

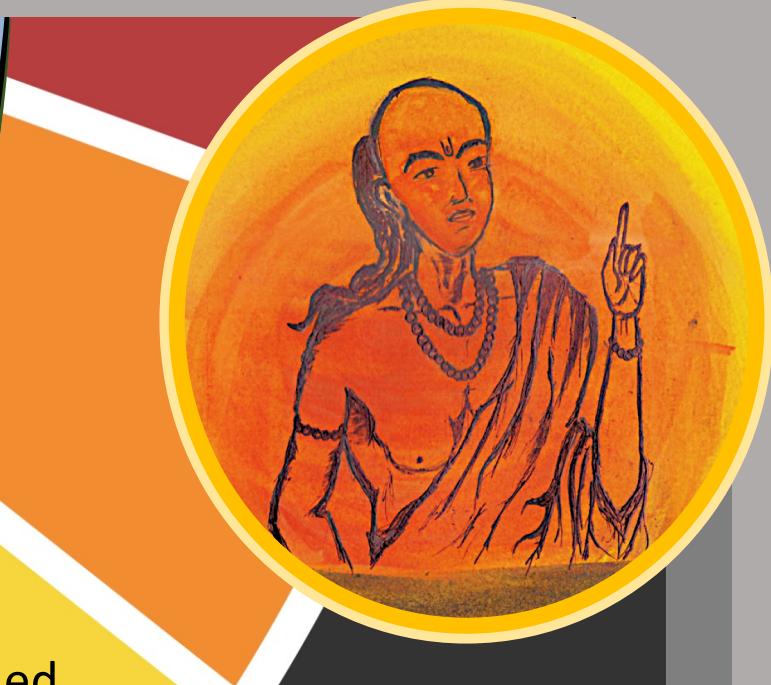
# BHASKARACHARYA COLLEGE OF APPLIED SCIENCES

## UNIVERSITY OF DELHI



Accredited  
'A' grade by NAAC

Awarded  
'Star College'  
status  
by DBT



Celebrating 25 years of Excellence in Education...



2019-20  
**ANNUAL REPORT**

# Glimpses of the Annual Cultural Fest "Srijan 2020"



## **PRINCIPAL'S MESSAGE**

### **23<sup>rd</sup> ANNUAL REPORT**

*'Education is not the learning of facts, but the training of the mind to think.'*

**Albert Einstein**

Named after the great mathematician of the 12th century, Bhaskara II, Bhaskaracharya College of Applied Sciences was established in the year 1995 as a constituent college of the University of Delhi. The college currently offers eleven undergraduate honours courses- Biomedical Science, Botany, Chemistry, Computer Science, Electronics, Food Technology, Instrumentation, Microbiology, Physics, Polymer Science and Zoology. Some of these courses are being offered in very few colleges of University of Delhi, which thus attracts many students to the college. Six new honours courses in Biochemistry, Environmental Science, Geology, Mathematics, Operational Research and Psychology are in the process of being introduced.

We have always endeavoured to support our students as they explore their interests and talents to reach their full potential and thus believe in their holistic development. Therefore, classroom teaching in our college is supplemented with seminars, industrial tours, project training, e-learning, workshops etc. Recognising the vital role that various extracurricular, co-curricular and sports activities play in nourishing academic lives, students are also encouraged to participate in and organise such events throughout the year. The college has earned Grade 'A' accreditation by NAAC and the 'Star Status' by Department of Biotechnology, Government of India which bears testimony to its continued success over the years. As we complete 25 years of Excellence in Education in 2020, our Silver Jubilee will be commemorated by year-round activities and programmes.

The academic year 2019-20 has also been a very enriching experience for all of us, as will be evident in the Annual Report that I am going to present before you all. At the outset, on behalf of the Ms. Madhuri Varshney, Chairperson, Governing body and Bhaskaracharya family, I extend a warm virtual welcome to our Chief Guest Prof. M. Jagadesh Kumar, Vice-Chancellor, Jawaharlal Nehru University and our Guests of Honour- Prof Avinash Chandra Pandey, Director, Inter-University Accelerator Centre and Prof. Nagesh Thakur, Member, University Grants Commission, to the 23<sup>rd</sup> Annual Day and Prize distribution ceremony of our college.

The Internal Quality Assurance Cell (IQAC) of the college has become integral in maintaining high standards and closely monitoring all academic and co-curricular activities of the college as we constantly strive to function with high efficiency. The Automation and Digitisation committee is working relentlessly to enable paper-free administration and academic work that includes online attendance, evaluation, selection and allotment of generic elective papers etc.

Our faculty members are hardworking and relentlessly pursue their passion for both teaching and research. They also proactively organise and participate in various academic and co-curricular events like seminars, symposia, conferences, workshops etc. to help their students develop a more informed view of their respective disciplines and to inspire them for pursuing higher education in science. I am happy to share that Dr. Madhulika Bajpai of the Department of Human Communication has been awarded 'The Best Teacher Award' for the year 2018-19 by Directorate of Higher Education, Government of NCT of Delhi. Dr. Eram S Rao of the Department of Food Technology has been awarded National Award by Food Safety Authority of India in the "Professional Category" on the First ' World Food Safety Day'.

Our students are the pride of our college. They have excelled both in academic and extra-curricular activities. This year Deepika Wanganoo Memorial award is being awarded to Rahul Singh Shekhawat from Department of Electronics and Saurabh Grover Memorial Award is being awarded to Alex Kumar Singh from Department of Physics.

Our college organised two National Conferences. A three-day National Conference, titled ‘Recent Trends and Advancements in Chemical Sciences’ was coordinated in association with the Department of Chemistry, University of Delhi and the Society for Promotion of Education and Science (SPES) from March 29-31, 2019. The Department of Chemistry of our college organised the second National Conference titled ‘Clean & Green Energy: The Chemical and Environmental Aspects’ on September 26-27, 2019. Both the conferences were a great success.

At BCAS, we pride ourselves in not just imparting quality education, but also in ensuring that the college campus is safe and the atmosphere for our students is healthy, disciplined and conducive to learning which has been achieved with the help of Anti-ragging, Proctorial, Student counselling and Student Advisory and PR Committees. The Election committee of our college must be congratulated for the smooth and successful conduct of the Bhaskaracharya Students Association and DUSU Elections in 2019.

Various cells such as Career Counselling, Training & Placement Cells and Departmental societies organised seminars and interactions with esteemed personalities from various higher education institutes and companies. Under the aegis of Alumni Committee, various departments organised interaction of the current students with their alumni. This has enabled the college to further strengthen its ties with our alumni from around the world, who have been eagerly sharing their experiences and guiding our undergraduates. I congratulate them for this effort.

