CENTRAL UNIVERSITY OF HARYANA

NAAC Accredited 'A' Grade University

ANNUAL REPORT

2020-21

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CENTRAL UNIVERSITY OF HARYANA

Mahendergarh, Haryana-123031

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Prof. P.L. Chaturvedi

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कुलगीत

विद्या धनं सर्वधनं प्रधानम्
न चौरहार्यं न च राजहार्यं
न भ्रातृभाज्यं न च भारकारी
व्यये कृते वर्धते एव नित्यं
विद्या धनं सर्वधनं प्रधानम्
शिक्षा–दीक्षा की परम्परा से
राष्ट्र का हुआ सदा उत्थान
कौशल और नवसृजन से
सजा हुआ गौरव अभियान
ज्ञान विज्ञान की शक्ति से हम
नभ–मंडल में हुए स्थापित
सीखा है इतिहास से हमने
नव तकनीकों में हुए समाहित
संस्कारों की शक्ति को जब
लिया है युवा ने पहचान
हम सब बनें राष्ट्र के रक्षक
आओ करें नव भारत निर्माण... आओ करें भारत निर्माण
कला, योग, विज्ञान, विधि का
विश्वविद्यालय देता ज्ञान
तन, मन और जीवन शुचिता का
देता है यह शुभ वरदान
जन्म लेकर जिस धरा पर
शौर्य करता शीश बलिदान
अपनी मेहनत से माटी को
सोना कर दे जहाँ किसान
हर की धरा हरियाणा पर
स्थापित अपना कुल–महान
शिक्षा और स्वावलम्बन
आओ! ऐसे कुल को करें प्रणाम
ऐसे कुल को करें प्रणाम

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Hon'ble Shri Ram Nath Kovind
The President of India
Visitor of the University

"Universities should play a leading role in addressing the specific challenges faced by our nation. Many of these challenges require creative and innovative solutions"

Prof. Tankeshwar Kumar
Vice-Chancellor

From the Desk of the Vice-Chancellor ...

I am delighted to present the Annual Report 2020-21, which provides a brief reflection of the performance and achievements of the Central University of Haryana, during the year 2020-21. The year was marked by several efforts to excel in academics where the University made significant achievements. With a determination to strive for excellence, the University not only geared itself, but successfully shifted to an online mode of teaching and research, and made significant progress in various areas.

The year marked the entry into the 13th year of the establishment of the University. The University continues to emerge as a leading educational institution in the National Capital Region. During the session, the University offered 08 UG, 31 PG, and 25 Research programmes under 34 Departments subsumed in 7 Schools, and is looking forward to introducing more programmes in the near future to expand the academic horizon of the University in tune with National Education Policy-2020.

Central University of Haryana has been one of the front runners in implementing the National Education Policy (NEP) 2020, in a phased manner. The Task Force has prepared a Comprehensive Roadmap for Implementation of the NEP after a series of discussions/consultative sessions with the eminent experts from various prestigious higher educational institutes and academia of the University. The University has already prepared the Strategic Action Plan for phased implementation of relevant provisions of the Policy in a time-bound manner. Moving ahead towards multidisciplinary education and research, the University has geared up the process to introduce new academic programmes in Basic Sciences, Social Sciences and Engineering with special focus on integrated approach to learning. A plan of action has already been charted out to start various UG, PG and integrated programmes with multiple entry/exit options.

Additionally, the approval for Department of Pharmaceutical Sciences was also accorded by the Pharmacy Council of India (PCI). The enrollment of the students also increased in this session, with a total number of 3203 students: 1094 in UG, 1774 in PG and 335 in research programmes. The enrolment of more than 54% students from 26 states other than Haryana is a testimony to the commitment of the University to excel in academics, research, innovation and extension activities. The percentage of enrolled female students also steadily increased (37%).

In addition to the New Administrative Building, which houses all the administrative offices/officers and staff for effective functioning, the University continued to expand its infrastructure by adding a new Girls' Hostel, Boys' Hostel, and the Health Centre, which are ready to be occupied in the current academic session.

Also, two residential blocks, Type-V and Type-III, are nearing completion and may be occupied soon.

A significant achievement of the University is evident in the development of CUH-Learning Management System (LMS) with the active support of INFLIBNET, which was instrumental in facilitating online teaching during the lockdown period. The University offered several courses through LMS in the previous session and continues to do so. To impart effective learning, the University has adopted the advanced and innovative teaching methodologies, including MOOCs. The University has been also engaged in e-content creation by running popular and top-ranking MOOC on SWAYAM platform, titled, "Food Microbiology and Food Safety", having 3607 learners from more than 22 universities / institutes.

Converting challenges of pandemic period to opportunities, the university engaged the students and faculty in constructive academic debates and discussions by organizing 10 International webinars, 46 National webinar, 02 FDPs, 03 workshops and 30 extension lectures during the year.

Besides uninterrupted teaching-learning activities, the University excelled in research activities also, as the faculty and scholars published a large number of quality research papers, articles, book chapters and books. Further, the faculty was also engaged in undertaking 20 research projects in this session, while 8 projects were successfully completed. The University faculty also made their mark in filing/publishing patents and providing consultancies. In addition, our faculty members secured distinguished positions/memberships in prestigious national committees, thus enhancing the University's representation and prestige. Continuing with the best practices, the University has institutionalized the practice to assess, recognize and appreciate the outstanding researchers through annual presentations, and Annual Best Researcher Awards. These initiatives keep our faculty motivated and engaged throughout the year. For the development of team spirit among the teachers, the University has also introduced awarding of annual ratings based on the distinct achievements of the various departments.

With all the collective efforts, I am hopeful that in the coming years, along with teaching and learning activities, the University will become a hub of high-quality research. Apart from our teachers, our students have also made us proud with their active participation and achievements in academics, sports and extracurricular activities. It gives me immense pleasure to extend all possible support and help to the students so that they grow in their educational career path.

It is heartening to see that the University faculty, non-teaching staff, as well as students continued to work collectively to excel in their career and thus bring name and fame to the University. I am hopeful that they will continue to strive even harder towards fulfilling the vision and mission of the University and develop it as one of the progressive higher educational institutions by adhering to high standards and ethics.

Jai Hind.

(Prof. Tankeshwar Kumar)

CENTRAL UNIVERSITY OF HARYANA

The University Logo

'Achieving through Believing'

The University logo was conceived with a globe at its centre surrounded by the holy trinity of three arcs and at the bottom is a *shloka* taken from *Neeti Shatkam* written by Bhratrihari.

The arc at the bottom depicts an open book and a Veena, symbolising the University's commitment to meeting the quest for acquiring knowledge, learning and enlightenment for promoting art and culture.

The arc at the right depicts the processes of science, technology and adventure, symbolising the University's commitment to developing, scientific temper, spirit of enquiry and to creating a culture of creativity and innovation for its holistic development.

The arc at the left depicts nature, and symbolises the University's commitment to promoting value-based education, ethical conduct, inculcating respect for environment and ecology, and living in harmony with nature.

The globe, at the centre, surrounded by the human chain and the pigeon flying above expresses the University's belief that commitments represented by the trinity of three arcs shall lead to free spirit, global peace, prosperity, and human solidarity, the real spirit of education.

The *shloka*, "***Vidyadhanam Sarvadhanapradhanam***", at the bottom, conveys that the wealth of Knowledge is the most important of all wealth.

ABOUT THE UNIVERSITY

University

The Central University of Haryana (established under the Central Universities Act, 2009) is funded and regulated by the University Grants Commission and the Ministry of Education, Government of India. The University is located at Jant and Pali villages of district Mahendergarh in South Haryana, which is now a part of the extended National Capital Region.

Visitor of the University

His Excellency, The President of India, Shri Ram Nath Kovind

Chancellor

Prof. P. L. Chaturvedi (Till December 19, 2020)

Vice-Chancellor

Prof. R.C. Kuhad FAMSc. FNASc, FNAAS, FBRS

Vision

To develop enlightened citizenship of a knowledge society for peace and prosperity of individuals, the nation and the world, through promotion of innovation, creative endeavours, and scholarly inquiry.

Mission

To serve as a beacon of change, through multi-disciplinary learning, for creation of a knowledge community, by building a strong character and nurturing a value-based, transparent, work ethics, promoting creative and critical thinking for holistic development and self-sustenance for the people of India. The University seeks to achieve this objective by cultivating an environment of excellence in teaching, research and innovation in pure and applied areas of learning, with a focus on social inquiry, democratic ethos and inclusive socio-economic development, community outreach initiatives, scientific endeavours and technological advancement.

Objectives of the University

The objectives of the University are:

- To disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit;
- To make special provisions for integrated courses in humanities, social sciences, science and technology in its educational programmes;
- To take appropriate measures for promoting innovations in teaching-learning process and interdisciplinary studies and research;
- To educate and train human resource for the development of the country;
- To establish linkages with industries for the promotion of science and technology; and
- To pay special attention to the improvement of the socio-economic conditions and welfare of the people, through their intellectual, academic and cultural development.

Quality Statement

Perseverance, determination, inquiry, ethical conduct, probity, transparency, accountability, continuous self-evaluation, and improvement to form the cornerstones of all endeavours for holistic and inclusive growth and development of society, through excellence in academics, research and other relevant and meaningful pursuits.

SPECIAL FEATURES OF THE UNIVERSITY

Innovative, Interdisciplinary and Skill-Based Programmes:

a) Global Initiatives for Academic Networks (GIANs): The University has organized 15 GIAN courses in the field of Starters and Start-ups, Entrepreneurship, Skill Development, Innovation and Sustainable Development through Microbial Biotechnology and many more are in the pipeline in various fields like Health and Nutrition, Biochemical Techniques, new diagnostic tools, innovative educational pedagogy, Geophysical Techniques, Earth Sciences, Environmental Studies, Energy Conservation, Innovative Mathematical Techniques, Language and Linguistic Studies. Through these courses, the University is looking to build network with internationally renowned academicians and researchers in these fields for giving a boost to these areas and for forging strategic partnerships with internationally acclaimed institutions for collaboration in academics, research and innovation.

b) Bachelor of Vocational (B. Voc.) Programme: Three Bachelor of Vocational Programmes which started in the year 2015 under Deen Dayal Upadhyay Kaushal Kendra Scheme have been regularised under the Department of Vocational Studies and Skill Development. These specialised courses are; Retail and Logistics Management, Biomedical Sciences and Industrial Waste Management with a specific focus on the development of entrepreneurship and skills among the students.

c) Student Counselling System: The University has developed a robust and responsive student counselling system to cater to the sensitive needs and aspirations of the students. This system provides individual student counsellors, then class counsellors, and the counsellors at departmental level. The hostel also has a similar counselling system starting from individual student counsellors, class counsellors, to hostel level counsellors.

d) CUH Covid Helpline "Corona se Jung, Manovigyan ke sang": The Department of Psychology has been providing Tele-counseling through: "कोरोना से जंग मनोविज्ञान के संग", at the University Helpline numbers right from 20th March 2020 onwards, the day when first lockdown was declared. The department also has been giving its regular services through other platforms like, Manodarpan, an initiative of MHRD under Aatam Nirbhar Bharat, Rehabilitation Council of India (RCI, New Delhi), and Indian Academy of Health Psychology (IAHP), provided counseling services to migrant labour at District Administration, Mahendergarh. The Department has helped thousands of students and people to cope with mental health challenges due to the pandemic situations.

e) The University introduced a UGC-approved 2 credit course on 'Research and Publication Ethics' for 250+ Ph.D./M.Phil. students enrolled in 2020-21 in 25 departments. The researchers are being trained by the experts from the prestigious research and educational institutions of India.

Implementation of Online Processes, Services and Facilities:

a) Online Admission Process: The University has made the admission process online for all the programmes of the study. Admission to the hostels has also been made completely online.

Admission to UG/PG/M. Phil./Ph. D. Courses

- Entrance Exam is conducted through CUCET (Central Universities Common Entrance Test).
- Final admission is done after receiving the preferences from the candidates for the University. The process has been made completely online from Academic Session 2018-19 onwards.
- Admission forms are being provided online along with the facility of online submission of the scanned copies of documents.

- Counselling and physical verification of documents is also done offline as well as online as per the convenience of the students.
- Submission of fee can be done offline as well as online as per the convenience of the students.

b) **E-Resources:** Through the website, the University provides all e-resources under the University Library System viz: maintaining links for National Digital Library, e-Books, Judgment Information System, National Science Digital Library, Online Periodicals Repository, GOI web directory, NPTEL, e-ShodhSindhu, and e-PG Pathshala.

c) **Online Administrative and Student related forms:** All student related forms like identity card application form, library membership form, Wi-Fi password form, etc. are available on the website of the University. Similarly, all administrative forms like identity card application form, library membership form, Leave forms, LTC forms, etc. are also available online for teaching and non-teaching staff.

d) **Online Recruitment Process:** The University has successfully adopted an online system of recruitment for teaching as well as non-teaching positions.

Success Stories:

(i) Innovation @ CUH:

The Centre for Innovation, Skill and Entrepreneurship Development (CISED) established in the University is actively involved in organizing Exhibitions, Innovators' Meets, and Shodh Yatra. The Centre also joins hands with Grass- root and State level Innovators for developing new and credible innovations and technologies.

a) **Waste to Wealth:** The University adopts a healthy practice of converting waste to wealth. A full-fledged Bachelor of Vocational academic programme 'Industrial Waste Management' under the Department of Vocational Studies and Skill Development, has been running in the University to develop and disseminate techniques for converting industrial waste into useful products.

b) **Recycle and Reuse:** The University is quite sensitive towards sustainable practices at its campus, for example, wastewater is being treated and reused for watering the gardens and plants with the help of a fully functional sewage treatment plant (STP). The University through its CISED has been working with innovators who are contributing in recycling various waste materials particularly plastic waste like bottles, plates, etc. to be re-used as useful material.

c) **Promoting Local Technology:** The University through its CISED is actively engaged in Energy Harvesting initiative through new and innovative methods. CISED has developed a model car which runs on air and a prototype of a car that uses various forms of renewable energy like: solar, mechanical, sound etc. for running the car. The prototype won the 1st prize at Electric Expo-2016 held at Pragati Maidan, New Delhi. Also, CISED in association with some grass-root level innovators have developed a model for a novel type of speed breaker; which can generate enough electricity, for LED lights to glow, when vehicles go over it.

Industry-Academia Inter-linkages and Incubation Center:

The University is focusing on adopting best practices in development of academics and integrating new paradigms of teaching-learning pedagogy through development and dissemination of e-content, MOOCs, GIAN, etc. The University has signed more then 10 MOU's with Industry/Research Institutes/Incubation Centers/ Academic Institutions for establishing a credible network of Industry-Academia linkages.

a) **Industry-Based Academic Programmes:** The University is successfully running 3 B.Voc. programmes under the Department of Vocational Studies and Skill Development and 4 B. Tech. Programmes under the School of Engineering and Technology with a focus on the aforementioned objectives.

b) **Industry-linked curriculum:** The University is in practice to engage experts from industries in its various official statutory bodies for almost every department. Course-Curriculums of all the Departments have industry linkages and are updated as per the latest requirement of the industry. Industry vetting enhances the employability of the students. The University is also working on the modalities of availing services of people with Industry background as adjunct faculty.

c) **Food Safety Training and Certification Centre**: The University is an empaneled training partner for conducting FoSTaC in the area of Food Safety on behalf of FSSAI, Ministry of Health and Family Welfare, GOI.

Research Facilities in the University:

I. The Central Instrumentation Centre (CIC) has been created with a mission to strengthen technological infrastructure for promoting R &D in the university. Three high end equipments, Atomic Force Microscope, LC-MS/MS and Bench-top NMR are purchased which will be used for chemical/material analysis/testing/characterization. The facility will enable the researchers/ scholars/ faculty to keep pace with research developments worldwide, publish their research findings in peer reviewed high impact factor journals.

II. The School of Basic Sciences has well-equipped research laboratories with state-of-the-art facilities that allow our researchers to carry out cutting edge research work. Modern instruments like Fourier Transform Infrared Spectrometer (FTIR), a high-end Ultraviolet-Visible (UV-Vis) Spectrophotometer, Gas Chromatograph (GC) are installed. Apart from this, Polarimeter, Muffle Furnace, Refrigerated Centrifuge and Standard Centrifuge machines have also been added in the facilities. Thermal Evaporation Unit and Sputtering Units for physical thin film deposition, Microwave Furnace (200-12000 Centigrade) for annealing, heating, melting and analysis of samples at high temperature; UV-Vis-NIR Spectrophotometer for optical/reflection/transmission/ absorption and band- gap studies; Spin Coater for deposition of thin films using physical deposition techniques; Magnetic Stirrer making homogeneous mixtures by uniform heating and stirring of liquid samples; Density Measuring Kit for measuring density of different samples, Thermo gravimetric analysis (TGA/DTA/DSC) system to analyze thermal stability of sample up to 1300 °C in air and inert atmosphere, indigenous Thermal-CVD system for CNT and graphene growth are also installed in different Departments. In addition, there is a well-equipped computer lab of 20 computers with the latest Mathematical, Statistical and Computational software based on Linux/Window platform.

III. The School of Engineering and Technology has well-equipped research laboratories in all the four departments under SOET i.e. Civil Engineering, Electrical Engineering, Computer Science Engineering and Printing & Packaging Technology. Printing & Packaging Technology Department have latest Digital Printing Press, Offset Printing Machine, Roto-gravure Printing Machine, Flexographic Printing Machine, Perfect Binder, Paper Cutting and Stitching Machine, Spectrophotometer along with latest testing equipments. Computer Engineering Department has 3 computer labs with latest configuration systems along with latest softwares for modeling, simulation and data analysis. The Electrical Engineering Department has high quality Lathe Machine, Universal Milling Machine, Power System Equipment, Switchgear Equipment along with latest modern equipments. Civil Engineering Department has Digital Triaxial Testing Machine, Direct Shear Test Machine, Unconfined Compression Testing Machine, Digital CTM, Flexural testing machine, Rebound hammer, Digital CBR test machine, Los Angles abrasion test machine, Digital Marshall

Stability Test Machine, Total station, Auto level, Digital Theodolite and latest equipment required for students training and research.

IV. The School of Interdisciplinary and Applied Sciences is well equipped to perform advanced Experiments with state of the art laboratories equipped with latest equipments like Electrophoresis Units, Western blot, Thermal cyclers, refrigerated centrifuge, Real- time PCR for quantitative gene expression, High precision spectrophotometer, Quaternary HPLC, gradient HPLC, ELISA Reader, Lyophilizer and Fermenter etc. The school also have BSL-II biosafety hoods to study pathogenic microbes and have cell culture facility (CO_2 incubators, inverted microscope and culture hood). The laboratories are also well equipped to carry out environment studies with equipments like particulate matter sampler (PM10 & PM2.5), gaseous pollutants analyser, Atomic Absorption Spectrophotometer (AAS), Flame Photometer, Bomb Calorimeter, Bulk Density Apparatus, Karl-Fisher Titration unit, Digital Turbidity Meter, Sieve Shaker, COD digester, and handheld GPS for geo-spatial location of sampling sites.

V. The Language Lab: The Department of English & Foreign Languages has recently established Language Lab with a capacity of 30 modules. The Lab is equipped with the latest pronunciation software i.e. Sanako Study-1200 and designed to improve communication skills of the students. The Lab provides facilities to improve English Language in British and American accent.

VI. The School of Education (SOE) has developed various Resource Centres/Labs and facilities like ICT lab Mathematics Resource Centre, Integrated Science Lab with latest equipments, Language Lab, Psychology Lab, Social Science Resource Centre, Physical Education Resource Centre, Arts & Craft Resource Centre, enriched library with latest books, well-furnished Scholars' Room, Seminar Hall, Conference Hall, separate Reading Hall and furniture of good quality in faculty rooms as well as class rooms to provide the holistic quality education and to promote the research in Teacher Education, School Education, Inclusive Education, Educational Technology and Innovative Pedagogies. Students and teachers of various secondary schools have visited this resource centres/Labs and have been provided hands on experience. The School of Education has established ICT lab well equipped with 70 computers & internet facilities to improve the ICT skills among teachers and students across the levels. It has also proved very useful in organising international and national level ICT based workshops/events. Similarly, 'Integrated Science Lab' will be very useful in improving the scientific attitude and critical thinking of the students so that they can do the small experiments at school level. Psychological lab was established to identify and fostering the unique capabilities of each student. 'Mathematics Resource Centre' is developed to enhance competence in Mathematics skills, logical reasoning by employing various models and tools. Similarly, School of Education has also developed 'Social Science Resource Centre' to inculcate human and constitutional values and also to develop the awareness about human and physical environment among the students. 'Arts & Craft Resource Centre' to improve the aesthetic and artistic skills of students. 'Physical Education Resource Centre' for physical development and fitness is also established.

VII. Archaeological Museum: This museum contains rare relics and artifacts of the Harappan civilization excavated from various sites in and around Haryana. Special features of the museum are a full human skull, bones, jewellery items and pottery of that era.

Infrastructure:

- Approximately 500 acres of campus
- Concepts of Green Building, Photovoltaic roof structures and solar trees for harnessing the solar energy
- Campus has been developed in phases – each phase linked to the idea of an integrated Campus,

housing 'State of the Art' buildings as environment friendly and energy efficient

- Such type of building materials has been selected that minimizes detrimental environmental effects
- Construction items include locally available bricks, concrete, steel etc. with high levels of recycled contents
- Passive solar design for natural heating and cooling to optimize heat and AC system
- Trees, vegetation and bird habitat on the site are and will be protected during the construction of campus buildings
- Three Academic Blocks and one Administrative Building have been constructed in the University. All buildings are fully air-conditioned. One seminar hall exists on each floor of these Academic blocks with a seating capacity of 200. These buildings have been constructed keeping in view Green Building concept detailed as under:

  1. Fly ash bricks and fly ash cement have been used in construction.
  2. High performance glass (double glazed) has been used having minimum heat intake and maximum daylight intake to minimize conventional electric consumption.
  3. Sun cutter louvers have been used to cut off direct entry of sunlight.
  4. Energy efficient VRV air-conditioning system has been used to save electricity.
  5. Water less urinal and water saving low flow fixture have been used to save water consumption.

Initiatives taken by the University to make the campus eco-friendly

1. The University has a very lush green campus with 80% green/open area. More than 2000 trees suitable for local climate and soil have been planted in University during previous and current season.
2. The speed limit of vehicles is restricted (30 KM/hour) in campus to reduce vehicular and dust pollution
3. University has banned single use plastic in office, residential complexes and hostels.
4. The University campus has installed solar panels on the roofs of the building that helped in reducing the electricity bills. Use of renewable energy like solar power help in conserving the environment.
5. Water harvesting projects are created within the Campus for restoring the rainwater, maintaining the ground water table in the area and to develop natural ambience to attract the birds of rare species from across the boundaries for advanced research in flora and fauna within the campus
6. University has put separate bins for the biodegradable and non-biodegradable waste collection.
7. Recycled water from sewage treatment plants (STP) is being used for horticultural purposes (maintenance of lawns, watering of trees etc.) to reduce use of groundwater.

BEST PRACTICES OF THE UNIVERSITY

- The Central University of Haryana is one of the participating Universities to conduct Central Universities Common Entrance Test (CUCET) for admission to various programmes of study.
- Robust Students Counselling Mechanism with the provision of Faculty Advisor to each individual student.
- Online admissions, registration and counselling; cashless transactions; dynamic website and optimum use of ICT in day-to-day administrative communications for transparent Governance;
- All research scholars are being provided official email IDs for academic communication;
- State-of-the-art video conferencing hardware/facility is developed in the Conference Hall, Vice-Chancellor's Office in the Administrative Block and Vice-Chancellor's Camp Office;
- Completely self-reliant dedicated server is facilitated for accessing e-LMS which comprises 260+ courses of 34 subjects;
- Installed full body disinfectant chamber at the entry of University gate;
- Audio-video archival of folk heritages of adopted villages of the university;
- Students are encouraged for making documentaries, social advertisements, research projects on local issues and crucial issues like voting awareness, sensitization, health awareness etc.;
- Digital ecosystem: All the official work has been digitalized in the University.
- The University was the first one to start providing Tele-counseling on its website right from March 15, 2020 with the name "कोरोना से जंग मनोविज्ञान के संग", We also joined hands in providing the same through various platforms like, Manodarpan, (the Government of India Psychological Helpline), Indian Academy of Health Psychology, Rehabilitation Council of India, along with tele-counseling we extended our help to deal with the problem of migrant labour at Mahendergarh by providing counseling services to them;
- The students practiced pronunciation and Phonetics in self-prepared lab sessions without using any extra software. students living in different parts of the nation could benefit from the training sessions;
- The Orientation Programme conducted for the newly-admitted students at the outset of the Academic Session in each department;
- Different native trees like Neem, Papri, Pilkhan, Amaltas, Sheesham are regularly planted in the university campus;
- Recycled water from sewage treatment plant (STP) is being used for horticultural purposes (maintenance of lawns, watering of trees, etc.) to reduce use of groundwater;
- The University is actively involved in societal outreach programmes and help the community to fight with COVID-19. The University also organised awareness camps (online/offline/through various competitions) about various preventive measures, medical help, and important of Arogya Setu App to help the people fight COVID-19, especially of the nearby adopted villages.

