



CENTRAL
UNIVERSITY
OF PUNJAB

CENTRAL UNIVERSITY OF PUNJAB

NAAC ACCREDITED 'A' GRADE UNIVERSITY
FIVE STAR RATING UNDER GRIHA-LD MASTER PLAN

RANKED 87th BEST UNIVERSITY IN N.I.R.F. INDIA RANKINGS 2020
BATHINDA-BADAL ROAD, V.P.O. GHUDDA, DIST. BATHINDA – PUNJAB



CUPB Newsletter

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EDITORIAL

Central University of Punjab, Bathinda (CUPB) under the able guidance of the Hon'ble Chancellor Prof. Jagbir Singh and the dynamic leadership of the Hon'ble Vice Chancellor Prof. Raghavendra P. Tiwari is marching ahead towards excellence by creating new benchmarks in the field of education and research, and has contributed towards strengthening Hon'ble Prime Minister Shri Narendra Modi's mission of *#IndiaFightsCorona* during the challenging situation of COVID-19 second wave.

The University has added a new feather to its cap by getting '53rd Rank' among Best Indian Universities Category in the '*SCImago Institutions Ranking 2021*'. Another accomplishment of the university that made the CUPB fraternity feel proud was the selection of two departments of the university Dept. of Chemistry and the Dept. of Botany for financial support under the '*FIST Programme-2020*' by the Department of Science and Technology, Government of India.

The Ministry of Education, Government of India has appreciated the initiatives taken by CUPB Vice Chancellor to reduce the spread of novel coronavirus in the campus and to support the District Administration in combatting the novel coronavirus. During, the challenging situation of COVID-19 second wave when the healthcare system of the country got overburdened and was facing scarcity of resources/oxygen equipment, CUPB has supplied 26 oxygen cylinders to Dist. Administration, Bathinda and AIIMS, Bathinda to save valuable lives. To ensure better healthcare facilities in the society, the faculty, staff members and officers of the university have voluntarily contributed & supplied essential medicines, Refrigerators, Air Coolers, RO Purifier, Inverter, Computer and Printer to Community Health Centre, Village Sangat and Sub Divisional Hospital, Village Ghudda. In addition to this, various departments of the university have organized various seminars/workshops/symposiums to increase awareness about COVID-19 and to reduce vaccine hesitancy.

During these three months, several academic and extra-curricular activities have been organized at the University Campus. The Inaugural ceremony of the Azadi ka Amrut Mahotsav programme series, the launch of the NEP-2020 Telugu Version, the first Alumni Meet of Alumni Cell-2021 and the establishment of Griha Nakshatra and Rashi Vatika at CUPB Campus are some of the examples of the major events that have occurred in this tenure. The Teaching-Learning Centre at the University has conducted six interdisciplinary National Workshops in which around 250 faculty members representing 23 States of India have participated and enhanced their teaching-learning potential. The different departments of the university have organized several Webinars/Invited talks by acclaimed academicians on various occasions for the overall development of students. The Institution's Innovation Council, IPR Cell, and the Research Park at the university proactively organized activities to advance the understanding of IPR & patent filing. The NSS Cell of the university has conducted several activities and outreach programmes to sensitize youngsters with regard to gender discrimination, health awareness and national consciousness. During this period, the university has organized various International and National Quiz Competitions to spread awareness on the topics like India's Freedom Struggle, Climate Change and Conservation of Biological Diversity.

The holistic value-based quality education provided in a vibrant and intellectual atmosphere at CUPB has empowered our students to qualify for various competitive examinations such as GATE/CSIR-UGC, JRF.

The above facts clearly signify that the university strives to excel in every parameter to become the centre of research innovation & knowledge creation and to represent India at the International level.

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VICE CHANCELLOR'S ARTICLE



Prof. Raghavendra P. Tiwari,
Vice Chancellor, CUPB

REINVENTING TEACHERS: PRE-TEXT, TEXT AND CONTEXT

Once Dr D.S. Kothari underlined that ‘the destiny of India is now being shaped in her classrooms’. In this process teachers are at the core and they have to become the socio-cultural transformative agent to re-shape the individual, nation and humanity. They should be compassionate and ignite the young minds to learn in the real sense. Such exhortations are indeed an expression of the role played by the teachers as transmitters, inspirers and promoters of human’s eternal quest for knowledge (NCFTE-2009). Recently, we received a long awaited commitment for nation building from the Government in the form of NEP-2020. This policy explored the context, concerns and vision for teachers to have a symbiotic relationship with indigenous and modern ways of knowing and knowledge. NEP places different demands and expectations from the teachers which need to be addressed both by initial and continuing teacher education.

In this respect, NEP intends to make the learning system relevant and self-reliant. It provides an action frame for a multidisciplinary holistic and reflective education coupled with restructuring of academic and research programmes; learning outcome based curriculum; academic bank of credits; conceptual, innovative and experiential learning; and robust evaluation for assessing both the scholastic and co-scholastic attributes. Undoubtedly, research is a vital force for humans to excel. A National Research Foundation for streamlining and creating an ecosystem for problem-solving research is also envisaged. The Policy has a provision for a functional regulatory regime under a comprehensive and inclusive unit with a light but tight frame. NEP is intended to train the youth and to empower them with the global competencies and skills to enable them to become socially and economically relevant and to add to the intellectual pool of informed global citizenry. This implies that the current approaches to teaching-learning must accommodate the inclusive needs of today’s learners and address twenty-first century multidisciplinary themes and skill-sets of learning.

The moot question however is whether the teachers are skilled enough to impart the new age education or not!; and how should they innovate and implement a holistic and multi/trans-disciplinary learning landscape. This may be achievable through National Professional Standards for Teachers (NPSTs) for curriculum development, pedagogical and evaluation framework.

The sad part is that the curriculum design and development in India lacked dynamism and has not evolved with expectations of the learners and society in terms of global competencies resulting into skill-gap and un-employability. 21st Century teachers ought to come out of their comfort zones and whole heartedly embrace all professional standards to create a pragmatic learning system. They should proactively engage in nurturing an ecosystem for cutting-age research, innovation and entrepreneurship capable of creating wealth and solving local, national and global problems.

This is possible if teachers resort to multidisciplinary, holistic and learning outcome based curricular framework having core components of e- enabled experiential learning, skill-development, ideation, incubation, entrepreneurship, learning based research and research based learning, and finally make our learning system industry, technology and innovation driven. In the changed scenario, we need innovative academic programmes blended with practice based curriculum, visualised through learning exposures like tutorials, practicals, dissertation/project/internship, case study, field-visit/study tour/study camp, mock trial/ debate/ discussion/ disputation, role-play, stage performance/film shows, and open ended enquiries to inculcate scientific temperament.

Teachers should be able to convert static learning spaces into active learning sites resorting to personalised/flip/adventure/ cooperative/peer/service/situated/free-choice, contextual, integrative, reflective and action oriented teaching. We need to ensure that the learners have captured the concept and are able to retain it for lifelong learning. The focus of training should be on ‘how to learn’ rather than on ‘what to learn’, and the pedagogy should be learner friendly instead of teacher friendly to make learning an enjoyable enterprise. Additionally, teachers

should endeavour to become agent of change for the free exchange and creation of positive and unbiased ideas to enable students to tackle complex real-life challenges. All these should start from the early literacy to formal education stage.

In essence, the teachers must ensure that the twenty-first century learning system is founded on sound holistic, multidisciplinary and integrated content knowledge, rather than on the sets of compartmentalized and de-contextualized learning trajectory. Teachers need to upgrade their domain knowledge alongside the major reforms happening in the learning system, and also with the learning needs of GenNext. A Productive interaction and feedback from the learners, industry, NGOs, research organizations and funding agencies will help understand such learning needs. Learn, unlearn and relearn; Reform, perform and transform; and skilling, upskilling and reskilling are the buzz words for the teachers. This way, teachers can become their new edition with higher version and can always remain up to date and relevant to the learning system, society and the nation. Owing to resource crunch, the task becomes difficult, but not impossible. It may be mitigated by adopting self-reliant frame.

Furthermore, teachers have to reimagine their roles and re-invent themselves and emulate the Ancient Gurus. It's high time to evaluate entire education system and to strengthen teachers' agency not only in pre-textual heritage and textual underpinning but also by re-examining the contextualized teaching-learning needs. Educational leadership and academic bureaucracy should facilitate the teaching community to re-invent and re-orient themselves. Finally, it is time to prove and regain our classical status as the Vishwaguru, which can only be achieved by conferring the honours upon the teachers.

(Views are personal)

Prof. Raghavendra P. Tiwari,
Vice-Chancellor,
Central University of Punjab, Bathinda

UNIVERSITY ACHIEVEMENTS

Two Departments of Central University of Punjab got DST-FIST 2020 Grant

The Department of Botany and the Department of Chemistry of the Central University of Punjab, Bathinda (CUPB) have got selected for financial support under the 'Fund for Improvement of S&T infrastructure in Universities & Higher Educational Institutions (FIST) Program-2020' by the Department of Science & Technology (DST), Government of India, for building optimal infrastructure and research facilities for the post-graduate and higher research. The proposals from relatively small but active post-graduate S&T Department from State & Central Universities and degree awarding academic institutions for improving quality of teaching & research were invited by DST in 2020. For Life Sciences, out of 212 proposals received nationwide only 16 proposals have been recommended for Level-1 type support by DST. The proposals of the Dept. of Botany and the Dept. of Chemistry, CUPB are among the recommended ones.

The Vice Chancellor Prof. Raghavendra P. Tiwari congratulated Dr. Vinod Pathania, HoD Dept. of Chemistry and Dr. Felix Bast, HoD, Dept. of Botany, and the project implementation groups from both the departments, for this achievement. He added that this has been possible on account of the dedicated efforts of the faculty members of both these Departments.

Prof. Anjana Munshi, Dean Research stated that this grant support is recommended by DST, New Delhi based on the excellent research and academic performance of the faculty members of these departments. She mentioned that the research facility to be developed by utilizing this grant will support in setting high benchmarks in the field of education and research. She added that five departments of the university including Dept. of Environmental Science and Technology, Dept. of Human Genetics & Molecular Medicine, Dept. of Pharmaceutical Sciences & Natural Products, Dept. of Biochemistry and Microbial Sciences (bifurcated into



two departments later) and Dept. of Zoology have already earned the DST-FIST Grant worth of Rs. 3.68 Crores. Now with the addition of two more departments of our university to qualify for this grant, a total of seven

departments of CUPB have been supported with DST-FIST Grant.

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Central University of Punjab got 53rd Rank among “Best Universities of India” in SCImago Institutions Rankings 2021

Owing to its commitment to serve society, science, innovation and research and the state of Punjab, Scientists and teaching fraternity of Central University of Punjab has added another feather to its cap. CUPB has achieved a remarkable 53rd Rank in the University Category in ‘SCImago Institutions Rankings 2021’ (SIR-2021). SCImago is a research group from the *Consejo Superior de Investigaciones Cientificas (CSIC), University of Granada, Extremadura, Carlos III (Madrid) and Alcalá de Henares*, dedicated to information analysis, representation, and retrieval by means of visualization techniques. Central University of Punjab has received its first international recognition under the dynamic leadership of Vice Chancellor, Prof. Raghvendra P. Tiwari. It is pertinent to mention that CUP has already received 87th rank in NIRF earlier during the academic year, which is the highest among all the newly established central universities in 2009.

In SIR-2021, SCImago has ranked more than 7500 academic and research-related institutions across the world based on three different set of indicators i.e. research performance, innovation outputs and societal impact. CUPB accorded with the Research Rank of ‘53’, Innovation Rank of ‘27’ and Societal Rank of ‘26’ in India in the above three parameters. The University got an

Overall Rank of ‘81’ among all Academic and Research-based Institutions in India, and 53rd Rank in Best Universities of India.

SCImago has published scientific output of all institutions into 19 different broad areas of knowledge in SIR-2021. CUPB outshines nationwide in these subject-wise rankings with 6th Rank in ‘Chemistry’, 18th Rank in ‘Pharmacology, Toxicology & Pharmaceutics’, and 19th Rank in ‘Environmental Science’ and 30th Rank in ‘Physics & Astronomy’. In addition to this, the university got 47th rank in ‘Medicine’, 81st rank in ‘Biochemistry, Genetics & Molecular Medicine’ and 83rd rank in ‘Agriculture & Biological Sciences’ subjects in ‘University Category’ in India.

Vice Chancellor Prof. Raghvendra P. Tiwari congratulated CUPB faculty, staff, scholars, and students for this outstanding achievement. He stated that this is a moment of pride that in SIR-2021 Edition, CUPB leads among all the newly established Central Universities of India. While dedicating this success to the hard work of faculty and students Prof. Tiwari mentioned that this accomplishment would encourage us to set new benchmarks.

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MAJOR EVENTS

March 15, 2021: Central University of Punjab launched Telugu Version of NEP-2020

- **Hon’ble Vice President of India appreciated Central University of Punjab for translating NEP-2020 in Punjabi and Telugu Language**

After publishing the Punjabi Version of National Education Policy-2020, the Central University of Punjab, Bathinda (CUPB) in association with Vidya Bharati organized the Inaugural Ceremony to launch the Telugu Version of NEP-2020. Hon’ble Vice President of India Shri M. Venkaiah Naidu has appreciated the efforts of CUPB Vice Chancellor Prof. Raghvendra P. Tiwari for bringing out Punjabi and Telugu Versions of NEP-2020

for its effective understanding among the education community as well as Punjabi and Telugu speaking communities all across the world.

The distinguished speakers of the inaugural ceremony were Prof. Appa Rao Podile (Vice Chancellor, University of Hyderabad), Prof. T.V. Kattimani (Vice Chancellor, Central Tribal University of Andhra Pradesh and

Member NEP-2020) and Shri K.N. Raghunathan (Vidya Bharati Uchacha Shiksha Sansthan). CUPB faculty, staff and students attended this programme through a virtual platform.

At the beginning, Prof. R.K. Wusirika, Dean In-charge Academics, welcomed the distinguished guests to this programme theme.

Prof. Appa Rao Podile while sharing his thoughts on the 'Teacher's Role in NEP-2020 Implementation' emphasized that teachers are at the centre stage of NEP implementation and they will have to play an important role in making India 'Vishwa Guru'. He encouraged faculty members to devise innovative teaching methodology to provide value-based holistic education in the mother tongue, vocational training for skill development and experiential & experiment-based learning to develop scientific temperament which can contribute towards the overall development of students.



CUPB Vice Chancellor Prof. R.P. Tiwari and faculty members launching Telugu Version of NEP-2020

Prof. T.V. Kattimani while applauding the efforts of CUPB Vice Chancellor and his team for publishing the Punjabi

& Telugu Version of NEP-2020, stated that the availability of NEP-2020 Policy documents in the mother tongue will surely help in effective implementation.

Distinguished Speaker Shri K.N. Raghunandan asserted that NEP-2020 stressed that each stakeholder such as teachers, administrators, students and society has to participate and play their role for its effective implementation. He made an appeal to all educational institutions to formulate a task force for NEP-2020 Implementation and stressed that the proper implementation of key innovative reforms of NEP-2020 will surely help us to produce skill-based global intellectual workforce who can contribute towards building Atmanirbhar India.

Vice Chancellor Prof. Tiwari in his presidential address, expressed his gratitude towards Hon'ble Education Minister Shri Ramesh Pokhriyal 'Nishank' and Shri K.N. Raghunandan for inspiring CUPB fraternity to publish NEP-2020 in Indian Languages. He added that the faculty and students of CUPB are working hard to accomplish this mission and in the near future the team CUPB will also publish NEP-2020 in Odia and other languages. He asserted that NEP-2020 is learning centric as it strengthens the learning process. He gave the mantra of Reform, Perform and Transform to make the learning system of the nation more relevant. He assured that CUPB will implement all imperatives of NEP-2020.

During the inaugural ceremony the Vice Chancellor launched the Telugu Version of NEP-2020 by handing over the first book to a student belonging to Telangana. On this occasion, Dr. R.K. Chaitanya, Dr. Shashank Kumar, Dr. Narender Kumar, Mr. Dushyant Reddy and Mr. Manikanta were present.

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May 5, 2021: Graha Nakshatra and Rashi Vatika established at Central University of Punjab

Central University of Punjab, Bathinda (CUPB) under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized a plantation drive for setting up of "Graha, Nakshatra and Rashi Vatika" at CUPB Ghudda Campus.

Vice-Chancellor Prof. Raghavendra P. Tiwari inaugurated the programme by planting Graha, Nakshatra and Rashi saplings in the Vatika situated near the Guest House at CUPB Campus. Divine Trees associated with nine Grahas, twenty-seven Nakshatras and twelve Rashis were planted at the site. The important divine trees that were planted include Bargad, Peepal, Aanwla, Goolar, Jamun,



Vice Chancellor Prof. R.P. Tiwari planting saplings in the Graha Nakshatra & Rashi Vatika established at CUPB

Sami, Bel, Arjun, Nag Keshar, Kathal, Kadam, Aam, Neem and Mahua,

Prof. Tiwari stated that the most important paradigm of Bhartiya civilizational discourse is to maintain perfect harmony with all living and non-living components of Mother Nature. He further stated that the plantation according to Graha, Nakshatra and Rashi is believed to be important for the prosperity and good health of humanity as a whole. In addition to protecting the environment, one can find good mental and physical energy by spending time in the Vatika. He said that this Vatika will be beneficial to the students as they will find solace by spending quality time here after their daily academic hard work. For the benefit of the students and visitors, the names of these plants shall be depicted in three languages, Punjabi, Hindi and English including botanical names. During the programme, Prof Tiwari also gifted saplings to faculty members and officers and made an appeal to everyone to plant as many trees as they can, in order to preserve our natural environment.

On this occasion, Shri K.P.S. Mundra, the Registrar, Prof. Ramakrishna Wusirika, Dean In-charge Academics, Prof. Vinod K. Garg, Dean Students Welfare, Prof. S.K. Bawa, Director IQAC, Prof. P. Ramarao, Former DAA, Shri Chandan Mittal, Deputy Finance Officer, Deans of Schools of Studies, Head of the Departments and Officers of the University also planted saplings of divine trees.

In view of the COVID guidelines, the activity was planned in different slots on the day that started with the inaugural session and followed by the plantation drive by the Deans, Heads of Departments and Officers of the University. Dr. Deepak K. Chauhan, Programme Co-ordinator, expressed his gratitude towards CUPB officers, faculty and staff for making this unique programme a grand success.

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ACTIVITIES ORGANIZED TO COMBAT COVID-19

April 9—21, 2021: COVID-19 Vaccine Drives organized for faculty and staff members

Central University of Punjab, Bathinda (CUPB) in association with Civil Hospital, Ghudda and Govt. Hospital, Jangi Rana organized COVID-19 vaccination drive for faculty and staff of the university at CUPB Campus on 9th April and 19th--20th April. In this Vaccination drive, around 200 teaching and non-teaching employees along with their family members took the first jab of coronavirus vaccine.

Vice Chancellor Prof. Raghavendra P. Tiwari lauded the initiative of employees who got themselves vaccinated. He added, that CUPB is committed to ensure proper implementation of all COVID-19 preventive measures and guidelines issued by Centre and State Government. He asserted that vaccination is the best way to control the spike of COVID-19 cases and appealed to citizens to get themselves vaccinated as per their turn.

Shri Kanwalpal Singh Mundra, Registrar, expressed his gratitude towards the medical team of Civil Hospital,



Registrar Sh. Kanwal Pal Singh Mundra taking first jab during COVID-19 Vaccination Drive held at CUPB

Ghudda and Govt. Hospital, Jangi Rana for their support and coordination.