The sports committee conducted various inter-departmental events throughout the year which culminated in the Annual Sports Day on January 23, 2020. This year, the sixth Bhaskaracharya Inter-college Cricket Tournament was organised that witnessed participation from many colleges. The Annual Cultural Festival, Srijan celebrated on February 25-26, 2020 was hugely successful owing to the immense hard work of the ECA committee and its associated eleven clubs: Astronomy, Dance, Debate, Dramatics, Eco, Film, Modern and Fine Arts, Literary, Music, Photography, and Yoga.

I am pleased to share that our college magazine ‘Resonance’ has been published which is a vibrant display of the burgeoning creative and literary minds of our students and faculty.

With the mission to serve the society, the NSS of the college has conducted events with the objective of inculcating humanitarian and social values amongst students. Various programmes such as Plog (collecting plastic while jogging), ‘Door to Door Plastic Collection Drive’, and ‘POSHAN (Prime Minister Overarching Scheme for Holistic Nourishment) Abhiyan’ created social, health and environmental awareness. The NSS Cell and the Yoga Club conducted an outreach Yoga workshop on ‘Holistic Health & Refreshing Mind Space’ in which people from nearby societies actively participated along with students and faculty.

The college consistently works towards the cause of women empowerment and gender equality. The Women Development Cell successfully coordinated a ten-day Self-defence Training, a Social Outreach Programme for girls and women of neighbouring areas in collaboration with Delhi Police in the college premises. The Garden committee also carried out an outreach programme on medicinal plants for school children. Our emphasis on preserving and improving our local environment was highlighted by plantation drives organised by the Garden and Swachhata & Waste management committees.

I feel happy to share that we organised 'Divya Kaushal: National Job Fair & Ability Expo' exclusively for specially abled persons, on December 2-3, 2019 in association with the National Skill Development Corporation (NSDC) under the aegis of the Ministry of Skill Development & Entrepreneurship (MSDE), Government of India and Inclusive Divyangjan Entrepreneurs Association (IDEA), New Delhi.

Various eco-friendly and sustainable infrastructural changes have been initiated such as the installation of solar panel streetlights, water harvesting system and compost pits. This year, in order to economise on gas usage and keeping in mind the safety of the users, Indraprastha Gas Limited has finished installing PNG pipelines in the college premises. We have also extended the seating capacity of the canteen by placing water-proof canopies in the open area. To augment our existing sports facilities, an Open Gym facility has been established. It was inaugurated by Ms. Bhavna Gaur, Member of Legislative Assembly, Palam Constituency on October 25, 2019. We are in the process of setting up an ICT facility in partnership with Microsoft that will allow the entire college to engage on a single, secure online platform. Deliberations are also ongoing with TCS to provide digital classroom solutions.

We bid farewell to two of our dear colleagues: Dr. Ranjeet Singh Thakur and Mr. Santhanam Iyengar, who superannuated this year after their dedicated service as the Librarian and Administrative Officer, respectively. We thank them for their immense contribution to the college and wish them a healthy and happy life after retirement.

The college is making every possible effort to be in touch with its students during these pressing times of Covid-19 pandemic. We are making use of various means of providing online resources to our students as per the directions received from University of Delhi, UGC and DHE, Govt. of NCT of Delhi, from time to time. These interactions are proving to be particularly helpful as various students are reaching out to the college for their academic and psychological needs. In addition to this, the college is regularly organising series of webinars, outreach activities, workshops etc. to create awareness and disseminate information about Covid-19 situation and other issues related to academics, health and safety of our students, staff and with a purpose to serve the society. Further, various programs are being conducted to train our staff for using different online portals to make online resources accessible to the students and to interact with them at all times.

Overall, I believe our college is taking strides in the right direction. I am truly thankful to the Governing Body of our college for their endless support and guidance. I would also like to thank each and every member of the Bhaskaracharya family for putting in their tremendous efforts and expertise in taking our college to yet greater heights. I am extremely grateful to the Teacher-in-Charges of all the departments, Convenors/Co-convenors and Coordinators and members of all the Committees, Clubs and Cells, and the Non-teaching staff of our college for their hard work and cooperation. Last but not the least, I pray for everyone's health and safety.

Best wishes

**Dr. Balaram Pani**  
**Principal**

**RESEARCH @ BCAS**  
**By Research and Project Assessment Committee**  
**(Convener: Dr. Uma Dhawan)**

***Extramural Projects***

S. No.	Project Title	Principal Investigator	Funding Agency	Sanctioned Amount (Rs.)	Duration
1.	Exploring moonlight enzyme, glutamate racemase, of <i>Neisseria gonorrhoeae</i> as a target for anti-gonococcal drug discovery	Dr. Uma Chaudhry & Prof. Bishwajit Kundu (IIT, Delhi)	ICMR	40.04 lakhs (Total amount) 22.60 lakhs (College component)	2019-2022
2.	Significance of 5-hydroxymethylcytosine in neurodegeneration associated with rapid eye movement sleep deprivation	Dr. Uma Dhawan	SERB-DST	40.11 lakhs	2018-2021
3.	Use of foldscope for the speed identification of microbial load on fresh produce: An inexpensive and point-of-care solution for screening of microbes	Dr. Uma Chaudhry	DBT	8 lakhs	2018-2019
4.	Safeguarding immunity and health versus Indiscriminate use of antibiotics: Building medical awareness and capacity for informed choice through multilevel orientation, exhibitions and demonstrations for students, paramedics, drug marketing systems and community	Dr. Uma Chaudhry & Dr. Balaram Pani	DST	22.72 lakhs	2017-2019
5.	Spatial distribution of uranium and associated water quality parameters in groundwater/surface water in six (06) districts of Uttar Pradesh (Agra, Mathura, Mahamaya Nagar, Kanshiram Nagar, Etah and Badaun)	Dr. Balaram Pani & Dr. Manjeet Singh Barwa	BRNS, BARC	29.60 lakhs	2016-2019

