 1896 he published a paper on presentation of a new stable chemical compound: Mercurous Nitrate. Ray developed a new method for the synthesis of Ammonium Nitrate. Ray wrote more than 100 papers, some in collaboration with his students on Mercury salts and related compounds. Moreover, Prof. Patra also featured the importance of Chemistry & chemical Sciences as a CENTRAL SCIENCE linked to many more other fields of Sciences. Thereafter He also elaborated & described about the respective opportunities & Challenges towards Optical Sensing Platform.

Mentioned below are the significant major points & key takeaways of the Lecture 31 deliberated by the respected Resource Person/Speaker of Session-II Prof G.K. Patra regarding Tribute to Acharya Prafulla Chandra Ray & Optical Sensors:

- History of Hindu Chemistry
- History of Acharya Prafulla Chandra Ray

- Chemistry as a Central Science
- Optical Sensors: Challenges & Opportunities
- Chemosensors
- Colorimetric sensors : metal ligand and internal charge transfer
- Fluorometric sensor : Active unit Fluorophore signalling via fluorescence change.
- Pet process
- C= N Isomerisation
- Benzo hyrazide Schiff base chemosensor and its advantages.
- Discussion about probable sensing mechanism.

  In last section of his lecture he concluded that He synthesized a series of novel , flexible and multifunctional Benzo-Hydrazide based Schiff's base receptor which contains suitable site for cation sensing.The Lecture was too interesting & informative

Report Prepared & Submitted by

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ONLINE REFRESHER COURSE IN CHEMISTRY

NEW TRENDS OF TEACHING AND RESEARCH IN CHEMISTRY

(14th – 26th Sept., 2020)

Organised by Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur (C.G.)

Lecture Title : " Development of Chemistry OERs for Blended and Flipped Classroom Teaching"

(24th September, 2020; 16:00-17:30, Lecture no.32)

Speaker – Dr. Vimal Rarh

In her inspiring lecture, **Dr. Vimal Rarh**, Coordinator, National Resource Centre of Chemistry of MHRD, Project Head & Joint Director, Guru Angad Dev Teaching Learning Centre of MHRD, SGTB ,Khalsa College, University of Delhi, Delhi has introduced the more interesting topics ***Development of Chemistry OERs for Blended and Flipped Classroom Teaching***. She has enlightened his lecture the e-content that is consists of static content and multimedia enrichment. Static content containing Text additions, quizzes, graphics, images etc. and multimedia enrichment containing audio, video animations, simulations etc. Future of good e- contents based on self assessment, self learning, highly interactive etc. Modular format of e-content is most important for a now a days. She has lucidly explained about the development of static content among four quadrant format, it will be extensively utilized for e-PG path shala. More over she has explained E-content as four quadrant format, four quadrant format of MOOCs on Swayam, static content development related to copy right issue, open education resources and guidelines, plagiarism, violation of copy right, fair use guidelines etc. Another new thing like open educational resources (OERs) which includes full courses, curricula, course materials etc. Some examples of OERs are CEC, NTPEL, SWAYAM, National Science digital library project. API related to requirement for the promotion of teachers under CAS in college/university departments. Teacher e-kit 2.0 that consists of four quadrant She has clarified nicely as Teachers manual in quadrant I, Teachers presentation and video for flipped class room in quadrant II , Teachers assignment in quadrant III and teacher new more in quadrant IV. At the end of the lecture some participants asked her different query relating to the topics in the interaction session. All participants have fully satisfied for her well interactions.

Report Submitted by

Dr. Monirul Islam (Assistant Professor)

Seth Anandram Jaipuria College

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ONLINE REFRESHER COURSE IN CHEMISTRY

NEW TRENDS OF TEACHING AND RESEARCH IN CHEMISTRY

(14th – 26th Sept., 2020)

Organised by Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur (C.G.)

RESEARCH PROJECT PRESENTATION (24th September, 2020; Time-- 14:15 -15:45)

Speaker – Group A, B, C and D Participants.