UNIVERSITY COURT

(as on 31st March, 2021)

1	Chairperson **Prof. P.L. Chaturvedi** Chancellor (Till 19th December, 2020)		
2	**Prof. R.C. Kuhad** Vice-Chancellor, CUH	3	**Prof. D.P.S. Verma** Former Professor, Department of Commerce, Delhi School of Economics, University of Delhi, Delhi.
4	**Prof. Bhim Singh Dahiya** Former Vice-Chancellor, Kurukshetra University, Kurukshetra, Haryana	5	**Prof. Om Prakash Arora** Emeritus Fellow, Department of Chemistry, Kurukshetra University, Kurukshetra
6	**Prof. Satwanti Kapoor** Professor (Retd.), Department of Anthropology, University of Delhi, Delhi	7	**Prof. Tahir Hussain** Member, National Monitoring Committee for Minority Education, MHRD, Govt. of India
8	**Dr. P.K. Khurana** Former Principal, Shaheed Bhagat Singh College, University of Delhi, Delhi	9	**Prof. Sanjiv Kumar** Dean, School of Humanities and Social Sciences
10	**Prof. Rajesh Kumar Malik** Proctor & Dean, School of Law, CUH	11	**Prof. Deepak Pant** Dean, School of Basic Sciences
12	**Prof. Satish Kumar** Dean, School of Interdisciplinary & Applied Sciences	13	**Dr. Anand Sharma** Dean, School of Business & Management
14	**Dr. Parmod Kumar** Dean, School of Education	15	**Dr. Ajay Kumar Bansal** Dean, School of Engineering & Technology
16	**Prof. Dinesh Kumar Gupta** Professor, Department of Library and Information Science (DSW)	17	**Prof. Neelam Sangwan** Head, Department of Biochemistry
18	**Prof. Rajbir Singh Dalal** Head, Department of Political Science	19	**Prof. Ravinder Pal Ahlawat** Head, Department of Physical Education and Sports

20	**Dr. Dinesh Kumar** Head, Department of Pharmaceutical Sciences	21	**Dr. Vikas Garg** Head, Department of Civil Engineering
22	**Dr. Gunjan Goel** Head, Department of Microbiology	23	**Dr. Rajesh Kumar Gupta** Head, Department of Mathematics
24	**Dr. Suneel Kumar** Head, Department of Physics and Astrophysics	25	**Dr. Ranbir Singh** Head, Department of Tourism and Hotel Management
26	**Dr. Vishwanand Yadav** Head, Department of Psychology	27	**Dr. Ranjan Aneja** Head, Department of Economics
28	**Dr. Rakesh Kumar** Head, Department of Computer Science & Engineering	29	**Dr. Santosh C. Hulagabali** Librarian
30	**Prof. Sarika Sharma** School of Education (Professor other than Dean)	31	**Dr. Vipul Yadav** Controller of Examinations
32	**Sh. Manoranjan Tripathy** Finance Officer	33	**Dr. J.P. Bhukar** Associate Professor, Department of Physical Education and Sports, Registrar (I/C)
34	**Dr. Devinder Singh** Professor, Department of Laws, Panjab University, Chandigarh (Visitors Nominee)	35	**Prof. Tanuja Agarwala** Professor, Faculty of Management Studies, University of Delhi (Visitors Nominee)
36	**Smt. Minakshi Chaudhary** Author and Social Worker, Shimla (Visitors Nominee)	37	**Prof. Vandana Punia** Prof. (Education), Human Resource Development Center erstwhile Academic Staff College, Guru Jambheshwar University of Science & Technology, Hisar, Haryana. (Visitors Nominee)
38	**Prof. Bhagwati Prasad Saraswat** Head, Department of Commerce, Maharshi Dayanand Saraswati University, Ajmer, Rajasthan (Chancellor Nominee)	39	**Prof. (Dr.) P.K. Sharma** Professor of Management, Vardhman Mahaveer Open University, Kota, Rajasthan (Chancellor Nominee)

40	**Dr. Ajai Pal Sharma** Department of Management Studies, CUH.	41	**Dr. Pardeep Singh** Department of Law, CUH
42	**Dr. Kavita A. Sharma** President, South Asian University, New Delhi	43	**Prof. J. P. Singh Joorel** Director, Information and Library Network Centre, Infocity, Gandhinagar, Gujarat.
44	**Prof. Prem Vrat** Pro-Chancellor, Professor of Eminence and Chief Mentor, The North Cap University, Gurugram	45	**Prof. K.P. Singh** Former Vice-Chancellor, CCS Haryana Agricultural University, Hisar, Haryana
46	**Prof. O.P. Kalra** Vice-Chancellor, Pt. B.D. Sharma University Of Health Sciences, Rohtak, Haryana	47	**Advocate Pawan Duggal** Advocate, Bar Association, Rohini, Delhi

EXECUTIVE COUNCIL

(as on 31st March, 2021)

1	Chairperson **Prof. R.C. Kuhad** Vice-Chancellor		
2	**Prof. Sanjiv Kumar** Dean, School of Humanities and Social Sciences	3	**Prof. Rajesh Kumar Malik** Proctor, ex-officio & Dean, School of Law
4	**Prof. Deepak Pant** Dean, School of Basic Sciences	5	**Prof. D.P.S. Verma** Former Professor, Department of Commerce, Delhi School of Economics, University of Delhi, Delhi
6	**Prof. Bhim Singh Dahiya** Former Vice-Chancellor, Kurukshetra University, Kurukshetra, Haryana	7	**Prof. Om Prakash Arora** Emeritus Fellow, Department of Chemistry, Kurukshetra University, Kurukshetra
8	**Dr. P.K. Khurana** Principal, Shaheed Bhagat Singh College, Delhi University	9	**Prof. Satwanti Kapoor** Professor (Retd.), Department of Anthropology, University of Delhi, Delhi
10	**Prof. Tahir Hussain** Member, National Monitoring Committee for Minority Education, Ministry of Human Resource Development, Govt. of India	11	**Dr. J.P. Bhukar** Registrar I/C, Secretary, ex-officio

ACADEMIC COUNCIL

(as on 31st March, 2021)

1	Chairperson **Prof. R.C. Kuhad** Vice-Chancellor		
2	**Dr. (Prof.) Param Jeet Singh** Professor (Retd.), Department of Law, Punjabi University, Patiala	3	**Prof. Deepak Gaur** Professor, School of Biotechnology, Jawaharlal Nehru University
4	**Dr. (Mrs.) Shimla** Former Registrar, YMCA University of Science and Technology, Faridabad	5	**Dr. Ashwani Mahajan** Associate Professor, Department of Economics, PGDAV College, University of Delhi
6	**Prof. P.C. Pattnaik** Head, Department of Modern Indian Languages and Literary Studies, University of Delhi, Delhi	7	**Prof. Raj Kumar** Vice-Chancellor, Panjab University, Chandigarh-160014
8	**Prof. Sathans** Professor, Department of Electrical Engineering, NIT, Kurukshetra-136119	9	**Prof. Ram Singh** Professor, Department of Economics, Delhi School of Economics, University of Delhi, Delhi
10	**Mr. Manas Chandra Fuloria** Co-founder & CEO, Nagarro Software Ltd., Gurugram	11	**Prof. Markanday Ahuja** Vice-Chancellor, Gurugram University, Gurugram
12	**Prof. Sanjiv Kumar** Dean, School of Humanities & Social Sciences, CUH	13	**Prof. Rajesh Kumar Malik** Dean, School of Law, CUH
14	**Prof. Deepak Pant** Dean, School of Basic Sciences	15	**Prof. Satish Kumar** Dean, School of Interdisciplinary & Applied Sciences
16	**Dr. Anand Sharma** Dean, School of Business & Management	17	**Dr. Parmod Kumar** Dean, School of Education
18	**Dr. Ajay Kumar Bansal** Dean, School of Engineering & Technology	19	**Prof. Neelam Sangwan** Head, Department of Biochemistry

20	**Prof. Rajbir Singh Dalal** Head, Department of Political Science	21	**Prof. Ravinder Pal Ahlawat** Head, Department of Physical Education and Sports
22	**Prof. Dinesh Kumar Gupta** Head, Department of Library and Information Science	23	**Dr. Dinesh Kumar** Head, Department of Pharmaceutical Sciences
24	**Dr. Vikas Garg** Head, Department of Civil Engineering	25	**Dr. Gunjan Goel** Head, Department of Microbiology
26	**Dr. Rajesh Kumar Gupta** Head, Department of Mathematics	27	**Dr. Suneel Kumar** Head, Department of Physics and Astrophysics
28	**Dr. Ranbir Singh** Head, Department of Tourism and Hotel Management	29	**Dr. Vishwanand Yadav** Head, Department of Psychology
30	**Dr. Ranjan Aneja** Head, Department of Economics	31	**Dr. Rakesh Kumar** Head, Department of Computer Science & Engineering
32	**Prof. Sarika Sharma** Professor, School of Education	33	**Dr. Vinod Kumar** Associate Professor, Department of Chemistry
34	**Dr. Bijender Singh** Associate Professor, Department of Biotechnology	35	**Dr. Ajai Pal Sharma** Assistant Professor, Department of Management Studies
36	**Dr. Anju Beniwal** Assistant Professor, Department of Law	37	**Dr. Santosh C. Hulagabali** Librarian
38	**Ms. Yempali Priyanka** (Roll No-31230199) Research Scholar (Ph.D.) Department of Civil Engineering (Student Representative)	39	**Ms. Mubashira K P** (Roll No-190484) PG Student (M.A.) Department of Sociology (Student Representative)
40	**Dr. P.K. Khurana** Principal (Retd.), Shaheed Bhagat Singh College, University of Delhi	41	**Prof. Suresh Kumar** Professor, Department of African Studies, Faculty of Social Sciences, University of Delhi, Delhi-110007
42	**Dr. Savitri Kadloor** Professor, Dept. of Political Science, Jamia Millia Islamia, New Delhi	43	**Dr. J.P. Bhukar** Registrar I/C, Secretary, ex-officio

FINANCE COMMITTEE

(as on 31st March, 2021)

Chairperson **Prof. R. C. Kuhad** Vice-Chancellor	
Joint Secretary and Finance Advisor MHRD, or Hon'ble President of India nominee from finance Bureau of MHRD not below the rank of Deputy Secretary	Joint Secretary (CU & L) of MHRD, or Hon'ble President of India nominee not below the rank of Joint Secretary to the Govt. of India
Joint Secretary (CU), UGC or any other Joint Secretary level office nominated by the Chairman, UGC Sh. J. K Tripathi	**Prof. Tahir Hussain** Member, national Monitoring Committee for Minority education, MHRD, Govt. of India
Prof. Rajesh Kumar Malik HOD, Dept. of Law Central University of Haryana	**Dr. Vikas Gupta** Senior Director National Testing Agency (NTA) Govt. of India. Noida (U.P).
Sh. Rajeev Sharma IAS (Retd.) Panchkula, Haryana	

DEPARTMENTS OF THE UNIVERSITY & STUDENT ENROLLMENT IN DIFFERENT COURSES

S. N.	Name of the Programme	Intake Capacity	No. of Students Enrolled
School of Basic Sciences			
Department of Chemistry			
1	M.Sc. (Chemistry)	50	45
2	Ph.D. (Chemistry)	10	07
Department of Geography			
1	M.Sc. (Geography)	50	40
2	Ph.D. (Geography)	12	11
Department of Computer Science			
1	Master of Computer Applications	50	37
Department of Mathematics			
1	M.Sc. (Mathematics)	50	41
2	Ph.D. (Mathematics)	11	10
Department of Physics			
1	M.Sc. (Physics)	50	45
2	Ph.D. (Physics)	10	07
Department of Statistics			
1	M.Sc. (Statistics)	30	24
2	Ph.D. (Statistics)	1	1
School of Business and Management Studies			
Department of Economics			
1	M.A. (Economics)	40	29
2	M.Phil. (Economics)	04	03
Department of Tourism & Hotel Management			
1	M.H.M.C.T.	30	15
2	M.T.T.M	15	15
3	Ph.D. (Tourism and Hotel Management)	02	02
Department of Commerce			
1	M.Com	50	40
2	Ph.D. (Commerce)	04	03

Department of Management Studies			
1	Master of Business Administration	50	41
2	Ph.D. (Management)	05	03
School of Education			
Department of Education			
1	M.Ed.	30	18
2	M.Phil. (Education)	08	07
3	Ph.D. (Education)	04	02
4	B.Ed.	125	121
Department of Physical Education & Sports			
1	M.P.E.S.	20	16
2	Ph.D. (Physical Education and Sports)	11	08
School of Engineering and Technology			
1	B.Tech. (Civil Engineering)	60	54
2	B.Tech. (Computer Science and Engineering)	75	69
3	B.Tech. (Electrical Engineering)	60	50
4	B.Tech. (Printing and Packaging Technology)	40	20
5	Ph.D. (Civil Engineering)	16	09
6	Ph.D. (Computer Science and Engineering)	13	03
7	Ph.D. (Electrical Engineering)	18	05
School of Humanities and Social Sciences			
Department of English			
1	M.A. (English)	40	36
2	M.Phil. (English)	07	07
3	Ph.D. (English)	08	08
Department of Hindi			
1	M.A. (Hindi)	25	22
2	M.Phil. (Hindi)	03	03
3	Ph.D. (Hindi)	04	03
Department of History and Archaeology			
1	M.A. (History and Archaeology)	30	17
2	M.Phil. (History and Archaeology)	01	00
3	Ph.D. (History and Archaeology)	14	07

Department of Journalism and Mass Communication			
1	M.A. (JMC)	25	13
Department of Political Science			
1	M.A. (Political Science)	40	30
2	M.Phil. (Political Science)	10	08
3	Ph.D. (Political Science)	10	10
Department of Psychology			
1	M.A. (Psychology)	40	37
2	Ph.D. (Psychology)	14	10
Department of Sanskrit			
1	M.A. (Sanskrit)	15	08
Department of Sociology			
1	M.A. (Sociology)	30	24
2	M.Phil. (Sociology)	02	02
3	Ph.D. (Sociology)	05	03
School of Interdisciplinary and Applied Sciences			
Department of Biochemistry			
1	M.Sc. (Biochemistry)	31	21
2	Ph.D. (Biochemistry)	16	10
Department of Biotechnology			
1	M.Sc. (Biotechnology)	31	29
2	Ph.D. (Biotechnology)	07	01
Department of Environment Science			
1	M.Sc. (Environment Science)	38	30
Department of Library and Information Science			
1	M. Lib. & Info. Sc.	25	18
Department of Microbiology			
1	M.Sc. (Microbiology)	31	20
2	Ph.D. (Microbiology)	06	05
Department of Nutrition Biology			
1	M.Sc. (Nutrition Biology)	31	16
2	Ph.D. (Nutrition Biology)	06	03

Department of Yoga			
1	M.Sc. (Yoga)	15	14
2	Ph.D. (Yoga)	04	02
Department of Pharmaceutical Sciences			
1	M. Pharm. (Pharmacology)	10	09
School of Law			
Department of Law			
1	LL.M.	25	19
2	LL.B.	120	96
3	Ph.D. (Law)	25	24
Department of Vocational Studies and Skill Development			
1	B.Voc. (Biomedical Sciences)	50	37
2	B.Voc. (Industrial Waste Management)	50	25
3	B.Voc. (Retail and Logistic Management)	63	52

Student Enrolment Summary in Academic Session					
2020-21					
Programme	**Intake**	**Male**	**Female**	**Total**	**Outside Haryana**
Undergraduate	518	924	170	1094	643
Postgraduate	1132	910	864	1774	918
Doctor of Philosophy (Ph.D.)	221	153	151	304	146
Master of Philosophy (M.Phil.)	36	16	15	31	22
Total	**1907**	**2003 (63%)**	**1200 (37%)**	**3203**	**1729 (54%)**

ACHIEVEMENTS OF THE STUDENTS

Name of the Department	Number of students qualified JRF/NET/ GATE/ CTET	Placements /Selected for Higher Studies	Number of M.Phil. and Ph.D. Awarded	Competitive Examinations Qualified and other achievements
School of Basic Sciences				
Department of Chemistry	NET/JRF-2	0	-	-
Department of Computer Sciences and Information Technology	GATE-02	-	-	-
Department of Geography	NET/JRF-12	9	-	1
Department of Mathematics	NET/JRF - 4	6	-	2
Department of Physics and Astrophysics	JRF-04, NET-02	5	-	12
Department of Statistics	NET/JRF-1	-	-	-
School of Business and Management				
Department of Management Studies	NET/JRF-3	12	-	1
Department of Economics	JRF-01, NET-03, GATE-01	3	01 M.Phil. 01 Ph.D.	1
Department of Commerce	NET/JRF-8	2	-	-
Department of Tourism & Hotel Management	NET/JRF-1	-	-	-
School of Education				
School of Education (B.Ed. & M.Ed.)	NET/JRF - 4	24	6	TET-35
School of Engineering & Technology				
Department of Computer Sciences and Engineering	GATE/ CAT-07	9	-	-
Department of Electrical Engineering	-	4	-	2
Department of Civil Engineering	-	2	One Ph.D.	-
Department of Printing and Packaging Technology	-	5	-	-
School of Humanities and Social Sciences				
Department of English and Foreign Languages	NET-05, JRF-04, GATE-01	Ph.D.-04	-	-
Department of Hindi	NET/JRF- 5	1	01 Ph.D.	-

Department of History and Archaeology	NET/JRF -1	-	-	-
Department of Journalism and Mass Communication	NET/JRF- 1	10	-	10
Department of Political Science	NET/JRF -9	3	-	04
Department of Psychology	NET/JRF - 6, GATE-04	-	6	-
Department of Sanskrit	-	-	-	-
Department of Sociology	NET/JRF - 3	5	M.Phil. -03	-
School of Interdisciplinary and Applied Sciences				
Department of Biochemistry	NET/JRF-1, GATE-03	Ph.D.-02 Students	-	-
Department of Biotechnology	GATE-03	2	-	-
Department of Microbiology	NET/JRF - 3, GATE-01	6	-	Bioenergy Awards for Cutting Edge Research (B-ACER -2019)
Department of Nutrition Biology	DBT-JRF- 01	-	-	-
Department of Pharmaceutical Sciences	-	-	-	GPAT-4
Department of Environmental Studies	NET/JRF - 4	-	-	-
Department of Library and Information Sciences	NET/JRF-2	5	-	-
Department of Yoga	NET/JRF-2	-	-	-
School of Law				
Department of Law	NET/JRF-2	3	-	1
Department of Vocational Studies and Skill Development	-	53	-	-

Fee Structure

First Year Fee Structure (2020-21)

Sr. No.	Account Head	PG							UG			M.Phil.			Ph.D.		
		Humanities and Social Sciences	Sciences	Professional Courses	M.P. Ed.	M. Pharm.	B.Ed.	M.Ed.	LL.B. (3 Year Professional Course)	B.Tech.	B.Voc.	Humanities and Social Sciences	Sciences	Professional Courses	Humanities and Social Sciences	Sciences	Professional Courses
1	Security Deposit (Refundable)	1000	2000	2000	2000	2000	3000	3000	2000	5000	2000	1000	1000	1000	2000	2000	2000
2	Admission Fee	500	1500	1500	1500	1500	2000	3000	1500	3000	500	1000	1000	1000	2500	2500	2500
3	Enrolment Fee	600	600	600	600	600	600	600	600	600	600	600	600	600	1000	1000	1000
4	Registration Fee	0	0	0	0	0	0	0	0	0	0	0	0	0	2000	2000	2000
5	Identity Card	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6	Red Cross Fund	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
7	NSS fee	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
8	Insurance fee	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
9	Student Welfare Fund	400	400	400	400	400	400	400	400	400	400	400	400	400	800	800	800
10	Annual Day	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
11	University Magazine	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
12	Library Fee	1000	1000	1000	1000	2000	4000	2000	1000	1000	1000	2000	2000	2000	2000	2000	2000
13	Tuition Fee	1000	1000	1000	1000	3000	5000	5000	1000	36000	2570	2000	2000	2000	1000	1000	1000
14	Electricity/Water charges	300	300	300	300	300	300	300	300	300	300	500	500	500	600	600	600
15	Cultural activities Fee	150	150	150	150	150	150	150	150	150	150	200	200	200	200	200	200
16	Computer Lab Fee/ Internet Fee/lCT	400	400	400	400	400	1000	2000	400	400	400	1000	1000	1000	3000	3000	3000
17	Examination Fee	1000	3000	3000	3000	3000	3000	3000	3000	6000	1000	2000	2000	2000	2000	2000	2000
18	University Development Fund	300	300	300	300	300	300	300	300	6000	300	500	500	500	2100	2100	2100
19	Medical Charges	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
20	Sports Fee	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
21	Lab Fee/Industrial visit/ field work/Internship	0	3000	3000	3000	3000	2000	2000	3000	5000	1500	0	3000	3000	0	2000	2000
22	StudentAcademicactivities	100	100	100	100	100	100	100	100	100	100	200	200	200	200	200	200
23	Course Fee	0	0	0	0	0	5000	0	0	0	0	0	0	0	0	0	0
	Total	**7950**	**14950**	**14950**	**14950**	**17950**	**28050**	**23050**	**14950**	**6S150**	**12020**	**12600**	**15600**	**15600**	**20600**	**22600**	**22600**

Subsequent/Final Year Fee Structure (2020-21)

Sr. No.	Account Head	PG								UG		Ph.D.		
		Humanities and Social Sciences	Sciences	Professional Courses	M.P. Ed.	M. Pharm.	B.Ed.	M.Ed.	LL.B. (3 Year Professional Course)	B.Tech.	B.Voc.	Humanities and Social Sciences	Sciences	Professional Courses
1	Red Cross Fund	80	80	80	80	80	80	80	80	80	80	80	80	80
2	NSS fee	20	20	20	20	20	20	20	20	20	20	20	20	20
3	Insurance fee	200	200	200	200	200	200	200	200	200	200	200	200	200
4	Student Welfare Fund	400	400	400	400	400	400	400	400	400	400	500	500	500
5	Annual Day	100	100	100	100	100	100	100	100	100	100	100	100	100
6	University Magazine	200	200	200	200	200	200	200	200	200	200	200	200	200
7	Library Fee	1000	1000	1000	1000	2000	4000	2500	1000	3600	1000	2000	2000	2000
8	Tuition Fee	1000	1000	1000	1000	3000	5000	5000	1000	36000	2570	1000	1000	1000
9	Electricity/Water charges	300	300	300	300	300	300	300	300	300	300	600	600	600
10	Cultural activities Fee	150	150	150	150	150	150	150	150	150	150	200	200	200
11	Computer Lab F100ee/ Internet Fee/ICT	500	500	500	500	500	1100	2100	500	500	500	3000	3000	3000
12	Examination Fee	2000	3000	3000	3000	3000	3000	3000	3000	6000	1000	2000	2000	2000
13	University Development Fund	300	300	300	300	300	300	300	300	6000	300	2500	2500	2500
14	Medical Charges	250	250	250	250	250	250	250	250	250	250	250	250	250
15	Sports Fee	250	250	250	250	250	250	250	250	250	250	250	250	250
16	Lab Fee/Industrial visit/field work/Internship	0	3000	3000	3000	3000	5000	2000	3000	6000	2600	0	2000	2000
17	Student Academic activities	100	100	100	100	100	100	100	100	100	100	200	200	200
18	Course Fee	0	0	0	0	0	5000	0	0	0	0	0	0	0
Total		**6850**	**10850**	**10850**	**10850**	**13850**	**25450**	**16950**	**10850**	**60150**	**10020**	**13100**	**15100**	**15100**

Hostel Fee Structure

Annual Charges

S. N.	Item	Amount (Rs.)
1	Admission Fee	500
2	Hostel Association Fee	500
3	Hostel Identity Card	50
4	Kitchen Ware Charges	250
5	Recreation Centre Charges	300
6	Establishment Charges	1000
7	Hostel Development Charges	100
8	Security Fee (Refundable)	2000
	Total	**5600**

Breakup of Room charges (Monthly Charges)

S. N.	Item	Amount
1	Room Rent	150
2	Upkeep and Maintenance Charges	150
3	Recreation Centre	50
4	Electricity Charges	100
5	Water Charges	50
	Total	**500**

Other fee payable by the students

S. N.	Item	Amount
1	Duplicate Identity Card	100
2	Migration Certificate	400
3	Provisional Result	250
4	Provisional Degree	300
5	Re-admission fee	750
6	Duplicate Detail Marks Certificate (DMC/ Mark sheet)	200
7	Revaluation Fee	1000 (per paper)
8	Re-appear fee	600 (per paper)