**Ph.D. Students Currently Registered**

S. No.	Name of the Ph.D. Student	Supervisor	Year of Registration	Affiliated Department and University
1.	Ms. Amandeep Kaur Kang	Dr. Uma Dhawan	2019	ACBR, University of Delhi
2.	Ms. Garima Tanwar	Dr. Uma Dhawan	2019	ACBR, University of Delhi
3.	Ms. Jyoti Malik	Dr. Sangeeta Srivastava	2019	Department of Computer Science, University of Delhi
4.	Mr. Kountay Dwivedi	Dr. Sangeeta Srivastava	2019	Department of Computer Science, University of Delhi
5.	Mr. Pramod Yadav	Dr. Uma Chaudhry Joint Supervisor: Dr. Bishwajit Kundu, IIT, Delhi	2019	ACBR, University of Delhi
6.	Ms. Shiffali	Dr. Uma Dhawan Joint Supervisor: Dr. Vibha Taneja, Sir Ganga Ram Hospital, New Delhi	2019	ACBR, University of Delhi
7.	Ms. Anjali	Dr. Balaram Pani	2018	Department of Chemistry, University of Delhi
8.	Mr. Hemant Kumar	Dr. Balaram Pani	2018	Department of Chemistry, University of Delhi
9.	Ms. Nitika	Dr. Uma Dhawan Joint Supervisor: Prof. Y. Singh, Department of Zoology, University of Delhi	2018	ACBR, University of Delhi
10.	Ms. Sujata Adhana	Dr. Uma Chaudhry	2018	ACBR, University of Delhi
11.	Mr. Bholey Singh	Dr. Balaram Pani	2017	Department of Chemistry, University of Delhi
12.	Mr. Rajnish Kumar	Dr. Uma Chaudhry	2016	ACBR, University of Delhi
13.	Mr. Shwetank Pandey	Dr. Balaram Pani	2016	Department of Chemistry, University of Delhi

**Note: Research publications of the faculty are given under the faculty achievement.**

## **DBT STAR COLLEGE SCHEME**

Department of Biotechnology (DBT), Government of India had launched Star College Scheme with an aim to strengthen life science and other stream of science education and training at undergraduate level. The purpose is to improve critical thinking and 'hands on' experimental work in the cutting edge-technologies needed for modern biological and other branches of sciences studies at undergraduate level and as a result of such experiences, more students will take up science as a career. The mandate of the scheme is also to have collaborations between the various departments and foster an interaction between faculty and students.

This scheme started in the college in December 2010 (Scheme I) with four departments- Biochemistry, Biomedical Science, Food Technology and Microbiology and was awarded with Star College Status in the year 2017. To strengthen the scheme further, departments other than life sciences- Computer Science, Electronics, Instrumentation and Physics, were also included in the scheme in the year 2019 (Scheme II).

### **STAR COLLEGE SCHEME-I**

Keeping the objectives in mind, various activities were conducted at intra and inter college levels during the academic year 2019-2020 which included invited talks of eminent scientists from Academia and Industry, Seminars, Hands-on training and Workshops. The students were also given experiential learning through visits to various industries, institutes and research laboratories. Few of the activities are listed below:

- Faculty members and students of the college participated at the 'National Science day' with the theme: 'Women in Science' organized by Department of Science and Technology (DST), Ministry of Science and Technology on February 28, 2020 at Vigyan Bhawan, New Delhi.
- One-day seminar on 'Significance of Fortified Food in Daily Life' along with an inter-collegiate competition on Healthy recipe formulation using fortified foods was organized by the Department of Food-Technology in association with Food Fortification Resource Centre, FSSAI and NETPROFAN on February 21, 2020.
- Dr. Vikram Saini from AIIMS delivered a lecture on '*Mycobacterium tuberculosis*' and Dr. Syed Shams Yazdani from ICGEB delivered a lecture on 'Biofuels' at 'Microquest', Annual Intercollegiate festival organized by Sukshmjeev Society, Department of Microbiology on February 20, 2020.
- Prof. K. Natarajan from BR Ambedkar Center for Biomedical Research, delivered his talk on '*Mycobacterium tuberculosis* vs Host' on February 6, 2020 at the Intercollegiate festival of the Department of Biomedical Sciences.
- There was active participation by the college faculty and students at the International Summit organized by the Department of Biotechnology, Ministry of Science & Technology, Government of India titled 'International Summit on Women in STEM, Visualizing the Future: New Skylines' held from January 23-24, 2020 at India Habitat Centre, New Delhi.

- Faculty members and students of the college attended the Leadership lecture by Dr. Trevor Mundel, President of Global Health, Bill and Melinda Gates foundation organized by Department of Biotechnology under DBT-BIRAC Leadership Dialogue Series in partnership with AIIMS - July 29, 2019; titled 'Innovating for Impact: How India can lead in helping solve some of the world's toughest health challenges'.
- The college had a Poster Presentation at Pondicherry University at the DBT-Task Force to review ongoing programs for Annual review & Coordinators' Meet under Star College Scheme Report-I held from April 18-20, 2019 Pondicherry University, Puducherry (U.T.) and the college was awarded 'A' Grade by the Department of Biotechnology, Govt. of India.

## **STAR COLLEGE SCHEME-II**

The inclusion of new departments to the scheme has given a new lead to the college and the relevant departments are in the process of conducting several enrichment programs for students and training programs for teaching and non-teaching staff. Under this scheme, the college will purchase several equipments which will help our students to perform various practical individually and to have hands-on training. Various activities such as in-house projects, new experiments, workshops, trainings, lectures, and seminars/symposia, industrial and institutional visits are being planned to be organized under this scheme. These activities will be conducted at intra and inter-departmental, inter-college and inter-institute levels. Several outreach programs are being initiated for the societal benefit at large under this scheme.

As per the DBT norms, the scheme is being smoothly conducted by various team leaders (2019-20) which are as mentioned below:

### **Star College Scheme-I**

1. **Dr. Balaram Pani, Principal, Chairman, Star College Scheme**
2. Dr. Anita Sondhi, Coordinator, Star College Scheme
3. Dr. Anita Sondhi, Coordinator, Department of Biochemistry
4. Dr. Uma Dhawan, Coordinator, Department of Biomedical Science
5. Dr. Rizwana, Coordinator, Department of Food Technology
6. Dr. Pawas Goswami, Coordinator, Department of Microbiology

### **Star College Scheme-II**

1. **Dr. Balaram Pani, Chairman, Star College Scheme**
2. Dr. N.S. Abbas, Coordinator, Star College Scheme
3. Dr. Jitender Kumar, Co-coordinator, Star College Scheme
4. Sh. Bhavya Deep, Coordinator, Department of Computer Science
5. Dr. Inderbir Kaur, Coordinator, Department of Electronics
6. Dr. Avneesh, Coordinator, Department of Instrumentation (in place of Dr. Geeta Bhatt)
7. Dr. Vandana Batra, Coordinator, Department of Physics