Research Project Presentation Title of the following groups

Group- A : "Room-Temperature Synthesis of Air Stable Cobalt Nanoparticles and Their Use as a Recyclable Catalyst towards Degradation Studies of Imidacloprid Pesticide"

Group- B : "An Alternative Pro-drug design of Aspirin"

Group- C : "Lanthanide-β-diketonates : Synthesis, Characterization, Photopysical Properties and Applications "

Group- D : "Kinetic Studies of Organic Substrate by Cr(VI) in Presence of Catalyst in Aqueous Micellar Acid Media"

In the presence of Expert member Dr. Kamlesh Shrivas and Course Co-ordinator Prof. Kallol K. Ghosh , four groups participants like Group-A, Group-B, Group C and Group-D have presented research project very nicely. All participants have clearly and spontaneously delivered the points regarding Introduction, historical background, Objectives, Methodology, Analysis and Interpretations, Conclusion and References etc. At the end of the project presentation of each group, expert member asked different types of questions separately each to all the participants relating to the topics in the interaction session. As per opinion of the expert member, the project presentation by the respective group members is up to the level of bench mark and quite satisfactory on records.

Report Submitted by

Dr. Monirul Islam

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On Line Refresher Course in Chemistry, HRDC
Pt. Ravishankar Shukla University, Raipur
Sept. 14-26, 2020

Lecture Title: "Atmospheric Chemistry: Analytical Aspects" (Friday September 25, 2020, **10:30 to 12:00,** Lecture -33)

Speaker: Prof. M. K. Deb

In his inspiring lecture, Dr. M. K. Deb, Professor, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.) introduced the participants to the idea regarding atmospheric chemistry. He described the pollutants for which sampling and analytical techniques to be discussed are some criteria pollutants viz. SO_2, NOx, O_3, NMHC, CO, BTX, SPM, RSPM and some other important chemical species. In addition, methods for meteorological parameters such as wind speed, direction, temperature, solar radiation and relative humidity will also be discussed along with wind rose plotting methods. The rationale for selecting these pollutants is that they are ubiquitous in urban air, widely recognized as posing a potential risk to population health and they commonly regulated at national and international level.

During ambient air pollutants sampling, it is also necessary to collect information on qualitative and quantitative data on the local sources of air pollution, topography, population distribution, land use pattern, climatology, etc, depending upon the objectives of the survey or measurement campaign. For example, an area map to locate pollution sources and monitoring locations, sources of pollution situated at far distances, etc. and other relevant data that describe the behavior of atmosphere for a specific pollutant. Through his intuitive speech he pointed out and describe during analyze air pollutants by the following concepts:

- National ambient air quality standard
- Pollutants data from Central pollution control board 2006
- AQI categories pollutants and health breakpoints in India for NO_2, O_3, SO_2, NH_3, Pb
- National Air Quality Monitoring Programme (NAMP) –Present scenario for 424 operating stations in 175 cities or town since 1982
- Monitoring of air pollutants where parameters monitored are (i) Pollutants (ii) Velocity (iii) Temperature and (iv) Pressure.
- Types of ambient monitoring stations and these descriptions such as: Downtown pedestrian exposure stations (ii) Downtown neighborhood exposure stations. (iii) Residential population exposure stations (iv) Mesoscale stations (v) Non-urban station (vi) Specialize source survey station with location of stations.
- Metrological parameters with different metrological centers from Srinagar to Gangtok
- Aerosol Sampler (Cascade Impactor type)
- Aerosol Sampling, Gravimetric and chemical analysis
- Quantitative determination of more than 60 metals or metalloid elements.
- Analytical description of Pb determination
- Gaseous pollutants monitoring analyze by the most common technique including spectrophotometry, chemiuminescence, Gas-chromatography wit flame ionization

detector (GC-FID), Gas-chromatography mass spectrometry (GC-MS) and Fourier Transform Infrared spectrometer (FTIR).

- Modified West-Gaeke Spectrophoto metric method
- Chemiuminescence, Gas-chromatography technique
- The Versatility of TD-A major advantage of thermal description is that it can be applied to such a wide range of analytes and samples
- Flame ionization Detector (FID), Nitrogen Phosphorous detector (NPD), Electron capture Detector (ECD), Mass Detector (MS).