9	Official Transcript fee	1000 (per copy)
10	Degree fee/ Duplicate degree	500
11	Duplicate Hall Ticket	100
12	Verification of Degree/ Marks Card	500
13	Ph.D. thesis submission	5000
14	M.Phil. thesis submission	3000
15	Photocopy of Answer Booklets	500

TEACHING FACULTY

SCHOOL OF BASIC SCIENCES

Department of Chemistry

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Deepak Pant	Professor & Head	Ph.D.	20	Applied Chemistry	N: 56 h index: 13
2	Dr. Vinod Kumar	Associate Professor	Ph.D.	15	Organic Chemistry	N:90 h index: 22
3	Dr. Harish Kumar	Associate Professor	Ph.D.	17	Physical Chemistry	N: 100 h index: 10
4	Dr. Manoj Kumar Gupta	Assistant Professor	Ph.D.	11	Organic Chemistry	N: 46 h index: 18
5	Dr. Rajeev S Menon	Assistant Professor	Ph.D.	14	Organic Chemistry	N: 44 h index: 24
6	Dr. Prakash Kanoo	Assistant Professor	Ph.D.	08	Materials/Inorganic Chemistry	N: 28 h index : 19
7	Dr. Azaj Ansari	Assistant Professor	Ph.D.	05	Inorganic/ Theoretical Chemistry	N: 25 h index: 10

Department of Geography

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Vinod Kumar	Associate Professor & Head	Ph.D.	15	Organic Chemistry	N:90 h index: 22
2	Dr. Manish Kumar	Assistant Professor & Teacher In charge (TIC)	Ph.D.	10	Remote sensing and GIS in urban and regional planning, land use and land cover dynamics	N:47 h index: 9
3	Dr. Kheraj	Assistant Professor	Ph.D.	06	Population, Regional, Environment Geography	N: 11
4	Dr. Gloria Kuzur	Assistant Professor	Ph.D.	09	Regional Development and Planning	N: 13
5	Dr. Jitendra Kumar	Assistant Professor	Ph.D.	07	Urban and Regional planning, Geospatial technology	N: 10 h index: 4

Department of Mathematics

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Rajesh Kumar Gupta	Associate Professor & Head	Ph.D.	16	Nonlinear Partial Differential Equations	N: 103 h index: 19
2	Dr. Arun Kajla	Assistant Professor	Ph.D.	05	Approximation Theory	N: 51 h index:15
3	Dr. Jagjeet	Assistant Professor	Ph.D.	04	Operators Theory and analysis	N :11 h index:2
4	Dr. Shah Jahan	Assistant Professor	Ph.D.	03	Functional Analysis, Frames and Wavellets theory, Dynamical Sampling.	N :07 h index:3
5	Dr. Pawan Kumar	Assistant Professor	Ph.D.	08	Fuzzy reliability, Optimization	N: 09 h index:3

Department of Physics and Astrophysics

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Suneel Kumar	Associate Professor & Head	Ph.D.	17	Theoretical Nuclear Physics	N: 218 h index: 18
2	Dr. Rakesh Kumar	Assistant Professor	Ph.D.	06	Hydrogen Sensing and Photovoltaic Properties of CVD Grown Graphene	N: 20 h index: 6
3	Dr. Jaswant Kumar	Assistant Professor	Ph.D.	10	Astrophysics & Cosmology	N: 12
4	Dr. Ramovatar	Assistant Professor	Ph.D.	01	Piezoelectric and Pyroelectric material	N: 12
5	Dr. Meenu Thakur	Assistant Professor	Ph.D.	03	Experimental Nuclear Physics	N: 68

Department of Statistics

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Devendra Kumar	Assistant Professor & Teacher In charge (TIC)	Ph.D.	09	Order statistics, Statistical Inference, Distribution Theory	N: 130 h Index: 15
2	Dr. Manoj Kumar	Assistant Professor	Ph.D.	07	Bayesian Inference	N: 27 h Index: 08
3	Dr. Kapil Kumar	Assistant Professor	Ph.D.	09	Reliability Inference, Bayesian Inference	N: 15 h Index: 07
4	Dr. Ravinder Singh	Assistant Professor	Ph.D.	03	Stochastic Modelling, Reliability Analysis	N: 13 h Index: 04

Department of Computer Science & Information Technology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Sh. Suraj Arya	Assistant Professor & Teacher In-charge (TIC)	M. Tech.	06	Internet of Things, Information Hiding, Database	N: 04
2	Ms. Priya Bansal	Assistant Professor#	M. Tech.	01	Computer Networks	N: 01
3	Mr. Rohit Pratap Singh	Assistant Professor#	M. Tech.	01	Artificial Intelligence	-

SCHOOL OF BUSINESS AND MANAGEMENT STUDIES

Department of Commerce

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Suman	Assistant Professor & Teacher In-charge (TIC)	Ph.D.	08	Finance and HRM	N: 08
2	Dr. Ravinder Kaur	Assistant Professor	Ph.D.	08	Finance and Marketing	N: 09
3	Sh. Sachin	Assistant Professor	M.Com. and M.B.A.	10	Financial inclusion, personal Finance and Financial Management	-
4	Dr. Pinki	Assistant Professor	Ph.D.	10	Marketing, HRM and OB	N: 10

Department of Economics

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Ranjan Aneja	Associate Professor & Head	Ph.D.	14	Economic Modelling and Policy Analysis	N: 35
2	Ms. Renu	Assistant Professor	M.Phil.	10	Rural Development and Agricultural Economics	-
3	Dr. Ajeet Kumar Sahoo	Assistant Professor	Ph.D.	10	Macroeconomic Policies, Development Economics	N: 15
4	Dr. Rashmi Tanwar	Assistant Professor	Ph.D.	08	Development Economics	-
5	Ms. Himanshi Aggarwal	Assistant Professor#	M.A., NET	01	Mathematical Economics	-

Department of Management Studies

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Anand Sharma	Associate Professor & Head	Ph.D.	22	Finance and Accounting	N: 36
2	Dr. Ajai Pal Sharma	Assistant Professor	Ph.D.	12	Marketing, Retail Management, Marketing Research	N: 31
3	Dr. Sunita Tanwar	Assistant Professor	Ph.D.	15	HR/Marketing/ Entrepreneurship	-
4	Dr. Divya	Assistant Professor	Ph.D.	08	HRP, HRD, Industrial Laws, Accounting, Knowledge Management and Emotional Intelligence, HR in Life Insurance	N: 10
5	Dr. Ajay Kumar	Assistant Professor	Ph.D.	09	Marketing, Consumer Behaviour, Research Methodology	N: 7 h index: 5

Department of Tourism & Hotel Management

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Ranbir Singh	Associate Professor & Head	Ph.D.	13	Tourism Management	-
2	Dr. Dilbag Singh	Assistant Professor*	Ph.D.	11	Accommodation Operations	-
3	Ms. Shikha	Assistant Professor*	Ph.D.	07	Front Office and Housekeeping Operations	-
4	Sh. Vikash	Assistant Professor*	MTTM NET	05	Tourism Management and Skill Development	-
5	Sh. Vikas Mohan	Assistant Professor*	MHM NET	11	Food and Beverage Service	-

SCHOOL OF EDUCATION

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Parmod Kumar	Associate Professor & Dean	Ph.D.	15	Elementary and Secondary Education, Teacher Education and Educational Technology	N: 44
2	Prof. Sarika Sharma	Professor	Ph.D.	20	Educational Management, Inclusive Education	N: 51
3	Dr. Renu Yadav	Assistant Professor	Ph.D.	12	Gender in Education, Leadership	N: 47 h index:2
4	Dr. Aarti Yadav	Assistant Professor	Ph.D.	08	Educational Technology, School Education	N: 19 h index:2
5	Dr. Dinesh	Assistant Professor	Ph.D.	17	Teacher Education and School Education	N : 32
6	Dr. Saran Prasad	Assistant Professor*	Ph.D.	09	Teacher Education & Guidance and Counselling	N : 08
7	Dr. Chand Vir	Assistant Professor*	Ph.D.	14	Pedagogy of Social Sciences, Value education and gender studies	-
8	Dr. Amit Singh	Assistant Professor*	Ph.D.	14	Educational Psychology	N: 15
9	Dr. Rubul Kalita	Assistant Professor*	Ph.D.	13	Special Education	N: 07

10	Dr. Kiran Rani	Assistant Professor*	Ph.D.	04	Pedagogy of English, ICT in Education and Yoga Education	N: 20 h index:1
11	Mr. Dilip Kumar Patel	Assistant Professor*	M.Phil. NET	04	Fine Arts (Drawing/ Painting)	N : 03
12	Dr. Manju	Assistant Professor*	Ph.D.	13	ICT in Education	N: 12 h index:2
13	Ms. Meenakshi	Assistant Professor*	M. Ed. NET	05	School Education Educational Psychology & Science Education	N: 04
14	Dr. Neha Bishnoi	Assistant Professor*	Ph.D.	05	Pedagogy of Physical Science, Guidance and Counselling	N: 08 h index: 01
15	Dr. Shankar Lal	Assistant Professor*	Ph.D.	14	Pedagogy of Social Science	N: 09
16	Ms. Archana Yadav	Assistant Professor*	M.A., M. Phil. NET	05	Pedagogy of Hindi, Educational Psychology, Guidance and Counselling, Yoga Education	N: 08
17	Dr. Ashish Kumar Dhawan	Assistant Professor#	Ph.D.	04	Pedagogy of Physical Science	N : 05
18	Dr. Mahendar Kakkerla	Assistant Professor#	Ph. D	07	Pedagogy of Mathematics	N : 04
19	Dr. Nitin Shirale	Assistant Professor#	Ph. D	10	Performing Arts	N : 04

Department of Physical Education and Sports

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Ravinder Pal Ahlawat	Professor & Head	Ph.D.	20	Sports Training & Athletics	N :35
2	Dr. Jaiprakash Bhukar	Associate Professor	Ph.D.	15	Sports Psychology & Athletics	N : 28
3	Dr. Sandeep Dhull	Assistant Professor	Ph.D.	04	Exercise Physiology & Hockey	N :13
4	Dr. Swati Choudhary	Assistant Professor	Ph.D.	02	Sports Psychology & Basketball	N : 12
5	Dr. Kumar P.	Assistant Professor	Ph.D.	02	Sports Bio-Mechanics & Athletics	N :15

SCHOOL OF ENGINEERING TECHNOLOGY

Department of Civil Engineering

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Vikas Garg	Associate Professor & Head	Ph.D.	23	Water Resources	N : 45
2	Dr. Neeraj Kumar	Assistant Professor	Ph.D.	02	Structural Dynamics	N : 15
3	Sh. Deepak Rana	Assistant Professor	M. Tech.	04	Geotechnical Engg.	N : 4
4	Dr. Ran Bir Singh	Assistant Professor	Ph.D.	02	Structural Engg.	N : 8
5	Dr. Abhishek Jindal	Assistant Professor	Ph.D.	05	Transportation Engg.	N : 15
6	Dr. Vikas Kumar	Assistant Professor	Ph.D.	05	Structural Engg.	N : 13
7	Sh. Sunny Tawar	Assistant Professor*	M. Tech.	02	Highway Safety & Engg.	N : 5

Department of Computer Science & Engineering

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Rakesh Kumar	Associate Professor & Head	Ph.D.	16	Wireless Networks	N : 30 h index: 10
2	Dr. Vishal Passricha	Assistant Professor	Ph.D.	06	Pattern Recognition	N : 8 h index: 6
3	Dr. Manish Kumar	Assistant Professor	Ph.D.	02	Information Security, Machine Learning	N : 8, h index: 6
4	Sh. Anant Rajee Bara	Assistant Professor	M. Tech.	02	Machine Learning, NLP	-
5	Sh. Benay Kumar Ray	Assistant Professor	Ph.D.	03	Distributed System, Cloud Computing	N : 10, h index: 6
6	Ms. Sangeeta	Assistant Professor*	M. Tech.	04	Soft Computing	-

Department of Electrical Engineering

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Ajay Kumar Bansal	Associate Professor & Head	Ph.D.	21	Electrical Engineering	N:95 h index: 12
2	Dr. Rajesh Kumar Dubey	Associate Professor	Ph.D.	18	Digital Signal & Speech Processing, Control Engg. & Instrumentation	N : 23 h index: 7
3	Dr. Sumit	Assistant Professor	Ph.D.	07	Signal Processing and Image Processing	N: 14 h index : 7
4	Dr. Manish Kumar	Assistant Professor	Ph.D.	05	Power System and Renewable Energy System	N: 36 h index : 05
5	Dr. Munish Manas	Assistant Professor	Ph.D.	06	Power System Engineering	N:19 h Index: 09
6	Dr. Muralidhar Nayak Bhukya	Assistant Professor	Ph.D.	03	Power Electronics and Renewable Energy Systems	N:15 h index: 6
7	Dr. Kalpana Chauhan	Assistant Professor	Ph.D.	09	Medical Image Processing, Microgrid	N: 50 h index: 9

Department of Printing & Packaging Technology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Sh. Sandeep Boora	Assistant Professor & Teacher In-charge	M. Tech.	11	Printing & Packaging	-
2	Sh. Anil	Assistant Professor	M. Tech.	07	Printing & Packaging	-
3	Sh. Tarun Singh	Assistant Professor	M. Tech.	07	Printing & Packaging	-
4	Sh. Shammi Mehra	Assistant Professor	M. Tech.	07	Printing & Packaging	-
5	Sh. Nishan Singh	Assistant Professor*	M. Tech.	06	Printing & Packaging	N: 30

Mathematics (SoET)

1	Dr. Phool Singh	Associate Professor	Ph.D.	16	Applied Mathematics	N:63 h index: 13
2	Ms. Preety Kumari	Assistant Professor	M.Sc. Net	03	Mathematical Modelling & Simulation	N:03, h index: 1

Chemistry (SoET)

1	Dr. Kalpana Chauhan	Associate Professor	Ph.D.	13	Organic Chemistry	N:33 h index : 15
2	Dr. Amit Kumar	Assistant Professor	Ph.D.	09	Inorganic Chemistry	N: 65 h index : 14

Physics (SoET)

1	Dr. Manoj Kumar Singh	Associate Professor	Ph.D.	15	Nanotechnology, Applied Physics	N:145 h index: 41
2	Dr. Anshu	Assistant Professor	Ph.D.	09	Physics	N:43 h index: 15

English Communication (SoET)

1	Dr. Pinki Arora	Assistant Professor	Ph.D.	06	Marxist Literary Criticism	N:10

Management Studies (SoET)

1	Dr. Manish Kumar	Assistant Professor	Ph.D.	04	Management (Marketing & HR)	-

Environmental Science (SoET)

2	Dr. Anoop Yadav	Assistant Professor*	Ph.D.	10	Solid waste management, pollution monitoring and management	N: 32 h index:15

Mechanical Engineering (SoET)

2	Dr. Sudhir Kumar	Assistant Professor*	Ph.D.	2.5	Manufacturing, Fatigue and Fracture, Welding	N: 12
3	Sh. Mohit Mittal	Assistant Professor*	Ph.D.	05	Material Science, Polymer based composite material	-

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Department of English & Foreign Languages

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Sanjiv Kumar	Professor & Head	Ph.D.	21	Diaspora Postcolonial and Dalit Literature	N: 29 h index: 03
2	Dr. Rinu	Assistant Professor	Ph.D.	08	Indian Poetics, Stylistics, American Literature	N: 06
3	Dr. Snehsata	Assistant Professor	Ph.D.	07	Existentialism	N: 5
4	Dr. Sudeep Kumar	Assistant Professor	Ph.D.	08	Indian Literary Criticism	N: 2
5	Dr. Manoj Kumar	Assistant Professor	Ph.D.	15	Indian Sanskrit Poetics, Indo-Canadian Literature, Indian Writing in English	N: 22

Department of Hindi

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Sanjiv Kumar	Professor & Head	Ph.D.	21	Diaspora Postcolonial and Dalit Literature	N: 29 h index: 03
2	Dr. Amit Kumar	Assistant Professor & Teacher In-Charge (TIC)	Ph.D.	08	Hindi Katha Sahitya	N: 05
3	Dr. Arvind Singh Tejawat	Assistant Professor	Ph.D.	10	Indian Culture & Bhakti	N: 29
4	Dr. Siddharth Shanker Rai	Assistant Professor	Ph.D.	08	Modern Poetry	-
5	Dr. Pankaj Kumar	Assistant Professor*	Ph.D.	02	Swatantrotar Paragatisheel Vaicharki aur, Hansraj Rahbar ka Katha Sahitya ke Sandarbh Main	-
6	Dr. Virender Singh	Assistant Professor*	Ph.D.	05	Modern Poetry	-

Department of History & Archaeology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Vinay Kumar Rao	Associate Professor (on lien)	Ph.D.	13	Ancient History, Culture and Archaeology	-
2	Dr. Narender Singh	Assistant Professor & Teacher In-Charge (TIC)	Ph.D.	05	Archaeology	-
3	Dr. Abhiranjan Kumar	Assistant Professor	Ph.D.	05	Modern India	4
4	Dr. Iswar Parida	Assistant Professor*	Ph.D.	06	Modern India	-
5	Prof. Amar Singh	Academic Consultant	Ph.D.	41	Field Archaeology	-

Department of Political Science

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Rajbir Singh Dalal	Professor & Head	Ph.D.	28	Indian Govt. and Politics, Indian Constitution, Development and Social Welfare Administration	N: 129
2	Dr. Chanchal Kumar Sharma	Associate Professor	Ph.D.	23	Federalism & Party Politics	N: 50 h Index: 11
3	Dr. Shantesh Kumar Singh	Associate Professor	Ph.D.	12	South Asia , India's Foreign Policy and Indian Polity	N: 36
4	Dr. Ramesh Kumar	Associate Professor	Ph.D.	13	International Relations, South Asia and India's Foreign Policy	N: 29
5	Dr. Rajeev Kumar Singh	Assistant Professor	Ph.D.	11	Minority Politics, International Relations, Social exclusion	N: 17
6	Ms. Shweta Sohal	Assistant Professor	M.A. NET	01	Indian Political Thought and Indian Polity	-

Department of Psychology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Vishwanand Yadav	Associate Professor Head	Ph.D.	38	Rehabilitation Psychology, Research Methodology, Psychometrics	N: 32
2	Dr. Payal Kanwar Chandel	Associate Professor	Ph.D.	14	Positive Psychology, Women Studies, Marital Relations, Social Media	N: 27 h index: 1
3	Dr. Pradeep Kumar	Assistant Professor	Ph.D.	09	Personality, Psychometrics, Mental Abilities	N: 13 h index: 2
4	Dr. Vishnu Kucheria	Assistant Professor	Ph.D.	04	Organizational Psychology	N: 11
5	Dr. Ravi Pratap Pandey	Assistant Professor	Ph.D.	04	Health Psychology, Clinical Psychology, Social Psychology	N: 15
6	Dr. Ritu Sharma	Assistant Professor	Ph.D.	10	Organizational behaviour, Criminal Psychology, Indian Psychology	N: 30 h index: 4

Department of Sociology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Sanjiv Kumar	Professor & Head	Ph.D.	21	Diaspora, Post-colonial and Dalit Literature	N: 29 h index: 03
2	Dr. Reema Gill	Assistant Professor & Teacher-In-charge (TIC)	Ph.D.	06	Sociology of Health and Medicine, Sociology of Population, Research Methodology	N: 5
3	Dr. T. Longkoi Khiamniungan	Assistant Professor	Ph.D.	05	Political Sociology, Social Stratification and inequality, Development disparity, Sociology of gender, ethnicity and pluralism	N: 05
4	Dr. Yudhvir	Assistant Professor	Ph.D.	03	Classical Sociological Tradition, Political Sociology, Economy and Society	N: 03
5	Ms. Tanvi Bhati	Assistant Professor	M.A. NET	02	Peri-Urbanism, Gender and Space, Anthropology of the Everyday Life, Village Studies, Sociology of Education, Women and Tribal Issues	-

Department of Journalism and Mass Communication

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Mr. Alekha Sachidananda Nayak	Assistant Professor & Teacher-In-charge (TIC)	M.Phil. NET	10	Electronic Media, Digital Media, Graphics, Media Management	N: 13
2	Dr. Surender	Assistant Professor*	Ph.D.	12	Communication Research, Print Media, Community Radio, Communication Theory	-
3	Dr. Bharti Batra	Assistant Professor*	Ph.D.	07	New Media, Communication research, PR, Electronic media production	N: 15
4	Sh. Rishikant Kumar	Assistant Professor*	M.A. NET	12	Cinema Studies and Film Production	-

Department of Sanskrit

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Ranvir Singh	Professor & Coordinator	Ph.D.	41	Vedic Studies, Literary Criticism, Lexicogra-phy, Manuscri-ptology	N: 60
2	Dr. Kumuda Prasad Acharya	Assistant Professor*	Ph.D.	05	Sanskrit Literature, Poetics, Prosody, Manuscriptology	N: 25
3	Mr. Ravi Dutt Sharma	Assistant Professor#	M.A. NET			

SCHOOL OF INTERDISCIPLINARY AND APPLIED SCIENCES

Department of Biochemistry

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Neelam Sangwan	Professor &Head	Ph.D.	31	Molecular Biology, Biochemistry	N:125 h index:41
2	Dr. Pawan Kumar Maurya	Associate Professor	Ph.D.	13	Animal Biochemistry	N: 113 h index:27

3	Dr. Antresh Kumar	Associate Professor	Ph.D.	11	Multidrug Resistance (MDR), Infectious Biology, Bioremediation of groundwater Fluoride toxicity.	N:20 h index: 8
4	Dr. Saurabh Chandra Saxena	Assistant Professor	Ph.D.	11	Functional genomics for abiotic stress tolerance in plants, Genetic Engineering, Enzymology	N:22 h index:12
5	Dr. Usha Nagarajan	Assistant Professor	Ph.D.	12	Developmental Biology and Genetics (Oncology)	N: 9 h index: 5
6	Dr. Maruthi Mulaka	Assistant Professor	Ph.D.	1	Parasitology, Host-pathogen interactions, post-translational modifications	N: 9 h index: 4

Department of Biotechnology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Satish Kumar	Professor & Head	Ph.D.	41	Animal Biotechnology and genetics	-
2	Dr. Kashyap Kumar Dubey	Associate Professor (on lien)	Ph.D.	14	Bioprocess engineering	N:120 h index: 19
3	Dr. Bijender Singh	Associate Professor	Ph.D.	13	Microbial Biotechnology	N: 102 h index: 28
4	Dr. Inderjeet Kaur	Assistant Professor	Ph.D.	09	Proteomics, mass spectrometry, infectious diseases, PTMs	N: 32 h index: 12
5	Dr. Ravi Kumar	Assistant Professor	Ph.D.	07	Bioinformatics, HIV sequence analysis, Webserver & database development	N: 7 h index:6
6	Dr. Namrata Dhaka	Assistant Professor	Ph.D.	05	Genetics, Transcriptomics	N :14 h index : 05
7	Dr. Ram Gopal Nitharwal	Assistant Professor	Ph.D.	09	DNA replication, Respiratory chain, Cryo-EM	N:13 h index 8

Department of Library & Information Science

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Dinesh Kumar Gupta	Professor & Head	Ph.D.	30	Management and Marketing, E-Learning, Comparative Librarianship	N: 60 h index:14
2	Mr. Amit	Assistant Professor*	M .Lib.	04	Information Seeking Behaviour and Library Management System	N: 10

Department of Microbiology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Gunjan Goel	Associate Professor & Head	Ph.D.	14	Food Microbiology	N: 87 h index: 26
2	Dr. Surender Singh	Associate Professor	Ph.D.	13	Agriculture and Industrial Microbiology	N: 110 h index-25
3	Dr. Avijit Pramanik	Assistant Professor	Ph.D.	07	Drug delivery system based on sideromycin, Outer membrane energy transduction system, Bacterial protein secretion system	N: 12 h index: 9
4	Dr. Puja Yadav	Assistant Professor	Ph.D.	09	Infectious diseases vaccine DNA secondary structures genome instability	N: 18 h index: 11
5	Dr. Vinod Yadav	Assistant Professor	Ph.D.	06	Infectious diseases, Transcriptional regulation	N: 15 h index: 06
6	Dr. Jitendra Kumar Saini	Assistant Professor	Ph.D.	10	Biofuels & Bioenergy, Lignocellulosic Bio refinery, Industrial Microbiology	N: 26 h index: 13

Department of Nutrition Biology

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Neelam Sangwan	Professor & Head	Ph.D.	31	Molecular Biology, Biochemistry	N: 125 h index: 41
2	Dr. Savita Budhwar	Assistant Professor	Ph.D.	12	Food and Nutrition	N: 25 h index: 05