## **Departmental Activities, Faculty and Students' Achievements**

### **DEPARTMENT OF BIOCHEMISTRY**

#### ***Faculty Achievements***

##### **Dr. Anita Sondhi**

- Attended the 'National Science Day' with the theme 'Women in Science' organized by Department of Science and Technology (DST), Ministry of Science and Technology at Vigyan Bhawan, New Delhi on February 28, 2020.
- Attended the two-day International Conference on 'Frontiers in Biochemistry and Biotechnology: Strategies to Combat Human Diseases' organized by Department of Biochemistry, Shivaji College and Department of Biochemistry, University of Delhi South Campus on February 12-13, 2020.
- Attended and was also a member of the organizing committee of the International Summit organized by the Department of Biotechnology, Ministry of Science & Technology, Government of India titled 'International Summit on Women in STEM, Visualizing the Future: New Skylines'. This Summit was inspired by the idea of understanding the future challenges of productive participation of women in STEM fields. The event was held from January 23-24, 2020 at India Habitat Centre, New Delhi.
- Attended the Leadership lecture by Dr. Trevor Mundel, President of Global Health, Bill and Melinda Gates foundation organized by Department of Biotechnology under DBT-BIRAC Leadership Dialogue Series in partnership with AIIMS on July 29, 2019 titled 'Innovating for Impact: How India can lead in helping solve some of the world's toughest health challenges'.
- Presented the work of DBT-Star College Scheme I work of the four participating Departments (Biochemistry, Biomedical Sciences, Food Technology and Microbiology), at the meeting of the DBT-Task Force to review ongoing programs for annual review & Coordinators' Meet under Star College Scheme held from April 18-20, 2019 at Pondicherry University, Puducherry (U.T.) and the college was awarded 'A' Grade by Department of Biotechnology, Govt. of India.

### **DEPARTMENT OF BIOMEDICAL SCIENCE**

#### ***Departmental Activities***

- Students of the department attended National Science Day program of Regional Centre for Biotechnology, Faridabad on February 28, 2020.
- Students attended the National Science Day program organized by Department of Science and Technology at Vigyan Bhawan, Delhi on February 28, 2020.
- Faculty and students of the department attended lecture on 'Trees of Life, Trees of Death and Everything in Between: a search for iconic trees of India' by Dr. S. Natesh, Senior

Advisor, DBT, organized by INSA as a part of INSA Popular Science Lecture Series at India International Centre, on February 26, 2020.

- An educational trip for 24 third year students along with two faculty and one laboratory staff to Bundelkhand University, Jhansi was organized to participate in the third National Conference on ‘Emerging Synergistic Trends in Ayurvedic and Biomedical Sciences’ from February 19-21, 2020.
- DNAmics – the Biomedical Science Department Society organized the Annual Departmental Festival “Genesis 2020” on February 6, 2020. Two invited lectures on ‘*Mycobacterium tuberculosis* vs the host: a seemingly never-ending battle that the world wants the host to win’ by Prof. K Natarajan and ‘Radioprotectors and Radiomitigators for improving Radiation Therapy in Cancer patients: Strategies to develop small molecules as Therapeutic Agents’ by Prof. Vibha Tandon were organized on this occasion.
- Faculty and students attended ‘Cathexis’ the Annual Departmental festival of the Department of Biomedical Science, Acharya Narendra Dev College, New Delhi on February 4, 2020.
- Faculty and students attended International Summit on Women in STEM -‘Visualizing the Future –New Skylines’ organized by Department of Biotechnology and International Centre of Genetic Engineering and Biotechnology at India Habitat Centre, New Delhi on January 23-24, 2020.
- Faculty and students attended the 10<sup>th</sup> edition of the TNQ Distinguished Lectures in the Life Sciences 2020 by Dr. Venkatraman Ramakrishnan, Nobel Laureate and President of the Royal Society, London at Jawaharlal Nehru Auditorium, AIIMS, New Delhi on January 24, 2020.
- Faculty and students attended a lecture on ‘Science Popularization’ by UNESCO Kalinga Prize Awardee Eric Jacquemyn organized in the college on December 2, 2019.
- Six students attended the Open Day program of Regional Centre for Biotechnology, Faridabad on October 16, 2019.
- Faculty and students attended CSIR Open Day at CSIR-IGIB, Mall Road on September 26, 2019.
- Nine students participated in a workshop on ‘Train for Clean Air: Youth Workshop’ organized by Clean Air Asia India Team at India International Centre, Delhi on September 26, 2019.
- Dr. Salil Garg, Venkateshwara Hospital, Dwarka was invited for a talk titled ‘Cardiovascular Health’ on September 24, 2019.
- Faculty and students participated in DBT-BIRAC Leadership Dialogue Series in partnership with the All India Institute of Medical Sciences held at the Jawaharlal Nehru Auditorium, AIIMS, New Delhi on July 29, 2019.

- Faculty and students attended the ‘The DBT-BioCARE Conclave: Women Scientists Achieving Great Heights’ at National Institute of Plant Genome Research (NIPGR), Delhi on March 8-9, 2019.

### **Faculty Achievements**

#### **Dr. Uma Chaudhry**

- Member, organizing committee, International Summit on Women in STEM – ‘Visualizing the Future: New Skylines’ (ISW-2020) held at India Habitat Center, Lodhi Road from January 23-24, 2020.
- Tanwer, P., Kolora, S.R.R., Babbar, A., Saluja, D., & **Chaudhry, U.** (2020). Identification of potential therapeutic targets in *Neisseria gonorrhoeae* by an *in-silico* approach. *Journal of Theoretical Biology*, 490, 110172.
- Pawar, A., Jha, P., Chopra, M., **Chaudhry, U.**, & Saluja, D. (2020). Screening of natural compounds that targets glutamate racemase of *Mycobacterium tuberculosis* reveals the anti-tubercular potential of flavonoids. *Scientific Reports*, 10(1), 949.
- Delivered lectures (two days) on Bacterial Cell Culture, Transformation, Competent Cells, Disposal etc. for the Ph.D. course work students (2019-20) held at Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi.
- Ms. Bhawna Rathi, registered as a Ph.D. student on November 21, 2019.
- Mr. Pramod Yadav, registered as a Ph.D. student under the joint supervision of Dr. Uma Chaudhry and Prof. Bishwajit Kundu on November 15, 2019.
- Ms. Alka Pawar was awarded Ph.D. degree in Biomedical Science under joint supervision of Prof. Daman Saluja and Dr. Uma Chaudhry at the Convocation held on November 4, 2019.
- Resource Person for the Workshop on ‘Foldscope Microscopy: Basics and Applications’ organized by Department of Biochemistry, Shivaji College on September 20, 2019.
- Principal Investigator for the Indian Council of Medical Research (ICMR) funded project titled ‘Exploring moonlight enzyme, glutamate racemase of *Neisseria gonorrhoeae* as a target for anti-gonococcal drug discovery’ for a period of three years for Rs. 22.60 lakhs.
- Resource Person for the Workshop on ‘Intellectual Property Rights’ organized by Phytomics – The Botanical Society of the college on August 26, 2019.
- Participated and presented a paper titled ‘Prediction of available drug targets of *Neisseria gonorrhoeae* based on codon usage parameter’ at the STI & HIV 2019 World Congress and the Joint Meeting of the 23<sup>rd</sup> ISSTDR & 20<sup>th</sup> IUSTI held at Vancouver Convention Centre, East Building in Vancouver, BC, Canada from July 14-17, 2019.
- Member, Committee of Courses for Post-graduate and Research Studies, Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, for two years (2019-21).