Report Submitted By
Dr. Ashutosh Pal
Raja Peary Mohan College
Uttarpara,W.B.

On Line Refresher Course in Chemistry, HRDC
Pt. Ravishankar Shukla University, Raipur
Sept. 14-26, 2020

Lecture Title: "Imperfections in solids" (Friday September 25, 2020, **12:15 to 13:45, session II,** Lecture -34)
Speaker: Prof. Anand S. Aswar

Prof. Anand S. Aswar, Professor & Head, Department of Chemistry, Sant Gadge Baba Amravati University, Amravati- 444602, given his lecture on 25th of September (Monday session IV, 4:00 to 5:30) with the topic Imperfection of Solids in which he described the classification of Defects. Today he continued his same topic which is nonstoichiometric defects and in his inspiring lecture, Prof. Anand S. Aswar covered all types of crystal defects. Through his intuitive speech he explained the following concepts:

- Colour centre of defects: This type of defect impart color to an otherwise colorless crystal, Ionic crystals such as NaCl, KCl etc in pure state, without imperfections are transparent throughout the visible region of spectrum. However, the impure salts are often coloured because energy is absorbed in certain regions of the visible spectrum owing to the presence of various impurities and point defects. A color center is, therefore lattice defect which absorb visible light.
- Types of color centers: (i) electricnic centres (F center, F_A center and R_A center) (ii) Hole center (H center, V center). F-centre, Farbenzentre (German Farben= colour, Zentre =centre) Is a non stochiometric defect due to uptake of large no of Na+ ions that stay at

  the surface of the crystal and e- diffuse into the crystal. F-centre is a single trapped electron which has an unpaired spin therefore exhibits paramagnetic moment. The study of color centre is carried out by ESR spectroscopy. The Hole-center is formed by heating, viz. NaCl in Cl_2 gas. In this case a $[Cl_2]^-$ ion is formed and occupies a single anion site. While in case of V center $[Cl_2]^-$ ion occupies at two sites. Thus, the molecular chloride ion occupies one site in H- center and 2 sites in V-center. F-Centers and H-centers are perfectly complementary; if they meet, they cancel one another.
- Ways of creating colour center: Heating the crystal in the vapour of the metal. Introduction of Impurities.
- Application of color centers: Color centers have been under investigation for many years. Theoretical studies guided by detailed experimental work have yielded a deep understanding of specific centers. The crystals in which color centers appear tend to be transparent to light and to microwaves. Consequently, experiments which can be carried out include optical spectroscopy, luminescence and Raman scattering, magnetic circular dichroism, magnetic resonance, and electro modulation. Color centers find practical application in radiation dosimeters; schemes have been proposed to use color centers in high-density memory devices; and tunable lasers have been made from crystals containing color centers. The illustration shows the absorption bands due to

color centers produced in potassium bromide by exposure of the crystal at the temperature of liquid nitrogen (81 K) to intense penetrating x-rays. Several prominent bands appear as a result of the irradiation. The *F*-band appears at 600 nanometers and the so-called *V*-bands appear in the ultraviolet

- Line Defects: When a lattice defect is confined to a small region in two dimensions, it is called a line defect. They are called dislocations i.e. the deviation from the ideal arrangement exists in the entire row of lattice points the defect is called as line defect. Dislocations are produced when one region of crystal surface is slipped with respect to other region and dislocation line represents the boundary between the two regions. Dislocations are an extremely important class of crystal defect. They are responsible for the relative weakness of pure metals and in certain cases for just opposite effect of

  extra hardness. Dislocations are responsible for the useful property like mechanical, ductility in metals, ceramics and crystalline polymers. They also explain the phenomenon

  of work hardening. A line defect is a lattice distortion created about a line formed during solidification process, by plastic deformation, by vacancy condensation or atomic