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April 24—26, 2021: CUPB provided Oxygen Cylinders to District Administration, Bathinda & AIIMS, Bathinda for effective management during CoronaVirus pandemic

Realizing its responsibility towards society in the current COVID-19 pandemic situation, when the nation is struggling to meet its enhanced oxygen requirement due to unprecedented surge in corona infected cases, the Central University of Punjab, Bathinda has taken a novel initiative to provide Oxygen Cylinders being used in their Research Laboratories to District Administration, Bathinda and AIIMS, Bathinda for oxygen supply to the needy patients.

A total of 16 Oxygen Cylinders have been provided to District Administration on 24th April under this initiative. Similarly, 10 Oxygen Cylinders have been provided to AIIMS, Bathinda on 26th April as a large number of COVID infected patients are being admitted there.

Vice Chancellor Prof. Tiwari praised the initiative of CUPB faculty and researchers to support this venture as in this situation when our country is facing this shortage of liquid oxygen and oxygen supply equipment, this small initiative will surely help save the lives of some patients who urgently need oxygen for their survival and to fight against COVID. Prof. Tiwari made an appeal to educational & research institutions, industry and business houses to halt their liquid oxygen related processes for a while and support the administration by sharing their resources for effective management during this crisis.

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May 18—27, 2021: Helping the less privileged - Central University of Punjab employees donated essential Medicines, Refrigerators, Air Coolers, Inverter, RO Purifier, Computer and Printer to Community Health Centre, Sangat and Sub Divisional Hospital, Ghudda



Vice Chancellor Prof R.P. Tiwari and CUPB Employees handing over Refrigerator, Computer and essential medical supply to SMO Dr. Anju Kansal, Govt Hospital, Sangat



Vice Chancellor Prof R.P. Tiwari and CUPB Employees handing over Air Coolers and Inverter with Batteries to Dr. Navdeep Kaur Sran, SMO, SDH Ghudda

With the aim to serve the humanity during the situation of COVID-19 second wave in which hospitals are facing scarcity of resources, Central University of Punjab, Bathinda (CUPB) donated essential medicines, Refrigerators, Computer Set and Printer to Community Health Centre, Sangat (C.H.C. Sangat) and Sub Divisional Hospital Ghudda (S.D.H. Ghudda). CUPB Officials, faculty and staff voluntarily contributed a sum of Rs 3.05 Lakhs to help the less privileged during the situation of health emergency and these items were procured from the voluntary contributions.

The items that were donated to the Community Health Centre, Sangat included essential medicines related to COVID management, 1 Refrigerator (185 Ltr capacity), 1

Computer Set and 1 Printer. In addition to this, 1 Refrigerator (185 Ltr capacity) was provided to Sub Divisional Hospital, Ghudda for the storage of medicines and other items. The above items purchased from the voluntary contribution were handed over by Prof. Raghavendra P. Tiwari, the Vice Chancellor, to Dr. Anju Kansal, SMO, Community Health Centre, Sangat and Dr. Navdeep Kaur Sran, SMO, Sub Divisional Hospital Ghudda on 18th May.

In addition to this, the university employees donated total of five Air Coolers, one 2 KVA Inverter with batteries and one RO Water Purifier to C.H.C. Sangat and S.D.H., Ghudda on 27th May.

While receiving the above items, Dr. Anju Kansal, SMO, Community Health Centre, Sangat and Dr. Navdeep Kaur Sran, SMO, Sub Divisional Hospital Ghudda thanked the Vice Chancellor Prof. Tiwari and University employees on behalf of their hospital staff for providing essential medicines and other much needed items which will help them in providing better healthcare services to the community.

CUPB Vice Chancellor Prof. Tiwari appreciated the effort of employees who joined this initiative with their voluntary contribution. He stated that CUPB and its

employees are committed to serve the society and to augment the efforts of GOI to help our country during this health emergency. He mentioned that both these Hospitals have provided their services to the University by conducting Mass COVID testing and vaccination drive for faculty staff and students and now it's our turn to express our gratitude towards Doctors and COVID frontline warriors for their selfless service by supporting them with essential supplies.

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May 28, 2021: Central University of Punjab and Chandigarh Press Club hosted a Training programme on #VaxCheck

- **Google News Initiative India, Data Leads and First Draft conducted this programme to train journalist and media educators across India in campaign against misinformation circulating on social media**

To counter the vaccine hesitancy caused due to spread of misinformation on various social media platforms, the Dept. of Mass Communication & Media Studies of Central University of Punjab, Bathinda (CUPB) and Chandigarh Press Club jointly hosted a training programme on #VaxCheck. This training programme is a part of 30 Workshop Series to be conducted across 30 states and Union Territories by Google News Initiative, Data Leads and First Draft.

During this programme, the certified trainers and experts provided training on different topics such as understanding vaccine misinformation, vaccine mis-info narratives and data deficits, monitoring social media conversations and keywords & search queries.

On this occasion Prof. Raghavendra P. Tiwari, the Vice Chancellor of Central University of Punjab, congratulated the team of Google News Initiative India, Data Leads and First Draft for conceptualizing this workshop and providing training to the youngsters of India. He added that CUPB's Dept. of Mass Communication & Media Studies is already running two inter-disciplinary courses for university students on 'Fake News & Media Literacy' and 'Debunking Fake News' to limit the spread of falsehood on the news media and social media. He expressed his hope that this Workshop would not only be helpful in reducing vaccine hesitancy but also would play a vital role in combating the Infodemic of fake news.

During the first session, Dr. Jatin Gandhi talked about Vaccine Misinformation, Narratives and Data Deficits. He referred to various case studies to highlight that vaccine misinformation not only leads to decline in

people's confidence, but also becomes a hurdle in the success of the vaccination programme of the state. To differentiate between fake and authentic information, he suggested that we should always identify the information source and search for the authenticity of information by using various fact checking tools or by visiting fact checking websites.



Dr. Jatin Gandhi



Prof. Umesh Arya

In the second session, Prof. Umesh Arya discussed strategies to monitor social media conversations in open and closed platforms. He also shared tips to gather news on social media such as creating a tip line, google keyword search etc. Prof. Arya also threw light on the common queries related to COVID-19 Vaccination. He appealed participants to always take authentic information from the official websites of WHO, CDC, MoHFW, ICMR etc and WhatsApp helpline of WHO or GOI.

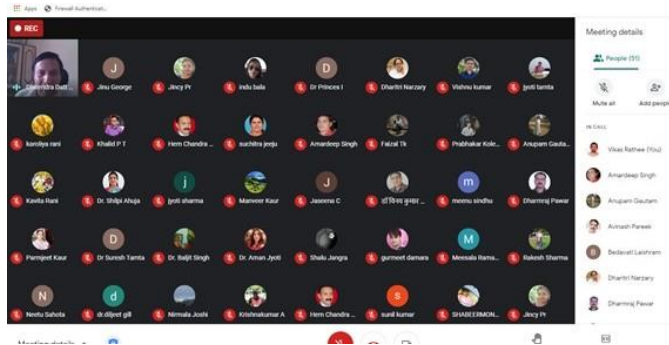
The programme was moderated by Akanksha Bathla. She complimented the Programme Coordinators Dr. Rubal Kanozia (CUPB) and Shri Saurabh Duggal (Chandigarh Press Club) for making this programme a success. Fact Checking experts, journalists, researchers, faculty and students participated in this programme through an online platform.

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NATIONAL INTERDISCIPLINARY WORKSHOPS ORGANIZED BY TEACHING LEARNING CENTRE

March 15—19, 2021: National Interdisciplinary Online Workshop by History Discipline on “Ebb and Flow: Surveying the Emerging and Declining Trends in History and Allied Disciplines”

The Teaching Learning Central (TLC) of Central University of Punjab, Bathinda (CUPB) under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized a one-week Online Interdisciplinary National Workshop sponsored by the Ministry of Education from 15th March to 19th March, 2021. The topic of the Workshop was 'Ebb and Flow: Surveying the emerging and declining trends in History and Allied Disciplines'. More than 90 faculty members from 19 different states of India participated in this workshop and got an opportunity to enhance their teaching-learning potential.



Screenshot of the Workshop

During this workshop around 18 lectures were conducted. Each day of the workshop was devoted to a particular theme, viz., History and Literature, History and Economics, History and Education, History and Archaeology & Material Culture, and History and

Environment. Eminent personalities deliberated on these themes. The distinguished speakers of the workshop were Prof. Shraddha Kumbhojkar (S.P. Pune University); Prof. Yigal Bronner (Hebrew University of Jerusalem); Prof. Sumail Singh Sidhu (Independent Scholar & Columnist); Prof. Najaf Haider (Jawaharlal Nehru University, Delhi); Prof. (Rtd.) Sukhdev Sohal (Guru Nanak Dev University, Amritsar); Prof. Ajit Sinha (Thapar Institute for Engineering & Technology, Patiala); Prof. Lakshmi Subramanian (BITS, Pilani - Goa Campus); Dr. Prabodhan Pol (Manipal Centre for Humanities); Prof. Ashish Ranjan (University of Delhi); Dr. Parimala V. Rao (Jawaharlal Nehru University); Prof. (Rtd.) Himanshu Prabha Ray (Jawaharlal Nehru University); Dr. Uthara Suvrathan (Azim Premji University, Bangalore); Dr. Pushkar Sohoni (Indian Institute of Science Education and Research, Pune); Dr. Garima Kaushik (Archaeological Survey of India, Chandigarh Circle); Prof. Mahesh Rangarajan (Ashoka University, Sonapat); Prof. Lakhwinder Singh Gill (Punjabi University, Patiala) and Prof. Dharendra Dangwal (Ambedkar University, Delhi).

Dr. Vikas Rathee, Assistant Professor, Department of History conceptualised and executed this workshop with the help and guidance of Prof. V.K. Garg (Director TLC) and Dr. Vinod Arya (TLC, Coordinator), and Prof. Kuldeep Singh (Baba Satguru Ram Singh UGC Chair Professor, CUPB).

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March 15—19, 2021: National Interdisciplinary Online Workshop by Political Science Discipline on “Mapping Vasudhaiva Kutumbakam Through the Health Diplomacy: India’s Post-Pandemic Experiences”

The Teaching Learning Centre of Central University of Punjab under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari successfully organized one-week Online Interdisciplinary National Workshop in Political Science Discipline on the topic 'Mapping Vasudhaiva Kutumbakam through the Health Diplomacy: India's

Post-Pandemic Experiences'. The Chief Guest of Inaugural Session was Prof. Sanjeev Kumar Vice-Chancellor, Mahatma Gandhi Central University, Motihari (Bihar). During the Valedictory Session, Prof. (Dr.) Kuldeep Chand Agnihotri Vice-Chancellor, Central University of Himachal Pradesh delivered Valedictory

Address. Around 37 Faculty members from different states of India participated in this workshop.

In his presidential address, Prof. Raghvendra Prasad Tiwari, the Vice Chancellor, encouraged participants to qualitatively enhance the teaching-learning process, focus on research and create new knowledge in their respective discipline.

During this workshop around 20 sessions were held in which eminent personalities deliberated on the sub-themes of the programme. The distinguished speakers of the workshop were Prof. Jagmeet Singh (Central University of Himachal Pradesh), Dr. Nishtha Kaushiki (Central University of Punjab, Bathinda), Dr. Vijay Kumar Chattu (University of Toronto, Canada), Prof. P. Rama Rao (Central University of Punjab, Bathinda), Dr. Rajesh Kumar (Guru Nanak Dev University, Amritsar), Dr. Satnam Singh Deol (Guru Nanak Dev University, Amritsar), Dr. Aslam Khan (Mahatma Gandhi Central University, Motihari), Prof. Karori Singh (University of Rajasthan), Dr. Sudheer Singh Verma (Central University of Punjab, Bathinda), Dr. Santesh Kumar Singh (Central



Screenshot of the Workshop Inaugural Session

University of Haryana), Dr. Bawa Singh (Central University of Punjab, Bathinda), and Prof. Ashutosh Kumar (Panjab University Chandigarh).

In the concluding session Prof. V.K. Garg, Director TLC, congratulated Dr. Vinod Arya (TLC, Coordinator) and Dr. Bawa Singh, Associate Dean and HoD, Department of South and Central Asian Studies and Workshop Coordinator for the successful execution of this workshop.

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March 22—26, 2021: National Interdisciplinary Online Workshop by Sociology Discipline on “Research Methodology in Social Sciences: Integrating Quantitative and Qualitative Methods”

The Teaching Learning Centre-Sociology at Central University of Punjab, under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Ministry of Education, Govt of India, conducted a one-week online workshop on “Research Methodology in Social Sciences: Integrating Quantitative and Qualitative Methods”, from 22nd March 2021 to 26th March 2021. The purpose of the workshop was to sensitize academicians towards contemporary issues and challenges in doing research in social sciences. The workshop attempted to provide a holistic outlook to 30 participants by integrating qualitative and quantitative approaches in social science research.



Screenshot of the Workshop

The five-day schedule of the workshop was based on discussions of philosophical foundations of sciences and social sciences, various methods in social sciences,

contemporary issues in pedagogical challenges in teaching social sciences and on how computing technology can be used efficiently in social science research. The workshop started with a presentation by Dr. Naresh Kumar, NIEPA, New Delhi on grounded theory and data analysis in social sciences, and was followed by two lectures by Prof. Sambit Mallick of IIT Guwahati on philosophy of sciences.

Several important topics like Quantitative research in social sciences, interview techniques, using index in social science research, on mixed method and case study method were discussed and deliberated in subsequent days. Two lectures on using literature as a source in social science research were also organized which is an emerging domain in social science. The workshop concluded with a discussion by Prof. G. Nagaraju of the University of Hyderabad who deliberated on the NEP-2020 and the pedagogical challenges it poses in teaching social sciences. Dr. Aditya Ranjan Kapoor, Programme Coordinator, informed that around 15 experts from different universities and institute of repute from all over the country were invited as resource persons for this workshop.

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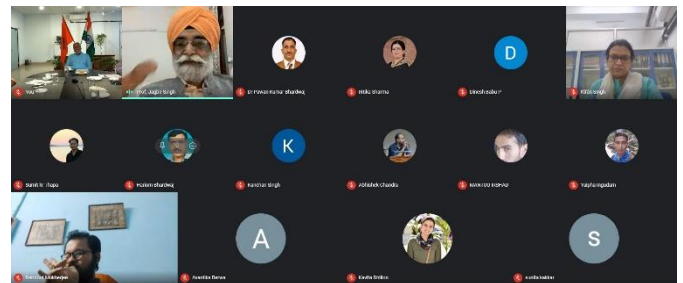
March 22—26, 2021: National Interdisciplinary Online Workshop by Literature Studies Discipline on “Teaching Fiction: Pedagogical Challenges and Prospects”

The Literature Studies Discipline of Teaching Learning Centre, under PMMMNMTT, Ministry of Education, Govt. of India, at the Central University of Punjab successfully conducted a One-Week Interdisciplinary National Workshop on “Teaching Fiction: Pedagogical Challenges and Prospects” for faculties teaching fiction in various colleges and universities from 22nd March to 26th March 2021. The workshop was inaugurated by the Honourable Vice-Chancellor, Prof. R.P. Tiwari, who reminded the participants of the significance of the National Education Policy 2020, and the role of the faculties to implement it effectively. TLC Director Prof. Vinod K. Garg welcomed the participants, and TLC co-ordinator Dr. Vinod Arya presented the achievements, aims and objectives of the TLC programme. After the inauguration, the convener of the workshop Dr. Dinesh Babu presented the purpose of the workshop and delivered a lecture on the significance of systematically and effectively teaching fiction to the young students. The first day of the workshop ended with two sessions on various ways of Teaching Indian Fiction in colleges and Universities taken by Prof. G. J. V. Prasad, Department of English Studies, Jawaharlal Nehru University, New Delhi.

The second day of the workshop started with two morning sessions on various ways of teaching short stories taken by Prof. K. Narayana Chandran, the Professor of Excellence, Department of English, University of Hyderabad. The afternoon session of the day was taken by Prof. Pramod K. Nayar, Department of English, University of Hyderabad, who deliberated on how to teach post-colonial fiction to college and university graduates. After the session, there was a practice session wherein the participants were given sample texts and asked to analyse the texts based on the ideas they learned from the lectures they listened to.

The third day of the workshop commenced with two sessions on the various ways of Teaching Graphic Fiction to graduates taken by Prof. Abhijit Gupta, Department of English, Jadavpur University, Kolkata. The afternoon session of the third day was taken by Prof. Nandini Saha, Department of English, Jadavpur University, Kolkata, who deliberated on how to teach post-modern fiction to college and university graduates.

The fourth day of the workshop began with two morning sessions on various ways of teaching fiction taken by Prof. Manju Jaidka, former Professor of English, Panjab University, Chandigarh and currently the Head of the Department of English at Sahoo University. The next session was taken Prof. K. Suneetha Rani, Centre for Women’s Studies, University of Hyderabad, who deliberated on the nuances of Teaching Indigenous Fiction and Women’s Fiction. The afternoon sessions of the fourth day was taken by Prof. Raj Kumar, Head of the Department of English at Delhi University, who deliberated on how to teach Dalit fiction to college and university graduates.



Hon'ble Chancellor Prof. Jagbir Singh addressing the participants during the Valedictory Session of Workshop

The fifth day of the workshop opened with two sessions on the various ways of Teaching Canadian and commonwealth fiction to graduates taken by Prof. H. Kalpna Rao, Head of the Department of English, Pondicherry University. After this session, there was a practice session wherein the participants were given sample texts and asked to analyse the texts based on the ideas they learned from the lecture they listened to. The afternoon Session was devoted to sharing each other the ideas learned from the workshop wherein all the participants spoke and their assignments and practice sessions were evaluated and feedbacks were given. The valedictory session was attended by the honourable Vice-Chancellor Prof. R. P. Tiwari, TLC Coordinator Dr. Vinod Arya and other co-ordinators of TLC along with the participants of the workshop, and the honourable Chancellor of the Central University of Punjab, Prof. Jagbir Singh was the Chief Guest. Altogether 36 faculties from 15 states participated in the workshop.

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March 22—26, 2021: National Interdisciplinary Online Workshop by Environmental Studies Discipline on “Climate Change and Environmental Sustainability”

The Teaching Learning Centre (TLC) at the Central University of Punjab, Bathinda (CUPB) organized the Ministry of Education sponsored Faculty Development National Workshop on the theme of “Climate Change and Environmental Sustainability” in Environmental Studies disciplines from 22nd to 26 March, 2021. Prof. Raghavendra P. Tiwari, the Vice Chancellor of the university, delivered the inaugural address during the joint opening session of these workshops. These workshops enriched 43 academicians from eight disciplines of 34 Premier institutes and universities of 10 States and 2 Union Territories of India.



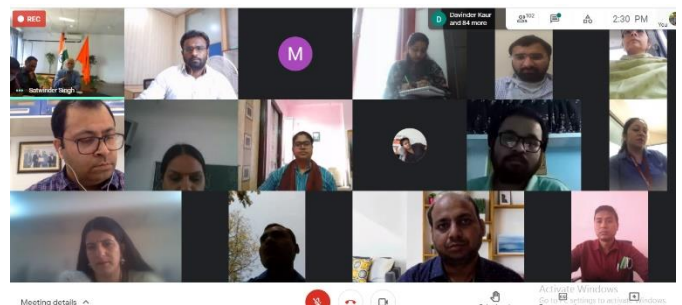
CUPB Vice Chancellor Prof. R.P. Tiwari attending the Inaugural Session with TLC programme coordinators

While introducing the Workshop theme Dr. Yogalakshmi K.N., Programme Coordinator, stated that the purpose of choosing the theme on climate change and environmental sustainability is that ‘Climate change’ has been gaining alarming momentum across the globe for decades. We are evidencing it through key indicators, such as global land and ocean temperature increases; rising sea levels; ice loss at Earth’s poles and mountain glaciers; frequency and severity changes in extreme weather such as hurricanes, heatwaves, wildfires, droughts, floods and precipitation; cloud and vegetation cover changes, ecosystem and biodiversity losses and many more. The impact that they are creating on the environment is very threatening. She added, according to the latest research from the Intergovernmental Panel on Climate Change (IPCC), we have less than 11 years to make the transformation necessary to avoid the worst impacts of climate change. The level of carbon dioxide in the atmosphere would have to be cut by 45 per cent by 2030 to prevent the rise in global warming above a temperature of 1.5 degree celsius. Thus, it is high time that urgent action is taken to combat the impacts of

climate change. Even the sustainable Development Goal 13 (SDG 13) aims to “take urgent action to combat climate change and its impact.