- Working group member of subject-wise committees constituted by ACBR, University of Delhi for restructuring of Choice-based Credit System syllabus (LOCF) for B.Sc. (Hons.) Biomedical Science course at University of Delhi in 2019.
- Member, Organizing Committee, and attended National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at the Conference Centre, University of Delhi from March 29-31, 2019. Delivered a talk titled ‘Mitigating the spread of antibiotic resistance from farm to fork’ during the conference.

**Dr. Shivani G. Varmani**

- Organised and participated in International Summit on Women in STEM – ‘Visualizing the Future: New Skylines’ (ISW-2020) held at India Habitat Center, Lodhi Road, Delhi on January 23-24, 2020.
- Working group member of subject-wise committees constituted by ACBR, University of Delhi for restructuring of Choice-based Credit System syllabus (LOCF) for B.Sc. (Hons.) Biomedical Science course at University of Delhi in 2019.

**Dr. Uma Dhawan**

- Coordinated students’ visits for participating in the National Science Day program of Regional Centre for Biotechnology, Faridabad on February 28, 2020.
- Invited for a keynote lecture on the topic titled ‘A Hitchker’s guide to molecular biology techniques’ at National Workshop on Basics of Molecular Biology and Nanobiotechnology Techniques organized by Department of Biotechnology, IIS University, Jaipur on February 26-29, 2020.
- Invited lecture titled ‘Heavy metals as potential risk factors for amyotrophic lateral sclerosis’ at National Conference on ‘Emerging Synergistic Trends in Ayurvedic and Biomedical Sciences’ organized by Bundelkhand University, Jhansi on February 19-20, 2020.
- Organized students’ visit for attending the National Conference on ‘Emerging Trends in Ayurvedic and Biomedical Sciences’, held at Bundelkhand University, Jhansi from February 19-20, 2020.
- Coordinated students visit to attend the 10<sup>th</sup> edition of the TNQ Distinguished Lectures in the Life Sciences 2020 by Dr. Venkatraman Ramakrishnan, Nobel Laureate and President of the Royal Society, London on January 24, 2020. A group of 67 students of the departments of Biomedical Science and Microbiology attended this lecture at Jawaharlal Nehru Auditorium, AIIMS, New Delhi.
- Ms. Garima Tanwar was registered as Ph.D student on November 15, 2019.
- Ms. Shiffali was registered as Ph.D student under the joint supervision of Dr. Vibha Taneja and Dr. Uma Dhawan on November 15, 2019.

- Organized visit of students to Open Day program of Regional Centre for Biotechnology, Faridabad on October 16, 2019.
- Coordinator of visit of students to CSIR Open Day, CSIR-IGIB, Mall Road on September 26, 2019.
- Invited lecture titled ‘A cell-based screening of environmental toxicants identifies potential risk factors for ALS’ in ASEAN-INDIA Training Workshop-2019 on ‘Emerging Technologies for Young Biotech Professionals from ASEAN Countries’ CSIR-IGIB, New Delhi on September 20-28, 2019.
- Invited speaker in the fourth International Conference on ‘Innovative Approaches in Applied Sciences & Technology’ (iCiAsT-2019) at Kuala Lumpur, Malaysia on June 25-29, 2019 and talked on ‘Heavy metal toxicants trigger TDP-43 pathology associated with ALS’.
- Designed Neuroinformatics course (M.Tech students) at Netaji Subhas University of Technology (NSUT), New Delhi.
- Ms. Amandeep Kaur Kang, was registered as Ph.D student on April 26, 2019.
- Member, Departmental Research Committee, ACBR, University of Delhi for period April, 2019 - March, 2021.
- Invited talk titled ‘Heavy metal neurotoxicants induce ALS-linked TDP-43 pathology’ in a two-day symposium on ‘Exploring Mind, Brain and Behavior’ organized by Amity Institute of Neuropsychology and Neurosciences (AINN), Amity University, Noida Campus on March 28-29, 2019.
- Invited as a resource person in the workshop on ‘Learning R programming Skills and Applications to Proteomics’, Acharya Narendra Dev College, University of Delhi and CSIR-IGIB, New Delhi on March 15-16, 2019.
- Guest faculty for teaching Biostatistical Tools to Ph.D. course work students at Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi in 2019-20.
- Coordinator and working group member of various subject-wise committees constituted by ACRB, University of Delhi for restructuring of Choice-based Credit System syllabus (LOCF) for B.Sc. (H) Biomedical Science course at University of Delhi in 2019.

### **Dr. Kapil Roy**

- Attended National Conference on ‘Emerging Synergistic Trends in Ayurvedic and Biomedical Sciences’ held at Bundelkhand University, Jhansi from February 19-20, 2020.
- Attended TNQ-Distinguished Lectures in Life Sciences-2020 at All India Institute of Medical Sciences on January 24, 2020.
- Presented a poster titled ‘Extraction, characterization and comparative study of nicotine’ in second National conference on ‘Clean and Green Energy: The Chemical and

Environmental Aspects' organised by Department of Chemistry in the college from September 26-27, 2019.

- Working group member of subject-wise committees constituted by ACSR, University of Delhi for restructuring of the Choice-based Credit System syllabus (LOCF) for B. Sc. (H) Biomedical Science course at University of Delhi in 2019.

#### **Dr. Neha Singh**

- Attended International Conference on 'Frontiers in Biochemistry and Biotechnology: Strategies to Combat Human Diseases' at Shivaji College, University of Delhi on February 12-13, 2020.
- Attended the second National Conference on 'Clean and Green Energy: The Chemical and Environmental Aspects' organised by Department of Chemistry in the college from September 26-27, 2019.
- Participated in 'A Hands-on Workshop on Patent drafting' organized by Dr. B. R. Ambedkar Center for Biomedical Research at Ambedkar Center for Biomedical Research, University of Delhi on June 24-26, 2019.
- Working group member of subject-wise committees constituted by ACSR, University of Delhi for restructuring of the Choice-based Credit System syllabus (LOCF) for B. Sc. (H) Biomedical Science course at University of Delhi in 2019.