  mismatch in solid solutions. They are of two types: Edge Dislocation and Screw Dislocation.
- Edge dislocation: extra half-plane of atoms inserted in a crystal structure or missing half plane of atoms.
- Screw dislocation: It can be thought of as created by cutting the crystal part way and shearing down one part relative to other by one atomic spacing.
  Spiral planar ramp resulting from shear deformation.
- Observation od Dislocations: Dislocations can be made to observe directly or can be estimated by different techniques based on destructive or non-destructive method.
  (i) Method based on Growth Spirals (ii) Method Based on Etch Pits (iii) ooptical and electron-optical methods (iv) Decoration method (v) X-ray Diffraction Topography.
- Surface Imperfections: Surface imperfections arise from a change in the stacking of

  atomic planes on or across a boundary. The change may be one of the orientations or of

  the stacking sequence of atomic planes. In geometric concept, surface imperfections are two- dimensional. They are of two types external and internal surface imperfections.

- External surface Imperfection: They are the imperfections represented by a boundary. At

  the boundary the atomic bonds are terminated. The atoms on the surface cannot be compared with the atoms within the crystal. The reason is that the surface atoms have neighbors on one side only. Whereas the atoms inside the crystal have neighbors on either sides. This is shown in figure. Since these surface atoms are not surrounded by others, they possess higher energy than that of internal atom.

- Lineage boundary: It is the boundary between two adjacent perfect regions in the same crystal that are slightly tilted with respect to one another (less than 10) the boundary is said to be tilt boundary.
- Grain boundaries: A crystal is made up of a large number of small grains or crystallites which are single crystal; the grain boundary is the boundary between two crystals in a polycrystalline solid.
- High and low angle boundaries: high angle grain boundaries (HAGBs) whose misorientation is greater than about 10 degrees. Low angle grain boundaries (LAGBs) are those with a misorientation less than about 10 degrees.

- Tilt Boundary: Edge dislocation Series of edge dislocations. Low angle grain boundary: an array of aligned edge dislocations.
- Grain Boundaries: Present paths for atoms to diffuse into the material and scatter light through transparent materials to make them opaque. The boundaries limit the lengths and motions of dislocations that can move. That means that smaller grains (more grain boundary surface area) strengthens materials. The size of grains can be controlled by the cooling rate. Rapid cooling produces smaller grains. Large grains result in low strength materials. Any defect in the regular lattice disrupts the motion of dislocations.
- Twin Boundary: A special type of grain boundary across which there exists a mirror image of the crystal lattice. It is produced by mechanical shear stresses and/or annealing some materials.
- Other defects were explained: Sub grain boundary, Anti phase boundaries, Stacking Faults, Bulk or Volume Defects, Spinel.

Report Submitted By
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Uttarpara,W.B.

Date: Sept 25, 2020, Time: 16.00-17.30

In the concluding session there were project presentations by the participants (of Group E, F, G and H). The thirty six (36) participants were present and the following participants presented their project by group wise (group work) ----

GROUP E to H
25 th. September 16.00-17.30

GROUP E

21	Mukesh Kumar Tyagi	mukeshtyagi57@gmail.com	9165754661	**Title:** "Study of Factors affecting Rusting". They well described theory, methodology, analysis and interpretation of factors affecting rusting. Also, they illustrated different types of corrosion mechanism and common methods of rusting.
22	Neeraj	drneerajmoti@gmail.com	9431109243	
23	Rama Sarojinee	rama.sarojinee@gmail.com	9617660383	
24	Rashmi Verma	rashmi.rashi.verma@gmail.com	7752403268	
25	Rita Bajpai	bajpaishiva.bajpai4@gmail.com	9479001579	

GROUP F

26	Rohit Kumar Bargah	rohitbargah1978@gmail.com	9755387988	**Title:** "Organic Fertilizer" They explained the types and benefits of the fertilizers and manures are of great importance in soil fertility, They well explained methods and applications of Fym as well.
27	Samir Kumar Mandal	samirmandal2004@gmail.com	9433356499 / 7602906406	
28	Sandeep Kumar Tandon	tandonsandeep03@gmail.com	9407953990	
29	Sandhya Patre	sandhya.patre22@gmail.com	9926372988	
30	Sanjay Kumar Jain	jainsk77@yahoo.com	9424184225	