In his presidential address Prof. Raghavendra P. Tiwari highlighted that Environmental Sustainability can help combat and minimize the threatening impacts of climate change. Managing the resources in a sustainable way and causing limited pollution is the key mantra to combat climate change. He asserted that a capacity building platform for academicians of various disciplines was the need of the hour to increase the awareness about climate change and expressed his hope that this Workshop will serve the purpose by enhancing teaching learning potential of young faculty working in environment science discipline.

The workshop focused on the Expert lectures on climate change and environmental sustainability: Climate change science: global to regional level, Air pollution and its impact on climate change, impact of climate change on agriculture, hotspots of biodiversity (Himalayas and Western Ghats) of India, water resources and conservation, water foot print, climate change mitigation through carbon dioxide utilisation, carbon concentration in algae and cleaner production, sustainable development goals, assessment and remediation of contaminated sites, removal of pharmaceutical pollutants, solar energy overview in India and monitoring sustainable indices. The lectures were delivered by eminent scientists and academicians from premier organisations/ institutes and Universities across the globe.



Screenshot of the Workshop

In the concluding session Prof. Vinod K. Garg, Director, TLC, mentioned that this workshop served as a platform for participants to clarify their doubts and discuss the innovative ideas to achieved environmental sustainability. He added, that the learning taken from this workshop will be helpful to participants to conduct new research and spread awareness on climate change.

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March 27—31, 2021: National Interdisciplinary Online Workshop by Economics Discipline “Making Indian Economy Self-Reliant: Challenges and Opportunities”

The Teaching Learning Centre (TLC) at Central University of Punjab, Bathinda (CUPB) under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari successfully organized the Ministry of Education sponsored 19th National Faculty Development Workshop in Economics discipline. The workshop entitled “*Making Indian Economy Self-Reliant: Challenges and Opportunities*” was conducted under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) from 27th to 31st March, 2021. About 46 participants representing 15 states of India in the areas of economics, commerce, sociology, management, law, agri-business, food technology etc. participated in the workshop through online mode.



Vice Chancellor Prof. R.P. Tiwari and CUPB TLC Organizing Team attending the Workshop

The Chief Guest of the Inaugural and Valedictory Session was Prof. A.D.N. Bajpai, Vice Chancellor, Bilaspur University, Chhattisgarh and Prof. Bhagwati Prakash Sharma, Vice Chancellor, Gautam Buddha University, Noida respectively. They stressed on the need for the philosophy of self-reliance for Indian economy and highlighted the importance of technological self-

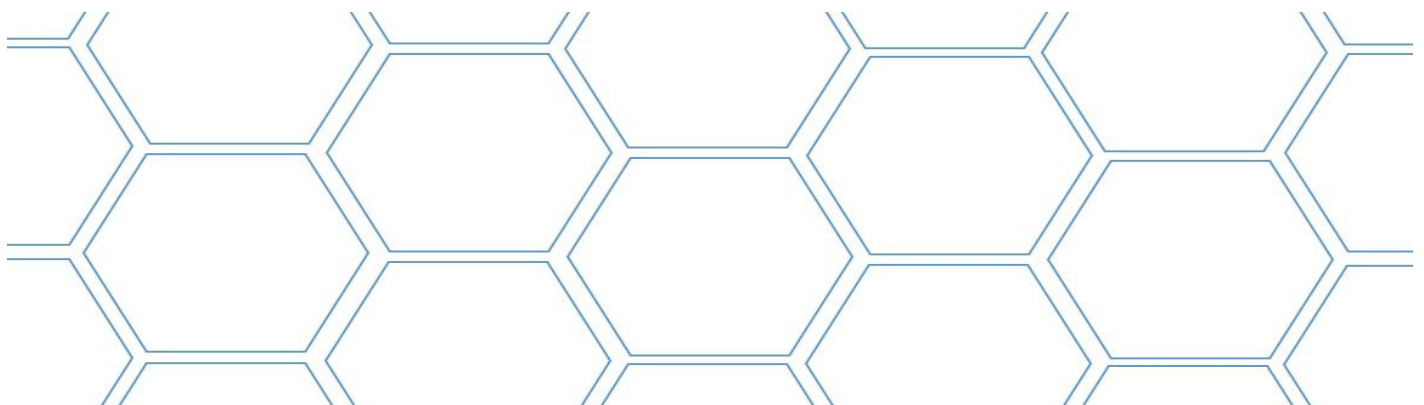
reliance, economic patriotism, development of indigenous technologies, techno-nationalism etc. for Self-Reliant India.

While presenting the programme report during the valedictory session, Dr. Naresh Singla, Workshop Coordinator, shared that during this workshop resource persons from eminent institutions & universities addressed the participants on the issues of artificial intelligence, agri-startups, development of dairy sector, women entrepreneurship. He added that the workshop has served its objective to enhance the teaching-learning potential of young faculty members.

In his presidential address, Vice Chancellor Prof. R.P. Tiwari pointed out that the combination of three attributes Skill Development, Entrepreneurship, and Innovation can make our youth competent. He stressed on the need to find innovative solutions which could reduce our consumption of natural resources and create intellectual capital to realize the mission of AtmaNirbhar Bharat.

During the concluding session of this workshop, Dr. Vinod Arya, TLC Coordinator, while presenting the TLC Program Report informed that during the month of March, 2021, the CUPB TLC has organized six National Workshops in History, Political Science, Environmental Studies, Literature Studies, Sociology and Economics discipline. He added that during these workshops around 250 faculty members from 23 states of India participated and developed their teaching learning potential. Prof. V.K. Garg, Director TLC, appreciated the efforts of organizing teams and complemented participants for their sincere participation.

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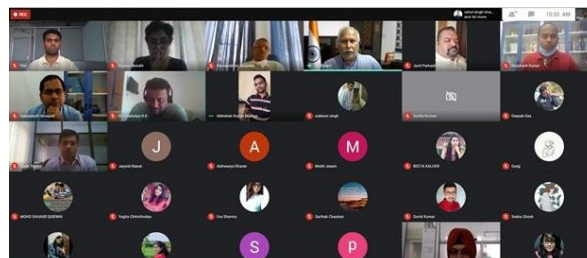
MAJOR WORKSHOPS

March 30, 2021: Central University of Punjab organized Interdepartmental Workshop on ‘Basics of Next Generation Sequencing and Protein Modelling’

Central University of Punjab, Bathinda (CUPB) under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized an Interdepartmental Workshop on “Basics of Next Generation Sequencing and Protein Modelling”. Faculty, research scholars and students from different departments of the university participated in the workshop.

In his presidential address, Prof. Raghavendra P. Tiwari emphasized on the importance of skill development program and enlightened the audience that skill development program has given high importance in NEP 2020. He asserted that CUPB is committed to organize such programmes at regular intervals to develop necessary skills among youngsters and to actualize the mission of ‘AtmaNirbhar Bharat’.

The programme began with the Welcome Address by Prof. R.K. Wusirika, Dean Incharge Academics, where he stated that these kinds of programmes are important for developing student’s critical thinking and problem-solving ability. Prof. Anjana Munshi, Dean Research, mentioned that the analysis and explanation of big



Screenshot of the Programme

databases such as 'Human Disease Database' would enable us for the development of better drugs.

This one-day Workshop features two modules where participants were given training on Next Generation Sequencing and Protein Modelling & Docking. The expert speakers of this workshop were Dr. Vivek Thakur (University of Hyderabad), Dr. Devender Kaur (CUPB), Dr. Arti Sharma (CUPB), Dr. Narender (CUPB) and Mr. Dushyant Reddy (CUPB).

Towards the end, Dr. R. K. Chaitanya expressed his gratitude towards the invited speakers and thanked the participants for their sincere participation.

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May 11—12, 2021: CUPB organized a two-day Cloud-based Hands-on Workshop on Computational Structure-based Screening and Explicit Molecular Dynamics

The Department of Pharmaceutical Sciences and Natural Products at Central University of Punjab, Bathinda (CUPB) under the patronage of Hon’ble Vice Chancellor, Prof. R. P. Tiwari and Schrodinger, India jointly conducted a two-day cloud-based hands-on workshop on ‘Computational Structure-based Screening and Explicit Molecular Dynamics’ on May 11—12, 2021. The objective of this programme was to provide training on structure-based drug designing, design drug molecules and develop cure of various diseases. Around 131 participants working in the area of computer-aided drug discovery participated in the programme.

Prof. Raj Kumar, Dean, and Head, Department of Pharmaceutical Sciences and Natural Products welcomed the participants and explained the contribution of Schrodinger software in Drug Discovery. Prof. P. Ramarao, Former Dean Academic Affair, CUPB

explained the importance of computational modelling for drug repurposing and drug discovery.

Mr. Raghu Rangaswamy, Vice President Schrodinger, India discussed the latest trends of computer-aided drug discovery. He also explained the role of Artificial Intelligence and Machine Learning in drug discovery. He informed that during this workshop, the participants would get practical experience and guidance in using the Maestro GUI, covering the organic molecule sketching, protein selection, preparation, and screening for hit identification of molecules against therapeutic targets.

Dr. Prithesh Bhatt, Senior Scientist, Schrodinger explained the detailed Computer-Aided Drug Design (CADD) process including target identification and various drug discovery processes.

This two-day hands-on workshop included brief sessions of background theory for Molecular Mechanics, Molecular Docking, and Molecular Dynamics via case studies on the real-time industrial projects. During this programme, the participants were given hands-on

training on Schrodinger Virtual Workstation and training on the latest modules of Schrodinger's CADD Software.

UNIVERSITY EVENTS

April 14, 2021: Central University of Punjab organized Webinar on 'Atma-Nirbhar Bharat and Babasaheb Dr. Bhimrao Ambedkar'

On 130th Birth Anniversary of Nation Builder Bharat Ratna Babasaheb Dr. Bhimrao Ambedkar, Central University of Punjab under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized a Webinar on 'Atma-Nirbhar Bharat and Babasaheb Dr. Bhimrao Ambedkar'. The keynote speaker of this Webinar was Prof. Sushma Yadav, Vice Chancellor, Bhagat Phool Singh Mahila Vishvidyalaya, Sonapat, Haryana.

The programme commenced with the Welcome Address by Dr. Vinod Arya, programme coordinator, where he mentioned that Babasaheb Ambedkar was the Nation Builder, Father of Indian Constitution, acclaimed economist, legendary statesman and a great social & political reformer. He discussed the programme theme and introduced the keynote speaker to the participants.



Prof. Sushma Yadav addressing the participants

Prof. Sushma Yadav in her keynote address threw a light on Babasaheb Ambedkar's Academic Career. She shared that Dr. Ambedkar was a scholar of Law, Economics, Political Science, History, Sociology and Anthropology subjects. She added that Dr. Ambedkar gave the concept of socio-economic equality and justice for all for the new India. She stressed that Babasaheb fought throughout his life for the self-representation mechanism of every citizen and specifically for the rights of the marginalized communities. As a chairperson of the Constitution Drafting Committee, Dr. Ambedkar provided the best

constitution to the new India that provides democratic government and a wide range of civil liberties to the citizens of India.

The Keynote Speaker Prof. Sushma Yadav emphasized that the concept of 'Atma-Nirbhar Bharat' envisioned by Hon'ble Prime Minister Shri Narendra Modi Ji is the extension to the realization of the dream of Babasaheb Ambedkar to build a nation where everyone is self-dependent and not self-centric. She highlighted that to realize this dream our nation will have to undergo incremental change in building infrastructure, developing indigenous technology, shaping skilled vibrant demography, utilizing demand and production equation, and generating liquidity. She shared various government schemes targeted towards making a Self-Reliant India which are conceptualized on the ideology of Babasaheb Ambedkar i.e. Equality, Social Justice, Liberty, Fraternity and Mobility. She asserted that the contributions of Babasaheb Ambedkar will play a pivotal role in making India a powerful nation where citizens with scientific temperament will be connected to the ethos of Vasudhaiva Kutumbakam and Sarve Bhavantu Sukhinah.

In his presidential remarks, Vice Chancellor Prof. Raghavendra P. Tiwari stated that Dr. B.R. Ambedkar was a great humanist who put forward significant thoughts of democracy, equality, dignity, and social justice. He pointed out that the vision of Social and Economic Equality can be achieved when we minimize all inequalities and build an ecosystem of rational thinking and disruptive technology. Prof. Tiwari also highlighted that we should work for building more integrated & cohesive society for nation building. He expressed that the best tribute to Babasaheb Ambedkar is to follow his ideas, respect everyone's right and work towards making our country self-enlightened i.e. Prabudh Bharat.

Towards the end, Prof. R.K. Wusirika, Dean Incharge Academics, gave the formal vote of thanks. CUPB faculty, staff, scholars, students, and persons from

across the country, from different institutions virtually attended this programme.

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April 22, 2021: Central University of Punjab organized International Quiz & Lecture by Padma Shri Prof. Harsh K. Gupta to mark Earth Day 2021

The Dept. of Geology at the Central University of Punjab, Bathinda (CUPB) under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari celebrated the International Earth Day by organizing an International Quiz and a special lecture on ‘How to develop an Earthquake Resilient Society’. The keynote speaker of this programme was internationally acclaimed Geophysicist Padma Shri Prof. Harsh K. Gupta, President, Geological Society of India, Bangalore.

Around 3175 participants of different age groups from almost all states of India and 10 foreign countries took part in the ‘International Mother Earth Quiz’. Total 30 questions were asked on the topics of Sustainability, Climate Change, Planet Earth and Biodiversity during this Quiz Competition moderated by Dr. Felix Bast, Department of Botany. Mr. Jayakrishnan V.M. (Kerala), Mr. Honey Kumar (Punjab) and Mr. Suraj Sharma (Delhi NCR) secured the first, second and third positions respectively in this competition, which aimed to spread awareness about making earth a better place to live.

no accurate mechanism to predict earthquakes and with the increasing urbanisation it is very important to develop Earthquake Resilient Society to reduce the causality and loss of infrastructure in any uncertain natural calamity. He stressed on the need to strictly implement Disaster Risk Reduction protocol in urban areas to make development projects insulated from disasters. During his address, Prof. Gupta also discussed the initiatives of National Disaster Management Authority, GOI in sensitizing about the consequences of large earthquake scenarios in Himalayan Region, facilitating mainstream earthquake management in state governments and spreading awareness by conducting mock drills & school sensitization programmes in earthquake vulnerable states.



Padma Shri Prof. Harsh K. Gupta delivering keynote address

In his keynote address, Padma Shri Prof. Harsh K. Gupta shared the details of the earthquakes that occurred in the last few centuries and highlighted that despite scientific & technical developments, the impact of earthquakes / tsunamis keeps increasing in 21st century by citing examples of Muzaffarabad Earthquake in 2005, Haiti Earthquake in 2010 and others. He informed that the Himalayan region was the most active recipient of severe earthquakes and three out of the seven most devastating earthquakes of the 21st century (with magnitude of 7 and above) had occurred in and around the Indian subcontinent. He stated that till now there is



Vice Chancellor Prof. Tiwari and faculty members attending the programme

Vice Chancellor Prof. Raghavendra P. Tiwari mentioned that Prof. Gupta is one of the greatest scientists in the field of Seismology and this is a great opportunity for our students to listen to and interact with him. He stated that over the last few decades our mother earth is turning out to become an unsuitable place to live due to the ‘More is Less’ paradigm of modern human civilization against the ‘Less is More’ paradigm of ancient Indian civilization discourse. He emphasized on the need for adoption of sustainable development means i.e. natural processes and emerging green technologies to preserve all the spheres of planet earth such as Biosphere, Lithosphere, Hydrosphere and Atmosphere. He appealed to everyone to put their efforts into “Restore our Mother Earth”, which is the theme of ‘International Earth Day 2021’. He further stated that since earthquakes cannot be predicted and these will continue to occur in future, the only option available

with mankind is to learn to live with this natural disaster through the adoption of 'Earthquake Resilient Society Model'.

Faculty, research scholars and students from different institutions across the world virtually attended this programme.

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March 12, 2021: Central University of Punjab CUPB celebrated 400th Prakash Purab of Sri Guru Tegh Bahadur Ji

- **Webinar on 'Guru Tegh Bahadur: Savior of Dharma' organized at CUPB to mark the pious occasion**

To commemorate the 400th Prakash Purab of Sri Guru Tegh Bahadur Ji, the Ninth Guru of Sikhs, Central University of Punjab, Bathinda (CUPB) organized Webinar on 'Guru Tegh Bahadur: Savior of Dharma'. Baba Satguru Ram Singh Chair established at CUPB conducted this programme under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari. The keynote speaker of this Webinar was Prof. Harpal Singh Pannu, Chair Professor, Sri Guru Gobind Singh Ji Chair. Faculty and students from different institutions attended this webinar.

In his Welcome Address Prof. Kuldip Singh, Chair Professor, Baba Satguru Ram Singh ji Chair, shared that Sri Guru Tegh Bahadur Ji travelled long distances to different parts of the country to preach the teachings of Sri Guru Nanak Dev Ji and to spread the message of service towards humanity. He emphasized that the preaching of the ninth Sikh Guru is relevant for all times and it will continue to guide our society to rise above their religious differences and live together peacefully.

The Keynote Speaker Professor Harpal Singh Pannu, talked about the initial life of Tyag Mal (the name with which Tegh Bahadur was known in childhood) and highlighted that after seeing his valour in a battle against the Mughals in Kartarpur, Guru Hargobind gave him the name of Tegh Bahadur. He underlined the incidents of finding the ninth Guru at Baba Bakala by Makhan Shah Lubana as an important event in the history of Punjab, India, and humanity altogether. Prof. Pannu pointed out that due to the commitment towards the service of humanity, Guru Tegh Bahadur expressed his happiness

through a letter on the birth of his son and named him 'Gobind Rai'. He highlighted that Sri Guru Tegh Bahadur is popularly known as 'Hind Di Chadar' for his brave



Photo Collage of VC Prof. rp Tiwari, Keynote Speaker Prof. HS Pannu and Programme Convener Prof. Kuldip Singh

sacrifice to protect the religious freedom of Hindus from Mughal oppression and to save the society from injustice and cruelty. Prof. Pannu called Guru Tegh Bahadur as the 'Saviour of Dharma' of the entire universe for righteousness, truthfulness, and true service towards humanity.

Professor Raghavendra P. Tiwari, the Vice Chancellor of the Central University of Punjab, in his Presidential remarks paid a tribute to the revered Guru whom he called as one of the great saints of the sacred land of India. Prof. Tiwari urged the participants to follow the footprints of the Great Guru to live a meaningful life and contribute towards the progress and growth of the nation, which is the need of the hour.

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May 22, 2021: Central University of Punjab celebrated International Day of Biodiversity

The faculty and students of Central University of Punjab, Bathinda (CUPB) paid tribute to the great Indian environmentalist and father of Chipko Movement Mr. Sunderlal Bahuguna who passed away recently, during a special event held on the occasion of United Nations International Biodiversity Day. CUPB Dept. of Botany organized this programme, which included an Invited Lecture and an International Quiz Competition.