#### **Dr. Shvetambri**

- Participated in International Summit on Women in STEM - 'Visualizing the Future –New Skylines' organized by Department of Biotechnology and International Centre of Genetic Engineering and Biotechnology at India Habitat Centre, New Delhi on January 23–24, 2020.
- Participated in workshop on 'Train for Clean Air: Youth Workshop' organized by Clean Air Asia India Team at India International Centre, Delhi on September 26, 2019.
- Attended International Ozone Day celebrations held at Delhi Secretariat organized by Department of Environment, Govt. of NCT of Delhi on September 16, 2019.
- Participated in Workshop on 'Intellectual Property Rights' organised by the Phytomics Society, Department of Botany in the college on August 26, 2019.
- Participated in International Conference on 'Environmental Analysis India' organized by SELECT BIO, on April 25-26, 2019 at Radisson Blu Hotel, New Delhi.
- Working group member of subject-wise committees constituted by ACSR, University of Delhi for restructuring of the Choice-based Credit System syllabus (LOCF) for B.Sc. (H) Biomedical Science at University of Delhi in 2019.
- Saharan, O., Khanna, D., Adhana, S., Kumar, R., Kumar, S., Chaudhry, U., Pani, B., & **Arora, S.** (2019). Quantitative analysis of Vitamin C and Glucose in *Phyllanthus emblica*

Derivatives. Abstract published in Proceedings of National Conference on Recent Trends and Advancements in Chemical Sciences organized by Department of Chemistry, University of Delhi and college in association with Society for Promotion of Education and Science on March 29-31, 2019 (Pg-104).

- Adhana, S., Kumar, R., Kumar, S., Chaudhry, U., Pani, B., & **Arora S.** (2019). Changes in Microbial Load during storage process with respect to nutritional status of fresh produce in Delhi and NCR. Abstract published in Proceedings of National Conference on Recent Trends and Advancements in Chemical Sciences organized by Department of Chemistry, University of Delhi and college in association with Society for Promotion of Education and Science on March 29-31, 2019 (Pg-88).

#### **Dr. Shubhra Barwa**

- Coordinated departmental Annual Alumni meet held on February 6, 2020.
- Attended International Summit on women in STEM Visualising the Future: New Skylines organised by ICGEB, New Delhi on January 23-24, 2020.
- Appointed as Judge for ‘Maths, Science and Sanskriti Mahotsav 2019’ organised by M.H.D.C Saraswati Bal Mandir Secondary School, Janakpuri, New Delhi on October 1, 2019.
- Participated and Presented Paper titled ‘Alternative bio-fuels, A roadmap for low carbon transport in India’ in second National Conference on ‘Clean & Green Energy: The Chemical and Environmental Aspects’ organised by Department of Chemistry, in the college from September 26-27, 2019.
- Presented Poster titled ‘Extraction and estimation of chlorophyll from medicinal plants: a comparative study’ in second National Conference on ‘Clean & Green Energy: The Chemical and Environmental Aspects’ organised by Department of Chemistry, in the college from September 26-27, 2019.
- Participated in a workshop on ‘Intellectual Property Rights’ organised by Phytomics Society, Department of Botany in the college on August 26, 2019.
- Attended National Conference on ‘Biotechnology in Present Era: Impact on Human Life and Environment’ organised by Maitreyi College, University of Delhi on August 23, 2019.
- Attended International Conference on ‘Environmental Analysis India’ organised by Select Bio at Radisson Blu Hotel, New Delhi on April 25-26, 2019.
- Participated in a workshop on ‘Fraud, Forgery and Forensics: Examining Handwriting, Fingerprints and Security Documents’ organised by Department of Biomedical Science, Acharya Narendra Dev College, University of Delhi on April 3, 2019.
- Presented paper titled ‘Biofuels: A sustainable alternative to energy and environment’ in National conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at University of Delhi on March 29-31, 2019.

- Participated in two-day Interdisciplinary Faculty Development Programme on ‘Agriculture, Health and Society’ organised by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi on March 15-16, 2019.
- Barwa, M. S., **Barwa, S.**, & Pani, B. (2019). Swasth Bharat Samridh Bharat. In R. Kohli & G. Gyani (Eds.), *Healthcare systems in India: challenges and futuristic path* (pp. 81-87). International Publishers, California. ISBN: 978-93-89198-02-7
- Working group member of subject-wise committees constituted by ACBR, University of Delhi for restructuring of the Choice-based Credit System syllabus (LOCF) for B.Sc. (H) Biomedical Science at University of Delhi in 2019.

### ***Students' Achievements***

- Ashima Jha of first year won the First Prize in Declamation Competition organized as part of one-day long Human Rights Awareness Workshop at Motilal Nehru College NSS in collaboration with the National Human Rights Commission on February 29, 2020.
- Ashima Jha of first year won the ‘Best Delegate’ award at the Model United Nations Convention held in Turkey on February 23, 2020.
- Samarth Dhole, Drishti Sikdar and Deepti Roy of B.Sc. (H) Biomedical Science third year won the ‘Best Poster’ award for their poster titled ‘How Epigenetics Orchestrates Cellular Ageing’ at National Conference on ‘Emerging Trends in Ayurvedic and Biomedical Sciences’ at Bundelkhand University, Jhansi on February 19-20, 2020.
- Dhriti Jha, Muskaan Sharma, Varnika Khattar, Deepti Roy, Deepak and Rohit P Gupta of third-year participated as Foldscope Trainers in the Lecture-cum-workshop on Foldscope Assembly and Usage organized by Shivaji College, University of Delhi on September 20, 2019.

## **DEPARTMENT OF BOTANY**

### ***Departmental Activities***

- The faculty and students participated in an outreach program ‘Aarohan: RCB Open Day’ on National Science Day organized by Regional Centre for Biotechnology on February 28, 2020. Students participated in various scientific events and won First Prize in biotechnological innovations sketching competition.
- The faculty and students attended National Science Day Function held at Vigyan Bhavan on February 28, 2020 organized by the Ministry of Science and Technology, where The President of India was the chief guest.
- The faculty and students attended a lecture series on ‘A Search for Iconic Trees of India’ organized by Indian National Science Academy on February 26, 2020 held at India International Centre, Lodhi Road, New Delhi.
- Two eminent intellectuals, Prof. K.S. Rao (Head of the Department) and Prof. Arun Jagannath from Department of Botany, University of Delhi, delivered an informative talk

on climate change and plant science without boundaries in the annual departmental fest ‘BLOSSOM-II’ organized by the botanical society, Phytomics, on February 18, 2020. The lectures were followed by various events such as Poster making, Science quiz, Test your senses, Slogan writing, Plantastic, BCAS got talent and many fun activities. The fest was coordinated by Dr. N.S. Abbas and Dr. Sujata Bhardwaj.