3	Dr. Anita Kumari	Assistant Professor	Ph.D.	07	Food Science & Nutrition	N: 22 h index-3
4	Dr. Ashwani Kumar	Assistant Professor	Ph.D.	14	Food and Nutritional Biotechnology	N:42 h index:16
5	Dr. Tejpal Dhewa	Assistant Professor	Ph.D.	13	Food Microbiology and Nutritional Safety	N: 38 h index: 15

Department of Yoga

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Neelam Sangwan	Professor &Head	Ph.D.	31	Molecular Biology, Biochemistry	N:125 h index:41
2	Dr. Ajay Pal	Assistant Professor & Teacher-In-charge (TIC)	Ph.D.	6.5	Yoga Therapy	N: 1
3	Dr. Ravi Kumar	Assistant Professor#	Ph.D.	05	Yoga Education	-

Department of Environmental Studies

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Neelam Sangwan	Professor & Head	Ph.D.	31	Molecular Biology, Biochemistry	N:125 h index:41
2	Dr. Manoj Kumar	Assistant Professor*	Ph.D.	05	Hydrogeochemistry, Environmental Pollution and Health	N: 24 h index 12
3	Ms. Manisha Bhati	Assistant Professor*	M.Sc. NET	02	Ecology and Biodiversity, Environmental Management and Impact Assessment	-
4	Dr. Pawan Kumar	Assistant Professor#	Ph.D.	03	Water Resource management, Hydro-geochemistry, Palaeoclimate, Waste water treatment, Plant- biodiversity	N: 19 h index:07
5	Dr. Kalp Bhusan Prajapati	Assistant Professor#	Ph.D.	02	Waste water treatment, kinetic modelling, waste to energy, Bio-electrochemical system, Microbial fuel cells and microbial electrolysis cells	N: 2 h index-4

Department of Pharmaceutical Sciences

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Dinesh Kumar	Associate Professor & Head	Ph.D.	16	Natural Products	N: 73 h index: 20
2	Dr. Ashok Jangra	Assistant Professor#	Ph.D.	05	Pharmacology	N: 32 h index: 18

SCHOOL OF LAW

Department of Law

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Prof. Rajesh Kumar Malik	Professor& Head	Ph.D.	17	Labour Law & Service Law	N:49
2	Dr. Monika	Associate Professor	Ph.D.	12	Commercial	N: 29
3	Dr. Dharam Pal Singh Punia	Associate Professor	Ph.D.	11	Criminal Law	N:02
4	Dr. Pardeep Singh	Assistant Professor	Ph.D.	09	Constitutional Law & ADR	N: 21
5	Dr. Anju	Assistant Professor	Ph.D.	08	Criminal Law (Women Issues)	N: 10
6	Dr. Samiksha Godara	Assistant Professor	Ph.D.	08	Criminal Law	N: 8
7	Sh. Rakesh Meena	Assistant Professor	LL.M.	08	Human Rights, International Humanitarian Law	-
8	Dr. Kulwant Singh	Assistant Professor	Ph.D.	07	Criminal Law and Commercial Law	N: 22

Department of Vocational Studies and Skill Development

Retail &Logistics Management

S. N.	Name	Designation	Qualification	Experience (Years)	Specialization	Number of publications and h index
1	Dr. Suyash Mishra	Assistant Professor*	Ph.D.	08	Marketing, Retail banking & Management, Customer Relationship Management	N:12
2	Dr. Rishi Kant	Assistant Professor*	Ph.D.	07	Retail & Service Marketing, Consumer Behaviour, Green Consumption	N:12 h index: 5

Biomedical Sciences

1	Dr. Vikas Saini	Assistant Professor*	Ph.D.	03	Biomedical Sciences	N: 10 h index: 08

Industrial Waste Management

2	Ms. Sushma	Assistant Professor*	Ph.D.	04	Wastewater treatment, Environmental Engineering	N: 06 h index: 04

***Contractual faculty, # Guest faculty**

PUBLICATIONS

Department/Centre/Unit	Research Papers	Book Chapters	Books	Other (papers presented in conference proceedings /popular articles/ magazines etc.)
School of Humanities and Social Sciences				
Department of English & Foreign Languages	3	-	-	18
Department of Hindi	5	-	-	3
Department of History and Archaeology	-	2	-	2
Journalism and Mass Communication	4	1	-	62
Department of Political Science	8	3	1	47
Department of Psychology	6	3	-	44
Department of Sanskrit	-	1	-	16
Department of Sociology	-	-	-	-
School of Interdisciplinary and Applied Sciences				
Department of Biochemistry	13	7	1	12
Department of Biotechnology	21	-	-	4
Department of Microbiology	13	4	1	5
Department of Nutrition Biology	5	2	-	16
Department of Pharmaceutical Sciences	-	-	-	-
Department of Environmental Studies	1	2	-	12
Department of Library and Information Science	1	-	-	2
Department of Yoga	2	-	-	3
School of Basic Sciences				
Department of Chemistry	40	1	-	10
Department of Computer Science & Information Technology	3	1	-	11
Department of Geography	1	1	-	22
Department of Mathematics	16	6	1	13
Department of Physics & Astrophysics	3	-	-	-
Department of Statistics	12	-	-	11

School of Law				
Department of Law	7	1	-	49
School of Business and Management Studies				
Department of Management Studies	5	-	-	19
Department of Economics	6	1	-	7
Department of Commerce	2	-	-	10
Department of Tourism and Hotel Management	-	-	-	6
School of Engineering and Technology				
Department of Computer Science & Engineering	5	-	-	6
Department of Electrical Engineering	9	7	2	16+1*
Department of Civil Engineering	10	4	-	45
Department of Printing and Packaging Technology	2	-	2	3
School of Engineering and Technology Other Faculty	32	13	1	20
School of Education				
Department of Education (B.Ed. & M.Ed.)	18	4	1	152
Department of Physical education		1		76
Department of Vocational Studies & Skill development	-	-	-	17
Total	**253**	**51**	**7**	**644**

*Patent-Muralidhar Nayak Bhukya and Manish Kumar, et al, "Machine Learning based Cyber security system for Smart Grid", application no-202011051586A, issue no-9/2020, Date of Publication:04/12/2020.

RESEARCH PAPERS PUBLISHED DURING THE PREVIOUS YEAR

School of Humanities and Social Sciences

Department of English & Foreign Languages

S. N.	Research Paper
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6	S. Singh, V. Tanwar, A. P. Simantilleke, H. Kumar, D. Singh, **Optik,** 2020, 221, 165364.	2.44
7	Monika, A. Ansari, **New J. Chem.,** 2020, 44, 19103.	3.59
8	Monika, O. Yadav, A. Ansari, **Struct.Chem.,** 2020, 32, 1473.	1.88
9	R. Sahu, R. K. Mohapatra, S. I. A. Resayes, D. Das, P. K. Parhi, S. Rahman, L. Pintilie, M. Kumar, M. Azam A. Ansari, **J. Saudi Chem. Soc.,** 2020, 25, 101193.	3.93
10	D. D. Narulkar, A. Ansari, A. K. Vardhaman, S. S. Harmalkar, S. N. Dhuri, **Dalton Trans.,** 2021, 50, 2824.	4.39
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12	R. Gurram, J. B. Nanubolu, R. S. Menon, **Chem. Comm**., 2021, 57, 635.	6.22
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14	D. Yadav; Krishna, Sharma, S. K.; Menon, R. S., **Organic and Biomolecular Chemistry,** 2020, 18, 7188.	3.88
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17	S. Sebastian, Monika, A. K. Khatana, E. Yadav, M. K. Gupta, **Organic and Biomolecular Chemistry,** 2021, 19, 3055.	3.88
18	E. Yadav, A. K. Khatana, S. Sebastian, M. K. Gupta, **New Journal of Organic Chemistry**, 2020, 45, 415.	3.59
19	M. Kinger, J. Sharma, M. Kumar, R. Bala, V. Kumar, V. Prakash, **Indian Journal of Heterocyclic Chemistry**, 2020, 30 (03), 341.	0.33
20	Anu, S. Kumar, A. Kumar, V. Kumar, B. Singh, **Preparative Biochemistry & Biotechnology,** 2020.	2.16

21	Richa , S. Kumar, J. Sindhu, P. Choudhary, S. Jaglan, E. Zangrando, R. Kumar, S. C. Sahoo, V. Kumar, S. K. Mehta, R. Kataria, **Journal of Molecular Structure,** 2021, 1228, 129460.	3.19
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24	Alokika, V. Kumar, B. Singh, **Biomass Conversion and Bio-refinery**, 2021.	4.98
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27	S. K. Bhatia ,S. S. Jagtap , A. A. Bedekar, R. K. Bhatia , A. K. Patel , D. Pant, **Bioresource Technology,** 2020, 300, 122724.	9.64
28	V. Dhiman, D. Pant, **Environmental Biomonitoring by Snails, Biomarkers,** 2021, 7, 1.	2.66

Department of Mathematics

S.N.	Publications	Impact Factor
1	J. Kaur, R. K. Gupta, S. Kumar, **Communications in Nonlinear Science and Numerical Simulation**, 2020, 83, 105108.	4.26
2	P. Kumari, R. K. Gupta S, Kumar, **The European Physical Journal Plus,** 2020, 135, 476.	3.91
3	D. Jyoti, S. Kumar, R. K. Gupta, T**he European Physical Journal Plus,** 2020, 135, 604.	3.91
4	P. Kumari, R. K. Gupta, Sachin, **Waves in Random and Complex Media**, 2020, 17455030, 1821122.	4.85
5	P. Kumari, R. K. Gupta, S. Kumar, **AIP Conference Proceedings**, 2020, 2253, 020002.	0.4
6	M. Singh, R. K. Gupta, **International Journal of Nonlinear Sciences and Numerical Simulation (IJNSNS),** 2020, 22, 135.	2.01
7	P. Kumari, R. K. Gupta, S. Kumar, M. M. A. Qurashi, **Open Physics**, 2020, 18, 1108.	1.06
8	K. Singla, R. K. Gupta, **Journal of Mathematical Physics,** 2021, 62, 011504.	1.48
9	Bikramjeet, **Journal of Applied Analysis and Computation,** 2021, 11.	1.82
10	P. Kumari, R. K. Gupta, S. Kumar, **Solitons and Fractals,** 2021, 145, 110775.	5.94
11	A. Kajla, M. Mursaleen, T. Acar, **Symmetry,** 2020, 12, 1141.	2.71
12	A. Kajla, S. A. Mohiuddine, A. Alotaibi, M. Goyal, K. K. Singh, **Iranian Journal of Science and Technology, Transactions A: Science**, 2020, 44, 1111.	1.59
13	S. A. Mohiuddine, A. Kajla, M. Mursaleen, M. A. Alghamdi, **Advances in Difference Equations**, 2020, 467, 1.	2.80
14	A. Kajla**,** D. Miclaus, Filomat, 2020, 34(10), 3265.	0.84
15	P. Kumar**,** C. Dudeja, **Soft Computing** 2020, 25, 995.	3.64

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S.N.	Publications	Impact Factor
1	N. Kumar, S. Verma, S. Mohsina, J. Sadhukhan,K. R. Devi, Banerjee, N. Saneesh, M. Kumar, R. Mahajan, Thakur et al, **Physics Letters B**, 2021, 814, 136062.	4.77
2	R. Kumar, ECS **Journal of Solid State Science and Technology,** 2021, 10, 6.	2.07

Department of Statistics

S.N.	Publications	Impact Factor
1	M. Shrahili, N. Alotaibi, D. Kumar, A. S. Alyami, **Mathematics**, 2020, 8(11), 1.	2.26

SCHOOL OF BUSINESS AND MANAGEMENT STUDIES

Department of Management Studies

S.N.	Publications	Impact Factor
1	A. Kumar, J. Paul, S. **Journal of Retailing and Consumer Services,** 2021, 58.	7.13

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of Computer Science & Engineering

S.N.	Publications	Impact Factor
1	S. Sharma, C. R. Krishna, R Kumar, **The International Arab Journal of Information Technology,** 2021, 18, 422.	0.67
2	S. Sharma, R. Kumar, C. R. Krishna, **John Wiley & Sons,** Online First.	1.54
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4	S. K. Yadav, R. Kumar, **Wireless Personal Communications, Springer**, 2021, 119, 527.	1.67

Department of Civil Engineering

S.N.	Publications	Impact Factor
1	V. Garg, B. Setia, V. P. Singh, A. Kumar, **Journal of Hydraulic Engineering,** Tylor and Francis Indian Society for Hydraulics, 2021, 1, 14.	2.82
2	R. B. Singh, S. Debbarma, N. Kumar, S, Singh, **Construction and Building Materials,** 266, 120624.	6.14
3	N. Kumar, J. P. Narayan, V. Kumar, V. Tiwari, **Journal of Earth System Science**, 2021, 130, 1.	1.37
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School of Engineering and Technology (Other Faculty)

S.N.	Publications	Impact Factor
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2	A. Kumar, H. Dhasmana, A. Kumar, V. Kumar, A. Verma, V. K. Jain, 2021, 127,114538.	3.38
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4	S. Kumar, P. Kumar, K. Bhatt, S. Shrivastva, A. Kumar, R. Singh, R. Punia, C. C. Tripathi, **Advanced Engineering Materials**, 2020, 22, 1901187.	3.86
5	D. R. Paul, R. Sharma, P. Panchal, S. P. Nehra, A. P. Gupta, A. Sharma, **International Journal of Hydrogen Energy,** 2020, 45, 23937.	5.82
6	A. Sharma, **International Journal of Hydrogen Energy**, 2020, 45, 23960.	5.82
7	A. Garg, M. Almáši, D. R. Paul, E. Poonia, J. R. Luthra, A. Sharma, **Frontiers in Energy Research,** 2021, 8, 01.	4.01
8	S. Tanwar, **Computers & Mathematics with Applications**, 2020, 79, 2119.	3.48
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11	P. Singh, R. Kumar, A. K. Yadav, K. Singh, **Opt. Lasers Eng**., 2021, 139, 106501.	4.83
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21.	M Kumar, N Chaudhary, Advances in Intelligent Systems and Computing (AISC), vol- 1169, pp 293-303,2020.	0.63
22.	MN Bhukya, M Kumar, V. Chandra Jagan Mohan, Recent Advances in Power Electronics and Drives, LNEE vol-707, pp. 421-429.	0.35
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25.	MN Bhukya, M Kumar, SR Depuru, CoMSO, Smart Innovation, Systems and Technologies, vol 206, pp 545-556, 2021.	0.65
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SCHOOL OF INTERDISCIPLINARY AND APPLIED SCIENCES

Department of Biochemistry

S.N.	Publications	Impact Factor
1	J. S. Jadaun, A. K. Kushwaha, N. S. Sangwan, L. K. Narnoliya, S. Mishra, **Plant Cell Rep**, 2020, 39, 1443.	4.57
2	B. Mishra, S. K. Bose, N. S. Sangwan, **Industrial Crops & Products**, 2020,	5.64
3	S. K. Singh, G. R. Valicherla, A. K. Bikkasani, S. H. Cheruvu, Z. Hossain, I. Taneja, H. Ahmad, S. K. R. Raju, N. S. Sangwan, S. K. Singh, A. K. Dwivedi, M. Wahajuddin, J. R. Gayen, **Journal of Ethno-pharmacology**	4.36
4	S. Tripathi, Y. Srivastava, R. S. Sangwan, N. S. Sangwan, **Nature Publishing,** 2020, 10, 4877.	4.38
5	L. K. Narnoliya, N. S. Sangwan, J. Jadaun, S. Bansal, R. S. Sangawn, **Planta, 2021**,	4.12
6	M. Chandra, S. Kushwaha, N. S. Sangwan, **Mol Biol Rep**, 2020, 47, 6587.	2.32
7	U. Kuhad, G. Goel, P. K. Maurya, R. C. Kuhad, **Indian J Microbiol**., 2021, 61, 108.	2.46
8	T. Aggarwal, R. Wadhwa, R. Gupta, K. R. Paudel, T. Collet, D. K. Chellappan, G. Gupta, H. Perumalsamy, M. Mehta, S. Satija, P. M. Hansbro, K. Dua, P. K. Maurya, **Endocr Metab Immune Disord Drug Targets** 2020, 20, 1597.	2.89
9	M. Maruthi, L. Ling, J. Zhou, H. Ke, L. Ling, , **Msphere,** 2020, 5,5, e00579-20.	4.38
10	M Mulaka, J Munro, S Dass, Michael W Mather, Michael K Riscoe, Manuel Llinás, Jing Zhou, Hangjun Ke, **Journal of Biological Chemistry**, 2020, 21, 7235.	5.15
11	B. C. Coutiño, Z. E. Cornhill, A. Couto, N. A. Mack, A. D. Rusu, U. Nagarajan, Y. N. Fan, M. R. Hadjicharalambous, M. C. Uribe, A. Burrows, A. Lourdusamy, R. Rahman, S. T. May, M. Georgiou, **iScience,** 2020, 23, 101237.	5.45

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S.N.	Publications	Impact Factor
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2	K. Bhowmick, A. Tehlan, Sunita, R. Sudhakar, I. Kaur, P. S. Sijwali, A. Krishnamachari, S. K. Dhar, **J Cell Sci,** 133(1).	5.28
3	K. R. More, I. Kaur, Q. G. Gianetto, B. M. Invergo, T. Chaze, R. Jain, C. Huon, P. Gutenbrunner, H. Weisser, M. Matondo, J. S. Choudhary, G. Langsley, S. Singh, C. E. **mBio,** 2020, 11(4):e01287-20.	6.78
4	A. Tehlan, B. C. Karmakar, S. Paul, R. Kumar, I. Kaur, A. Ghosh, A. K. Mukhopadhyay, S. K. Dhar, **FEMS Microbiol Lett.,** 2020, 367(21): fnaa178.	2.74
5	Alokika, V. Kumar, B. Singh **Biomass Conversion and Bio-refinery**, 2021.	5.45
6	Alokika, Anu, A. Kumar, V. Kumar, B. Singh, **International Journal of Biological Macromolecules,** 2021, 169: 564.	5.45
7	T. Sharma, R. Kumar, S. C. Sahoo, J. Sindhu, J. Singh, B. Singh, S. K. Mehta, A. Umar, T. K. Saini, V. Kumar, R. Kataria, **Polyhedron,** 2021, 195: 114972.	5.45
8	Anu, S. Kumar, A. Kumar, V. Kumar, B. Singh, **Preparative Biochemistry and Biotechnology,** 2021.	2.16
9	S. Dahiya, B. K. Bajaj, A. Kumar, S. K. Tiwari, B. Singh**, Process Biochemistry**, 2020, 99, 290.	3.75
10	Anu, A. Kumar, A. Rapoport, G. Kunze, S. Kumar, D. Singh, B. Singh, **Renewable Energy**, 2020, 160, 1228.	8.00
11	Anu, A. Kumar, D. Singh, V. Kumar, B. Singh, **Biomass Conversion and Bio-refinery**, 2020.	4.98
12	S. Dahiya, A. Kumar, B. Singh, **Process Biochemistry**, 2020, 94, 235.	3.75
13	Anu, B. Singh, A. Kumar, **Biomass and Bioenergy,** 2020, 138, 105571.	5.06
14	Anu, A. Kumar, K. K. Jain, B. Singh, **Renewable Energy,** 2020, 156, 133.	8.00
15	Alokika, B. Singh B., **Bioprocess and Bio-systems Engineering**, 2020, 43, 1081.	3.21
16	N. Dhaka, R. Sharma, **Critical Reviews in Biotechnology,** 2021, 41, 594.	8.43
17	B. Wiseman, R. G. Nitharwal, G. Widmalm, M. Högbom,0020 **Nature communications**, 2021, 12, 1.	14.92

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S.N.	Publications	Impact Factor
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2	K. Sharma, P. Murugusen, N. Singh, M. Iyer, B. Krishnaswamy, G. Goel, **Antonie van Leeuwenhoek,** 2020, 113, 1587.	2.27

3	R. Chauhan, N. Singh, G. K. Pal, G. Goel, **Food Research International,** 2020, 109385.	6.47
4	R. Mahajan, S. Chandel, A. K. Puniya, G. Goel, **Biomass and Bioenergy**, 2020, 105705.	5.06
5	R. Chauhan, S. Bansal, W. Azmi, G. Goel, **Journal of Food Safety,** 2020, 40, e12810.	1.95
6	A. Rana, M. Sindhu, A. Kumar, R. K. Dhaka, M. Chahar, S. Singh, L. Nain, **Physiologia Plantarum**, 2021.	4.5
7	A. Sharma, K. Pranaw, S. Singh, S. K. Khare, A. K. Chandel, P. K. S. Nain, L. Nain, **Biotech.,** 2020, 10(9),409.	2.4
8	A. Sharma, J. Singh, P. Sharma, G. S. Tomar, S. Singh, L. Nain, 3 **Biotech**., 2020, 10(8), 367.	2.4
9	J. Singh, A. Sharma, P. Sharma, S. Singh, D. Das, G. Chawla, A. Singha, L. Nain, **Biomass Conversion and Biorefinery**, 2020.	4.98
10	P. Yadav, N. Kim, M. Kumari, S. Verma, T. K. Sharma, V. Yadav, A. Kumar, **Journal of Bacteriology**, 2021.	3.49
11	P. Yadav, S. Verma, R. Bauer, M. Kumari, M. Dua, A. K. Johri, V. Yadav, B. Spellerberg, **Microorganisms,** 2020.	4.13
12	A. Sharma, P. Sanduja, A. Anand, P. Mahajan, C. A. Guzman, P. Yadav, A. Awasthi, E. Hanski, M. Dua, A. K. Johri, **World Journal of Microbiology and Biotechnology**, 2021.	3.31
13	N. Akhtar, M. Mishra, V. Yadav, M. Yadav, R. Gujjar, S. Lal, R. Kumar, N. Khatri, P. Sen, **PLoS Pathogens**, 2020, 6.218.	6.82

Department of Nutrition Biology

S.N.	Publications	Impact Factor
1	S. Budhwar, M. Chakraborty, K. Sethi, A. Chatterjee, **Journal of Food Biochemistry**, 2020, 44(10), e13424.	2.72
2	S. Saini, S. Saxena, M. Samtiya, M. Puniya, T. Dhewa, **Journal of Food Science and Technology,** 2021.	2.70

Department of Environmental Studies

S.N.	Publications	Impact Factor
1	A. Kumar, S. Shashni, P. Kumar, D. Pant, A. Singh, Verma R.K, **Journal of Ethnopharmacology**, 2021, 271, 113896.	4.36

ONGOING AND COMPLETED (EXTERNALLY FUNDED) PROJECTS

(as on March 31, 2021)

Faculty Member	Department	Title of the Project	Funding Agency	Grant Amount (Lakhs)
Ongoing Projects				
School Grant	School of Interdisciplinary and Applied Sciences	Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)	DST	40
Dr. Usha Nagarajan	Biochemistry	Genetic and Molecular characterization of novel Shrub-interacting factors implicated in Intracellular signaling pathways using Drosophila melanogaster	DST-SERB	52
Dr. Namrata Dhaka	Biotechnology	Identification of microRNAs involved in the regulation of thousand seed weight and oil content in *Brassica juncea*.	DST	35
		Identification of key microRNA-target modules and genes involved in the determination of grain weight and micronutrient content in Sorghum bicolor using small RNA and transcriptome profiling. (2020-2023)	DST-SERB	33.73
Dr. Ram Gopal, Nitharwal		Elucidating the role of superoxide-dismutase (SOD) and other accessory constituents of the Mycobacterial Respiratory chain Supercomplex III-IV (2020-2022)	DST-SERB	31.05
Dr. Ram Gopal Nitharwal		Screening of compound inhibitors for mycobacterial respiratory supercomplex III-IV	UGC	10
Dr. Gunjan Goel (PI), Dr. Ashwani Kumar (Co-PI), Dr Suman Kapila, ICAR-NDRI (Co-PI)	Microbiology	Development of probiotic fermented foods for the prevention of childhood diarrhea against Indian diarrheal pathotypes	Pronat S.C., Spain	37