On this occasion, Prof. Raghavendra P. Tiwari, the Vice-Chancellor, paid tribute to Padma Vibhushan Sunderlal Bahuguna and highlighted the contribution he has made to promote environmentalism in our country. He stated that Shri Sunderlal Bahuguna emphasized on the conservation of biological resources of our country that are diminishing due to destruction of natural habitats, deforestation, environmental degradation, climate

change and poaching. As four of the world's 36 biodiversity hotspots are situated in India, our country harbours a vibrant biological diversity, and it is our collective responsibility to preserve nature by adopting a sustainable lifestyle, he added.

Prof. Tiwari also shared the importance of afforestation and highlighted the efforts made by the Central University of Punjab in this direction. A well-planned heritage garden, "Griha, Nakshatra and Rashi Vatika", has recently been inaugurated on the campus. Central University's campus at Village Ghudda has 500-acres of lush green lands that houses more than 40,000 trees that the university is committed to preserve. Additionally, the University is still planting commercial and fruit-bearing plants for enriching biodiversity in the campus. The campus also has rich biodiversity with wild rabbits, nilgais and monitor lizards. The University's Botanical Garden, supported by a major grant from the Ministry of Environment and Forests, is currently under landscaping.

The Invited speaker of the programme was Dr. Manoj Prasad, Scientist VII, NIPGR, New Delhi. He delivered a talk on the topic 'Feeding the 10 Billion: A Genomics perspective'. In his address, Dr. Manoj Prasad emphasized the importance of preserving and cultivating neglected crops, especially finger millets. Humanity has an exceptionally long history with the



Dr. Manoj Prasad

cultivation of millets that predates rice by more than 4000 years. Millet is a nutritional powerhouse with complex

polysaccharides and proteins and has been part of India's rich traditional food culture for thousands of years. However, the current fancy with fast food culture and white rice has completely overshadowed this superfood.

The program also included an International Quiz Competition, with more than 1500 participants from all over the world. Questions were on the theme "Biodiversity: We're part of the solution". Abhijit Nayak (Dadra and Nagar Haveli and Daman & Diu), Bharti (Punjab), Deepak Das (Odisha) won first, second and third positions, respectively. Prof. Tiwari and Dr. Prasad congratulated all the winners as well as the participants.

The program was conducted by Dr. Felix Bast. A large number of teachers and researchers from the Department of Botany as well as teachers and researchers from various departments of the University participated in this program.

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May 30, 2021: CUPB organized National Seminar on National Security, Human Rights, Maharana Pratap and Gita

Central University of Punjab, Bathinda (CUPB) under the leadership of Vice Chancellor, Prof. Raghavendra P. Tiwari organized a national webinar on the theme 'National Security, Human Rights, Maharana Pratap and Gita' (Rashtriya Suraksha, Manvadhikar, Maharana Pratap and Gita) on 30 May, 2021.

During this programme, eminent academicians enlightened the participants on the webinar theme. Prof. Rajneesh Kumar Shukla, the Vice Chancellor of Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha (MGAHV, Wardha) graced the occasion as the Saraswat Guest. The Chief Guest and Distinguished Guest of the programme were Prof. Sushma Yadav, the Vice Chancellor of Bhagat Phool Singh Mahila Vishwavidyalaya, Sonipat and Dr. Rajender Pensiya, IAS respectively. Shri Ram Krishan Goswami, the Founder President of Bhartiya Charitra Nirman Sansthan, Delhi delivered the Prastavik Evam Beej Vaktavya in this programme.



Group Photograph of Prof. R.P. Tiwari, Prof. Sushma Yadav, Prof. Rajneesh Shukla, Shri Ram Krishna Goswami and Dr. Rajender Pensiya

The National Webinar commenced with the inaugural lecture by Shri Ram Krishan Goswami. While addressing the participants, Shri Ram Krishan explained the concept of 'National Security' and 'Human Rights'. He stated that 'Shrimad Bhagavad Gita' has taught us to follow the path of dharma, meditation for self-realization and disciplined life. He highlighted that being inspired by the teachings of holy scripture Gita, Maharana Pratap protected his state from the atrocities of Akbar and worked towards the promotion of human rights. He stressed that we would need to ensure 'justice for all' while formulating any policy to achieve the bigger objectives. He emphatically drove the point that human rights should be only for those who respect and tread into the path of humanity.

Distinguished Speaker Dr. Rajender Pensiya (IAS) stated that the story of Maharana Partap's bravery had become a major source of inspiration for many in the world to fight against injustice. He shared that Maharana Pratap was considered the first freedom fighter in the Indian History who fought against Mughal Empire. He also emphasized that the younger generation need to take lessons from Maharana Partap's life and work for the protection of human rights along with national security.

The Saraswat Atithi, Prof. Rajnish Shukla, Vice Chancellor, MGAHV, Wardha stated that whenever the struggle takes place between Dharma and Adharma, consequently, the question of national security and human rights become very apt to be discussed in the prevailing scenario. In order to resolve these issues, we can seek guidance of 'Shrimad Bhagavad Gita'. He added that the soul of India lies in our ancient cultural values such as truth, affection, kindness, sacrifice etc. By following these cultural values, the national security and human rights can be ensured at the national level. Prof. Shukla mentioned that people remembered Maharana Pratap as he fought for the cause of protection of human rights & nation security of his countrymen.

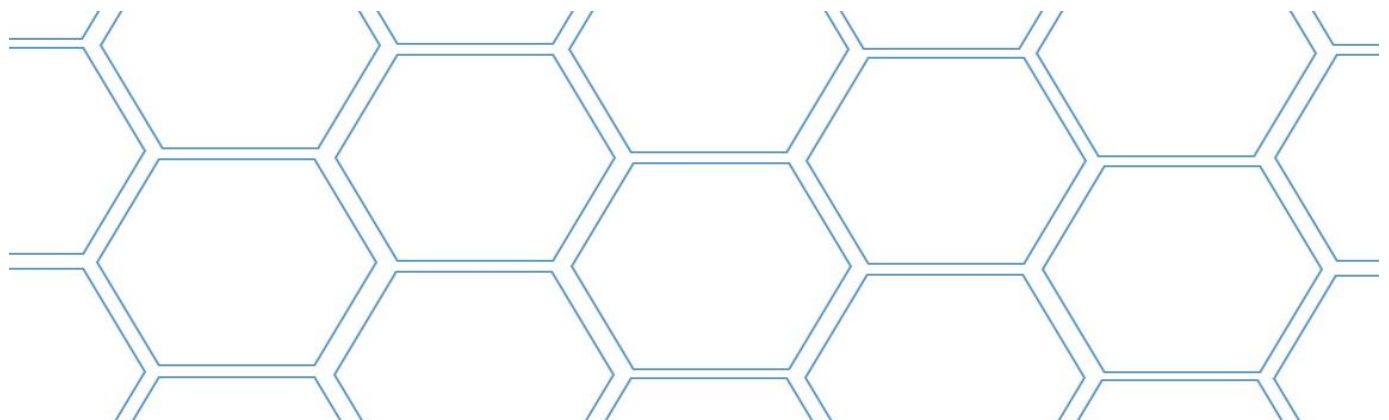
The Chief Guest of the programme, Prof. Shushma Yadav, Vice Chancellor, BPSMV, Sonipat during her

lecture focused on the principle of 'Dharma and Karma', the broader concept of 'Human Rights' and 'Patriotism' in Indian cultural context. She underlined that Gita, Ramayana, Rigveda and other holy scriptures have guided us about the qualities of a good human being, following which can ensure protection of basic human rights to all. She stated that national consciousness acts as a base behind patriotism. Under the leadership of Maharana Pratap each soldier of his army fought the Battle of Haldighati (1576) and Battle of Dewair (1582) like a warrior. She added that the selfless service of Maharana Pratap to protect his motherland and humanity will always inspire our future generations.

In his presidential address, Professor Raghvendera P. Tiwari, the Vice-Chancellor of Central University of Punjab, accentuated that India's core strength lies in its unity in diversity and traditional knowledge system emanating from the Saints, Sages, Ten Gurus, and social reformers who have given us the virtues of Vishwa Bandhutva, Vasudhaiva Kutumbakam and Sarve Bhavantu Sukhinah. He underlined that our cultural traditions, civilizational discourse and ancient scriptures have taught us to respect each other's rights in dignified manner and live-in harmony with nature. To accomplish the mission of Maharana Pratap in the present-day context, Prof. Tiwari urged upon the younger generation to become aware of India's rich culture and tradition in various facets of life and thereby derive strength to take our civilization discourse to higher pedestal. Love and respect for the motherland is pre-requisite for ensuring national security and human rights, and 'Bhagwat Gita' is undoubtedly the source of Raj Dharma and Nagrik Dharma.

The programme was virtually attended by faculty and students of the university. Faculty, students and social reformers from Punjab, Madhya Pradesh, Mizoram, Orissa and other states also participated in this programme through online mode.

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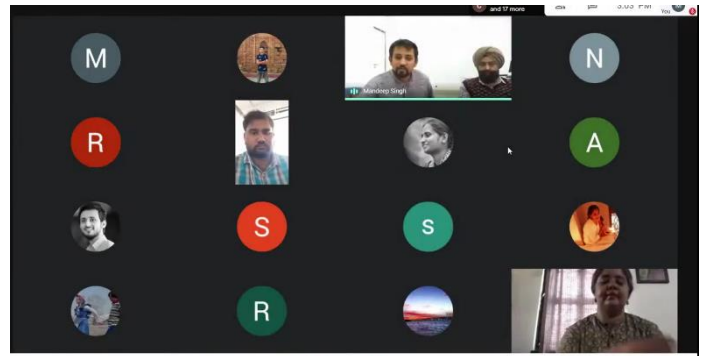
WEBINARS & SYMPOSIUMS

March 3, 2021: CUPB Dept. of History organized a Webinar on 'Deindustrialization in 19th Century Indian Economy: Myth or Reality?'

The Department of History, Central University of Punjab Bathinda (CUPB), under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized a Webinar on 'Deindustrialization in the 19th century Indian Economy: Myth or Reality?'. The Keynote Speaker of this programme was Dr. Rachna Singh, Department of History, Hindu College, University of Delhi.

While addressing the participants, Dr. Rachna told the audience about how different historians have understood the Indian economy of the 19th century from different perspectives. She put a light on how the economic history of Colonial India has been studied and raised the question of whether the data and sources available to historians are sufficient to draw meaningful conclusions in this regard. In her lecture, Dr. Rachna described how socio-cultural life and economy are linked to each other. She stated that Economic History was a theme on which a lot of research was done till the 1990s but over the last two decades this field has

become less important. She emphasized that young researchers need to know whether the state policy or



Screenshot of the programme

the free market could independently shape the economy of a country.

The webinar was attended by students, research scholars and the faculty of the university.

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March 11, 2021: CUPB Dept. of South and Central Asian Studies organized an Expert Lecture on 'South Asian Security Scenario'

The Dept. of South and Central Asian Studies of the Central University of Punjab under the patronage of the Vice Chancellor Prof. Raghavendra P. Tiwari has organized an expert lecture on 'South Asian Security Scenario: Terrorism'. The keynote speaker of this programme was Prof. Sanjay Kumar Jha, Dean, School of National Security Studies, Central University of Gujarat.

The main focus of Prof. Sanjay Kumar Jha's discussion was on the security scenario in the South Asian region with a special focus on terrorism. He discussed the traditional and non-traditional security threats which have been haunting the South Asian region. He provided a comprehensive analysis of terrorism from various perspectives and pointed out that the South Asian region is one of the highly terrorism infested regions. He also discussed the various forms of terrorism in the region and stated that in the last couple of decades,

terrorism has been used as a tool to achieve the political objectives by the government of different countries in terms of proxy wars, separatist movements and insurgency attacks. He stated that global data of violence showcased that South Asia remains the most affected region in the last few decades and terrorism has remained one of the serious challenges for the peace, stability and security of South Asia. He suggested that the security of the state should be seen from the broader perspective of human security and reiterated that states should join hands for international cooperation to ensure a peaceful atmosphere.

Faculty, research scholars and students from different departments of the university attended this programme.

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April 7–12, 2021: CUPB Dept. of Microbiology organized two Invited lectures under Webinar Series ‘Recent Trends in Microbiology’

To disseminate the knowledge on the latest advancements in the field of microbiology and to promote quality of research, the Dept. of Microbiology of the Central University of Punjab, Bathinda (CUPB) under the patronage of Hon’ble Vice-Chancellor Prof. Raghavendra P. Tiwari organized two Invited Lectures under the Webinar Series on ‘Trends in Microbiology’. The invited speakers of these webinars were Prof. Alfredo G. Torres, University of Texas Medical Branch, Texas, USA and Dr. Soumen Basak, National Institute of Immunology, New Delhi, India.



Prof. Alfredo G. Torres

In the first lecture, Prof. Alfredo G. Torres, The Herman Barnett Distinguished Professor, Department of Microbiology and Immunology, University of Texas Medical Branch, Texas delivered a talk on the topic “Developing protective gold nanoparticle glycoconjugate vaccines against bacterial pathogens”. He shared details on the two major pathogens *Burkholderia* and *Escherichia coli* on which his lab is working with the goal of deciphering host immune responses triggered during an infection that can guide in the development of

effective vaccines. He also discussed the various bioinformatic tools and parameters for effective vaccine designing.



Dr. Soumen Basak

In the second lecture, Dr. Soumen Basak, Senior Scientist, Systems Immunology Laboratory, National Institute of Immunology, New Delhi shared his views on the topic ‘RNA viruses and NF-kappaB signaling: Friends

or Foe’. He talked about the NF-kappaB pathways in Chandipura and Chikungunya viruses and its role in establishing viral infections.

The lecture was followed by discussion and Question & Answer Session wherein the students shared their queries with expert speakers. Faculty, scholars and students of the university attended these lectures through an online platform.

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April 9--16, 2021: CUPB Dept. of Pharmacology and Dept. of Pharmaceutical Sciences & Natural Products organized a Webinar on “Integrity in Scientific Research” and ‘Zebrafish: A real-time Experimental Model’

The Dept. of Pharmacology and Dept. of Pharmaceutical Sciences & Natural Products of the Central University of Punjab (CUPB) Bathinda under the patronage of Vice-Chancellor Prof. Raghavendra P. Tiwari organized two Webinars to promote awareness about Integrity in Scientific Research and New Possibilities in Biomedical Research.

The Invited Speakers of this Webinar Series include renowned scientist Prof. Shyam S. Sharma, Department of Pharmacology and Toxicology, National Institute of Pharmaceutical Education and Research (NIPER), S.A.S. Nagar and Dr. Damanpreet Singh, Senior Scientist, Pharmacology and Toxicology Laboratory, CSIR- Institute of Himalayan Bioresource Technology, Palampur.

Prof. S.S. Sharma, the first speaker, deliberated on the topic “Integrity in Scientific Research: Guidelines and



Prof. Shyam S. Sharma

Strategies to Foster Integrity”. He discussed the misconduct in research like fabrication, falsification, plagiarism etc, and talked about the other forms of violations of good research practice like sale and purchase of articles, manipulating authorship, publishing in predatory journals, misuse of different materials etc.

He talked about the role of International and Indian Agencies to foster integrity in research through plagiarism software and various digital libraries like Shodh Ganga, ORCHID.etc. He encouraged young researchers to follow the rules to ensures research ethics and focus on quality research work



Dr. Damanpreet Singh

Dr. Damanpreet Singh, the second speaker dwelled on the topic of 'Zebrafish (Danio rerio): A real-time Experimental model of Biomedical Research'. He discussed the role of experimental animals in the drug discovery process and enlightened the audience about the increase in the use of Zebrafish in research as an alternative to animal experiments in the last few years. He explains the advantages of using Zebrafish in pharmacology experiments as compared to rodents, and discussed the features of original zebrafish species and breeding techniques for research purposes. He highlighted various Zebrafish models developed in his

lab in IHBT, Palampur such as epilepsy in larva and adult fish, and how we can assess the activity by using various equipment. In the end, Dr. Singh requested the researchers to follow the guidelines issued by the CPCSEA for the use of Zebrafish in experimental pharmacology.

Vice-Chancellor Prof. Raghavendra P. Tiwari expressed his gratitude towards the keynote speaker for delivering scholarly lectures. The coordinator of these programmes was Dr. Puneet Bansal, Head, Dept. of Pharmacology. CUPB faculty, research scholars and students attended these lectures through an online platform.

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April 27, 2021: CUPB observed Int. Day of Immunology by organizing a Symposium on the topic ' Coronavirus Disease: What we know and what we do not know'

To commemorate the International Day of Immunology, the Department of Biochemistry of the Central University of Punjab in collaboration with the Indian Immunology Society (IIS) and Young Academy of India (YAI) organized a series of events centred on the theme: "Coronavirus Disease: What We Know and What We do not Know". The programme that was conducted under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari featured three enlightening lectures by Prof. Narinder K. Mehra, Emeritus Scientist, ICMR, New Delhi, Prof. Sunil Arora, PGI, Chandigarh & Dr. Amit Awasthi, THSTI, Faridabad on the topics such as Dynamics of Coronavirus, Immunology of Coronavirus disease and COVID-19 Vaccines.

In addition to this, a series of interactive events such as special COVID-19 Quiz, Poster Making, and IdeaHunt competitions were conducted on this occasion. A total of 1086 participants registered in the COVID-19 Quiz from almost all over India and other countries such as USA, Bahrain, Germany, Afghanistan, Egypt, Nepal, Singapore etc. Along with this, students & scholars from different schools including Meritorious School, Bathinda and multiple educational institutions of the country presented unique ideas on Coronavirus Immunology and COVID disease control to combat COVID-19 in Poster Making and IdeaHunt Competitions.

Vice Chancellor Prof. Raghavendra P. Tiwari inaugurated the event and emphasized prioritizing health over anything in the present context relating to the practice of our age-old traditional lifestyle with health benefits.

The Chief Guest of this programme Prof. Narinder K. Mehra appreciated the young scientists for taking the science of our immune system to grassroots level and encouraged school & college students to take up the important and interesting field of immunology as their career path.



Eminent Scientists sharing their views during the Symposium organized by CUPB to mark the Int. Day of Immunology.

During this symposium, eminent scientists deliberated on the biology of coronavirus, the way our immune system reacts to this virus and how the vaccines that are available can help our immune system to fight the disease. The talks brought out the significance of immunity in fighting the covid.

In the Quiz Competition which was moderated by Dr. Felix Bast (Dept. of Botany) Jayakrishnan VM, Himani Pant, Rhea Jana got the first, second and third position. The Poster Making competition was conducted by Dr. Vinay Bari (Dept. of Biochemistry). In this, the first

position was jointly shared by Kuhu Selvapandiyan, XIIIth class student from D.P.S. R.K Puram, New Delhi and Krishna Harshad Chauhan, XIIth class student from St.Xavier's High School, Maharashtra. The second position was taken by Sania Sah, K V -5 Bathinda Cantt, Bathinda. The event was concluded with an exciting round of Idea Hunt by Dr. Ravindresh Chhabra (Dept. of Biochemistry) which was won by a 9th standard school student, Panchal Dhruvansh Loyesh Kumar.

The programme commenced with the welcome address by Prof. R.K. Wusirika, Dean In-charge Academics. Towards the end, the coordinator of the programme Dr. Manju Jain (Assistant Professor, Immunobiology Laboratory, Dept. of Biochemistry) thanked all those who contributed towards making it a learning experience for all.