GROUP G

31	Saugata Konar	saugata.konar@gmail.com	9874247409/9832859715	**Title:** "Metal Organic Frameworks (MOF's): Present Research and Future Scope" They well explained objectives of the project, and focused on different synthetic route of MOF, showed verity of different kinds of examples of MOF's. They demonstrated different kinds of applications of MOF's and its future aspects very well.
32	Shabir Hussain Lone	chemshabir@gmail.com	9596484654	
33	Shilpa Yadav	shilpayadav23j@gmail.com	7987943371	
34	Sougata Sarkar	sougata.sarkar81@gmail.com	9477402759	
35	Sudip Kumar De	sudipkde@gmail.com	9831432757	

GROUP H

36	Sumit Srivastava	sumitchm@gmail.com	07781252755; 8010731778; 7646952005	**Title: "**Waste water treatment using adsorbents like zeolites". Firstly, they well explained origin of the problem, and elucidated introduction about zeolites and its different nanosized synthesis, characterization etc.
37	***Supratim Suin (left from this course)***	supratim.ic@gmail.com	9735304783	
38	Vitthal Nanaji Gowardipe	vitthalgowardipe@gmail.com	9421877106	
39	Waheed Ahmad Khanday	khanday.waheed@gmail.com	9906845272	
40	Yogita Thakur	yogita.thakur8@gmail.com	9827839678	

Report submitted by

Dr. Saugata Konar

Assistant Professor

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Human Resource Development Center

Pt. Ravishankar Shukla University Raipur (C.G.)

REFRESHER COURSE (CHEMISTRY) 2020 **" New Trends of Teaching and Research in Chemistry "**

14th – 26th September 2020

Lecture Title: "A Cursory Glance to the domain of Colloid and Interface Science with Special Reference to Nanostructured System"

(Saturday September 26, 10:30 AM – 12:00 PM)

Speaker: Dr. Amiya Kumar Panda

In his inspiring lecture, Dr. Amiya Kumar Panda, Department of Chemistry Vidyasagar University Midnapore (West Bengal) introduced the participants to the cursory domain of colloid and interface science to reference to nanostructure. In the starting of lecture his explain the division, branch and founders of physical chemistry. In present day so many research going to bases on nanoparticles and its necessary for us to know the behavior of matter special reference to colloidal and interfacial properties. Post completion of this lecture the participants learn how to approach material like nanoparticles to studies as synthesis and chemical kinetic. Through her intuitive speech Dr. Amiya Kumar Panda also collaborate to all participants and given the satisfy answer of their queries.

So from this lecture, the deliverable are as follows:

- Colloids and interfaces are intimately related.
- Colloidal system as system which are dominated by interfacial effect rather than bulk properties.
- Some tidbits from the history of colloids.
- Research on colloid science in India.
- Synthesis of nanocrystals.
- Kinetic studies of colloidal and NPs system.

Report submitted by

Aatma ram verma

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REFRESHER COURSE (CHEMISTRY) 2020 **" New Trends of Teaching and Research in Chemistry "**

14th – 26th September 2020

Lecture Title: "Significance of Ethics in Research" (Saturday September 26, 12:00 PM – 01:30 PM)

Speaker: Prof. S. K. Mehta

In his inspiring lecture, **Prof. S. K. Mehta**, Department of Chemistry Punjab University Chandigarh (Punjab) introduced the participants to the important role of ethics in research. In the starting of lecture his explain the what is ethics and research. Now a day quality researches are available and important of ethics in these research play outstanding role to serve better result of our society. In lecture sir discuss core part of research which is guideline for ethical aspect of study. Through her intuitive speech **Prof. S. K. Mehta** also collaborate to all participants and given the satisfy answer of their queries.

So from this lecture, the deliverable are as follows:

- What ethics is and what it is not
- Relevance of research
- Historical events and development of code of ethics.
- Importance of ethics in research.
- Ethical principles guide research
- Role of peer, reviewers and researchers.