Dr. Gunjan Goel	Microbiology	Dietary fibers from underutilized crops and agrowastes for application in food and feed	DST-AISTDF	26.49
Dr. Jitendra K Saini (PI), Dr. Surender Singh (Co-PI)		Diversity of white rot fungal laccase from north-east India	DBT	33.1
Dr. Gunjan Goel		Prospection and value addition of indigenous food and vegetable crops of cold desert regions of Western Himalayas for livelihood and nutritional security	DST	48.42
Dr. Savita Budhwar	Nutrition Biology	Evaluation, Utilization and Disseminations of Value Added Products from By-Products of Bengal Gram (*Cicer arietinum*) For Food Security	DST-SERB	38.41
Dr. Savita Budhwar		Food Based Mitigation of Malnutrition in Women by Improving Efficacy of Coarse Cereals and Millets	SEED-DST	22
Dr. Tejpal Dhewa (Co-PI)		Development of ready to cook (RTC) food product through selective fermentation of biofortified and non-fortified Pearl Millet varieties for enhancing bioavailability of micronutrients	DST, Haryana	20
Dr. Ashwani Kumar		Surface expression of Glucagon like peptide-1 on indigenous probiotic Lactobacillus for management of type 2 diabetes	DST-SERB	27.86
Dr. Prakash Kanoo	Chemistry	MoS_2/S_4 Integrated Porous Surfaces for Catalytic Hydrogen Generation via Water Splitting	DST-SERB	39.99
Dr. Manish Kumar, Dr. D.K. Tripathi	Geography	Remote Sensing and GIS Based Modelling of Land Degradation for Agricultural Sustainability in Sultanpur, Uttar Pradesh	Government of Uttar Pradesh	5
Dr. Kalpana Chauhan	Electrical Engineering	Solar based Charging Station of Electric Vehicles at CUH Campus	UGC	10
Dr. Narendra Parmar	History	Tigrana Excavation	Central University of Haryana	2
Prof. Ranvir Singh	Chair Professor	Swami Dayanand Saraswati Chair	UGC	17

T. Longkoi Khiamniungan	Sociology	Reservation for women, customary laws and Article 371A: Naga Women Struggle for power sharing in Nagaland.	ICSSR	12.9

Completed Projects

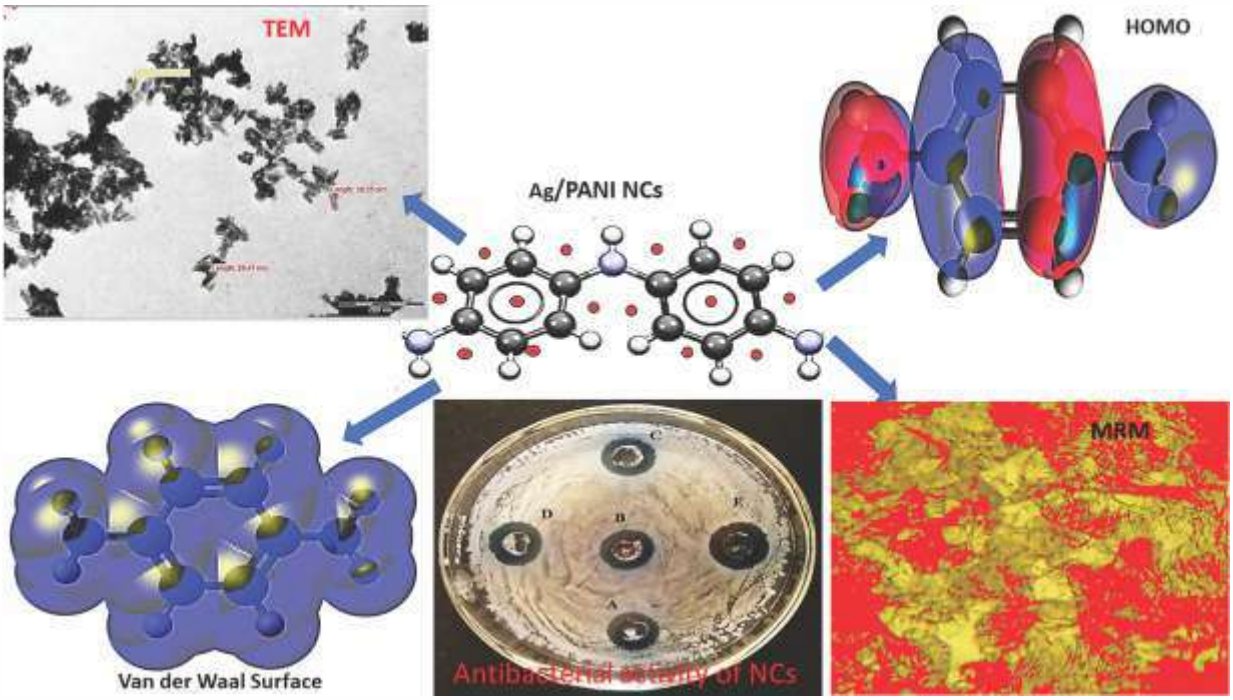
Dr. Tejpal Dhewa (PI), Dr. Ashwani Kumar (Co-PI)	Nutrition Biology	Ending micronutrient malnutrition through value added traditional rural fermented dairy foods of Haryana and Rajasthan	DST-SERB	42.12
Chanchal Kumar Sharma	Political Science	Economic Governance in India	University of Edinburgh, U.K.	Travel grant
Chanchal Kumar Sharma		Paradiplomacy	GIGA Institute of Asian Studies, Germany	6
Dr. Inderjeet Kaur	Biotechnology	Cur@ZIF-8 Metal-organic Framework- a promising nanomedicine for COVID-19	Delhi University	5
Dr. Vinod Yadav	Microbiology	Transcriptional regulation of ICAM-1 gene expression in human monocyte and macrophage cells	DST-SERB	48
Dr. Puja Yadav		Identification and functional characterization of G4 DNA in *Helicobacter pylori:* a novel therapeutic target	DST-SERB	40
Dr. Jitendra Kumar Saini		Improving thermal and inhibitor stress tolerance in yeast for cost-effective second generation bioethanol production: An adaptive evolution based approach	DST-SERB	50.6

MAJOR RESEARCH INITIATIVES AND MOU SIGNED WITH DIFFERENT INSTITUTES/UNIVERSITIES/COMPANIES

Department of Chemistry

Nanocomposites

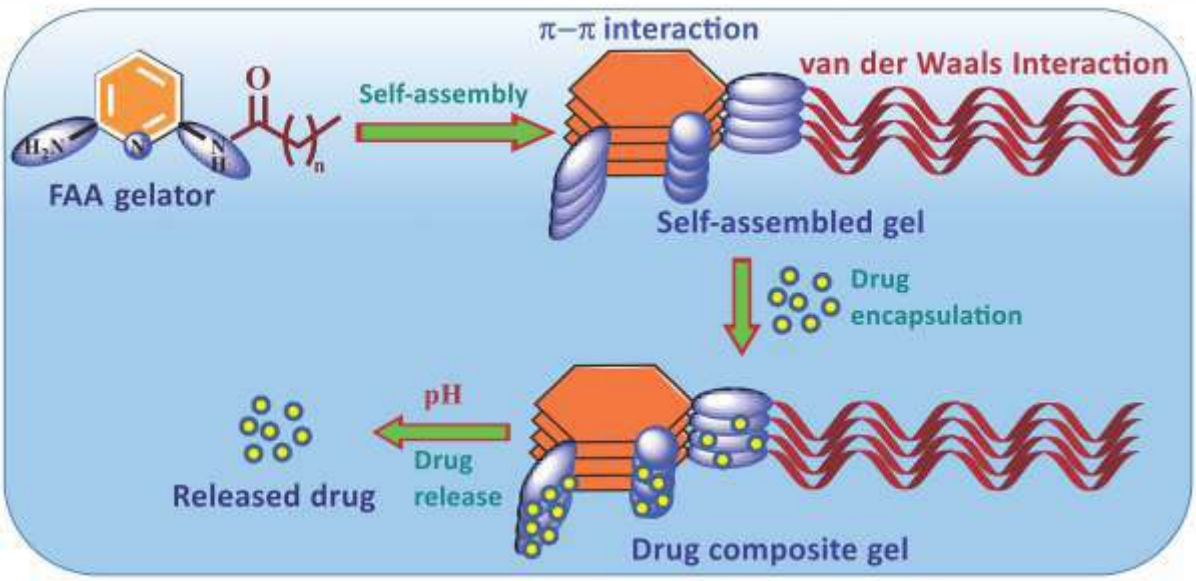
The researchers in the Chemistry Department are actively working on protection of metals and their alloys from corrosion and Nanocomposites. During previous year, reduced graphene oxide and conducting polymer-based nanocomposites have been developed for advanced functional applications like anti-corrosive coating, photocatalytic agents and antibacterial agents. Various properties such as electrical, optical, magnetic and photolytic properties of different metal nanoparticles, reduced graphene oxide and conducting polymer-based nanocomposites have been tested. Some environment friendly acid corrosion inhibitors for carbon and mild steel with high anticorrosive properties have been developed. The corrosion inhibition efficiency of different organic and environment friendly corrosion inhibitors was tested by both theoretical and experimental techniques. Two Indian patents have been filed that which deals with the development of technique for the purification of impure air and impure water.



Multifunctional Ag@PANI nanocomposites.

Organic Materials and Medicinal Chemistry

The organic materials research group is working on design, synthesis, gelation study and applications of low molecular mass gelators. As per the concerns of humanity in the current perspective, there are major challenges to develop simple and easy techniques to look for and address the problems associated with the fields of healthcare. The researchers in the group are involved in contributing to the field of drug discovery and development process by designing and synthesizing low molecular mass gelators and discover new methods for controlled drug release.

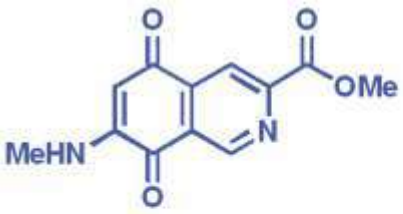


DAP derived organogelators for drug incorporation and pH-responsive release

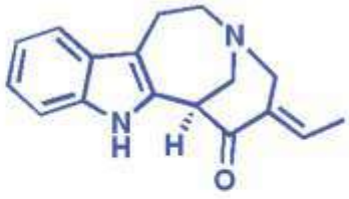
The group is also involved in the synthesis of lead compounds to investigate pharmacological activity in collaboration with the Life Science Departments of CUH.

Organic Synthesis

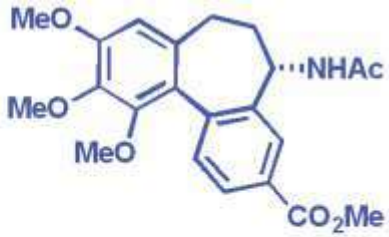
Organic synthesis is a mature art that forms the bedrock on which all major Chemical Industries are erected. Advances in organic synthesis drive these dependent endeavours and, in turn, human civilization forward. One of the research groups focuses on the development of novel, sustainable and operationally simple chemical transformations for accessing important natural products and related molecular architectures. Specifically, unique virtues of unsaturated sulfones to install molecular complexity in short sequences are being explored. For example, the core structural framework of antitumor alkaloid subincanadine F is created from simple starting materials in just two steps. This group also works on benzannulation reactions wherein substituted aromatic rings are constructed from acyclic precursors. This approach is a more versatile alternative to the traditional method of aromatic substitution reactions as it is free from the constraints imposed by deactivating groups and unfavourable directing effects.



Mansouramycin C
IC_{50} = 0.089 μM
(mean of 36 tumor cell lines)



(+)-Subincanadine F
IC_{50} = 2.40 μg/L
(against murine lymphoma)



(-)- Allocolchicine
(Anticancer activity
IC_{50} = 0.7 μM)

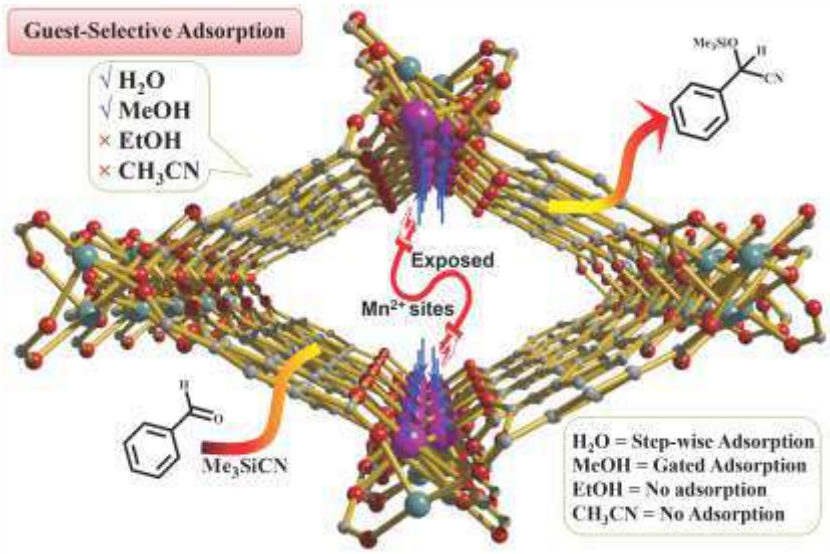
Selected anticancer alkaloids being targeted in the research group

There is a tremendous challenge for chemists to explore new one-pot tandem reactions in organic synthesis to minimize time, expense, purification, wastage and environmental impact where multiple reaction sequences are carried out in single event. Particularly, one-carbon homologation-functionalization reactions are always difficult task in organic synthesis (especially in multistep sequence) which generally requires several operational steps to achieve the required one-carbon homologated functionality. Another research group's work on organic synthesis focuses towards the advancement and new applications of Jocic reaction towards the development of new, safe and economic method for the one-carbon homologation-functionalization technique which would be beneficial while carrying out multistep synthesis including natural products construction.

The research is also being carried out in the field of heterocyclic chemistry particularly in Azoles' chemistry covering pyrazole, isoxazole, thiazole, imidazole and triazole nuclei. Exploring their biological potential and NMR spectral characteristics studies are of special interests in addition to developing greener synthetic routes for organic compounds.

Porous Materials

Porous hybrid materials, popularly known as metal-organic frameworks (MOFs), constructed from inorganic and organic components possess high crystallinity, periodic network and precisely defined pore structure. The materials are relatively new, rapidly developing and have wide range functionalities such adsorption, small molecule separation, catalysis, drug delivery, sensing etc. The porous materials research group in the Chemistry Department is focusing on some of these functionalities with emphasis on catalysis, adsorption and study of performance of active pharmaceutical components using these materials. The group's current effort towards a Mn(II)-based MOF unveils guest-selective adsorption of solvent vapours wherein the solid shows stepwise profile with H_2O vapour while a gated isotherm was recorded with MeOH. Interestingly, the MOF is able to discriminate molecules and does not adsorb larger and relatively less polar EtOH and CH_3CN molecules. Pore surfaces of the MOF are decorated with unsaturated Mn(II) centres, which they have utilized for highly efficient cyanosilylation reaction of aromatic aldehydes.



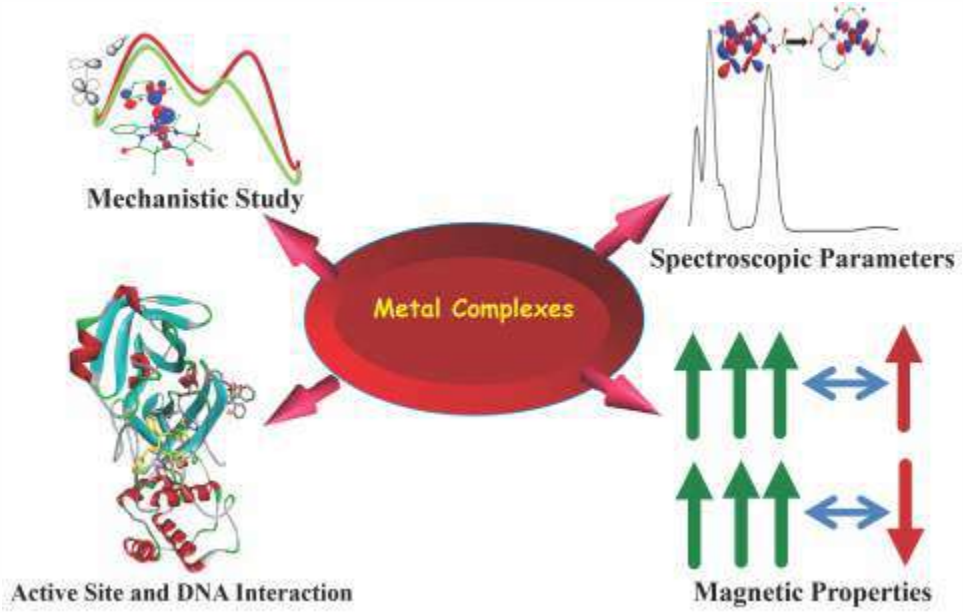
A Mn(II)-based framework for guest-specific adsorption and efficient catalyst for cyanosilylation of aromatic aldehydes.

Biocompatible MOFs have proven to be excellent delivery vehicles for important drug molecules. With that idea in mind, the research group is trying to improve the performance of some APIs with poor solubility and permeability using a Fe(III)-based MOF, popularly known as MIL-100 (MIL = Material Institute Lavosier). They make nanoparticles of the MOF and with controlled coating using bio-friendly molecules controlled release of APIs are achieved under simulated physiological conditions.

Computational Chemistry

Computational chemistry is to explore the electronic structures and reaction mechanisms during catalytic transformation reactions involving various spin states of biomimetic model complexes. Computationally, one can alter the relative population of the various spin states upon varying the substituents through their electronic and steric grounds, if the relative energies between various spin states are known. It is very important to predict how the electronic changes in the catalyst affect the relative rates of similar reactions. Furthermore, understanding the nature of catalytic site, its structure and chemical bonding is essential for studying the reaction mechanism. In comparison with experimental data, spectroscopic calculations such as EPR, Mossbauer and UV-visible are very important. Experimentally controlling the relative height of activation energy barriers in order to tune their catalytic selectivity is a very difficult task but with the help of computation where tuning can be easily achieved as the exact mechanism is established, one can easily overcome this challenge. The computational study will also provide some clues and also offer a way to understand the important biological process occurring in the nature with metal complexes and it can also help experimentalists to design new cheap complexes.

The researchers in the group are involved to work on (i) electronic structures of metal complexes, (ii) to estimate and understand magnetic exchange interactions and anisotropy of metal complexes, (iii) to understand the reaction mechanism involving regio-selective hydroxylation, epoxidation and C-H bond activation and proton coupled electron transfer reactions of high-valent metal complexes, (iv) to understand interaction between DNA and metal complexes, etc.



Graphical abstracts of research activities in the field of computational chemistry

Department of Biotechnology

Genetic improvement of seeds to tackle future challenges

Seeds are the major source for providing calories as well as nutrition to the entire world. Due to increasing population, improvement of seed yield and nutritional quality is a major challenge for cereal as well as other food crops. One of the objectives of our research is to investigate the transcriptome and small RNA repertoire in developing seeds of cereal and oilseed crops to delineate candidates for improvement of seed traits, especially seed weight and micronutrient content, using OMICS approaches. The shortlisted candidates shall be used in future through breeding or genome editing for crop improvement.

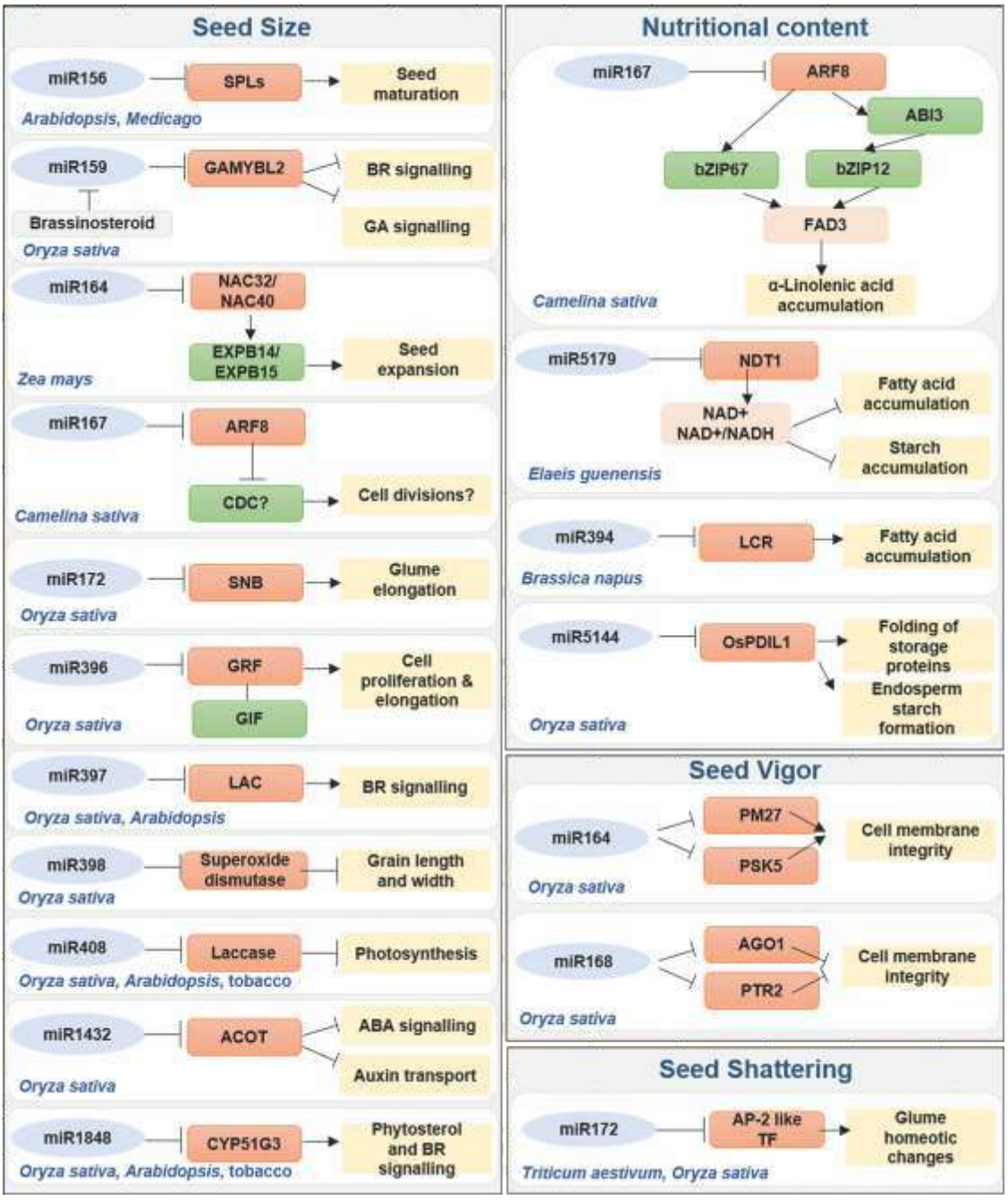
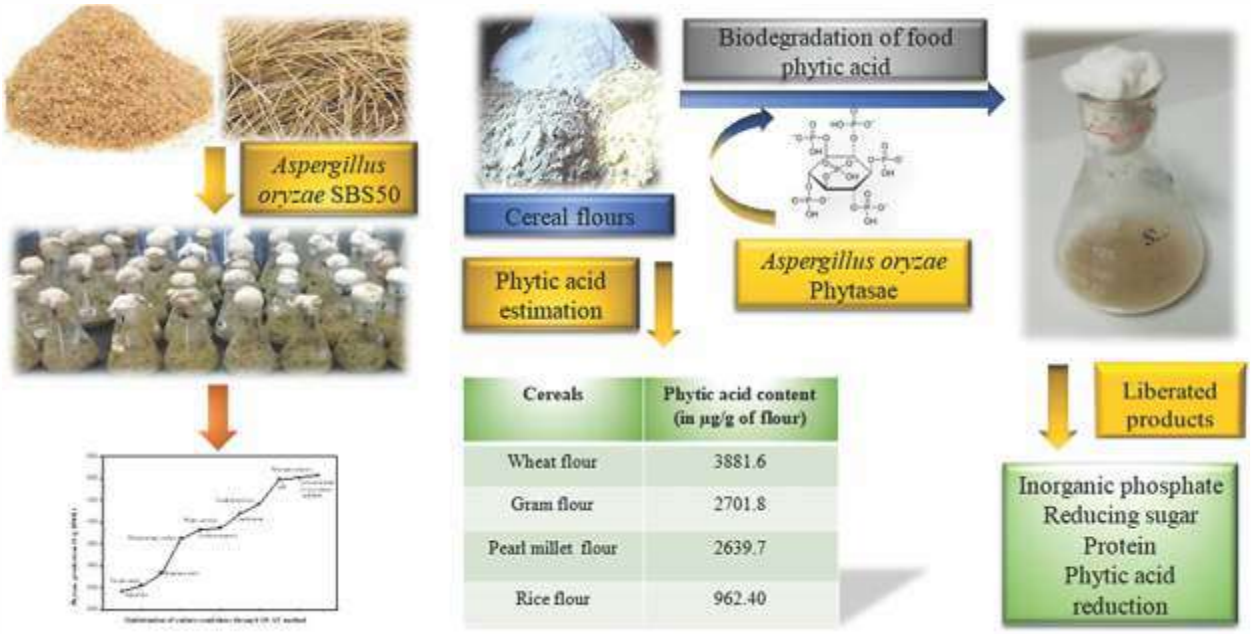


Fig. MicroRNAs (miRNAs) are emerging as crucial regulators of economically important seed traits in crops. They target transcription factors to impact seed development in a myriad of ways.