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April 29, 2021: CUPB Microbiology Dept. celebrated Int. Day of Immunology by organizing an Online Event "Know Covid-19 to Combat Covid-19"

With the objective to increase global awareness about the importance of immunology in the fight against infection, Central University of Punjab's Dept. of Microbiology under the patronage of honourable Vice-Chancellor Prof. Raghavendra P. Tiwari and in collaboration with the Indian Immunology Society commemorated the International Day of Immunology by conducting an Online Event "Know COVID-19 to Combat COVID-19". The Chief Guest of this programme was Prof. V.S. Chauhan, Former Director, International Centre for Genetic Engineering and Biotechnology, New Delhi This online event is consisted of talks from eminent experts and presentations from students.

antibody and radiology-based test to detect Covid-19 infection, their specificity, their advantages/disadvantages and timeline. Towards the end of this session, Prof. P. Ramarao the Former Dean Academic Affairs and Professor, Central University of Punjab, spoke on the topic "SARS-CoV-2: Drugs and Vaccine Development". He highlighted mechanisms of action and the possible role of various drugs as immunomodulators that are being used to treat Covid-19 infection.

The Chief Guest of the programme Prof. Chauhan in his lecture delineated the overall background of the SARS virus, its characteristics, types, virulence factors, variants and vaccine development. He stressed on the fact that the need of the hour is to develop vaccines with more diverse immune response and high efficacy.

In the presidential address Vice Chancellor Prof.



VC Prof. Tiwari and CUPB faculty members attending the Inaugural Session

The virtual event that included two sessions, started with Session-I with the sub-theme "Hearing from Covid-19 researchers and public health experts". During this session, Dr. Subhash C. Verma, University of Nevada, USA, talked on the topic "SARS-CoV-2 Variants Surveillance and Cases of Re-infection" wherein he gave an overview of genome sequencing of SARS-CoV-2 its mutants and their significance in disease severity and re-infection. After this, Dr. Sivanantham Krishnamoorthi of All India Institute of Medical Sciences (AIIMS) Bathinda, briefed the participants about "Current Evidence of Covid-19 Related Immunological Markers in Clinical Diagnosis and Prognosis". He described various clinical diagnostic methods such as RT-PCR, antigen-based test,



Chief Guest Prof. V.S. Chauhan delivering keynote address

Raghavendra P. Tiwari thanked the esteemed speakers and guests for their thought-provoking lectures. He appreciated the efforts of the organisers and empathised that these kinds of activities surely inspire the younger generation to work in the fields of microbiology, immunology, infection biology and biomedical research.

In the second session, more than 50 students from different educational institutions representing different states showcased 'Frugal innovation to fight against

Covid-19" and presented their videos on Covid-19 Awareness "Know Covid for No Covid". The winners of the oral presentation were Mubashira, Sukhchain and Akshay Chaudhary whereas the winners of the videos (Put on a show) were Vaishali Khatri, Shafeeq

Ali/Deepshikha and Ayushi Pareek. The competitions were judged by Dr. Kiran K. Singh, Dr. Sabysachi Senapati and Dr. Pramod Kushawaha.

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March 14, 2021: CUPB Department of Mathematics and Statistics celebrated the Pi- day

In ADDITION to its academic activities, the Department of Mathematics and Statistics of the Central University of Punjab celebrated Pi-day and Albert Einstein's birthday. The Pi- day takes place on 14th March (3/14 in the month/day format) since 3, 1 and 4 are the first three significant digits of π (Pi).



Students participating in Pi-day celebration

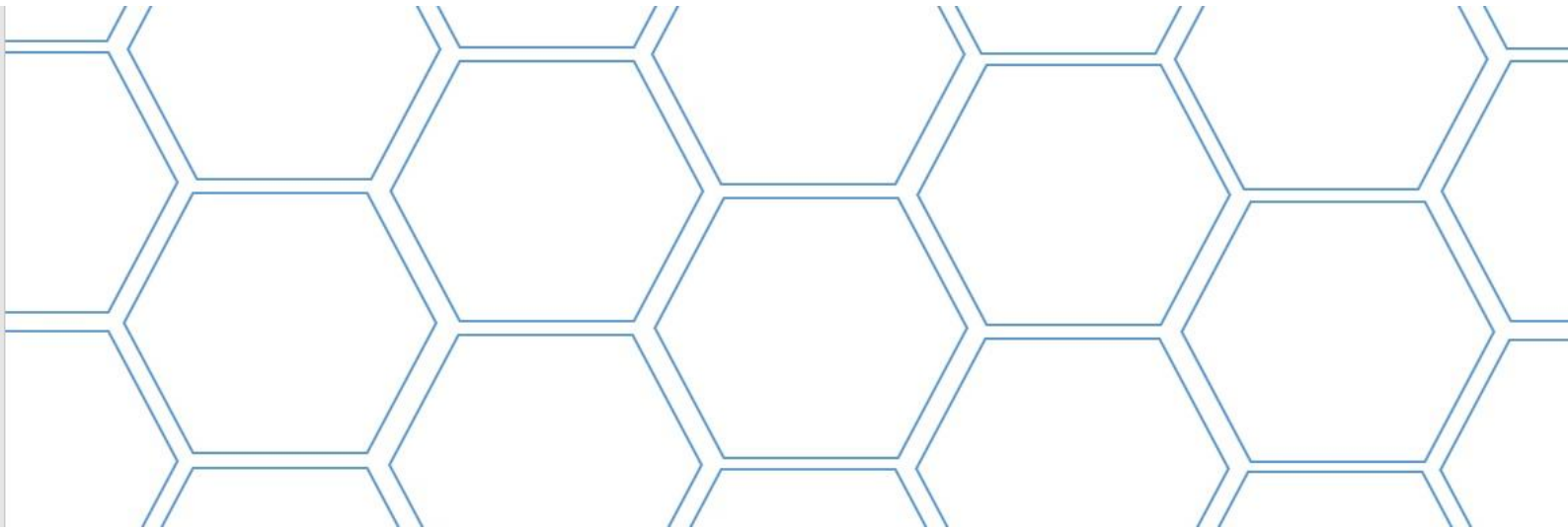
The event started with the welcome address by Prof. Gauree Shankar, Head of the Department, who formally welcomed the guests and participants. This session featured lectures and fun games on the theme of Pi. In addition to this, poster making and model making competitions were organized to encourage creativity in students. This event was followed by a documentary that was presented by Dr. Sandeep Kaur. At the end of

this session, the prizes were distributed for the poster making and model making competitions

In the afternoon session, an expert lecture by Prof. Shashikant Anant Katre, Chair Professor, Lokmanya Tilak Chair, Department of Mathematics, Savitribai Phule Pune University, Pune, Maharashtra was organized on the "The Story of Pi". He gave an enlightening talk on the significance of Pi in the field of mathematics. He discussed the different facts of Pi such as approximations to Pi, area and volume in terms of Pi, gamma function, normal distributions and Gaussian distribution in terms of Pi. He talked about the continued fraction and regular generalized continued fraction for Pi. He also mentioned that a very good rational approximation to Pi can be obtained from the continued fraction expansion of Pi. These approximations are better than any irrational approximations to Pi with smaller denominators.

In the Post lecture session, participants discussed their queries with the invited speaker during the interactive session. Towards the end, Dr. Sachin Kumar delivered the formal vote of thanks and expressed his gratitude towards the keynote speakers for delivering a scholarly lecture. Faculty, staff and students of the University attended this event online and offline.

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INVITED LECTURES

Eminent academicians enlightened students during Webinar Series, Invited Lectures and Panel Discussion Programme organized by CUPB



Prof. Gautam Menon

March 1, 2021: On the occasion of UN Zero Discrimination Day, CUPB Dept. of Botany organized an Invited Lecture by Prof. Gautam Menon, Professor, IMSc, Ashoka University. He delivered a talk on the topic of 'Modelling Disease Spread'. Dr. Felix Bast, HoD, Dept. of Botany expressed his gratitude towards the expert speaker for enlightening the participants.



Prof. Kanchan Jain

March 3, 2021: The Dept. of Mathematics & Statistics of the Central University of Punjab organized an Invited Lecture by Prof. Kanchan Jain, Professor in Dept. of Statistics at Panjab University. She delivered an expert lecture on 'Machine Learning Tool: Logistic Regression and its applications'. The programme was conducted by Dr. Gauree Shanker, HoD, Dept. of Mathematics & Statistics



Dr. Ravi Inder Singh

March 4, 2021: The Dept. of Financial Administration of the Central University of Punjab organized an Invited Lecture on Atmanirbhar Bharat: Challenges & Way Forward. The keynote speaker of this programme was Prof. Ravi Inder Singh, Director, Regional Centre, Ludhiana, Panjab University, Chandigarh. Dr. Anand Thakur, HoD, Dept. of Financial Administration coordinated during this programme.



Dr. Kunal Nepali

March 5, 2021: The Department of Pharmacology and Department of Pharmaceutical Sciences and Natural Products of the Central University of Punjab organized an Invited Lecture by Dr. Kunal Nepali, Assistant Professor, TAPEI Medical University, Taiwan. He delivered a talk on 'Conferment of Flexibility and Rigidity to Lead Structures in Pursuit of Attaining Isoform Selectivity and Amplified Antitumor Effects-A Scientific Lecture Series 2021'.



Screenshot of the programme

March 9, 2021: CUPB Dept. of Economic Studies organized an online panel discussion programme on the subject of Union Budget 2021-22. The panelists for the Panel Discussion on Union Budget 2021-22 were Prof. Sucha Singh Gill, Ex-Director General & Professor, Centre for Research in Rural and Industrial Development, Chandigarh; Prof. Ranjit Singh Ghuman, Professor of Eminence, Guru Nanak Dev University, Amritsar & Professor, Centre for Research in Rural and Industrial Development, Chandigarh and Prof. Kamal Vatta, Head, Department of Economics and Sociology, Punjab Agricultural University, Ludhiana.



Prof. Waheeda Khan

April 12, 2021: The Department of Psychology of the Central University of Punjab organized an Invited Lecture on 'Webinar on Peace Psychology'. The keynote speaker of this programme was Prof. Waheeda Khan, Professor & Dean, Faculty of Behavioural Sciences, SGT University, Gurgaon-Delhi-NCR

April 30, 2021: The Department of Pharmacology and Department of Pharmaceutical Sciences and Natural Products of the Central University of Punjab organized an Invited Lecture on 'Rise of Derma-cosmeceutical market as an upcoming trend & opportunities for pharma graduates'. The keynote speaker of this programme was Ms. Pooja Dubey, Western Commercial Corporation as Business Development Leader-Derma (PAN India).



Dr. Bhagwat Prasad

May 10, 2021: The Department of Pharmacology and Department of Pharmaceutical Sciences and Natural Products of the Central University of Punjab organized an Invited Lecture by Dr. Bhagwat Prasad, Associate Professor, Washington State University, Washington, USA. He delivered lecture on Principles and Applications of Quantitative Proteomics-A Scientific Lecture Series 2021.



Dr. Thomas Kishore

May 29, 2021: The Department of Psychology of the Central University of Punjab organized an Invited Lecture by Dr. Thomas Kishore M, Additional Professor, NIMHANS, Bangalore, on 'Specific Learning Disorders'.

May 19, 2021: The Department of Psychology of the Central University of Punjab organized an Invited Talk on 'Behaviour Modification'. by Dr. Binapani Mohapatra, Clinical Psychologist, National Institute for Empowerment of Persons with Intellectual Disabilities, Secunderabad.

STUDENT ACHIEVEMENTS

Students who have qualified GATE and other competitive exams

Sr. Number	Student Name	Department	Competitive Exam Qualified	Year
1	Avanish Kumar	Dept. of Chemistry	GATE-2021	2021
2	Subhashri Dutta	Dept. of Chemistry	GATE-2021	2021
3	Suruchi	Dept. of Microbiology	GATE-2021 /	2021
4	Sanu	Dept. of Microbiology	GATE-2021	2021
5	Manav	Dept. of Microbiology	GATE-2021	2021
6	Suruchi	Dept. of Microbiology	CSIR-UGC-JRF	2021

The List of students defended Ph.D. Thesis (March 2021 to May 2021)

Sr. No.	Registration No.	Name	Department	Batch	Degree	Title	supervisor/co supervisor	Viva Held date
1	CUPB/MPh-PhD/SBAS/BIO/2013-14/05	Kunj Bihari Gupta	Biochemistry and Microbial Sciences	2013-14	PhD	INFLUENCE OF WHEAT PROTEIN GLIADIN ON OXIDATIVE STRESS, INFLAMMATION AND ASSOCIATED SIGNALING PATHWAYS IN HUMAN INTESTIANL CELLS	Prof. Monisha Dhiman	04.05.2021
2	CUPB/MPh-PhD/SSS/CES/2013-14/09	Gulshan Farooq Bhat	Economic Studies	2013-14	PhD	DEVELOPMENT STRATEGIES OF SELECTED EAST ASIAN ECONOMICS: POSSIBLE IMPLICATIONS FOR INDIA	Dr. Sandeep Kaur	10.03.2021
3	15phdbms01	Lovelesh Thakur	Animal Science	2015-16	PhD	A COMPREHENSIVE MOLECULAR AND IMMUNOLOGICAL INVESTIGATION OF HOST-PATHOGEN BIOLOGY OF ATYPICAL LESISHMANIASIS FROM HIMACHAL PRADESH AS THE STUDY AREA.	Dr. Aklank Jain	10.03.2021

ACTIVITIES ORGANIZED UNDER 'AZADI KA AMRUT MAHOTSAV'

MAHOTSAV

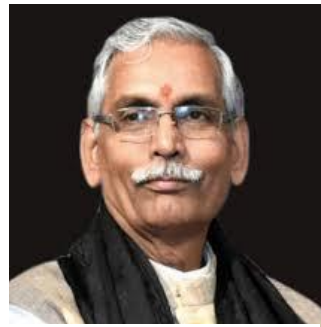
March 12, 2021: Central University of Punjab organized International Quiz Competition and Webinar to mark the Inaugural Ceremony of Azadi ka Amrut Mahotsav

Central University of Punjab, Bathinda (CUPB) under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized an International Quiz Competition and a Webinar to mark the Opening Ceremony of 'Azadi ka Amrut Mahotsav', 75-week-long celebrations dedicated to 75 Years of India's Independence. The Amrut Mahotsav celebrations began on 12th March, 2021, 75 weeks before India's 75th Independence Day i.e. 15th August, 2022. The invited speaker of the Webinar held during the Inaugural Ceremony was Prof. Baldeo Bhai Sharma, Vice Chancellor, Kushabhau Thakre Journalism and Mass Communication University of Chhattisgarh.



Vice Chancellor Prof. R.P. Tiwari addressing the participants

In his presidential address Prof. Tiwari mentioned that today the entire nation stands united under the leadership of Hon'ble Prime Minister Shri Narendra Modi to celebrate the inauguration of 75-week ceremony 'Azadi ka Amrut Mahotsav' dedicated to 75 Years of India's Independence. He expressed his gratitude towards the Father of the Nation Mahatma Gandhi Ji and freedom fighters from all across our country who have made invaluable contributions in the freedom struggle of the nation. He appealed to the young generation to remember the sacrifice of freedom fighters, stay united, act like a responsible citizen and work towards building a Self-Reliant Nation.



Prof. Baldeo Bhai Sharma

In his keynote address, Prof. Baldeo Bhai Sharma shared his views on the topic 'Responsibility of Citizens & Role of Civic Sense in Nation Building Process;'. He said that we should understand the importance of our Independence and proudly share our history of freedom struggle with others. He encouraged youngsters to deeply associate with our ancient values given by Indian Knowledge Systems which has its roots in Universal Brotherhood and Vasudhaiva Kutumbakam. He stated that our Vedas and our Gurus have enlightened us to serve the society and take care of our natural surroundings. He urged the participants to follow their duty towards society and work together to re-establish India as a Viahwa Guru.

During this programme, an International Quiz Competition was conducted on a virtual platform. Total 2051 participants including Indian Nationals from more than 27 states of India and NRIs from 14 foreign countries registered and participated. During this Quiz Competition, Dr. Felix Bast asked 75 questions related to Indian Freedom Struggle to the participants. Mr. Suraj Sharma (Jawahar Lal Nehru College, Faridabad), Mr. Amit Kumar Singh (University of Allahabad) and Mr. Karthikeyan Swaminathan (PSG College of Technology, Coimbatore) got the first, second and third position in this competition and was awarded with the cash prize of Rs 5000/-, Rs 3500/- and Rs 2500/- respectively.

Faculty, staff and students from different departments attended this programme.

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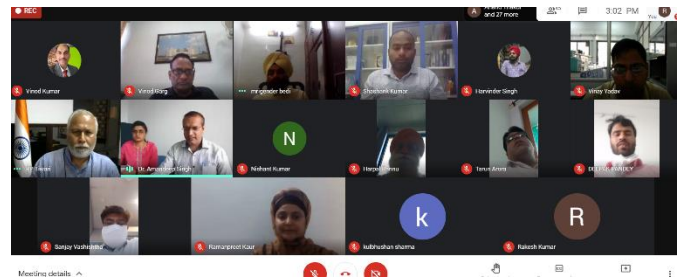
March 23, 2021: Central University of Punjab organized a special programme to pay tribute to Bhagat Singh, Rajguru and Sukhdev on their Martyrdom Day

To commemorate the Martyrdom Day of Shaheed-E-Azam Bhagat Singh, Rajguru and Sukhdev, the Central University of Punjab, Bathinda (CUPB) organized a special lecture on the topic 'Role of Sapta Sindhu Region in Independence Movement'. CUPB School of Languages, Literature and Culture conducted this programme as a part of the Azadi ka Amrut Mahotsav programme series. Vice-Chancellor Prof. Raghavendra P. Tiwari presided over this programme. The keynote speaker of this programme was Prof. Harmohinder Singh Bedi, Chancellor, Central University of Himachal Pradesh. Faculty, staff and students of the university attended the programme through online mode.

While addressing the participants, Prof. Harmohinder Singh Bedi shared that the Sapta Sindhu region was the land with seven rivers where the oldest ancient holy scripture of human civilization Rig Veda was written. He talked about the influence of the preaching of Bhagwat Geeta, Sri Guru Granth Sahib and our Gurus, on the life and philosophy of the people of the Sapta Sindhu region and stated that this region has given the greatest freedom fighters who have made an invaluable contribution towards Indian Freedom Struggle.

Prof. Bedi shared the life philosophy of Shaheed-e-Azam Bhagat Singh, Rajguru and Sukhdev. He highlighted their contribution in awakening youngsters to live a life of

freedom and dignity. He referred to Swami Dayanand, Lala Lajpat Rai, Bhagat Puran Singh, Madan Lal Dhingra, Shaheed Udham Singh, Kartar Singh Sarabha and other freedom fighters and pointed out that freedom fighters subscribing to different ideologies have inspired each other during this freedom movement to serve their motherland. He emphasized that the people of Punjab are always ready to serve the society. Soldiers from Punjab have played a vital role in different battles fought by our nation after independence.



Screenshot of the programme

On this occasion, Vice-Chancellor Prof. Raghavendra P. Tiwari paid a rich tribute to the martyrs of Punjab. He expressed his gratitude towards Prof. Bedi for enlightening youngsters with his scholarly lecture and asserted that CUPB will organize a series of programmes to mark the 75 years of Indian Independence.

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April 1, 2021: Central University of Punjab organized Invited Lecture by Prof. Kuldip C. Agnihotri on the 'Contribution of Saptasindhu Region in the Cultural Integration'

The Central University of Punjab under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari organized an Invited Lecture on the topic 'Contribution of Saptasindhu Region in the Cultural Integration'. The programme was conducted as a part of the Azadi ka Amrut Mahotsav Programme Series dedicated to the celebration of India's 75th Anniversary of Independence. The keynote speaker of this programme was the acclaimed academician Prof. Kuldip Chand Agnihotri, Advisor, Ministry of Culture, GOI and Former Vice Chancellor, Central University of Himachal Pradesh. Faculty, staff and students of the university attended this programme.