- The students and faculty participated in ‘International Summit on Women in STEM- Visualizing the Future: New Skylines’ organized by the Department of Biotechnology held at India Habitat Centre, Lodhi Road, Delhi on January 23-24, 2020.
- During Swachhata Pakhwada, faculty members and students took Swachhata pledge on January 16, 2020 in the department.
- An educational visit was organized for first year students by faculty members to ‘Aravalli Biodiversity Park’, Vasant Kunj on October 24, 2019. The aim behind the trip was to bring students abreast the natural environment, flora, fauna and to understand interactions and processes in the ecosystem.
- The faculty and students participated in an Awareness Workshop on ‘River Yamuna’ held on October 4, 2019 at Delhi Secretariat, Delhi, organized by Department of Environment, Government of NCT of Delhi.
- An educational visit was organized for third year students to ‘Advanced Instrumentation Research Facility’ (AIRF), Jawaharlal Nehru University (JNU) on September 24, 2019. Students acquired knowledge on various analytical techniques employed in plant sciences.
- Faculty members organized an educational visit for second year students to National Bureau of Plant Genetic Resources (NBPGR) and National Institute of Science Communication and Information Resources (NISCAIR), New Delhi on September 20, 2019. Students visited the museum of NBPGR and NISCAIR where they learned about various indigenous crops and forest plant species.
- A faculty and students participated in the Central Placement Cell (CPC) program, held at Conference Centre, University of Delhi (North Campus) on September 16, 2019.
- One day Inter-college workshop and hands-on-training on ‘Intellectual Property Rights’ was organized by The Botanical Society, PHYTOMICS on August 26, 2019. Two speakers Dr. Arun Kumar Maurya (Assistant Professor in the Department of Botany, Multaniall Modi PG College, Ghaziabad, India) and Ms. Prity Khastgir (Founder and CEO of the Tech Corp International Strategist, TCIS, India) delivered informative talks on the theme. Students learned the basic concepts of IPR, patents, copyrights, trademark, protection of plant varieties, traditional knowledge and their claims.
- Field excursion was organized to Shimla on March 14-18, 2019, where students of second and third year visited various research institutes such as Directorate of Mushroom Research (DMR), Solan; Central Potato Research Institute (CPRI), Shimla and Zoological Park in Kufri. Students were given ‘Hands-on Training in Mushroom Cultivation and Harvesting’ at DMR, Solan.

## **Faculty Achievements**

### **Dr. N.S. Abbas**

- Participated in ‘Regional Workshop on Research Based Pedagogical Tools’ organized by Centre for Excellence in Science and Mathematics Education at Indian Institute of Science Education and Research (IISER), Pune, held on February 28-March 1, 2020 at IIT, Sonipat, Haryana.
- Coordinator of the event ‘Slogan writing’ in the annual fest of botanical society, Phytomics held on February 18, 2020.
- Coordinator for the Star College scheme of DBT (additional courses).
- Election officer of Bhaskaracharya Students’ Association/Delhi University Students’ Union.
- Participated in ‘International Summit on Women in STEM-Visualizing the Future: New Skylines’ organized by Department of Biotechnology held at India Habitat Centre, Lodhi Road, Delhi on January 23-24, 2020.
- Participated in the ‘International Ozone Day Celebration’ organized by the Department of Environment held at Delhi Secretariat, New Delhi on September 16, 2019.
- Convener of the workshop on ‘Intellectual Property Rights’ in the college sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.
- Participated in an International Conference on ‘Environmental Analysis India’ held in Radisson Blu Hotel, Paschim Vihar, New Delhi, India on April 25-26, 2019.
- Organized National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ in collaboration with Department of Chemistry and BCAS, University of Delhi in association with Society for Promotion of Education and Science (SPES) held at Conference Centre, University of Delhi on March 29-31, 2019.
- Coordinator for a field excursion to Shimla from March 14-18, 2019.

### **Dr. Sujata Bhardwaj**

- Participated in National Science Day function held at Vigyan Bhavan, Delhi on the theme ‘Women in Science’ organized by Ministry of Science and Technology, Government of India, February 28, 2020.
- Coordinator of the event ‘Plantastics’ on the annual fest of botanical society, Phytomics held on February 18, 2020.
- Convener of the Workshop on ‘Intellectual Property Rights’ in the college sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.
- Attended an International Conference on ‘Environmental Analysis India’ held in Radisson Blu Hotel, Paschim Vihar, New Delhi, India on April 25-26, 2019.

- Presented a poster in a National Symposium on ‘Recent Advances in Biological Sciences’ organized by Department of Biochemistry, Shivaji College, University of Delhi, on April 10, 2019.
- Participated in an International Conference on ‘Contemporary Issues in Integrating Health and Nutrition with the Emerging Areas of Food Technology, Agriculture, Environment and Allied Sciences’ held at Shyama Prasad Mukherji College for Women, University of Delhi on April 6, 2019.
- Participated in a National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at Conference Centre, University of Delhi on March 29-31, 2019 organized by Department of Chemistry, University of Delhi and college in association with Society for Promotion of Education and Science (SPES).

#### **Dr. Salam Sonia Devi**

- Attended a lecture series on ‘A Search for Iconic Trees of India’ organized by Indian National Science Academy (INSA) on February 26, 2020 held at India International Centre, Lodhi Road, New Delhi.
- Coordinator of the event ‘BCAS Got Talent’ on the annual fest of Botanical Society, Phytomics held on February 18, 2020.
- Participated in International Summit on Women in STEM- ‘Visualizing the Future: New Skylines’ organized by Department of Biotechnology held at India Habitat Centre, Lodhi Road, Delhi on January 23-24, 2020.
- Teacher coordinator for one day visit to Aravalli Biodiversity Park on October 24, 2019.
- Participated in the ‘International Ozone Day Celebration’ organized by the Department of Environment held at Delhi Secretariat, New Delhi on September 16, 2019.
- Co-Convener of the workshop on ‘Intellectual Property Rights’ in the college sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.
- Participated in National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at Conference Centre, University of Delhi on March 29-31, 2019 organized by Department of Chemistry and the college in association with Society for Promotion of Education and Science.
- Participated in a workshop on ‘Recent Trends in Plant Systematics and Future Prospects’ held in Dyal Singh College, University of Delhi, New Delhi on March 12, 2019.

#### **Dr. J. Dinakaran**

- Coordinated visit of students to attend ‘Aarohan: RCB Open Day’ organized by Regional Centre for Biotechnology (RCB), Faridabad on February 28, 2020.
- Co-convener in the annual fest ‘Blossom II’ of botanical society, Phytomics held on February 18, 2020.

- Coordinator of the event ‘Poster Competition’ on the annual fest of botanical society, Phytomics held on February 18, 2020.
- Reviewer for the journal *Plos One* (eISSN: 1932-6203). PlosOne Publisher.
- Reviewer for the journal *Plant and Soil* (ISSN: 1573-5036), Springer Nature publication.
- Coordinated one day visit to National Bureau of Plant Genetic Resources (NBPGR) and National Institute of Science Communication and Information Resources (NISCAIR), New Delhi on September 20, 2019.
- Participated as a teacher coordinator in a program of Central Placement Cell (CPC), held at Conference Centre, University of Delhi, North Campus on September 16, 2019.
- Co-Convener for the Workshop on ‘Intellectual Property Rights’ in the college, sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.
- Reviewer for the journal *Ecological Indicators* (ISSN: 1470-160X), Elsevier publication.
- Reviewer for the journal *Current Science* (ISSN:0011-3891), Current Science Association, India.