Microbial enzymes from thermophiles as a tool for improving nutrition and conversion of lignocellulosic biomass into value-added products

Thermostable enzymes have been preferred as suitable biocatalyst over chemical and physical catalysts. Thermostable enzymes from thermophiles have been used as an efficient tool for the degradation of anti-nutiritional factors (like phytic acid) in plant based food and feed ingredients. Anti-nutrition factors present in food and feed samples are responsible for the reduction of nutrition value. Therefore, degradation of anti-nutritional factors using microbial enzymes will improve nutritional quality by enhancing the bioavailability of nutrients.

Microbial enzymes from thermophiles are also useful in the degradation of lignocellulosic biomass like rice straw, wheat straw, corn cob, and other agricultural residues, which are responsible for increasing environmental pollution due to open burning in the fields. Therefore, utilization of these lignocellulosics by microorganisms (mainly thermophilic filamentous fungi) for the production of lignocellulolytic enzymes is an economical and environment-benign process. Furthermore, these enzymes are utilized in the saccharification of lignocellulosics after suitable pretreatment strategy.

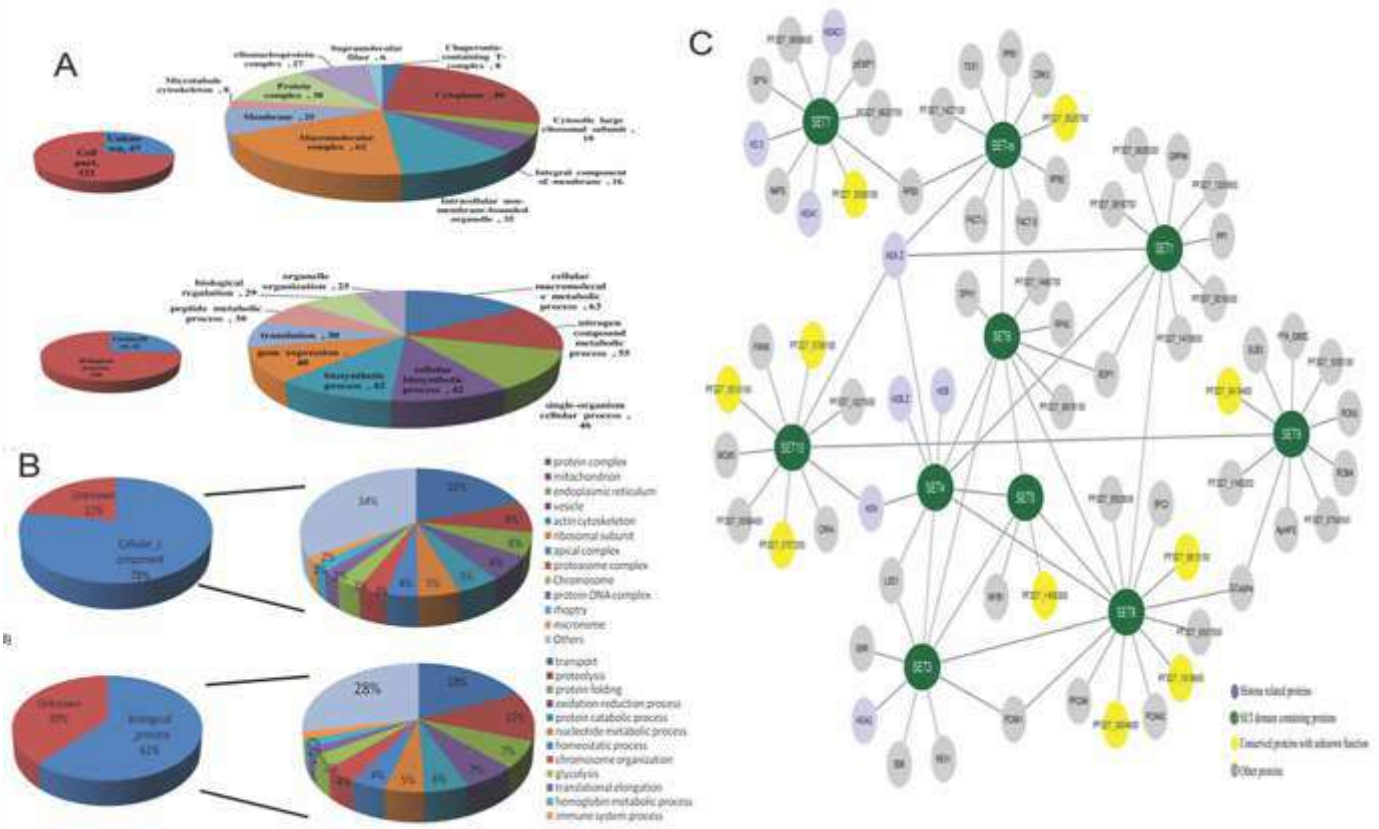


Cereals	Phytic acid content (in µg/g of flour)
Wheat flour	3881.6
Gram flour	2701.8
Pearl millet flour	2639.7
Rice flour	962.40

Fig. Degradation of anti-nutritional factor using microbial enzymes for improving food/feed nutrition

Fundamental importance of PTMs and their cross talk in the pathogenesis of infectious agents

Infectious diseases account for major disease burden worldwide and microbial agents pose a serious health hazard to humankind in modern times. Understanding the molecular pathways and regulatory networks operating within these pathogens holds crucial importance in order to devise therapeutic strategies against these pathogens. Using *Plasmodium falciparum*, the causative agent of cerebral malaria, our research focuses on investigating the role of post-translational modifications and their cross-talk in parasite development and life cycle. We employ proteomics and high resolution mass spectrometry to achieve our research goals. The major objective is to identify novel drug targets and vaccine candidates.



Zeeshan and Kaur et al; Journal of Proteome Research, 2017; Kaur and Zeeshan et al; Scientific Reports, 2016

The figure highlights the widespread occurrence of protein methylation of malaria parasite proteins at blood stages. Gene Ontology analysis depicting the extent of protein arginine and lysine methylated proteins respectively from three asexual stages of *Plasmodium falciparum* (A & B). The enzymes responsible for lysine methylation interact with numerous proteins from diverse molecular pathways within the parasite (C).

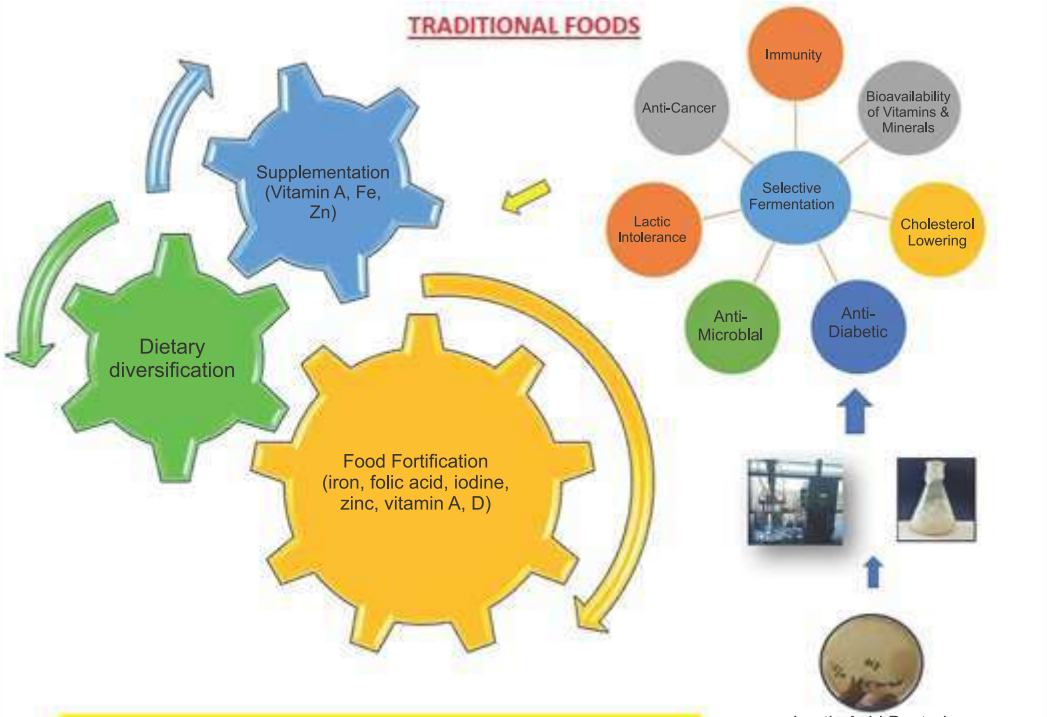
Department of Nutrition Biology

Mitigating micronutrient malnutrition through value added regional traditional rural fermented dairy foods

Access to better and more diversified diets is a key to combat with problems of micronutrient malnutrition or hidden hunger. Despite progress in addressing such issues in India, still some states are the most adversely affected. Known interventions such as selective fermentation, dietary diversification, supplementation (vitamin A, Fe, Zn), fortification of staple and widely consumed foods (iron, folic acid, iodine, zinc, vitamin A, D) and public health measures. The dietary intake of locally fermented dairy food products with improved nutritional values can be an effective way to reduce the micronutrient malnutrition among the targeted population, and could be explored as an urgent remedy to eliminate this problem at grass root level.

Surface expression of Glucagon like peptide-1 on indigenous probiotic Lactobacillus for management of type 2 diabetes

Diabetes mellitus type 2 is a long-term metabolic disorder that is characterized by high blood sugar, insulin resistance, and relative lack of insulin. Glucagon-like peptide-1 (GLP-1), which is a proglucagon-derived peptide produced by intestinal cells, is used for treatment of T2DM. It stimulates insulin secretion from the



Strategies to mitigate micronutrient malnutrition

pancreas in a glucose dependent manner, suppresses glucagon secretion and slows down gastric emptying. Expression of therapeutic proteins on the surface of lactobacilli is attractive for vaccine design, especially because the peptidoglycan layer of some strains appears to exhibit natural immune adjuvanticity. Some strains of Lactobacillus exert an anti-diabetic effect while expression of Glp-1 protein on the surface of probiotic lactobacilli would augment the antidiabetic effect. The recombinant lactobacillus strain will provide a continuous supply of biologically active peptides which would interact with receptors.

Development of functional food products from underutilized crops of Haryana to alleviate malnutrition

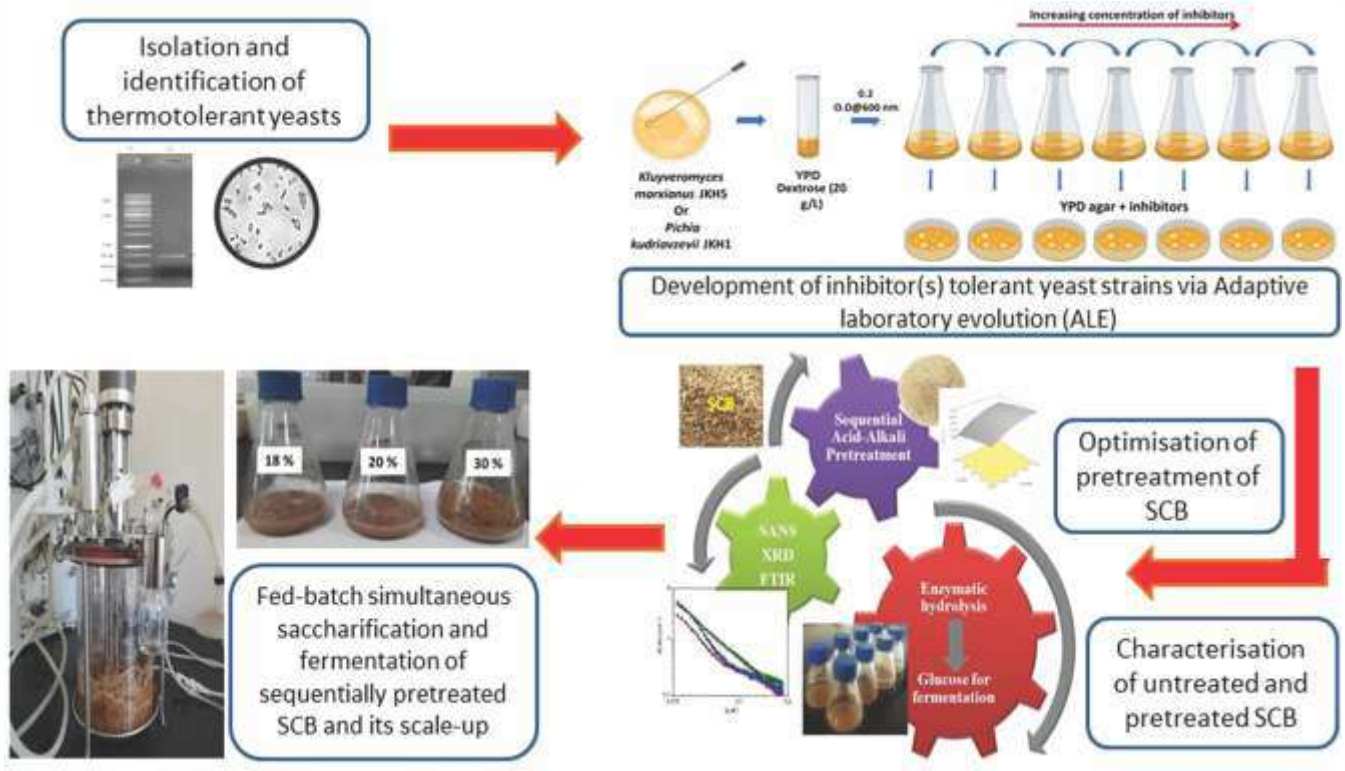
The world's most comprehensive report on nutrition highlights the worrying prevalence of malnutrition in all forms. Globally 150.8 and 50.5 million children (under five years) are stunted and wasted while India is on the top list in the world with 46.6 million children stunted (Global Nutrition Report 2018). To address the problem of malnutrition, underutilized crops are a significant source for a potential natural functional food as they are the power house of nutrition. The functional foods are finding growth in India as consumers are looking for healthier food choices. Hence underused crops are rich source of functional components and can be used for development of variety of healthier food products. These fruits are rich source of proteins, carbohydrates and essential valuable micronutrients, and their enhanced use in the form of functional food products can bring about better nutrition. Over the past few years, several programmes (NHM, ICDS, MDMP, Poshan Abhiyan

etc) have been introduced by the government to tackle this problem. Beside these schemes, other ways like nutrition intervention through development of value-added food products from naturally grown underused crops is a good option to eradicate malnutrition. These crops are easy to grow well on uncultivated lands, are eco-friendly, affordable and highly nutritious but remain neglected and gone as waste due to lack of awareness, poor colour, unpleasant taste and aroma. Thus, utilization of these crops for development of functional food products and promotion of their consumption can be an option to alleviate malnutrition in developing countries like India, in a more sustainable way.

Department of Microbiology

Waste to Wealth: Sustainable Biofuel production from Agricultural Residues

The efficient utilisation of lignocellulosic biomass for the production of biofuel offers an sustainable alternative to fossil fuels with a potential to reduce global climate change and provide energy security. The department of Microbiology is working on improvement of bioprocess for enhanced production of advanced biofuels, such as bioethanol. Development of indigenous cellulase enzyme cocktail & environmental friendly pretreament technologies and yeast strain improvements are major research areas of the department. Thermo and inhibitor tolerant yeast, *Kluyveromyces marxianus* JKH5 and *Pichia kudriavzevii* JKH1 capable of growth at 42°C, have been selected that are capable of fermenting high concentration of glucose at high temperature and high concentrations of inhibitors. The improved yeast was successfully used for simultaneous saccharification and fermentation (SSF) of sequential dilute acid-alkali pretreated sugarcane bagasse. The process bioethanol production has been improved and further validated at lab scale bioreactor (3L). This study would be helpful in reducing the steps of inhibitor removal during simultaneous saccharification and fermentation and washing of biomass prior to its bioconversion, thereby, making bioethanol production more sustainable.



In vitro simulation of gut to determine bio-accessibility of functional ingredients from foods and food safety

The bio-accessibility and bioavailability of each functional ingredient in foods differs greatly, and the most abundant ingredient in ingested food is not necessarily those leading to the highest concentrations of active metabolites in target tissues. The bio-accessibility and bioavailability of these food ingredients is majorly affected by food source, food matrix and chemical interactions with other phytochemicals and biomolecules present in the food at the level of source. Therefore, the major focus of the research is on development of in vitro gut simulation model with stomach, small intestine, and three colon regions of large intestine to determine the effect of functional food ingredients on gut microbial communities. The developed model will help in designing of foods and diets consistent with delivery of bioactive nutrients and their desired health benefits in target populations. Other major focus of the research is on probiotics which may confer the health beneficial effects via their antimicrobial activity against common food

Development of Multi-stress Tolerant Bioinoculants

The use of plant growth-promoting bacteria/Bioinoculants play an important role in alleviating biotic and abiotic stresses by production of phytohormones, anti-microbial compounds, osmolytes, extracellular polymeric substances and antioxidants which helps to improve the plant growth and crop yields. Department of Microbiology is working extensively on development of Multi-stress Tolerant Bioinoculants (MTB) that can help the plants to survive under different stresses. Large number of multi-stress tolerant K & P solubilizers and biocontrol agents have been isolated and screened in laboratory for various plant growth promoting activities. Selected cultures will be tested in field for further screening before large scale production besides testing in farmer's field.

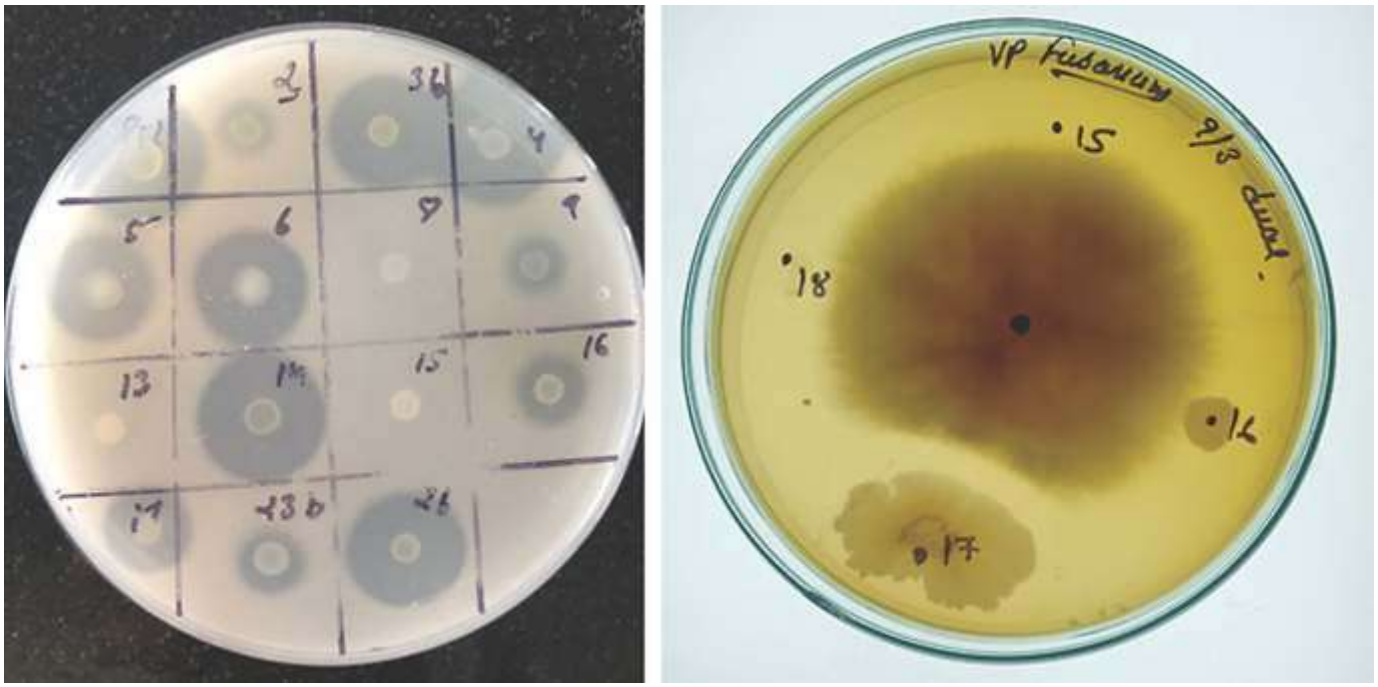


Fig. Screening of isolates for plant growth promotion activities a) K Solubilization b) Biocontrol potential

Mechanism of Host-pathogen interaction in Group B *Streptococcus*.

Group B *Streptococcus* is an opportunistic pathogen, which causes diseases in humans (pregnant women, neonates, elderly and people with compromised immunity). Study of mechanism of biofilm formation and antibiotic resistance in GBS clinical isolates is the primary focus of research. . Further work is carried out to understand, if there is any correlation exhibit between antibiotic resistance and biofilm formation along with virulence factors. Another aspect of research work is to understand the Guanine-rich nucleic acid sequences or G4 DNA and their role in microbes. Genome-wide scans for the distribution of PG4 within bacterial genomes suggest that G4s are widely distributed and may actually have quite broad roles in the regulation of bacterial genes. G4s may therefore affect virulence processes in many more bacterial pathogens.

Department of Mathematics

Nonlinear Partial Differential Equations (PDEs)

Nonlinear partial differential equations (PDEs) are used for modeling physical phenomena in many fields of engineering and sciences. The research work in the Mathematics department deals with symmetries and exact solutions of various physically relevant nonlinear systems of PDEs from mathematical physics. An initiative to compute symmetries of systems of variable coefficient PDEs was successful, and many important nonlinear physical systems are under consideration for the investigation of symmetries and exact solutions. Some new ansatz will be considered for solutions of nonlinear systems and to be implemented on mathematical software. The symmetry method has also been developed to solve systems of fractional PDEs and work is being done on many new fractional systems for reductions and power series solutions. Non-classical symmetries, Painlevé analysis, and conservation laws are also under consideration for few nonlinear phenomena.

Approximation Theory: Linear Positive Operators

The approximation theory on linear positive operators investigate how the functions can be best approximated by simpler functions. The aim of general approximation methods concerning linear positive operators is to deal with convergence behaviour. The accuracy can be ascertained to a desired degree of applying different methods. The department of Mathematics is working on the differences of certain two positive linear operators for which error estimation will be obtained by using the Taylor's series with a different Peano remainder. The improved Voronovskaja type inequalities and rate of convergence of these operators will be studied by using the approximation tools i.e. second order modulus of continuity, the least concave majorant of the modulus of continuity and Peetre's K-functional. The Department proposes to define those positive linear operators which consist of different parameters and to study the bound for the parameters at which a better convergence of these operators can be achieved.

Graph Theory and its applications

Nowadays, graph theory is an important analysis tool in mathematics and computer science. Because of the inherent simplicity of graph theory, it can be used to model many different physical and abstract systems such as transportation and communication networks, models for business administration, political science, and psychology and so on. The use of Graph Theory on various fields data is a promising approach to identify emergent properties of the complex physical and cognitive interactions that occur between humans and nature. The research work in the Mathematics department present the latest state and development tendencies of graph theory. An initiative to graph theory has two major parts: theoretical researches and applications. The research is also intended for both graduate and postgraduate students in fields such as mathematics, computer science, system sciences, engineering, cybernetics, social sciences, and as a reference for software professionals and practitioners.

Frames, Wavelets and their Applications

Frames and atomic systems play an important role in the field of signal processing, image processing and sampling theory. In particular, work is being done on approximative atomic systems for operators and it's application in solving linear differential equations. Besides work on Haar Wavelets, Legendre Wavelets and their applications is in progress. Further, It is being tried to define some new geometric concepts in Banach Spaces.

Optimization

While working in the field of optimization, the department plans to design some algorithms base on nature and will apply this concept to the real-life problems. Parallel to that, work is also being done in the field of fuzzy reliability.

Department of Physics & Astrophysics

Nuclear Flow at Intermediate Energies

Theoretical methodology has been developed to pin down the correlation between elliptical flow and nuclear stopping at intermediate energies. One can extract the information about nucleon-nucleon collision cross section and nuclear equation of state by analyzing the correlation between elliptical flow and nuclear stopping.

Improvement in Shelf Life of Food Products

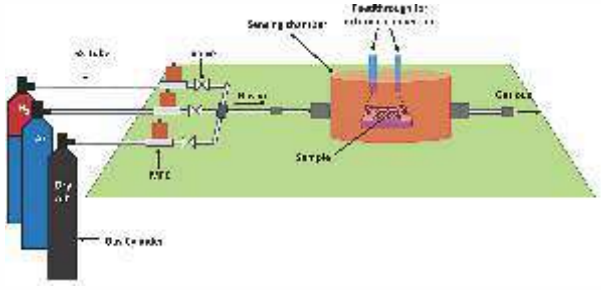
Interdisciplinary approach has been developed to increase the shelf life of food products using gamma radiation techniques. In today's world, people are becoming more health conscious. It is the need of time to eat chemical preservative free food to increase the immunity of digestive system. Collaborative research work between Department of Physics and Astrophysics and Department of Nutrition Biology has been initiated in this direction.