In his welcome address, Dr. Vinod Arya, Programme Convener, informed that the Sapta Sindhu region refers to the region of seven sacred rivers i.e., Saraswati, Sutudri (Satluj), Vipasa (Beas), Ashikni (Chenab), Parushni (Ravi), Vitasta (Jehlum) and Sindhu (Indus)

which spreads from ancient Punjab to the Gangetic plains and from Gandhara to Kurukshetra. He introduced the programme theme and introduced the keynote speaker to the participants.

While addressing the participants Prof. Kuldip Chand Agnihotri stated that the Sapta Sindhu region has made enormously contributed to the World as this region gave the one among the best University of ancient times in the form of 'Takshashila University, the first recorded Manuscript of ancient times in the form of 'Rigveda' and one among the ancient Civilization with modern characteristics in the form of 'Indus Valley Civilization'. He asserted that ancient holy scriptures of this region enlightened the generations that knowledge is the continuous process that has led to the emergence of schools of philosophy.



Prof. Kuldip C. Agnihotri addressing the participants

He highlighted that Dasam Guru Parampara of 10 divine Gurus has preserved the Indian Knowledge Traditions in this region. He emphasized that the preaching of our Saints such as Bhudha to follow the path of self-enlightenment, non-violence, equality, empathy, and truthfulness has been practiced by our freedom fighters during the Indian Independence Movement and has

helped our nation which comprises diverse cultures to stay united. He expressed his hope that under the leadership of Prof. Tiwari, CUPB will emerge as the modern Takshshila and represent India on a global level.

Vice Chancellor Prof. Raghavendra P. Tiwari mentioned that geographical boundaries cannot disconnect the cultural linkage between different societies that have emerged out of the Sapta Sindhu Region. He shared that the University would organize a series of webinars on the Contribution of Sapta Sindhu Region in our Knowledge Traditions, History of Science, Agriculture, Values etc. to create strong emotional bonding through academic efforts between people living in Sapta Sindhu Region. He urged on the need to institutionalize 'Sapta Sindhu Studies' so that more historical knowledge related to Sapta Sindhu Region can be collected.

Prof. R.K. Wusirika, Dean Incharge Academics, thanked officials, faculty, staff, scholars and students of the University for their active participation.

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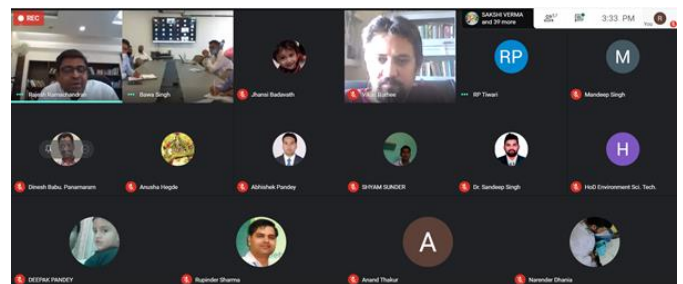
April 13, 2021: CUPB organized a special lecture on 'Jallianwala Bagh: Martyrdom to Freedom' by Shri Rajesh Ramachandran

To commemorate the 102nd Anniversary of the Jallianwala Bagh Massacre, the Central University of Punjab under the patronage of the Vice Chancellor Prof. Raghavendra P. Tiwari organized a special lecture on 'Jallianwala Bagh: Martyrdom to Freedom'. CUPB conducted this programme as part of Aazadi ka Amrut Mahotsav Programme Series. The keynote speaker of this programme was Shri Rajesh Ramachandran, Editor-in-Chief, The Tribune.

Shri Ramachandran is an acclaimed editor, columnist, and reporter with over 25 years of experience. He has edited the famous book '100 Years of Jallianwala Bagh: Martyrdom to Freedom'.

In his keynote address, Shri Ramachandran stated that 'Vaisakhi' and 'Jallianwala Bagh Massacre' are the reminder of the oneness of our nation. He mentioned that the Jallianwala Bagh Massacre was the supreme sacrifice and martyrdom of thousands of people who assembled on 13th April, 1919 to protest against the imposition of the Rowlatt Act, stopping Mahatma Gandhi from visiting Punjab and the imprisonment of popular Punjab leaders such as Dr. Saifuddin Kitchlew and Dr. Satyapal. He added that the merciless murder of nearly a thousand peaceful protestors by Brigadier-General Reginald Dyer and his British Indian Army was

the pivotal event in the history of the Indian Independence Movement which has united people across the country to fight for their independence. He put a light on the series of events that happened in the Indian Independence Movement that has occurred as a result of this Massacre such as the renunciation of Knighthood by Indian noble laureate Rabindranath Tagore, Mahatama Gandhi's Satyagraha and Non-cooperation Movement (1920-22), the assassination of Michael O'Dwyer, the colonial officer responsible for Jallianwala Bagh Massacre, by Sardar Udham Singh in London in 1940 etc.



Screenshot of the programme

During his lecture, Shri Ramachandran also highlighted the distinguished role played by 'The Tribune' Newspaper and its Editor Kali Nath Ray in inculcating a sense of unity and patriotism among its readers during those times with their objective reporting, enquiring

about the events, and investigative reporting. He shared that the British government has imposed sedition charges on Kali Nath Ray, the Editor of The Tribune, for writing a series of articles against the policies of the British Government and sending him to prison. He asserted that in spite of these hardships, The Tribune continued its fearless journalism and in 1975 it was The Tribune who published the article of VN Dutta that stated that Jallianwala Bagh was a Conspiracy and a planned brutal event by the British Government. He shared that the Book on 'Martyrdom to Freedom' is the testimony to the Tribune's commitment to fearless and objective reporting.

In his presidential remarks, Vice Chancellor Prof. Raghavendra P. Tiwari expressed his gratitude towards

Shri Ramachandran for accepting the invitation. He opined that the Book entitled 'Martyrdom to Freedom' edited by Shri Ramachandran is a valuable addition to recorded history as it provides profound insights on the incident with priceless articles from the archives of the newspaper and essays of some of the best-known authors, thinkers, and historians. While paying tribute to the martyrs of the Jallianwala Bagh Massacre, he stated that the nation will always remember their sacrifice.

Shri Kanwal Pal Singh Mundra, Registrar, thanked Faculty, staff, scholars and students of the university for making this programme a success.

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ALUMNI CELL ACTIVITY

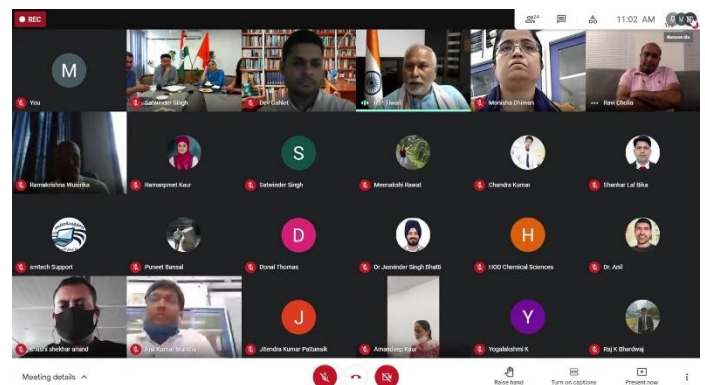
March 12, 2021: Central University of Punjab organized First Alumni Cell Meet-2021

Central University of Punjab, Bathinda (CUPB) organized the 'First Alumni Connect Meet-2021' under the UGC Flagship Alumni Connect Programme. CUPB Alumni Cell under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari conducted this programme last week to actualize the vision of NEP 2020 regarding expansion of global outreach of HEIs. The main purpose of the program was to get connected to the alumni of the university, who after taking higher education from CUPB have made their mark in the field of academics & research abroad and are acting as shining brand ambassadors of the Indian Higher Education.

The Invited speakers of this programme were CUPB proud Alumni Dr. Devendra Meena, Research Associate, Imperial College, London, U.K. and Dr. Ravi Prakash Cholia, Post-Doctoral Fellow, University of Arkansas, U.S.A.

At the beginning of the programme, Prof. Sanjeev Thakur introduced the Alumni Connect Programme theme, shared the vision of NEP 2020 and introduced the guest speakers to the participants.

The first speaker was Dr. Ravi Prakash Cholia, Post Doc Fellow, University of Arkansas USA, who shared his experiences of studying M.Phil.-Ph.D. at CUPB (2010-17). He stressed on the need to set goals and work towards achieving it for all the youngsters. This helps in maintaining focus throughout the career. The second



VC Prof. Tiwari addressing the First CUPB Alumni Cell Meet 2021

speaker, Dr. Devender Meena, Research Associate, Imperial College London did his M.Phil. (2014) from CUPB. He emphasized on the need for hard work and proper planning for achieving success in career. Both speakers attributed their success to the CUPB's skill-based education and guidance of their teachers.

Vice Chancellor Prof. Raghavendra P. Tiwari stressed the need to develop kinship amongst the alumni and current students. He suggested that the alumni can mentor the current students for achieving career goals.

Prof. Alpna Saini delivered concluding remarks towards the end. The event was attended by members of the alumni cell, faculty and non-teaching staff, current students and alumni of the university.

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IIC & IPR CELL ACTIVITY

April 28, 2021: Central University of Punjab celebrated World IP Day

- **Workshop organized on the topic 'Intellectual Property Rights and its effective management for start-up'**

The Institution's Innovation Council (IIC) & Intellectual Property Rights Cell (IPR Cell) of Central University of Punjab, Bathinda, in collaboration with Punjab State Council for Science & Technology, Chandigarh celebrated the World IP Day with a special programme. On this occasion, a "Workshop on Intellectual Property Rights (IPRs) and its effective management for start-up" was conducted under the patronage of Prof. Raghavendra P. Tiwari, Vice-Chancellor, Central University of Punjab.

The workshop featured four enlightening lectures on different sub themes of IPR by Ms. Pooja Bhatia, Chief Manager, Innovation-Technology Transfer office (i-TTO), Ms. Sukku Singh, Senior Patent Agent, S. S. Rana & Co, Ms. Reema Sahni Mediratta, Project Manager, i-TTO and Ms. Pragati Aggarwal Senior Project Officer, i-TTO, who joined as Invited Speakers of the programme. More than 100 participants registered for this workshop.

The programme commenced with the welcome address by Prof. R.K. Wusirika, Dean In-charge Academics. In the opening session, Ms. Pooja Bhatia (Chief Manager, i-TTO) gave an overview of different forms of IPRs namely Patent, Trademark, Industrial design, Geographical Indications and Copyright. She mentioned that intellectual property is an intangible form of expression of creativity and it becomes intellectual property right when we register it. After this, Ms. Sukku Singh (S. S. Rana & Co) briefed the participants about the patent filing process in India. She put some light on the time required to process a patent application. She shared that the patent rights are territorial in nature and application must be filed in

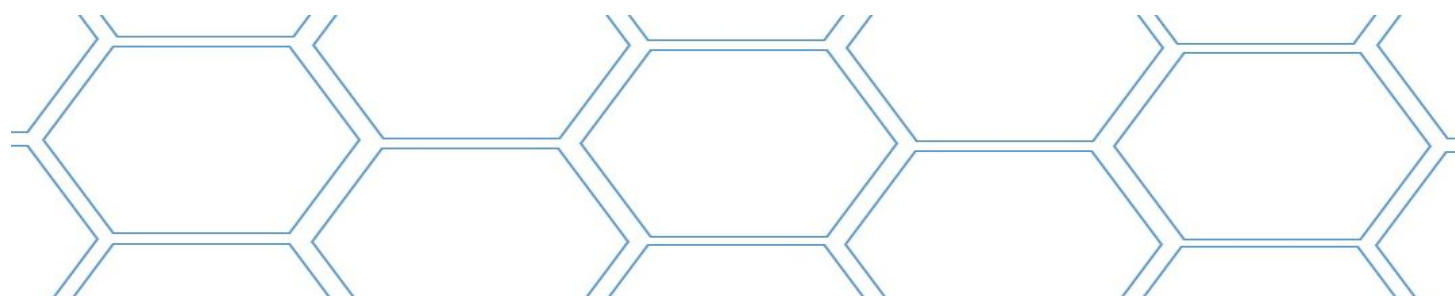
the country of interest where the applicant wishes to exercise his patent right.



Screenshot of the Programme

The third lecture was delivered by Ms. Reema Sahni Mediratta (Project Manager, i-TTO) where she discussed the strategies for 'IP Creation, Development and Management' aiming to increase revenue. She emphasized on maintaining confidentiality and signing a Non-disclosure Agreement (NDA) before discussing any invention with an IPR expert. In the last session, Ms. Pragati Aggarwal (Project Officer, i-TTO), put a light on 'Patent Search Methodologies' and stressed on the importance of correct keyword selection while carrying out patent search literature to avoid reinventing the wheel.

Dr. Preeti Khetarpal, coordinator of the activity, shared that this workshop will be memorable for all the participants as the World Intellectual Property Organization, a self-funding agency of the United Nations has included this programme in the World IP Day Virtual Calendar. Towards the end, Prof. Monisha Dhiman, President IIC, thanked everyone for making this programme a success.



NSS ACTIVITIES

March 8, 2021: Central University of Punjab celebrated International Women's Day 2021

Central University of Punjab, Bathinda (CUPB) organized a Webinar on 'Challenges for Women Academicians and Entrepreneurs: Strategies to Overcome them' to commemorate the International Women's Day-2021. CUPB National Service Scheme (NSS) Cell and Institution's Innovation Council (IIC) conducted this programme under the patronage of Vice Chancellor Prof. Raghavendra P. Tiwari. The Invited Speakers of this webinar were Dr. Chetana Sachidanandan, Principal Scientist, Institute of Genomics and Integrative Biology (CSIR-IGIB), New Delhi and Dr. Neeta Doshi, Founder, Rain and Clean Enviro Tech Pvt. Ltd. Along with the Webinar NSS Volunteers presented a special choreography performance on 'Gender Equality and Women Empowerment' to mark the occasion.

Vice Chancellor Prof. Raghavendra P. Tiwari expressed his gratitude towards women for taking our civilization forward, for keeping our society healthy, and also for grooming the new born so that they become the torchbearer of the culture of the nation. He stated that women should be encouraged to take the highest education and become an entrepreneur.



NSS Volunteers presenting Choreography Performance



Screenshot of the programme

Prof. Monisha Dhiman, NSS Coordinator and IIC President, welcomed the participants and introduced the programme theme. While delivering the inaugural address Prof. Amandeep Kaur, Dean School of Engineering and Technology, shared that the theme of this year's Women's Day is "Choose To Challenge".

While addressing the participants, Dr. Chetana Sachidanandan & Dr. Neeta Doshi shared their life experiences & discussed the challenges they faced to achieve success. Dr. Sachidanandan encouraged young female students to be confident, determined and adopt an innovative approach to tackle a challenging situation. Dr. Doshi emphasized on the need to motivate women to become an entrepreneur for a self-reliant nation. The event was overall coordinated by Dr Preeti Khetarpal and Dr S. Senapati, Programme Officers, NSS. The event was concluded with a closing remarks and vote of thanks by Ms Richa Garg, Internal Audit Officer Central University of Punjab.

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April 7, 2021: CUPB organized a Webinar on 'Innovation during COVID-19 Pandemic: India's response to become a global leader' on World Health Day

To commemorate the World Health Day, the Central University of Punjab, Bathinda (CUPB) organized a Webinar on 'Innovations during COVID-19 Pandemic: India's response to become a global leader'. CUPB institutions Innovation Council (IIC) and National Service Scheme (NSS) conducted this programme under the

patronage of the Vice Chancellor Prof. Raghavendra P. Tiwari. The keynote speaker of the programme was Shri Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH, G.O.I. Dr. Anasuya Roy, Founder and CEO, Nanosafe Solutions Pvt. Ltd. joined the programme as a special guest.

While introducing the keynote speaker, Prof. R.K. Wusirika, Dean Incharge Academics, shared that Prof. Kotecha is an Indian Ayurveda Physician who received Padma Shri Award for Medicine in 2015. Dr. Sabyasachi Senapati and Dr. Preeti Khetarpal introduced the programme theme.



Shri Vaidya Rajesh Kotecha

The keynote speaker Shri Vaidya Rajesh Kotecha, Secretary Ministry of Ayush, spoke about the Ayush Initiatives during COVID-19. He stated that Ayurveda is a science which is an

assemblage of the body, mind, senses and soul hence collectively called as life. He informed that Ayurveda has been divided into 4 types such as Hitayu, Ahitayu, Sukhayu, Dukhayu which are the important keys for a healthy life. He highlighted that Ayurveda believes in imparting Sukhayu and Hitayu. In the later part of his lecture, he discussed various initiatives taken up by the Ministry of AYUSH during COVID-19 times, which includes training programmes, setting up new interdisciplinary research collaborations for critical evaluation & promotion of various herbs as immunomodulators.



Dr. Anasuya Roy

The second speaker Dr. Anasuya Roy, founder and chief executive officer of Nanosafe Solutions briefed about the 'Universal Masking and its role as a weapon against

Covid-19 Pandemic'. Later she talked about her innovative startup called "Nanosafe Solutions" which has launched an antimicrobial and washable face mask "NSafe", which is reusable up to 50 launderings. She also shared about Rubsafe sanitiser which is a zero-alcohol formulation that is effective for 24 hours and is safe to be applied on baby's skin.



Vice Chancellor Prof. R.P. Tiwari & CUPB faculty attending the Programme

In his presidential remarks, Vice Chancellor Prof. Raghavendra P. Tiwari expressed his gratitude towards the keynote speaker and guest speaker for their thoughts on the programme theme. He emphasized that the health of human being is dependent on the health of our cosmos and we should put best efforts to develop a clean environment by adopting sustainable development goals. He asserted that the situation of COVID-19 has reaffirmed that our Indian dietary traditions provide us with better immunity and keeps us healthy in different weather seasons.

Dr. Monisha Dhiman, President IIC and Coordinator NSS, expressed gratitude towards speakers and thanked the participants for making this programme a success.

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May 21 2021: Anti-Terrorism Day observed at Central University of Punjab

The NSS Cell of the Central University of Punjab, Bathinda (CUPB) observed the 'Anti-Terrorism Day' on May 21 to spread the message of global peace, non-violence, humanity and unity among university students, employees and society. On this occasion, CUPB faculty, staff, students and NSS Volunteers under the leadership of Vice Chancellor Prof. Raghavendra P. Tiwari took 'Anti-Terrorism Pledge' to fight the forces of disruption threatening human lives and values. In view of the current COVID situation, the programme was organized on a virtual platform.

While administering the Anti-Terrorism Pledge, Prof. Raghavendra P. Tiwari, the Vice Chancellor, stated that the purpose of observing this day is to honour the



CUPB VC Prof. R.P. Tiwari administering Anti Terrosim Pledge to the participants connected through virtual platform

sacrifices made by our soldiers who fought against terrorism and to pay a tribute to those who lost their lives in terrorist attacks. He expressed that education is

the only way to address the problems of the youth and assured that CUPB will provide wider opportunities of education to develop responsible citizens who will contribute to establishing global peace.

During this programme Shri Kanwal Pal Singh Mundra, the Registrar, Prof. Vinod K Garg, Dean Student Welfare, Prof. R.K. Wusirika, Dean Incharge Academics, Prof. S.K.

Bawa, Director IQAC, Prof. Monisha Dhiman, NSS Coordinator and Shri Chandan Mittal, Deputy Finance Officer also took Anti-Terrorism Pledge. Faculty, staff, NSS Volunteers and students of the university attended this programme through online mode.