Report submitted by

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ONLINE

REFRESHER COURSE IN

CHEMISTRY

New Trends of Teaching and Research in Chemistry

14th-26th September, 2020

Organized by

Human Resource Development Centre,(HRDC) Pt. Ravishankar Shukla University, Raipur (C.G.)

Report For: Session (III & Valedictory session) : Date-26/09/2020 (Saturday):

(A)Report For: Session (III) : Date:26/09/20 (Lecture42):

Title- SURFACE & MATERIALS CHARACTERIZATION TECHNIQUES

Resource Person/Speaker: Dr. Kamalesh Kumar Shrivas, Associate Professor, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, C.G.

End Session Lecture

The 3rd Session of 26th Sept, 220, the last Lecture of the Online Refresher Course-2020 in Chemistry started at 2.20 p.m. with the dynamic deliberation/talk by Dr. Kamalesh Kumar Shrivas, Associate Professor, School of Science in Chemistry, Pt. Ravishankar Shukla University, Raipur, on Surface & Material Characterization Techniques using the teaching tools of his beautiful & effective presentation slides of Basic Principles of Spectroscopy. After introducing the Participants & giving the brief information regarding the Principle of Spectroscopy, he further explained the various Surface Analysis Techniques through a nice schematic diagrams & pictures giving suitable examples. Thereafter his lecture involved a significant focus on Characterization of Thin films including Structure, Composition, Electronic Structure as well as the common types of Electron Spectroscopic Methods for Analysis of Surfaces. His informative words on these methods & also covered the following aspects as the key points:

- Auger Electron Spectroscopy (AES)
- Electron Misroscopy
- Xray Photoelectron Spectroscopy(XPS)
- Atomic Force Microscopy
- Princip[les of AES: two step process
- Principles of XPS
- Binding Energy

- Mass Spectrometry & its Application in biological, chemical & material sciences
- Characterization of Thin films

(B)Report For: Valedictory Session: Date:26/09/2020:

The Valedictory Session of the Online Refresher Course in Chemistry on **New Trends of Teaching and Research in Chemistry** started sharp at 4.00 p.m. during the post noon session on 26th Sept, 220, in the warm presence of Hon. Vice Chencellor of the University (PRSU), Respected Director, HRDC, PRSU, coordinator, RC-2020 & all other respected dignitaries & eminent participants. Further, moving towards the successful completion of the Refresher course the session began with marvellous feedback & sharing of experiences by the Course Participants throughout the duration of the refresher course. Thereafter, the Hon, Vice Chancellor of PRSU delivered his address.

Report Prepared & Submitted by

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Annexure -III

Online Refresher Course in Chemistry

HRDC, Pt. Ravishankar Shukla University, Raipur

TOPICS OF MICROTEACHING

18th and 19th September 2020

S. No.	Name of the Participant	Email address	Contact Number	Title /Topic
1.	Aarati Sao	aartisao89@gmail.com	9669892955	Crystal field splitting of d-orbitals in octahedral complexes
2.	Aatma Ram Verma	a.r.verma.09@gmail.com	9691722138	Photochemistry
3.	Alka Shukla	shukla.alka0721@gmail.com	9827999283, 9340059669	Fast reaction
4.	Amit Das	amitdasdeb@gmail.com	9733908702	Electron affinity and its variation trend in the periodic table.
5.	Archana Asatkar	asatkar@gmail.com	7623995917	NMR- Introduction in Brief
6.	Ashutosh Pal	ashupal33@gmail.com	9434889898	Structure of D(+)-glucose (up to backgrounds of ring structure)
7.	Averi Guha	averiguha2000@yahoo.com	9674726023	Derivations and Applications of Born Lande Equation
8.	Bameshwar Prasad Sinha	drbpsinha55@gmail.com	9458997626	UV spectroscopy
9.	Bharat Chandoba Sonkamble	bsonkamble88@gmail.com	07588894582	Green Chemistry
10.	Bhaskar Sharma	bsharma05@gmail.com	7999182918	Polymers and their applications
11.	George T M	georgtm@gmail.com	0484-2477602, 9037312392	"Photoelectric effect"
12.	Gourisankar Roymahapatra	gourisankar1978@gmail.com	9434452931	'Correlation between COD and BOD analysis'
13.	Hena Paul	hena_paul84@rediffmail.com	9433925830; 6296373744	Paper Chromatographic Separation
14.	Indrajit Chakraborty	indraji2001@gmail.com	8001096953	Stereogenicity *vs* Stereotopicity: A Broad Overview
15.	Jayati Chatterjee Mitra	jc.bilaspur@gmail.com	08871275772 , 07752419254	“Separation techniques with special reference to Solvent Extraction”
16.	Meena Chakraborty	chakrabortymeena@gmail.com	9826772191	"Crystal Field Theory"
17.	Monirul Islam	michem989@gmail.com	9434632589	" Covalency In Ionic Bonds : Fajans' Rules "
18.	Mukesh Kumar Tyagi	mukeshtyagi57@gmail.com	9165754661	Stereochemistry
19.	Neeraj	drneerajmoti@gmail.com	9431109243	Auto ionization of water- A pictorial perception