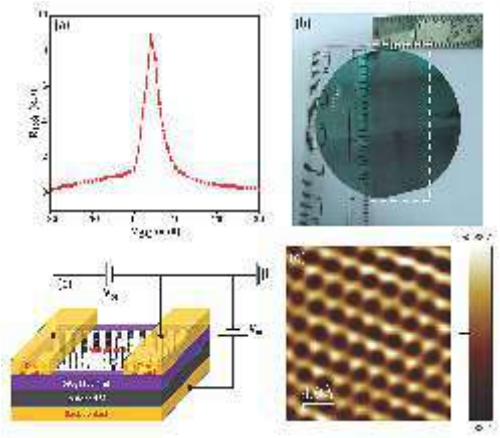
Functional Energy Materials

World's population is growing day by day; therefore, it is much challenging to produce enough power supply from conventional fossil fuels. Though, renewable energy sources such as mechanical vibration, thermal, solar, wind, and nuclear power could be an alternative to overcome these issues. However, it is still difficult to store the energy for a long time through the traditional batteries. In this context, breakthrough researches are going on to develop advanced energy harvesting and energy storage devices by using functional materials. The main focus of this group is to develop and characterize functional energy materials such as ferroelectric, piezoelectric, dielectric, and magnetic materials and their composites for energy storage, energy harvesting, next - generation cooling and multiferroic applications. Our primary research interests are the following but not limited to (i) Electrocaloric & Magnetocaloric Materials (ii) Ferroelectric/Magnetic Polymer Nanocomposites (iii) Multiferroic Materials (iv) Magnetic Nanoparticles for Agriculture and Water Treatment Applications

Nanostructured Materials and Devices

We focus on graphene and other 2D layered materials, 2D-3D interfaces and devices for thermoelectric, photovoltaic, LEDs, and gas sensor applications. Growth of metal, semiconductor, hybrid, alloy and nanostructure/nano- composites for specialized applications such as water splitting for hydrogen production, nanogenerator for harnessing mechanical energy, thermoelectric devices, solar cells, resistive switching memories. Physical properties of 2D Van der Waals heterostructures at nanoscale for energy storage applications and electron-correlated materials, study of condensed matter using scanning kelvin probe, conducting atomic force and thermal microscopy, conventional absorption and PL spectroscopy, and advanced spectroscopies such as Surface Enhanced Raman Spectroscopy (SERS).





Department of Yoga

Yoga protocol to extend Healthspan and longevity in Covid-19 Pandemic period.

The prevalence of age-related disorders (cardiovascular disease, lung diseases, stroke, malignancy, osteoporosis, and musculoskeletal disorders) is very high in older people. A declining mortality rate, healthier lifestyles, and developments in medical technology have extended the life span but not the Healthspan. They have contributed to the increasing number of individuals with chronic conditions. In 2020 the global anti-aging market reached US$ 58.5 billion. Moreover, to reach a value of US$88.30 billion by 2026. According to IMARC, the marketing and demand for anti-aging products are highest in China, Australia, India, and South Korea. They are progressively increasing day by day in the world and are increasingly expensive.

The Yoga department is working on improving Healthspan by developing a yoga protocol to prevent psycho-physiological comorbidities such as post-traumatic disorders (PTSD), anxiety, depression, poor quality of life, and oxidative stress in the covid-19 recovered population of Mahendergarh district to increase Healthspan and longevity. Yoga's ancient principles and practices are for health promotion, disease prevention, boosting immunity, healing, and age reversal. This research will help provide a simple, convenient, and costless alternative to relieve human beings from all sufferings of life and not to spend the number of years in sickness and decline but with youthfulness. The central focus of the research is to assess the efficacy of the yogic intervention on biochemical and psychological parameters of aging on the covid-19 recovered population of Mahendergarh.

Combined approach of yoga and goumutra arka to minimize the oxidative stress and inflammatory markers in oral cancer patients undergoing chemotherapy/radiotherapy treatments.

Oral cancer, ranked as the sixth most common cancer across the globe, is increasing remarkably in southern countries of Asia including India. In India, oral cancer is more common among males as compared to females. It is estimated that around 43% of cancer deaths are due to tobacco use, unhealthy diets, alcohol consumption, inactive lifestyles and infection. Of these, tobacco use is the world's most avoidable cause of cancer. In addition to lung cancer, tobacco consumption causes cancer of the oral cavity, pharynx, larynx, esophagus, stomach, pancreas, liver, kidney, ureter, urinary bladder, uterine cervix and bone marrow (myeloid leukemia).

Tobacco use and alcohol consumption act synergistically to cause cancer of the oral cavity, pharynx, larynx and esophagus. According to the World Health Organization, 40% of the oral cancers diagnosed worldwide occur in India, Pakistan, Bangladesh, and Sri Lanka. North India is more prone to Oral Cancer due to maximum tobacco consumption here. Among North India, Haryana and Punjab are the most affected states of India.

The Yoga Department is working on the integrated approach of Yoga and Panchgavya (An oldest branch of Ayurveda) to reduce the symptoms of Oral Cancer. Department also developed a meditation Technique named Vedic Meditation which will help to reduce the stress by enhancing the parasympathetic activity.

MoU signed

The university has also signed MoU and a research agreement with Pronat, S.C. in Spain to work on research focused on development of probiotics against Indian diarrheal pathotypes. The company will provide a research grant of Rs. 37 lacs to work on development of a probiotic supplement as a preventive therapy against Indian diarrheal strain. This MoU also offers an opportunity to visit the laboratories in Spain to get hands on experience on advanced methodologies related to probiotic research.

IMPORTANT AWARDS AND RECOGNITIONS OF THE FACULTY MEMBERS

S.N.	Name	Major Award/ distinctions
1	**Prof. Deepak Pant** Professor Department of Chemistry	1. 8th National Award for Technology Innovation by Ministry of Chemicals and Fertilizers, Government of India (2018) 2. Visitor Award for best innovation from president of India (2017) 3. SERB Young scientist award (2007) 4. Summer Research fellowship by Indian National Science Academy (INSA) (2010) 5. SERB Department of Science Visiting Fellowship (2010) 6. Young scientist award for the year by Uttarakhand State council of Science and Technology Government of Uttarakhand (2009) 7. Awarded the "Silver Jubilee research scholarship" by Kumaon University (2002)
2	**Dr. Vinod Kumar** Associate Professor Department of Chemistry	1. Haryana Yuva Vigyan Ratna Award (2017) by Haryana Govt. 2. Professor R. C. Shah Memorial Lecture Award ISCA (2017) 3. ISCA Young Scientist Award (2007)
3	**Dr. Harish Kumar** Associate Professor Department of Chemistry	1. International Faculty exchange Program, MC-IRSES (Spain) 2. IISc Summer Research Fellowship
4	**Dr. Manoj Kumar Gupta** Assistant Professor Department of Chemistry	1. Asia Outstanding Thesis Award, First Prize (2009) 2. Marie-Curie Research Fellowship (2010) 3. Ireland's Champions of EU Research Award (2012) 4. Fast Track Young Scientist Award (2013) 5. UGC FRPS Early Career (2017)
5	**Dr. Rajeev S Menon** Assistant Professor Department of Chemistry	1. Alexander von Humboldt Foundation Postdoctoral Fellowship 2. Australian Research Council Discovery Fellowship 3. Ramanujan Fellowship, by SERB-DST, India 4. Best Researcher Award (Sciences), Central University of Haryana
6	**Dr. Prakash Kanoo** Assistant Professor Department of Chemistry	1. Nominated as Young Scientist by Vice-Chancellor, CUH 2. Admitted as an Associate Member of Royal Society of Chemistry (Annual) 3. Early Career Research Award, SERB 4. DST-Young Scientist, SERB 5. JSPS Postdoctoral Research Fellowship, Japan 6. Endowment Award, Assam University

7	**Dr. Manish Kumar** Assistant Professor Department of Geography	1. Appointed as a Steering Member of International Geographical Union Commission on Modeling Geographical Systems.
8	**Dr. Jitendra Kumar** Assistant Professor Department of Geography	1. Prof. N.P. Aiyyar Young Geographer Award-2018 by NAGI (National Association of Geographers, India) (2018) 2. Young Geographer Award-2016 by Institute of Indian Geographer (IIG), Pune (2016) 3. Young Geographer Award-2015 by Rajasthan Geography Association, Bhilwara (2015) 4. Best Cartographer Award by NRDMS, DST, Government of India New Delhi, (2016)
9	**Dr. Rajesh Kumar Gupta** Assistant Professor Department of Mathematics	1. UGC Research Award
10	**Dr. Dilbag Singh** Assistant Professor, Department of Tourism & Hotel Management	1. Best Teacher Award in Housekeeping Operations by National Hospitality Educators Summit 2020
11	**Prof. Sarika Sharma** Professor, School of Education	Best Researcher Award (Social Sciences) CUH (2019)
12	**Dr. Renu Yadav** Assistant Professor, School of Education	Residential Fellow at Institute of Advance Studies , University of Warwick, UK (2018)
13	**Dr. Ajay Kumar Bansal** Associate Professor Department of Electrical Engineering	1. Research Excellence Award by InSc (2020) 2. POSOCO Power System Award (PPSA) for best Ph.D. thesis at National Level (2015) 3. Glory of Education Excellence award by IIEM, New Delhi (2015)
14	**Dr. Vikas Garg**	1. Fellowship of Indian Society for Hydraulics (2021) 2. Fellowship of Institution of Engineers (2021)
15	**Dr. Kalpana Chauhan** Assistant Professor Department of Electrical Engineering	1. Award of Honor, The Institution of Engineers (India), Shimla Section (2019-20) 2. Young Engineer Award (Electrical Engineering), The Institution of Engineers (India) (2018-19) 3. Awarded with Women of Science (WOS-A) Scheme, Department of Science and Technology, Government of India (2018) 4. IAS IEEE CMD Young Professional Recognition-IEEE New York

16	**Dr. Anshu** Assistant Professor Department of Physics, (SoET)	1. Women Scientist (WOS) award by DST 2. Max Planck India Mobility Grant award by Max Planck Society, Germany 3. Training and Research in Italian Laboratories (TRIL) Fellowship awarded by International Center for Theoretical Physics, Trieste, Italy
17	**Dr. Ashok Jangra** Assistant Professor Department of Pharmaceutical Sciences	1. Gufic Award (for work in Indigenous medicines in India) from Indian Pharmacological Society.
18	**Prof. Sanjiv Kumar** Professor, Department of English and Foreign Languages	1. Nomination as Inspired Teacher in Residence Programme at Rashtrapati Bhawan (2015)
19	**Dr. Arvind Singh Tejawat** Assistant Professor Department of Hindi	1. Award of the Visiting Professor University of Kelaniya (Sri Lanka) (2016)
20	**Dr. Chanchal Kumar Sharma** Associate Professor Department of Political Sciences	1. Leverhulme Trust U.K., Research Award of Rs 1 Crore for a collaborative project on Indian Federalism (in collaboration with Wilfried Swenden). 2. Edinburgh University, U.K. awarded Global Partnership Award for the year 2019. 3. Visiting Fellowship awarded by the German Institute for Global and Area Studies January to June 2017. 4. Honorary Associate ship awarded by the German Institute for Global and Area Studies w.e.f. June 2017. 5. Invited as a technical expert to conduct an international workshop on Federalism for experts, professionals and parliamentarians at the International Munich Federalism Days held on 11-15 November 2019, jointly organized by the Hanns Seidel Foundation (Germany) and Eurac Research (Italy).
21	**Dr. Payal Kanwar Chandel** Associate Professor Department of Psychology	1. Best Researcher Award, CUH (2021) 2. Indo Pacific Best Teacher Award (2020) 3. Bagar Gaurav Samman by Abhinav Pragati Samiti, Bagar (2019) 4. Best Researcher Award by International Multidisciplinary Research Foundation (2016)

22	**Prof. Neelam Singh Sangwan** Professor, Department of Biochemistry	1. Fellow, Indian National Science Academy (INSA), New Delhi 2. Fellow, National Academy of Agricultural Sciences (NAAS), New Delhi 3. Fellow, National Academy of Sciences, India (NASI, Allahabad) 4. BOYSCAST Fellowship 5. INSA-Royal Society, UK Fellowship 6. INSA Medal for Young Scientist 7. NAAS Young Scientist Award 8. Indian Science Congress Award 9. Prof. HiraLal Chakravorty Award 10. CSIR-Technology Award from Dr. Harshvardhan, Minister of Science and Technology (as PI and leader) 11. DBT-Women Leaders in Crop Science delegate to Cambridge University, UK under Newton-Bhabha Program. 12. Member, DBT-Sub Committee, Biosafety Research Level (BRL) Trials for Environmental Clearance 13. Member Expert committee, Metabolomics in Agriculture, strategic area research by ICAR-NASF, Delhi 14. Member, Review Committee on Genetic Manipulation, Department of Biotechnology, Government of India
23	**Dr. Pawan Kumar Maurya** Associate Professor Department of Biochemistry	1. Awarded the Research Fellowship (2014-2016) in a special scheme of "Science without Borders-Attraction of Young Talent" Level A by Ministry of Education and Ministry of Science and Technology though their respective funding agency CAPES, Government of Brazil. 2. Awarded the Research fellowship (2011-2012) by Taipei Medical University, Taipei, Taiwan. 3. "Distinguished Service Award" for outstanding contribution in the field of "Aging Research" by Society of Biological Science and Rural Development, Allahabad, India (2018)
24	**Dr. Antresh Kumar** Associate Professor Department of Biochemistry	1. Bursary award-FINSysB Conference on Candida Infection Biology-fungal armoury, battlefields and host defenses conference, Acquafredda di Maratea, Italy. 2. Pre-doctoral fellowship, under the Research exchange program, NIH, USA.
25	**Dr. Maruthi Mulaka** Assistant Professor Department of Biochemistry	1. Inspire faculty award (2018)

26	**Dr. Bijender Singh** Associate Professor Department of Biotechnology	1. Ranked among top 2% scientists in a study by Stanford University, USA (2020) 2. DST Young Scientist award (2011-12) 3. Young Scientist award in Industrial Microbiology by Association of Microbiologists of India (2010)
27	**Dr. Inderjeet Kaur** Assistant Professor Department of Biotechnology	1. DBT-IYBA award (2016) 2. DBT-BioCARe woman scientist fellowship (2016)
28	**Dr. Namrata Dhaka** Assistant Professor Department of Biotechnology	1. DST-INSPIRE Faculty Fellowship (2018) 2. National Postdoctoral Fellowship, Science and Engineering Research Board, Department of Science and Technology, Government of India (2017)
29	**Dr. Surender Singh** Associate Professor Department of Microbiology	1. Endeavor Research award by Government of Australia (2011) 2. Young Scientist award by Association of Microbiologists of India (AMI) (2015) 3. Young Scientist Award by National Academy of Agricultural Sciences (NAAS), New Delhi (2015-16) 4. Haryana Yuva Vigyan Ratan Award by Government of Haryana (2018) 5. Alembic Award by Association of Microbiologists of India (AMI) (2021) 6. Associateship by National Academy of Agricultural Sciences (NAAS), New Delhi (2021)
30	**Dr. Gunjan Goel** Associate Professor Department of Microbiology	1. Best Researcher Award, CUH (2021) 2. Best Paper Award, BIORESTEC, Spain (2018)
31	**Dr. Puja Yadav** Assistant Professor Department of Microbiology	1. Nominated as Young Scientist by Vice-Chancellor, CUH (2018). 2. Young Women Scientist award AMI (Association of Microbiologist of India) (2015). 3. Young Women Scientist award Society for Biological Chemists (2017).
32	**Dr. Tejpal Dhewa** Assistant Professor Department of Nutrition Biology	1. Best teacher national Level, award by Microbiologists Society, India
33	**Dr. Dinesh Kumar** Associate Professor Department of Pharmaceutical Sciences	1. Long term ICMR-DHR International Fellowship for Young Indian Biomedical Scientists (2019-20) by Indian Council of Medical Research and Department of Health Research (ICMR-DHR), Govt. of India, New Delhi for research training in Israel (2020)

FLAGSHIP PROGRAMMES OF THE UNIVERSITY

Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching

The School of Education is committed towards preparing humane teachers by ensuring quality and excellence in Teacher Education Programmes. Teachers are the backbone and the core of any education system. Hence, ensuring their availability and improving their quality of teaching and learning have come to occupy central stage of our policy discourse. With this background, Hon'ble Prime Minister of India launched the scheme of Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) on 25th December, 2014 during the XII Plan. In 2016, Ministry of Human Resource Development (MHRD) approved National Flagship Scheme of Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) to School of Education, Central University of Haryana. Under this scheme, two centers were sanctioned to School of Education namely (i) Centre for Pre-service Teacher Education and (ii) Centre for Professional Development. The main objectives of this scheme were- (i) to conduct the various academic and professional activities/programme for the teacher trainees and teachers across the levels, (ii) to develop the pedagogical resource centres/labs in School of Education and (iii) to develop the School of Education as a model institution for pre-service and in-service teacher education. Under this Scheme, School of Education had organised various academic activities including National Seminars/Conferences, FDPs/Workshops, Extension Lectures/Webinars etc. Physical facilities like Language Lab equipped with 33 Computers & Wi-Fi facility; Art & Craft Resource Centre, Social Science Resource Centre, Physical Education Resource Centre, Integrated Science Lab, Scholars Room and well-furnished separate reading room were also made available/created in School of Education. Various programmes like expert lectures, workshops, faculty development programmes were organized under this Scheme.

DDU Kaushal Kendra/ Department of Vocational Studies and Skill Development

Dynamic and visionary Prime Minister Sh. Narendra Modi Ji is a ray of hope for many such hardworking youth who are average in studies but poor and marginalized and who can't afford technical education provided by private players at very high cost. Central University of Haryana has positively tried to fulfil the dream of Hon'ble Prime Minister regarding Skill India and students are mobilising towards Skill India Initiative. The University also aims to skill on a large scale with speed and high standards in order to achieve vision of 'Skilled India'.

Three B.Voc. Programmes (Retail & Logistics Management, Biomedical Sciences and Industrial Waste Management) under Deen Dayal Upadhyaya Kaushal Kendra (DDUKK) were started in January 2016. Students of the above mentioned B.Voc. programmes are getting offer letter for jobs in industries, starting their own ventures and have also undergone internship for the job roles defined as per the guidelines of respective Sector Skill Councils and as per the UGC guidelines for curricular aspects, assessment criteria and credit system in skill based vocational courses under National Skills Qualification Framework (NSQF). The skill components of B.Voc. Retail & Logistics Management, B.Voc. Biomedical Sciences and B.Voc. Industrial Waste Management are assessed and certified by Retailers Association's Skill Council of India (RASCI), Life Sciences Sector Skill Development Council (LSSSDC) and Skill Council for Green Jobs (SCGJ) respectively. We are happy to share that we achieved cent percent results in the assessment of NSQF

Level-4, Level-5 and Level-6 for the specified job roles of the respective sector skill councils. Cent percent result in skill component of the syllabi in the above mention B.Voc. programmes expresses that Central University of Haryana is imparting the required skill competence in the student at different stages.

The curriculum of the skill component of the programmes is developed by the concerned Sector Skill Council. We have adopted the curriculum in consultation with the industry partners and National Skill Development Corporation (NSDC). MoUs with various companies were also signed for the purpose for skill training, internship and placement. Further, alignment of the skill component of the curriculum is also ensured with the National Occupational Standards developed by the respective Sector Skill Councils. Monitoring/ evaluation and updation of curriculum is done periodically in consultation with the concerned Sector Skill Council and industry partners keeping in view their requirements and change in National Occupational Standards.

Key Features of B.Voc. Programmes:

- Skill-based job oriented graduation programme as per the guidelines of National Skills Qualification Framework (NSQF).
- Curriculum has been designed as per the Qualification Packs of respective Sector Skill Councils.
- A well-established Retail Laboratory and e-Retail laboratory with adequate number of computer systems.
- Extensive practical and on-the job training along with periodic industrial visits and industry interactions.
- The programme has industry partnerships with leading companies which are renewed from time to time.
- Industry-specific skills to enhance employability
- Occupational skills to enable entrepreneurial initiatives
- Multiple exits like, Certificate, Diploma and Advanced Diploma.

Above mentioned information of DDU Kaushal Kendra express the all-around good performance of this Centre at Central University of Haryana for creating skilled manpower as per industry requirements at various levels. It is also submitted that we are committed to work for coordination between our university and industry; to ensure adequate knowledge and skills among students for appropriate employment and developing entrepreneurial traits to meet the economic and industrial needs at national level.

Swami Dayanand Saraswati Chair

About the Chair

This Chair has been established by University Grants Commission for five years and can be extended for two more years. Its main objective is to preach and propagate lifetime achievements of Swami Dayanand Saraswati, mainly his visionary social reforms through Seminars/Workshops/Summer Schools and research projects on Vedic Studies. Also, to contribute and participate in such activities organized by other Universities/Research Institutes/Chairs throughout the country and abroad. The Chair aims to propagate the ideas, teachings, visionary mission and achievements of Swami Dayanand Saraswati. This chair has taken up some topics amongst them for research. Any of the teachers, non-teaching workers and students desirous to know more and interact, is most welcome. The Vedic Reference Library of the Chair is open for all. Some of the prominent Vedic teachings are also displayed here.

Objectives of the Chair

- To popularise the teachings of Swami Dayanand Saraswati among the common masses and rejuvenate the Vaidika-Dharma among them.
- To take-up various projects on the works of Dayanand and his Guru Dandi Virajanand and promulgate research on Vedic and Sanskrit literature.
- To propagate our Ancient Cultural and Literary Heritage embodied in different texts of Vedic and Classical Sanskrit Literature by their translation and research.
- To make familiar various aspects of Vedic Culture among the students.
- To organise various activities viz. Lectures, Workshops, Seminars, Conferences etc. on Dayananda, his mission and his writings.

UNIVERSITY LIBRARY SYSTEM, HOSTELS AND HEALTH CENTRE

University Library System

University Library System comprises of five libraries Pandit Deendayal Upadhyaya Central Library, School of Engineering and Technology Library, School of Education Library, School of Law Library, and Swami Dayanand Saraswati Chair Library. These are our users' preferred locations for community connection and learning. The Library collection comprises of a broad spectrum of academic and popular literature in print as well as in digital formats. The Library regularly adds new collection in response to the demand received from the users and make them accessible as soon as possible.

With the trained and qualified staff, the Library executes many user-centric innovative services, provides the best possible facilities and organize meaningful academic and research events supporting the teaching, learning, research and publication activities. The Library system is fully automated. The University Library System has the facilities such as:

- Wi-Fi,
- CCTV camera;
- Air-condition reading halls;
- Research scholars' room;
- Faculty reading room;
- Training rooms with projectors, mikes, speakers, live programme recorder;
- 24x7 WebOPAC (online catalogue) and remote access e-resources;
- A television set to watch 32 SWAYAM PRABHA DTH educational channels, etc.