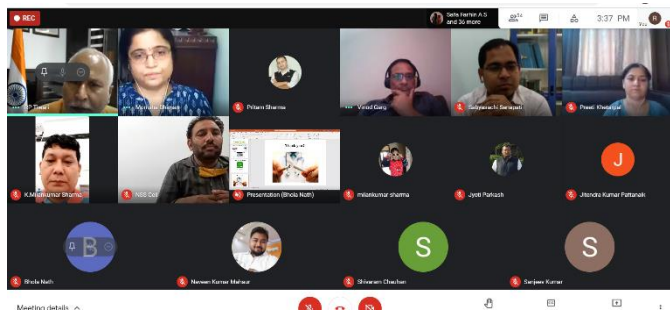
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May 31, 2021: Central University of Punjab observes World No Tobacco Day

- **The programme featured World No Tobacco Day Pledge Ceremony, a special lecture on ‘Tobacco Cessation’ and Poster Making Competition**

Aiming to spread awareness about the dangers of tobacco consumption and its negative impact on health, the NSS Cell of the Central University of Punjab, Bathinda (CUPB) observed the ‘World No Tobacco Day’ by organizing a special programme through virtual platform. During this programme, No Tobacco Day Pledge Ceremony, a special lecture on ‘Tobacco Cessation’ and Poster Making Competition was organized. The distinguished speaker of this programme was Prof. Bhola Nath, Head, Dept. of Public Health and Community Medicine, AIIMS, Bathinda.

On this occasion, CUPB students, faculty and staff under the leadership of Vice Chancellor Prof. Raghavendra P. Tiwari took ‘No Tobacco Day Pledge’.



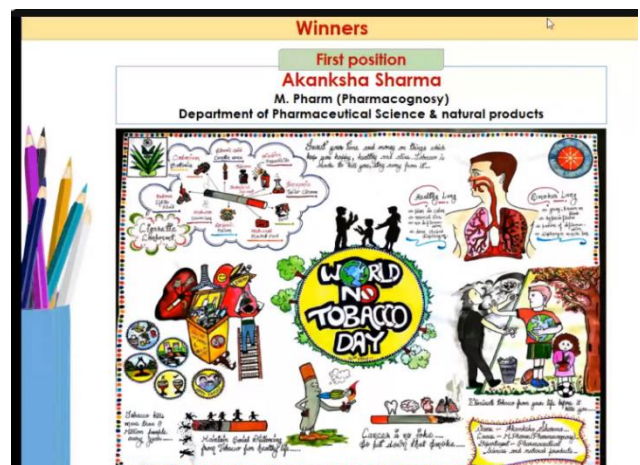
Screenshot of the programme

While addressing the participants, Prof. Bhola Nath (AIIMS, Bathinda) stated that tobacco consumption in its various forms such as Bidi, Cigarettes, Cigar, Pipe, Gutka etc. not only imposes an economic burden on its consumer but also negatively affects society. This is because the constituents of tobacco smoke include poisonous gases, cancer-causing chemicals and toxic metals, which causes health problems to others as well. He emphasized that regular consumption of tobacco can cause health problems such as cancer, heart disease, stroke, lung disease, COPD etc. and this could only be avoided by quitting tobacco products. He shared various tobacco cessation methods and highlighted that tobacco

cessation just requires the strong willpower of the patient and the guidance of a health expert.

In his presidential address, Prof. Raghavendra P. Tiwari, the Vice Chancellor, inspired youngsters to quit tobacco for a healthy body. He stated that people who consume tobacco have low immunity and are more prone to suffer health ailments. Therefore, WHO this year’s theme of ‘Commit to Quit’ is significant in the times of COVID-19. He made an appeal to teachers and students to act as trendsetters and educate society to remove this social evil.

In the poster making competition, which was coordinated by Dr. Pritam and Dr. Milan Kumar, a total of 33 students from different departments of the university participated and presented their posters on the theme of ‘World No Tobacco Day’. Among them, Akanksha Sharma (Dept. of Pharmaceutical Sciences & Natural Products), Gargi (Dept. of Biochemistry), and Akhila Ajith (Dept. of Psychology) got the first, second



Poster Art Work of Akanksha Sharma who got 1st Position in Poster Making Competition

and third positions respectively. Prof. V.K. Garg, Dean Student Welfare, congratulated the winners and gave his concluding remarks.

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STUDENT'S INDUSTRIAL VISIT

March 17, 2021: Students of Department of Microbiology visited 'Om Distilleries, Sangat Mandi'

The faculty and students of the CUPB Department of Microbiology visited Om Distilleries, Sangat Mandi on 17 March 2021 as a part of Industrial visit. A team of 20 students with four faculty members reached the distillery plant to see the process of fermentation and distillation from raw material.



Group Photograph of CUPB faculty and students during their visit to Om Distilleries, Sangat Mandi

The process of fermentation starts with procuring the raw material which is broken rice. The broken rice is then cleaned and crushed through the grinder to make flour this process is called Milling. The up-stream process (Pre treatment of media) starts by making media for fermentation where water is mixed with rice flour at high temperature then enzyme amylase is added and heat up to 70°C in different bioreactors. The

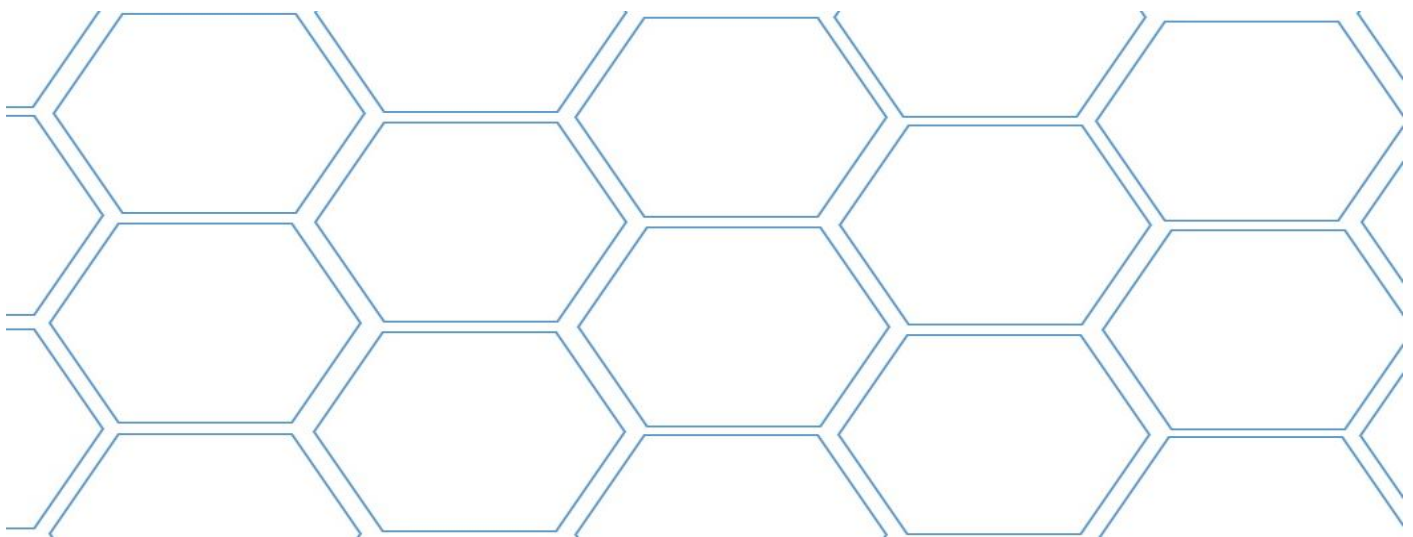
media then goes to fermentor, where yeast and media (prepare in previous step) and incubated. The CO₂ scrubber are used to collect CO₂ produced during fermentation which is also sold as a byproduct of fermentation. After the completion of fermentation, the product of the fermentor goes to distillation where it will be concentrated up to 96 %. and remaining water goes to the water effluent treatment plant.

Quality test:- After distillation sample is taken and sent to the lab where the alcohol concentration and content and other impurities like aldehydes are checked. The alcohol is finally packed and sent to market, they also sell alcohol to refineries to use as a fuel.

Water effluent treatment:- All the byproducts and waste material in the plant is reused and recycled. The water is reused after treatment through anaerobic and aerobic treatment. The solid by product released after fermentation is protein-rich waste product which is sold as cattle feed after drying.

The students were very excited to learn by seeing what they only read in their books. It was a great experience the department to coordinate such a memorable educational trip.

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RESEARCH PUBLICATIONS & GRANTS SANCTIONED

List of Research Publications

- Abboubakar, H., Kumar, P., Rangaig, N. A., & Kumar, S. (2021). A malaria model with Caputo-Fabrizio and Atangana-Baleanu derivatives. *International Journal of Modeling, Simulation, and Scientific Computing*, 12(2). <https://doi.org/10.1142/S1793962321500136>
- Aly, R., Matzrafi, M., & Bari, V. K. (2021). Using biotechnological approaches to develop crop resistance to root parasitic weeds. *Planta*, 253(5). <https://doi.org/10.1007/s00425-021-03616-1>
- Asapur, P., Banerjee, I., Sahare, P. D., & Mahapatra, S. (2021). Spectroscopic analysis of Muga silk nanoparticles synthesized by microwave method. *Biotechnology and Applied Biochemistry*, 68(2), 345–355. <https://doi.org/10.1002/bab.1932>
- Banu J, R., Usman T M, M., S, K., Kannah R, Y., K N, Y., P, S., Bhatnagar, A., & Kumar, G. (2021). A critical review on limitations and enhancement strategies associated with biohydrogen production. *International Journal of Hydrogen Energy*. <https://doi.org/10.1016/j.ijhydene.2021.01.075>
- Bari, V. K., Nassar, J. A., Meir, A., & Aly, R. (2021). Targeted mutagenesis of two homologous ATP-binding cassette subfamily G (ABCG) genes in tomato confers resistance to parasitic weed *Phelipanche aegyptiaca*. *Journal of Plant Research*, 134(3), 585–597. <https://doi.org/10.1007/s10265-021-01275-7>
- Barkhade, T., Mahapatra, S. K., & Banerjee, I. (2021). A Protein and Membrane Integrity Study of TiO₂ Nanoparticles-Induced Mitochondrial Dysfunction and Prevention by Iron Incorporation. *Journal of Membrane Biology*, 254(2), 217–237. <https://doi.org/10.1007/s00232-021-00177-y>
- Barwal, T. S., Sharma, U., Bazala, S., Singh, I., Jain, M., Prakash, H., Shekhar, S., Sandberg, E. N., Bishayee, A., & Jain, A. (2021). Micrnas and long noncoding rnas as novel therapeutic targets in estrogen receptor-positive breast and ovarian cancers. *International Journal of Molecular Sciences*, 22(8). <https://doi.org/10.3390/ijms22084072>
- Beura, S. K., Panigrahi, A. R., Yadav, P., & Singh, S. K. (2021). Phytochemicals as Potential Therapeutics for SARS-CoV-2-Induced Cardiovascular Complications: Thrombosis and Platelet Perspective. *Frontiers in Pharmacology*, 12. <https://doi.org/10.3389/fphar.2021.658273>
- Bhatti, J. S., Tamarai, K., Kandimalla, R., Manczak, M., Yin, X., Ramasubramanian, B., Sawant, N., Pradeepkiran, J. A., Vijayan, M., Kumar, S., & Reddy, P. H. (2021). Protective effects of a mitochondria-targeted small peptide SS31 against hyperglycemia-induced mitochondrial abnormalities in the liver tissues of diabetic mice, Tallyho/JngJ mice. *Mitochondrion*, 58, 49–58. <https://doi.org/10.1016/j.mito.2021.02.007>
- Bhutani, P., Joshi, G., Raja, N., Bachhav, N., Rajanna, P. K., Bhutani, H., Paul, A. T., & Kumar, R. (2021). U.S. FDA Approved Drugs from 2015-June 2020: A Perspective. *Journal of Medicinal Chemistry*, 64(5), 2339–2381. <https://doi.org/10.1021/acs.jmedchem.0c01786>
- Chawda, N. R., Mahapatra, S. K., & Banerjee, I. (2021). Surface-engineered gadolinium oxide nanorods and nanocuboids for bioimaging. *Rare Metals*, 40(4), 848–857. <https://doi.org/10.1007/s12598-020-01378-5>
- Chhokkar, P., Kumar, V., Goyal, P. K., Kumar, S., Tomar, A. K., Gaur, A., & Arya, A. (2021). Argon ion implanted CR-39 polymer: Optical and structural characterization. *Optical Materials*, 115. <https://doi.org/10.1016/j.optmat.2021.111046>
- Chinke, S. L., Sandhu, I. S., Bhave, T. M., & Alegaonkar, P. S. (2021). Shock wave hydrodynamics of nano-carbons. *Materials Chemistry and Physics*, 263. <https://doi.org/10.1016/j.matchemphys.2021.124337>
- Choudhary, S., Thakur, S., Majeed, A., & Bhardwaj, P. (2021). Adaptability of Rhododendrons in high altitude habitats. *Journal of Forestry Research*, 32(2), 449–460. <https://doi.org/10.1007/s11676-019-01081-x>
- Dash, S. S., Panday, S., Rawat, D. S., Kumar, V., Lahiri, S., Sinha, B. K., & Singh, P. (2021). Quantitative assessment of vegetation layers in tropical evergreen forests of Arunachal Pradesh, Eastern Himalaya, India. *Current Science*, 120(5), 850–858. <https://doi.org/10.18520/cs/v120/i5/850-858>
- Gauttam, P., Patel, N., Singh, B., Kaur, J., Chattu, V. K., & Jakovljevic, M. (2021). Public health policy of India and COVID-19: Diagnosis and prognosis of the combating response. *Sustainability (Switzerland)*, 13(6). <https://doi.org/10.3390/su13063415>
- Ikram, M., Sajid, M. M., Javed, Y., Afzal, A. M., Shad, N. A., Sajid, M., Akhtar, K., Yousaf, M. I., Sharma, S. K., Aslam, H., Hussain, T., Hussain, D., & Razaq, A. (2021). Crystalline growth of tungsten trioxide (WO₃) nanorods and their development as an electrochemical sensor for selective detection of vitamin C. *Journal of Materials Science: Materials in Electronics*. <https://doi.org/10.1007/s10854-021-05351-5>

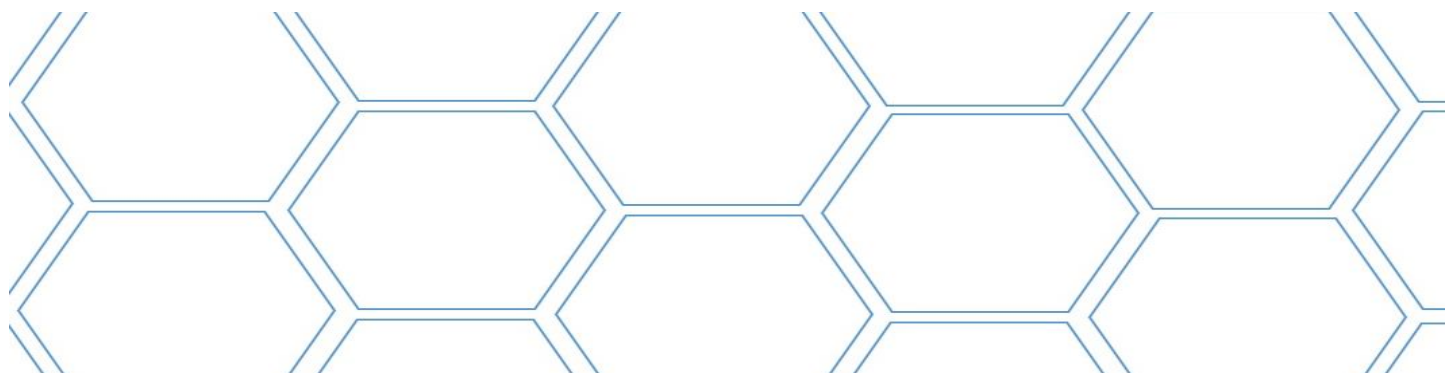
- Joshi, G., Thakur, S., Mayank, & Poduri, R. (2021). Exploring insights of hydroxychloroquine, a controversial drug in Covid-19: An update. *Food and Chemical Toxicology*, 151. <https://doi.org/10.1016/j.fct.2021.112106>
- Jyoti, D., & Kumar, S. (2021). Invariant solutions and conservation laws of Einstein field equations in non-comoving radiation fields. *Chinese Journal of Physics*, 70, 37–43. <https://doi.org/10.1016/j.cjph.2020.12.018>
- Kamboj, V., Arya, A., Tanwar, S., Kumar, V., & Sharma, A. L. (2021). Nanofiller-assisted Na⁺-conducting polymer nanocomposite for ultracapacitor: structural, dielectric and electrochemical properties. *Journal of Materials Science*, 56(10), 6167–6187. <https://doi.org/10.1007/s10853-020-05667-3>
- Kaur, J., Mehta, V., & Kaur, G. (2021). Preparation, development and characterization of *Leucaena leucocephala* galactomannan (LLG) conjugated sinapic acid: A potential colon targeted prodrug. *International Journal of Biological Macromolecules*, 178, 29–40. <https://doi.org/10.1016/j.ijbiomac.2021.02.132>
- Kaur, K., & Pany, S. (2021). Impact of task-related games on cognitive flexibility of low-functioning autism spectrum disorder children: A tool for improving quality of life in Indian culture. *International Journal of Current Research and Review*, 13(7), 74–79. <https://doi.org/10.31782/IJCRR.2021.13727>
- Khandelwal, A., Sharma, U., Barwal, T. S., Seam, R. K., Gupta, M., Rana, M. K., Vasquez, K. M., & Jain, A. (2021). Circulating miR-320a Acts as a Tumor Suppressor and Prognostic Factor in Non-small Cell Lung Cancer. *Frontiers in Oncology*, 11. <https://doi.org/10.3389/fonc.2021.645475>
- Khurana, I., Allawadhi, P., Khurana, A., Srivastava, A. K., Navik, U., Banothu, A. K., & Bharani, K. K. (2021). Can bilirubin nanomedicine become a hope for the management of COVID-19? *Medical Hypotheses*, 149. <https://doi.org/10.1016/j.mehy.2021.110534>
- Kumar, A., Madaan, M., Arya, A., Tanwar, S., & Sharma, A. L. (2021). Correction to: Ion transport, dielectric and electrochemical properties of sodium ion-conducting polymer nanocomposite: application in EDLC (*Journal of Materials Science: Materials in Electronics*, (2020), 31, 13, (10873-10888), 10.1007/s10854-020-03639-6). *Journal of Materials Science: Materials in Electronics*. <https://doi.org/10.1007/s10854-021-05356-0>
- Kumar, M., Joshi, G., Arora, S., Singh, T., Biswas, S., Sharma, N., Bhat, Z. R., Tikoo, K., Singh, S., & Kumar, R. (2021). Design and synthesis of non-covalent imidazo[1,2-a]quinoxaline-based inhibitors of EGFR and their anti-cancer assessment. *Molecules*, 26(5). <https://doi.org/10.3390/molecules26051490>
- Kumar, P., & Erturk, V. S. (2021). Environmental persistence influences infection dynamics for a butterfly pathogen via new generalised Caputo type fractional derivative. *Chaos, Solitons and Fractals*, 144. <https://doi.org/10.1016/j.chaos.2021.110672>
- Kumar, P., Erturk, V. S., & Almusawa, H. (2021). Mathematical structure of mosaic disease using microbial biostimulants via Caputo and Atangana–Baleanu derivatives. *Results in Physics*, 24. <https://doi.org/10.1016/j.rinp.2021.104186>
- Kumar, P., Erturk, V. S., & Murillo-Arcila, M. (2021). A new fractional mathematical modelling of COVID-19 with the availability of vaccine. *Results in Physics*, 24. <https://doi.org/10.1016/j.rinp.2021.104213>
- Kumar, S., Jyoti, D., Nisar, K. S., & Zakarya, M. (2021). New exact static solutions of Einstein-Maxwell field equations with a magnetic dipole. *Results in Physics*, 24. <https://doi.org/10.1016/j.rinp.2021.104136>
- Kumar, S., Kour, B., Yao, S.-W., Inc, M., & Osman, M. S. (2021). Invariance analysis, exact solution and conservation laws of $(2 + 1)$ dim fractional kadomtsev-petviashvili (kp) system. *Symmetry*, 13(3). <https://doi.org/10.3390/sym13030477>
- Kumar, S., Prajapati, K. S., Singh, A. K., Kushwaha, P. P., Shuaib, M., & Gupta, S. (2021). Long non-coding RNA regulating androgen receptor signaling in breast and prostate cancer. *Cancer Letters*, 504, 15–22. <https://doi.org/10.1016/j.canlet.2020.11.039>
- Kumari, P., Gupta, R. K., & Kumar, S. (2021). Non-auto-Bäcklund transformation and novel abundant explicit exact solutions of the variable coefficients Burger equation. *Chaos, Solitons and Fractals*, 145. <https://doi.org/10.1016/j.chaos.2021.110775>
- Kundu, P., & Bast, F. (2021). Molecular data reveals two new species of *Hypnea* (Cystocloniaceae, Rhodophyta) from India: *Hypnea indica* sp. Nov. And *Hypnea bullata* sp. Nov. *Botanica Marina*, 64(2), 139–148. <https://doi.org/10.1515/bot-2020-0069>
- Mago, M., Yadav, A., Gupta, R., & Garg, V. K. (2021). Management of banana crop waste biomass using vermicomposting technology. *Bioresource Technology*, 326. <https://doi.org/10.1016/j.biortech.2021.124742>
- Malik, S., Almusawa, H., Kumar, S., Wazwaz, A.-M., & Osman, M. S. (2021). A $(2+1)$ -dimensional Kadomtsev–Petviashvili equation with competing dispersion effect: Painlevé analysis, dynamical behavior and invariant solutions. *Results in Physics*, 23. <https://doi.org/10.1016/j.rinp.2021.104043>
- Martins, G. C., da Silva Junior, E. C., Ramos, S. J., Maurity, C. W., Sahoo, P. K., Dall’Agnol, R., & Guilherme, L. R. G. (2021). Bioavailability of copper and nickel in naturally metal-enriched soils of Carajás Mining Province, Eastern Amazon, Brazil. *Environmental Monitoring and Assessment*, 193(5). <https://doi.org/10.1007/s10661-021-09056-4>