20.	Rama Sarojinee	rama.sarojinee@gmail.com	9617660383	Significance of Activation Energy
21.	Rashmi Verma	rashmi.rashi.verma@gmail.com	7752403268	Polymer and its type
22.	Rita Bajpai	bajpaishiva.bajpai4@gmail.com	9479001579	Term symbol
23.	Rohit Kumar Bargah	rohitbargah1978@gmail.com	9755387988	Green Chemistry and it's Basic Principle
24.	Samir Kumar Mandal	samirmandal2004@gmail.com	9433356499 / 7602906406	Significance of Activation Energy
25.	Sandeep Kumar Tandon	tandonsandeep03@gmail.com	9407953990	Chemical Kinetics
26.	Sandhya Patre	sandhya.patre22@gmail.com	9926372988	Intermolecular Forces
27.	Sanjay Kumar Jain	jainsk77@yahoo.com	9424184225	Lanthanide Contraction: Causes and Consequences '
28.	Saugata Konar	saugata.konar@gmail.com	9874247409/9832859715	Introduction to Acids and Bases
29.	Shabir Hussain Lone	chemshabir@gmail.com	9596484654	Hand-Sanitizers: Chemistry and Role
30.	Shilpa Yadav	shilpayadav23j@gmail.com	7987943371	Crystal Field Theory of Octahedral Complex
31.	Sougata Sarkar	sougata.sarkar81@gmail.com	9477402759	Dissolution of Noble Metals: Aqua Regia and Beyonds
32.	Sudip Kumar De	sudipkde@gmail.com	9831432757	VSEPR Theory
33.	Sumit Srivastava	sumitchm@gmail.com	07781252755; 8010731778; 7646952005	Coordination Polymers for the detection of Hazardous Materials
34.	Vitthal Nanaji Gowardipe	vitthalgowardipe@gmail.com	9421877106	Amines
35.	Waheed Ahmad Khanday	khanday.waheed@gmail.com	9906845272	Waste Management
36.	Yogita Thakur	yogita.thakur8@gmail.com	9827839678	Crystal Field Theory for Octahedral Complex

Annexure -IV

Online Refresher Course in Chemistry

HRDC, Pt. Ravishankar Shukla University, Raipur

Topics of Seminar Presentation

23rd September 2020

S. No.	Name of the Participant	Email address	Contact Number	Topic of the Seminar
1.	Aarati Sao	aartisao89@gmail.com	9669892955	online teaching learning
2.	Aatma Ram Verma	a.r.verma.09@gmail.com	9691722138	National Education Policy 2020
3.	Alka Shukla	shukla.alka0721@gmail.com	9827999283, 9340059669	Covid 19 and Role of Chemistry
4.	Amit Das	amitdasdeb@gmail.com	9733908702	Online Teaching and Learning'.
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Annexure -V

Online Refresher Course in Chemistry

HRDC, Pt. Ravishankar Shukla University, Raipur

Topics of Project Presentation

24th and 25th September 2020

S. No.	Name of the Participant	Email address	Contact Number	Title of the Project
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