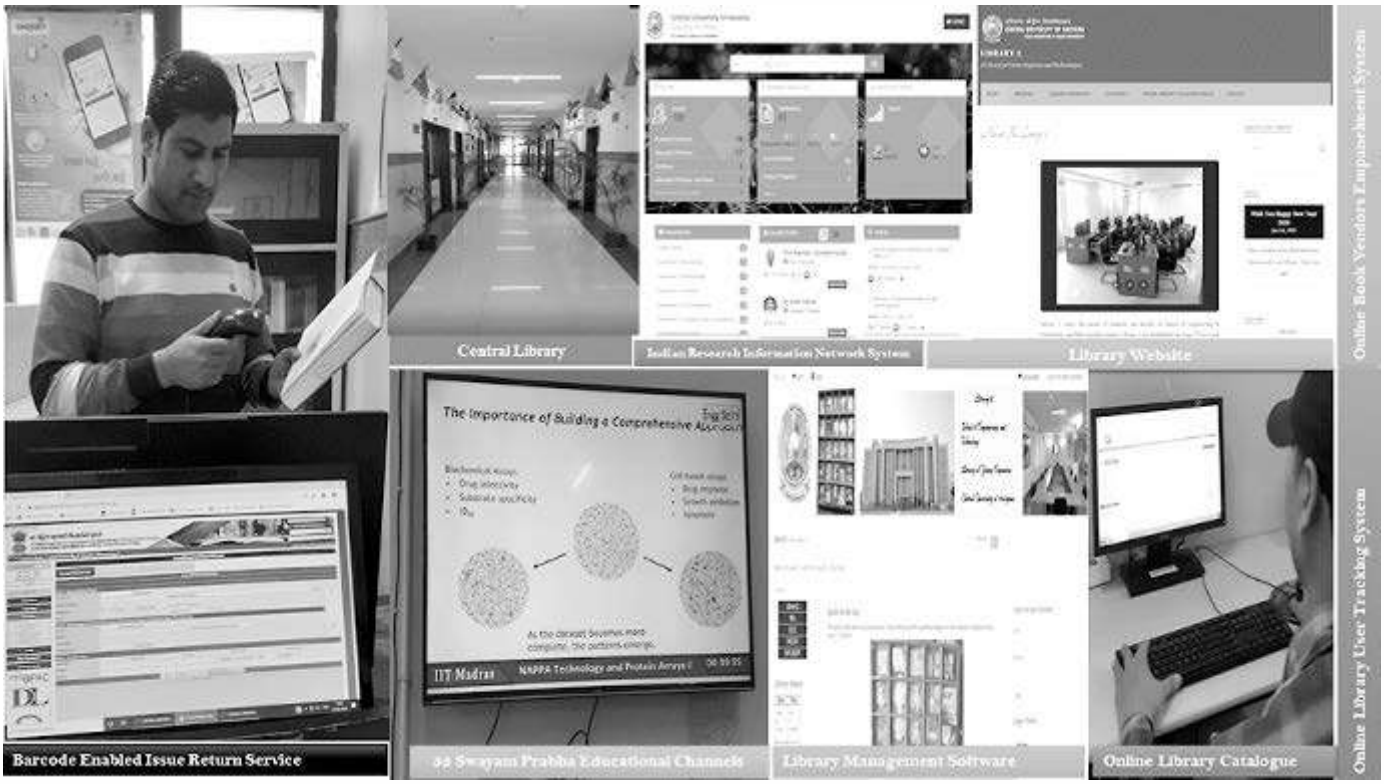
The Library offers important services such as: reference service; prepares subject guides and user manuals to access e-resources/ databases; prepares bibliographies and webliographies on demand; lists and updates open access e-resources on the University website; provides inter-library loan service through DELNET; uploads University's theses on ShodhGanga and so far uploaded 59 theses; creates user accounts on National Digital Library; creates publication profiles of faculty on Indian Research Information Network System (IRINS); assists in creating author identification numbers on ORCID, Google Scholar, ResearchGate, Academia, etc.; provides career guidance; regularly conducts Orientation Programmes on e-resources, plagiarism, information sources, latest learning technology/tools, etc. and also Library Tours.

The Library is actively involved in teaching and training activities. Apart from organizing periodic academic/research events for students and faculty members, it also conducts the following two formal Courses:

1. “Research and Publication Ethics”, a two-credit Course mandated by UGC for research scholars. The first batch of the Course was successfully conducted in 2020-21.
2. “Communication Skills and Personality Development” Course for UG, PG and research scholars. From 2018-19, the Library has successfully conducted four batches.

Library Collection

Type of resource	Pandit Deendayal Upadhyaya Central Library (Academic Block-IV, 3rd Floor)	School of Engineering & Technology Library (Library 2) (Old Academic Block, 2nd floor)	School of Education Library (Academic Block-IV, 3rd Floor)	School of Law Library (Academic Block-III, 1st Floor)	Swami Dayanand Saraswati Chair Library (Academic Block-IV, 1st Floor)
Books	48824	2587	1830	3064	437
Magazines	19 (5 Hindi + 14 English)	22 (6 Hindi + 16 English)	--	–	–
Newspapers	13 (6 Hindi + 7 English)	11 (6 Hindi + 5 English)	--	–	–
Theses and dissertations (print)	59 theses and dissertations	NA			
E-Books	6654 e-books of all subjects and World e-book Library				
Print journals	67 journals				
Print + E-journals	15 journals				
E-journal databases	Emerald, Springer, Oxford University Press, Elsevier Science Direct (Biochemistry Genetics and Molecular Biology, Social Sciences, Economics and Finance, Chemistry, Physics and Astronomy), American Society of Civil Engineering				
Other databases	CRISIL, LexisNexis Advanced India Law, Manupatra, EPWRF India Time Series, EBSCO Business Source Complete, EBSCO Education Research Complete Database, EBSCO Hospitality and Tourism Database, EBSCO Management Collection Database, EBSCO Library and Information Science Database, Institute for Studies in Industrial Development, McGraw Hill Access Engineering Database, Scopus, SciFinder Citation and Abstract, J-Gate for Basic Science Collection and Humanities Collection, South Asia Archive, DELNET (platform for inter-library loan facility)				
Software	06; MATLAB, SPSS, STAAD Pro Bundle, Maple, Primavera, Stata; Gaussian Software				
Plagiarism detection software	Turnitin and Urkund				
CD/DVD's	60	20			



Overview of Library Services

QR Code to access online catalogue:

**of the period: 1st April, 2020 to 31st March, 2021*

Hostel Facility

The University has well-furnished hostels for Girl and Boy students. State of the art mess, gym, indoor games, cafeteria, wi-fi and reading rooms are the main facilities available in the hostels. The hostels with place and capacity is as follows:

Boys Hostel

Place	Capacity
Old Building Boys Hostel 1	240
New Building Boys Hostel 1	315
New Building Boys Hostel 2	315

Girls Hostels

Place	Capacity
Old Building Girl Hostel 1	240
Old Building Girl Hostel 2	240
New Building Girl Hostel 1	315
New Building Girl Hostel 2	315

University Health Centre

The university provides medical services to all CUH employees / beneficiaries and students through its Health Centre. The University Health Centre is operating from temporary building and likely to shift in the New Permanent building within very short time.

The New University Health Centre building will have modern facilities like Laboratory, Pharmacy, Minor OT, Dressing room, X- ray, ECG, Observation room etc.

MAJOR PROGRAMMES ORGANIZED BY DIFFERENT DEPARTMENTS DURING THE YEAR

S.N.	Titles	Date	Host Department/ Cells/Clubs etc.	No. of particip-ants/ beneficia-ries
International Webinars				
1	Tourism and Hospitality Strategies to the COVID Crisis	22.05.2020	Tourism & Hotel Management	230
2	Women in STEM	23.05.2020	School of Education & PMMMNMTT	1081
3	Context Based Pedagogy and Assessment in Higher Education	03.06. 2020	School of Education & PMMMNMTT	3085
4	Water Resources: Challenges and Research Need	09.06.2020	School of Engineering & Technology	150
5	Capacity Building for Managers in Post Pandemic Scenario	13-15.06. 2020	Management Studies	300
6	Yoga for Good Health	19.06.2020	School of Education, N.S.S., Yoga, Haryana Yog Parishad, Shri Krishna Ayush University, Kurukshetra, Ministry of Ayush	One Lakh views (online)
7	Social & Ethical Dimensions of Gandhian Philosophy	25.08.2020	C.U.H. & University of Manitoba, Canada	250
8	Covid19: Unlocking with Science	24.09.2020	Biochemistry	92
9	Haryana Technology Conclave	16.11.2020	Electrical Engineering	200
10	Vocal for Local summit, 2020	20.11. 2020	Electrical Engineering	200
National Webinars				
11	A Brief Introduction to the Hatha Yogic Tradition and Practices: A Historical Overview	16.05.2020	Yoga	75

National Webinars

12	Two systems of Patanjal Yogasutra - Kriya and Ashtanga Yoga and their Efficacy	17.05.2021	Yoga	90
13	The Role of Psychologist during the Spread of Pandemic	19.05.2020	Psychology	112
14	IoT-Cloud based System & Large Scale Data Handling	20.05.2020	Computer Science and Engineering	70
15	BET Surface Area Analysis and Catalyst Characterization	22.05.2020	Chemistry	87
16	CTP Technology and Green Trends	24.05.2020	Printing and Packaging Technology	60
17	DCS and Its Applications to Power Sector	25.05.2020	Electrical Engineering	200
18	Smart DC Microgrid Solutions for Rural Areas Electrification	28.05.2020	Electrical Engineering	200
19	Placement Preparation: Tips and Tricks Areas Electrification	30.05.2020	Computer Science and Engineering	85
20	Efficacy of Shrimad Bhagawadgita in the current scenario (Corona-virus Covid-19 pandemic)	31.05.2020	Yoga	400
21	World No Tobacco Day	31.05.2020	N.S.S., Y.R.C.	125
22	National Webinar Effective poshan (nutrition) during pandemic covid-19	08.06. 2020	Biochemistry	100
23	Power of Professional Networking & Volunteering	09.06.2020	Electrical Engineering	200
24	Emerging Mental Health Issues during Covid-19 Pandemic	10.06. 2020	Psychology	114
25	Techniques in Qualitative Research	12.06. 2020	Psychology & School of Education	3085
26	Fight against climate change	20.06.2020	N.S.S.	125

27	Relevance of Ashtanga Yoga in day to day life	21.06.2020	Yoga	100
28	Role of Yoga Education in Community Health	21.06.2020	School of Education & PMMMNMTT	1817
29	Counselling: A Bhagavad Gita Perspective	24.06.2020	Psychology	100
30	Mental Health and You: Learn to be Responsible	18.06.2020	Psychology	120
31	Responsive Counseling	19.06.2020	Psychology	80
32	India and the Emerging World Order	12.07.2020	Political Science	250
33	Post Covi-19: Revival of Indian Economy	20.07.2020	Economics	150
34	Strategy for managing personal finance including mutual funds during and after covid-19	28.07.2020	Commerce	340
35	National Education Policy- 2020 and Emergent Bharat	08-9.08. 2020	English and Foreign Languages	126
36	Social and Ethical Dimensions of Gandhian Philosophy	20.08.2020	Microbiology	80
37	Teacher and Teacher Education: NEP 2020	05.09.2020	School of Education & PMMMNMTT	1084
38	Engineers: Ideas, Innovation and Creativity	15.09.2020	Electrical Engineering	200
39	The use of genome editing in poultry breeding.	24.09.2020	Biotechnology	150
40	Effective Poshan (Nutrition) during Covid-19	24.09.2020	C.U.H. & N.A.S.I.	200
41	Schemes of Khadi Gram Udyog & Laghu Udyog	28.09.2020	Computer Science and Engineering	150
42	Buffalo cloning: Multiplying Black Gold.	28.09.2020	Biotechnology	100
43	World Without Anger: Psychological Perspectives of Gandhian Philosophy	02.10.2020	Psychology	122

44	The Gandhian Values and their Contemporary Relevance	03.10.2020	Psychology	120
45	Computer Aided Protein Therapeutics.	06.10.2020	Biotechnology	100
46	Bio-entrepreneurship: A Step towards Aatm Nirbhar Bharat	07.10.2020	Microbiology	120
47	Mental Health Awareness Week	0 4-10.10. 2020	Psychology	145
48	An introduction to scripting in R for data analysis	10.10.2020	Biotechnology	100
49	Administration of Justice: Role of Advocate General office Haryana	10.10.2020	Law	350
50	Studying gene expression using genomics approaches-Bulk to single cell expression analysis	26-27. 10.2020	Biotechnology	100
51	National Press Day	16.11.2020	Journalism and Mass Communication	233
52	Pre-Curtain Raiser program, India International Science Festival (IISF)-Science for Aatm Nirabhar Bharat and global welfare	12.12. 2020	Biochemistry	100
53	Space Technology for Science-Policy Interface: Indian Experiences	13.12.2020	Geography	100
54	Eliminating Gender Based Violence	21.01.2021	Women Empowerment Cell	47
55	International Women's Day: “Women in leadership: Achieving an equal future in a COVID-19 world	08.03.2021	Economics &Women Empowerment Cell	121
56	World Water Day	22.03.2021	Environment Science	100

Faculty Development Programmes and Workshops

57	Faculty Development Programme on Development and Delivery of MOOCs and E-Content	26.06.2020-01.07.2020	School of Education & PMMMNMTT	315
58	Online Research Methodology Workshop	03-09 .07. 2020	Department of Management Studies in association with SHoDH Haryana and ICSSR	1000
59	Teacher's Role in National Education Policy Implementation	9.02.2021	English and Foreign Languages	112

60	Sustainable Future	8.03.2021	Civil Engineering	100
61	National workshop on "Applications of Mathematics and Statistical Tools"	20-24.03. 2021	Mathematics, Statistics and School of Education & PMMMNMTT	70

Extension Lectures Organised in the University During the Year

S.N.	Name of the Experts	Title	Host Department/ Cells/ Clubs etc.	Date	No. of participants/ beneficiaries
1	Dr. Mahesh Koltame, PVDT College of Education form Women, SNDT Women's University, Mumbai.	Constructivism in Online Teaching- Learning Process	School of Education & PMMMNMTT	12.09. 2020	87
2	Prof. Rajender Gautam, Retd. Professor, DU and Prof. Amarnath Sharma, Retd. Professor, Culcutta University.	आधुनिक भारत और हिन्दी	Rajbhasha	14.09.2020	122
3	Dr. Sharad Sinha, Professor, National Institute of Education, NCERT, New Delhi.	Teacher Internship: Issues, Concerns & Contribution towards School to Work Transition	School of Education & PMMMNMTT	17.09.2020	88
4	Dr. Dadakhalandar Doddamani, The Roslin Institute, The University of Edinburgh, U.K.	The Use of genome editing in poultry breeding	Biotechnology	24.09.2020	150
5	Mr. Subhash Goyal, Indian Association of Tour Operators & Dr. Aydoğan, Kastamonu University, Turkey.	World Tourism Day	Department of Tourism & Hotel Management	27.09.2020	370
6	Lecture Series	Computational Gastronomy: Leveraging Artificial Intelligence for Data-driven Food Innovations	Nutrition Biology	15.10.2020	108
7	Chef Sanket Kaplash, Assistant Professor, Delhi Technical Campus, Under GGIP University, Greater Noida.	The Kitchen code - ethos of professional kitchen	Department of Tourism & Hotel Management	20.10.2020	50

8	Dr. Neerja Hajela, Head, Science and Regulatory Affairs Yakult Danone India Pvt. Ltd. New Delhi.	Probiotics and Immunity	Microbiology	8.12.2020	50
9	Prof. K.S.Sangwan, Department of Sociology, M.D. University, Rohtak, Haryana.	Major Steps in Social Research	Remedial Coaching Classes Under Equal Opportunity Cell	10.03.2021	108
10	Prof.J.K.Pundir, Department of Sociology, C.C.S. University, Meerut (U.P.).	Data Analysis and Report Writing	Remedial Coaching Classes Under Equal Opportunity Cell	11.03.2021	108
11	Dr. Satya Sundar Sethy, Associate Professor of Philosophy, Department of Humanities and Social Sciences, Indian Institute of Technology, Madras, India.	Learning and its Assessment	School of Education & PMMMNMTT	15.03. 2021	131
12	Prof. Sangeeta, Former Dean, Faculty of Education, Kurukshetra University.	Learning Outcomes Based Curriculum Framework (LOCF)	School of Education & PMMMNMTT	16.03.2021	45
13	Prof. Sangeeta, Former Dean, Faculty of Education, Kurukshetra University.	Inclusive Education in India	School of Education & PMMMNMTT	16.03.2021	138
14	Prof. Sewa Singh Dahiya, Department of Public Administration, M.D.University, Rohtak (Haryana).	Ethics in Social Research	Remedial Coaching Classes Under Equal Opportunity Cell	16.03.2021	108
15	Dr. Neerja Ahlawat, Department of Sociology, M.D.University, Rohtak, Haryana.	Qualitative Methods in Research	Remedial Coaching Classes Under Equal Opportunity Cell	17.03.2021	108
16	Prof. N.K.Swain, Department of Library and Information Science, M.D.University, Rohtak, Haryana.	Importance of Citation in Social Research	Remedial Coaching Classes Under Equal Opportunity Cell	18.03.2021	108

17	Dr. Ajita Deshmukh, MIT ADT University, Mumbai.	Use of ICT for Collaborative Learning and Model	School of Education & PMMMNMTT	18.03.2021	105
18	Prof. Vishal Sood, Dean, Faculty of Education, Central University of Himachal Pradesh.	Instructional Design and Models of Teaching	School of Education & PMMMNMTT	18.03.2021	94
19	Prof. Nishan Singh, Punjabi University, Patiala.	Research Methodology in Physical Education	Physical Education	19.03.2021	38
20	Prof. P.S.Vivek, Department of Sociology, University of Mumbai.	Academic Writing Skills	Remedial Coaching Classes Under Equal Opportunity Cell	20.03.2021	108
21	Prof. Anjali Bajpai, Department of Education, Banaras Hindu University, Baranasi.	Role of Education in Administration and Concern with NEP-2020	School of Education & PMMMNMTT	23.03.2021	107
22	Prof. Radhey Shyam, Department of Psychology, M.D. University, Rohtak, (Haryana).	Dimensions of Social Research	Remedial Coaching Classes Under Equal Opportunity Cell	23.03.2021	108
23	Prof. Jaiveer S. Dhankar, Department of History & Archeology, M.D.University, Rohtak, (Haryana).	Sources of History	Remedial Coaching Classes Under Equal Opportunity Cell	24.03.2021	108
24	Dr. Struti Taneja Johansson, Senior Lecturer, Dept. of Education and Special Education, University of Gothenburg, Sweden.	Inclusive Education in India: Contemporary Issues	School of Education & PMMMNMTT	30.03.2021	88
25	Prof. Gurmeet Singh, Panjab University, Chandigarh.	Sports Training	Physical Education	30.03.2021	40

CELLS/ CLUBS/ SOCIETIES OF THE UNIVERSITY AND THEIR SOCIETAL OUTREACH ACTIVITIES

Sr. No.	Name of the Existing Club	Nature of Activities	Proposed Coordinator/ Convener and Members
1	Alumni Club	Coordination with the Alumni.	Dr. Parmod Kumar
2	Book Reading Club	To orient the students towards developing the hobby of reading books.	Prof. Sanjeev Kumar
3	Career Counselling Training and Placement Cell	Enabling the students to develop skills as required in global job marked and to facilitate them in getting placement.	Dr. Vishwanand Yadav
4	Cell for the Persons with Disabilities	To enable the students with disabilities to overcome the challenges and to provide them required support for their growth.	Prof. Sarika Sharma
5	Ek Bharat Shresth Bharat	To celebrate the unity in diversity of our nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our country.	Dr. Ranjan Aneja
6	Centre for Community Development and UBA	To coordinate the social outreach initiatives of the University and to organize the events in tune with the requirements of Unnat Bharat Abhiyan	Prof. Rajbir Singh Dalal
7	Centre for Innovation, Skills and Entrepreneurship	To coordinate and initiate necessary steps towards promotion of Innovations, Skills and Entrepreneurship among students.	Prof. Neelam Singh Sangwan
8	CUH Legal Cell	Coordinating the legal awareness initiatives among students and community.	Prof. Rajesh Kumar Malik
9	Eco Club	Sensitizing the students and community for the environmental issues and the role of each stakeholder to preserve the ecological balance.	Dr. Vipin Kumar
10	Faculty Induction Cell	Planning, coordinating and organizing the activities concerning induction and training of faculty.	Prof. Sarika Sharma
11	Group for the Promotion of Art, Culture and Heritage	Promotion and coordination of cultural activities to motivate the students for their active participation in artistic, theatrical, cinematic and aesthetic activities.	Dr. Monika

12	Movie Club	Promotion and coordination of cultural activities to motivate the students for their active participation in artistic, theatrical, cinematic and aesthetic activities.	Dr. Pawan Kumar Maurya
13	Intellectual Property Rights (IPR), Patenting, Consultancy Research Promotion Cell	Planning and coordinating the activities to sensitize the students about the issues relating to Intellectual Property Rights (IPR) and ethics of research.	Prof. Neelam Singh Sangwan
14	Literary Club	Planning and coordinating literary activities of the Department of English & Foreign Languages.	Prof. Ranvir Singh
15	NSS	Coordination of activities specified under National Service Scheme (NSS)	Dr. Dinesh Chahal
16	OBC Cell	To address the grievances of students belonging to OBC category and necessary initiatives for the same.	Dr. Devendra Kumar
17	Publication Division	To coordinate and monitor University publications including Annual Report, Information Bulletin and other institutional publications.	Sh. Shammi Mehra
18	SC/ST Cell	To address the grievances of students belonging to SC/ST category and necessary initiatives for the same.	Dr. Renu
19	Science, Mathematics and Technology (SMT) Club	To promote the disciplines relating to Science, Maths and Technology, and organizing the events for the promotion of Science and Technology.	Dr. Vikas Garg
20	Promotion of Sustainable Materials	Sensitizing people on the use of sustainable material by organizing lectures and interactive session with practicing experts and business leaders.	Dr. Harish Kumar
21	Women Empowerment Cell	Planning, coordinating and organising the activities for gender sensitization and women empowerment.	Dr. Renu Yadav
22	Yoga, Trekking and Adventure Club	Planning and organizing the activities for promotion of Yoga and other related activities.	Dr. Ajay Pal (Yoga)
23	Youth Red Cross	Coordination of activities specified under Youth Red Cross (YRC).	Dr. Dinesh Chahal

24	Grievances Redressal Committee	Redressal of student's grievances.	Prof. Rajesh Kumar Malik
25	Central Students Counselling Cell	To provide appropriate counselling to the students regarding the issues concerning academics and other individual problems.	Dr. Vishwanand Yadav
26	Teachers Club	To provide a platform for the healthy interaction among the teachers.	Prof. Sarika Sharma
27	International Students Cell	To facilitate international student during admissions and course of studies in the University.	Prof. Satish Kumar
28	Sports Council	To coordinate, organize and promote sports activities in the University Campus.	Dr. Ravinder Pal Ahlawat
29	Publication and Printing Cell	To coordinate and monitor University publications.	Dr. Tarun Singh
30	Students Wellness and Psychological Counseling Cell	To provide appropriate counselling to the students regarding the issues concerning academics and other psychological problems.	Dr. Vishwanand Yadav

Societal Outreach Activities Organised by the Various Cells, Clubs and Societies

National Service Scheme

S.N.	Event Name	Date	No. of partici-pants/ benefici-aries
1.	Organised Virtual Yoga Shivir in occasions of International Day of Yoga.	21.06. 2020	115
2.	Organised national Webinar on the occasion of International Day of Yoga.	21.06. 2020	170
3.	Gandhi Jayanti Celebration by Campus Cleaning Programme, performing Pad Yatra in the campus and many competitions for kids of campus.	02.10.2020	50
4.	Online Voter Awareness Programme	25.01.2021	75
5.	National Webinar on Women DAY and Poster Making Competitions	08.03.2021	380

Women Empowerment Cell & Gender Champions

S.N.	Event Name	Date	No. of partici-pants/ benefici-aries
1.	Panel discussion on "Skills and Entrepreneurship: Role of Women"	03.03. 2020	61
2.	Panel discussion on Rural Women in Agriculture	03.03. 2020	44
3.	Panel discussion on Law, Women and Social Change- Issues and Challenges	04.03. 2020	40
4.	Panel Discussion on Rural/Marginal/Tribal Women versus Urban Women: Challenges to Women Empowerment	04.03. 2020	71
5.	Poetry Recitation on Issues related to women	04.03.2020	71
6.	Speech on "Gender Equality and Women Empowerment"	04.03.2020	71
7.	International Women's Day with Untold stories of Struggle and Success	05.03. 2020	84
8.	Panel Discussion on "Health and Nutrition among Women"	06.03. 2020	65
9.	National Girl Child Day	23.01. 2021	103

Internal Complaints Committee

S.N.	Event Name	Date	No. of partici-pants/ benefici-aries
1.	Lecture Series: The Path of Equity, Diversity and Inclusivity in Leaning and Leadership-The Transformative power of diversity and inclusion.	12 .11.2020	100

Cell for Person with Disability

S.N.	Event Name	Date	No. of partici-pants/ benefici-aries
1.	Talk on the theme, "Mental Health for All Greater Investment Greater Access"	02.10.2020	185
2.	Event on the theme "International Day of Persons with Disabilities"	03.10.2020	112

Vacant Posts at the University on 31.03.2021

Teaching

Name of the Posts	No. of Sanctioned posts	Sanctioned strength as on 31.08.2021							Filled up positions as on 31.08.2021							Vacant positions as on 01.09.2021						
		UR	SC	ST	OBC	EWS	PWD	TOTAL	UR	SC	ST	OBC	EWS	PWD	TOTAL	UR	SC	ST	OBC	EWS	PWD	TOTAL
Professor	33	17	3	2	7	2	2	33	5	0	0	0	0	0	5	12	3	2	7	2	2	28
Assoc. Prof.	69	31	9	4	18	4	3	69	26	1	0	4	0	0	31	5	8	4	14	4	3	38
Asstt. Prof.	164	70	23	12	42	10	7	164	46	16	5	27	4	3	101	24	7	7	15	6	4	63
Total	**266**	**118**	**35**	**18**	**67**	**16**	**12**	**266**	**77**	**17**	**5**	**31**	**4**	**3**	**137**	**41**	**18**	**13**	**36**	**12**	**9**	**129**

Non-Teaching

S.N.	Group	Sanctioned	Filled	Vacant
1	Group A	22	10	12
2	Group B	35	16	19
3	Group C	85	46	39
	Total	**142**	**72**	**70**