- Maurya, S. K., Bhattacharya, N., Mishra, S., Bhattacharya, A., Banerjee, P., Senapati, S., & Mishra, R. (2021). Microglia Specific Drug Targeting Using Natural Products for the Regulation of Redox Imbalance in Neurodegeneration. *Frontiers in Pharmacology*, 12. <https://doi.org/10.3389/fphar.2021.654489>
- Megha, Mondal, K., Ghanty, T. K., & Banerjee, A. (2021). Adsorption and Activation of CO₂ on Small-Sized Cu-Zr Bimetallic Clusters. *Journal of Physical Chemistry A*, 125(12), 2558–2572. <https://doi.org/10.1021/acs.jpca.1c00751>
- Mehra, S., Nisar, S., Chauhan, S., Singh, G., Singh, V., & Rattan, S. (2021). A dual stimuli responsive natural polymer based superabsorbent hydrogel engineered through a novel cross-linker. *Polymer Chemistry*, 12(16), 2404–2420. <https://doi.org/10.1039/d0py01729a>
- Mishra, P. K., Rout, H. B., & Chaini, S. R. (2021). Tourism, governance and economic growth in india. *Journal of Environmental Management and Tourism*, 12(2), 521–528. [https://doi.org/10.14505//jemt.v12.2\(50\).21](https://doi.org/10.14505//jemt.v12.2(50).21)
- Mittal, S., Sahoo, P. K., Sahoo, S. K., Kumar, R., & Tiwari, R. P. (2021). Hydrochemical characteristics and human health risk assessment of groundwater in the Shivalik region of Sutlej basin, Punjab, India. *Arabian Journal of Geosciences*, 14(10). <https://doi.org/10.1007/s12517-021-07043-0>
- Nabi, K. N., Kumar, P., & Erturk, V. S. (2021). Projections and fractional dynamics of COVID-19 with optimal control strategies. *Chaos, Solitons and Fractals*, 145. <https://doi.org/10.1016/j.chaos.2021.110689>
- Niraula, G., Coaquira, J. A. H., Aragon, F. H., Galeano Villar, B. M., Mello, A., Garcia, F., Muraca, D., Zoppellaro, G., Vargas, J. M., & Sharma, S. K. (2021). Tuning the shape, size, phase composition and stoichiometry of iron oxide nanoparticles: The role of phosphate anions. *Journal of Alloys and Compounds*, 856. <https://doi.org/10.1016/j.jallcom.2020.156940>
- Niraula, G., Coaquira, J. A. H., Zoppellaro, G., Villar, B. M. G., Garcia, F., Bakuzis, A. F., Longo, J. P. F., Rodrigues, M. C., Muraca, D., Ayesh, A. I., Sinfrônio, F. S. M., De Menezes, A. S., Goya, G. F., & Sharma, S. K. (2021). Engineering Shape Anisotropy of Fe₃O₄-γ-Fe₂O₃ Hollow Nanoparticles for Magnetic Hyperthermia. *ACS Applied Nano Materials*, 4(3), 3148–3158. <https://doi.org/10.1021/acsanm.1c00311>
- Rahi, V., Jamwal, S., & Kumar, P. (2021). Neuroprotection through G-CSF: recent advances and future viewpoints. *Pharmacological Reports*. <https://doi.org/10.1007/s43440-020-00201-3>
- Rahi, V., & Kumar, P. (2021). Animal models of attention-deficit hyperactivity disorder (ADHD). *International Journal of Developmental Neuroscience*. <https://doi.org/10.1002/jdn.10089>
- Sahoo, P. K., Salomão, G. N., da Silva Ferreira Júnior, J., de Lima Farias, D., Powell, M. A., Mittal, S., & Garg, V. K. (2021). COVID-19 lockdown: a rare opportunity to establish baseline pollution level of air pollutants in a megacity, India. *International Journal of Environmental Science and Technology*. <https://doi.org/10.1007/s13762-021-03142-3>
- Saini, J., Garg, V. K., & Gupta, R. K. (2021). Cadmium removal from water by green synthesized nanobioadsorbent [SiO₂@DOPP]: Mechanism, isotherms, kinetics and regeneration studies. *Sustainable Chemistry and Pharmacy*, 19. <https://doi.org/10.1016/j.scp.2020.100350>
- Salomão, G. N., Farias, D. L., Sahoo, P. K., Dall’agnol, R., & Sarkar, D. (2021). Integrated geochemical assessment of soils and stream sediments to evaluate source-sink relationships and background variations in the parauapebas river basin, eastern amazon. *Soil Systems*, 5(1). <https://doi.org/10.3390/SOILSYSTEMS5010021>
- Sharma, A., Kumar, A., & Jaitak, V. (2021). Pharmacological and chemical potential of *Cassia fistula* L- a critical review. *Journal of Herbal Medicine*, 26. <https://doi.org/10.1016/j.hermed.2020.100407>
- Sharma, U., Barwal, T. S., Khandelwal, A., Malhotra, A., Rana, M. K., Singh Rana, A. P., Imyanitov, E. N., Vasquez, K. M., & Jain, A. (2021). LncRNA ZFAS1 inhibits triple-negative breast cancer by targeting STAT3. *Biochimie*, 182, 99–107. <https://doi.org/10.1016/j.biochi.2020.12.026>
- Singh, A. K., Kushwaha, P. P., Prajapati, K. S., Shuaib, M., Gupta, S., & Kumar, S. (2021). Identification of FDA approved drugs and nucleoside analogues as potential SARS-CoV-2 A1pp domain inhibitor: An in silico study. *Computers in Biology and Medicine*, 130. <https://doi.org/10.1016/j.compbimed.2020.104185>
- Singh, B., Pandey, S., Rumman, M., Kumar, S., Kushwaha, P. P., Verma, R., & Mahdi, A. A. (2021). Neuroprotective and Neurorescue Mode of Action of *Bacopa monnieri* (L.) Wettst in 1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine-Induced Parkinson’s Disease: An In Silico and In Vivo Study. *Frontiers in Pharmacology*, 12. <https://doi.org/10.3389/fphar.2021.616413>
- Singh, M., & Gupta, R. K. (2021). A note on optimal systems of certain low-dimensional Lie algebras. *International Journal of Nonlinear Sciences and Numerical Simulation*. <https://doi.org/10.1515/ijnsns-2017-0181>
- Singh, R., & Singh, S. (2021). Text Similarity Measures in News Articles by Vector Space Model Using NLP. *Journal of The Institution of Engineers (India): Series B*, 102(2), 329–338. <https://doi.org/10.1007/s40031-020-00501-5>
- Singh, S., & Singla, R. (2021). Defect prediction model of static code features for cross-company and cross-project software. *International Journal of Information Technology (Singapore)*, 13(2), 667–675. <https://doi.org/10.1007/s41870-018-0262-5>

- Tanwar, A. K., Dhiman, N., Kumar, A., & Jaitak, V. (2021). Engagement of phytoestrogens in breast cancer suppression: Structural classification and mechanistic approach. *European Journal of Medicinal Chemistry*, 213. <https://doi.org/10.1016/j.ejmech.2020.113037>
- Thakur, N., Flowerika, Thakur, N., Khan, S., Pandey, A. K., & Tiwari, S. (2021). Carotenoid cleavage dioxygenases (HD-CCD1A and B) contribute as strong negative regulators of β -carotene in Indian bread wheat (cv. HD2967). *3 Biotech*, 11(5). <https://doi.org/10.1007/s13205-021-02775-y>
- Thakur, R., Ahluwalia, P. K., Kumar, A., Sharma, M., & Sharma, R. (2021). Twisted helical armchair graphene nanoribbons: mechanical and electronic properties. *European Physical Journal B*, 94(5). <https://doi.org/10.1140/epjb/s10051-021-00102-1>
- Thakur, R., Ahluwalia, P. K., Kumar, A., & Sharma, R. (2021). Stability and electronic properties of bilayer graphene spirals. *Physica E: Low-Dimensional Systems and Nanostructures*, 129. <https://doi.org/10.1016/j.physe.2021.114638>
- Verma, S. K., Rathe, P., Jain, A. K., Liang, C., Gupta, G. D., & Thareja, S. (2021). De novo designing, assessment of target affinity and binding interactions against aromatase: Discovery of novel leads as anti-breast cancer agents. *Structural Chemistry*, 32(2), 847–858. <https://doi.org/10.1007/s11224-020-01673-y>
- Yadav, V. K., Singh, P. K., Sharma, D., Pandey, H., Singh, S. K., & Agarwal, V. (2021). Autoinducer N-(3-oxododecanoyl)-L-homoserine lactone induces calcium and reactive oxygen species-mediated mitochondrial damage and apoptosis in blood platelets. *Microbial Pathogenesis*, 154. <https://doi.org/10.1016/j.micpath.2021.104792>

Research Grants sanctioned for the period of March—May, 2021

Sr. No.	P.I. Name	Project Title	Funding Agency	Sanction order Number	Sanctioned Date	Sanctioned Amount
1	Dr. Jyoti Parkash	KNDy/nNOS neurons interplay: A new Possible mechanism of GnRH secretion in the Adult brain	DST-SERB	CRG/2020/003257	16.03.2021	5696700
2	Dr. Surender Sharma	X-Ray absorption near edge spectroscopy of technologically viable iron oxide nanostructures	UGC-DAE	CSR-IC-ISUM-54/CRS-337/2020-21/795	04.03.2021	226440
3	Prof. Anjana Munshi	Migraine and Epilepsy Shared GENETic Susceptibility (MEGENE) Project in Punjab	ICMR	5/4-5/Neuro/204/2020-NCD-I	31.03.2021	3038546
4	Prof. Raj Kumar	New Heterocycle Ligands as Inhibitors of Multiple EGFR Mutations (L858R)/T790M/C797S): Synthesis and Anticancer Evaluation	CSIR	02(0397)/21/EMR-II	19.04.2021	1170000
Total						8961686



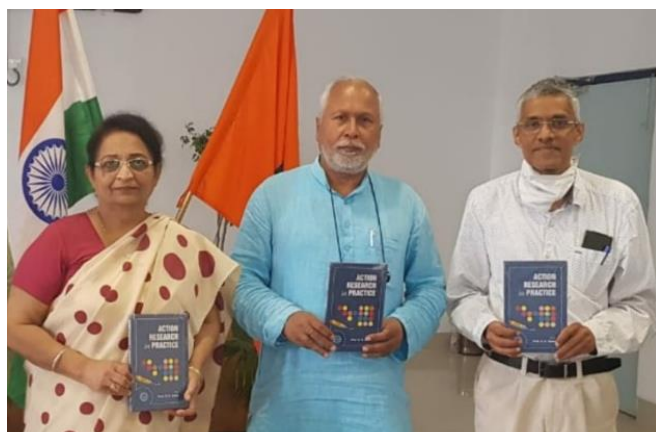
BOOKS RELEASED BY VICE CHANCELLOR

March 21, 2021: CUPB Vice Chancellor releases Book on ‘Action Research in Practice’ edited by Prof. S.K. Bawa

Prof. Raghavendra P. Tiwari, the Vice Chancellor of Central University of Punjab, Bathinda (CUPB) released a Book titled ‘Action Research in Practice’ edited by the University’s distinguished professor. This book is edited by Prof. S.K. Bawa, HoD, Dept. of Education, Central University of Punjab and published by SLM Publishers.

Vice Chancellor Prof. Raghavendra P. Tiwari congratulated Prof. S.K. Bawa for editing valuable books in the education discipline.

Prof. S.K. Bawa mentioned that the Book on ‘Action Research in Practice’ is meant to be used as a research reference to understand the solutions of some classroom problems at the school level and to get familiar with the methodology of action research. She added, that the issues taken up in this book for research may help the teachers to face similar challenges in classroom situations.

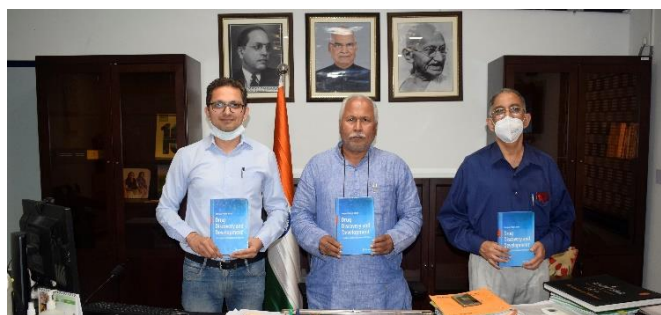


Vice Chancellor Prof. R.P. Tiwari (center) releasing the book along with Prof. S.K. Bawa (left) and Prof. R.K. Wusirika (right)

On this occasion Prof. R.K. Wusirika, Dean Incharge Academics and other faculty members of CUPB were present.

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March 31, 2021: CUPB Vice Chancellor releases Book on “Drug Discovery and Development” edited by Prof. P. Ramarao



Vice Chancellor Prof. R.P. Tiwari (center) releasing the Book along with Prof. P. Ramarao (right) and Prof. Raj Kumar (left)

The Vice Chancellor of Central University of Punjab Prof. Raghavendra P. Tiwari released a book on “Drug Discovery and Development - From Targets and Molecules to Medicines”. The book is published by Springer Nature Singapore Private. Ltd. and edited by Professor P. Rama Rao, Former Dean Academic Affairs and Professor at the Dept. of Pharmaceutical Sciences and Natural Products, Central University of Punjab, Bathinda.

Vice Chancellor Prof. Raghavendra P. Tiwari congratulated Prof. P. Ramarao for editing valuable books in the discipline of Pharmaceutical Sciences. He

mentioned that the university is committed to actualize our mission of generating new knowledge and setting higher benchmarks in education & research.

While sharing the details about the book, Prof. P. Ramarao, stated that the book titled ‘Drug Discovery and Development - From Targets and Molecules to Medicines’ is an attempt to simplify the complex process of development of new drugs by throwing some light on various phases of Drug Discovery and Development. He added, this book is an outcome of collaborative efforts of multidisciplinary experts from academia, industry, and regulatory authorities. He emphasized that this book would enable research scholars, professionals, and young scientists to understand the key fundamentals of drug discovery, including stereochemistry, pharmacokinetics, clinical trials, statistics, and toxicology. On this occasion Prof. Raj Kumar, HoD, Dept. of Pharmaceutical Sciences and Natural Products was present.

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VICE CHANCELLOR'S VISIT

March 14, 2021: CUPB Vice Chancellor Prof. Raghavendra P. Tiwari pays obeisance at Sri Harmandir Sahib

Prof. Raghavendra Prasad Tiwari, the Vice Chancellor of the Central University of Punjab, Bathinda (CUPB) paid obeisance at 'Sri Harmandir Sahib, the Golden Temple, Amritsar' on Sunday. He bowed to the holy land and made ardas at the sacred place on the occasion of Sankranti.



Golden Temple Chief Information Officer Shri Jasbinder Singh honouring CUPB Vice Chancellor with Saropa

During this visit, Shri Jasbinder Singh Jassi, Chief Information Officer, Golden Temple, Amritsar briefed Prof. Tiwari about the history of Sri Darbar Sahib & Sikh traditions.

While interacting with Shri Jasbinder Singh Jassi, Prof. Tiwari shared his vision to promote the rich culture and

heritage of Punjab. He stated that world should learn the message of truth, justice, compassion, brotherhood and oneness from the philosophy, teachings and sacrifice made by our Gurus. After the interaction, Chief Information Officer Shri Jasbinder Singh Jassi honoured the Vice Chancellor with saropa.

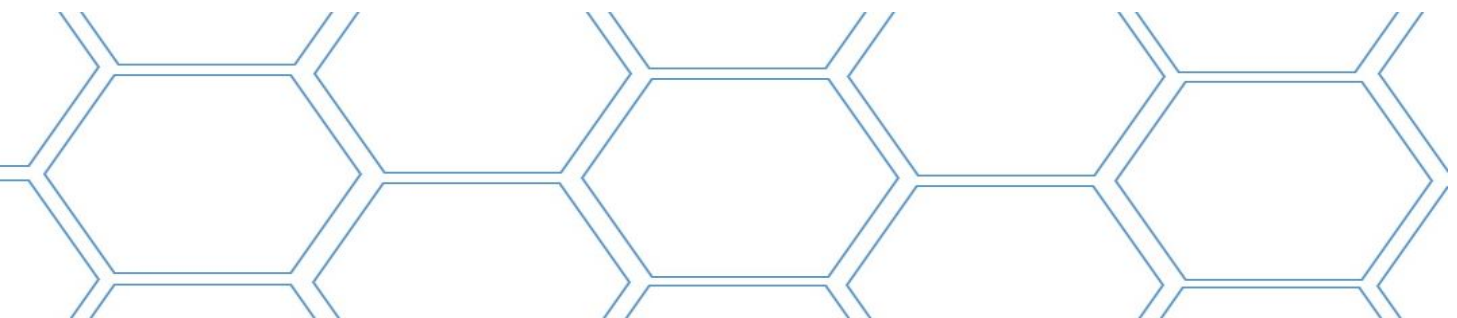
It is pertinent to mention that the Central University of Punjab under the leadership of Vice Chancellor Prof. Tiwari has established a Sikh History Section at University Library so that students from other states could know about the rich history of Sikh Religion. Additionally, the university has started a course on the Punjabi Language for employees and students of other states so that they could learn the Punjabi Language. Apart from this, the university is putting all efforts into setting up of a Chair on Sri Guru Tegh Bahadur Ji.



CUPB VC Prof. Tiwari at Golden Temple with his family members

On this occasion, Prof. Tiwari's family members Smt. Karuna Tiwari, Ms. Aakriti Tiwari, Ms. Namrata Tiwari, Mr. Rahul Tiwari and Ms. Dhvani were present

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