#### **Dr. Shikha Srivastava**

- Participated in the National Science Day Function on the theme ‘Women in Science’ held at Vigyan Bhavan on February 28, 2020 organized by the Ministry of Science and Technology, Government of India.
- Attended a lecture series on ‘A Search for Iconic Trees of India’ organized by Indian National Science Academy (INSA) on February 26, 2020 held at India International Centre, Lodhi Road, New Delhi.
- Participated in one-day National Symposium on ‘Bioimaging’ organized by Department of Botany, Dyal Singh College, University of Delhi on February 19, 2020.
- Coordinator of the event ‘Science Quiz’ on the annual fest of botanical society, Phytomics held on February 18, 2020.
- Participated in International Summit on Women in STEM- ‘Visualizing the Future: New Skylines’ organized by Department of Biotechnology held at India Habitat Centre, Lodhi Road, Delhi on January 23-24, 2020.
- Participated in 4<sup>th</sup> Plant Proteomics Workshop titled ‘Seabuckthorn-Genomics, Proteomics & Metabolomics’ held at Department of Botany, University of Delhi on December 23 -27, 2019.
- Presented an oral presentation titled ‘Isolation and identification of microorganisms from the rhizoplane regions of *Decalepis arayalpathra* KMA 05 clones and their screening for secondary metabolites’ at International Conference on ‘Plant Biofactories Strategies & Challenges’ held at Ramnarain Ruia Autonomous College, Mumbai, India on December 19-21, 2019.

- Participated in an International workshop on ‘Recombinant Protein Expression and Purification Techniques’ organized by Faculty of Life Sciences and Biotechnology held at South Asian University, Chanakyapuri, New Delhi on December 11-13, 2019.
- Coordinated one day visit to Advanced Instrumentation Research Facility, Jawaharlal Nehru University on September 24, 2019.
- Coordinated one day visit to National Bureau of Plant Genetic Resources (NBPGR) and National Institute of Science Communication and Information Resources (NISCAIR), New Delhi on September 20, 2019.
- Participated in the ‘International Ozone Day Celebration’ organized by the Department of Environment held at Delhi Secretariat, New Delhi on September 16, 2019.
- Co-convener for the workshop on ‘Intellectual Property Rights’ in the college, sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.
- Participated in the National Conference on ‘Neglected and Underutilized Crop Species for Food, Nutrition, Energy and Environment’ held at National Institute of Plant Genome Research, New Delhi on August 2, 2019.

#### **Dr. Julie Thakur**

- Coordinated visit of students to attend ‘Aarohan: RCB Open Day’ organized by Regional Centre for Biotechnology on February 28, 2020.
- Participated in one-day National Symposium on ‘Bioimaging’ organized by Department of Botany, Dyal Singh College, University of Delhi on February 19, 2020.
- Coordinator of the event ‘Test Your Senses’ on the annual fest of Botanical Society, Phytomics held on February 18, 2020.
- Co-convener for the workshop on ‘Intellectual Property Rights’ in the college, sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.

#### **Dr. Gurumayum Suraj Sharma**

- Attended a lecture series on ‘A Search for Iconic Trees of India’ organized by Indian National Science Academy on February 26, 2020 held at India International Centre, Lodhi Road, New Delhi.
- Coordinator of the event ‘Dumb charrades’ on the annual fest of Botanical Society, Phytomics held on February 18, 2020.
- Coordinated one day visit to Aravalli Biodiversity Park on October 24, 2019.
- Coordinated one day visit to Advanced Instrumentation Research Facility, Jawaharlal Nehru University on September 24, 2019.
- Co-convener for the workshop on ‘Intellectual Property Rights’ in the college, sponsored by Department of Biotechnology (DBT), Govt. of India, held on August 26, 2019.

### **Students' Achievements**

- Ms. Ritu Kshatriya secured first position in Biotechnological Innovations Sketching Competition on the occasion of 'Aarohan: RCB Open Day', an outreach program on National Science Day held at Regional Centre for Biotechnology (RCB), Faridabad on February 28, 2020.
- Ms. Khushboo Fulara presented a poster on 'Validation of upregulated or downregulated genes in cfap300 zebrafish mutants via NSG' in an International Summit on Women in STEM-Visualizing the Future: New Skylines, organized by Department of Biotechnology held at India Habitat Centre, Lodhi Road, Delhi on January 23-24, 2020.
- Ms. Riya Garain received a merit scholarship of Rs. 10,000 and Rs. 15,000 from Indian Air Force Benevolent Association under SMS scheme in 2019 and 2020 respectively.
- Ms. Shreevanee Sharma of second year has been awarded as 'Best Delegate' in the United Nations Human Rights Council (UNHRC) committee at the Cogitate Model United Nations, Bilaspur, in December 2019.
- Students (Nikhil Kumar Khatri, Nupur Bansal, Taslima Rahi, Shreevanee Sharma, Dishita Mishra, Ankita Chaudhary, Rushali Jain, Bijil Benny and Meenakshi Devi) presented a play on 'Water Conservation' in an awareness workshop on river Yamuna held on October 4, 2019 at Delhi Secretariat, Delhi, organized by Department of Environment, Government of NCT of Delhi. Students were felicitated with cash prize of Rs. 2000/- and memento for their outstanding performance.
- Students (Nikhil Kumar Khatri, Nupur Bansal, Taslima Rahi, Shreevanee Sharma, Dishita Mishra, Ankita Chaudhary, Rushali Jain, Bijil Benny and Meenakshi Devi) presented a skit themed 'Conservation of Water' on International Ozone Day Celebration held at Delhi Secretariat, Delhi, organized by Department of Environment on September 16, 2019.
- Students gave an oral presentation on the theme '32 Years and Healing' on International Ozone Day Celebration held at Delhi Secretariat, Delhi organized by Department of Environment on September 16, 2019.
- Fulara, K. & Rajeev K.S. (2019). To validate the expression of genes that show up or down regulation in cfap300 zebrafish mutants obtained by next-generation sequencing. [jointsrf@ias.ac.in](mailto:jointsrf@ias.ac.in).
- Ms. Yamini Singh presented a poster titled 'Environment conservation' in the National Conference on 'Biotechnology in Present Era: Impact on Human Life and Environment' organized by Maitreyi College in collaboration with Department of Biotechnology, Govt. of India on August 23, 2019.
- Ms. Khushboo Fulara of third year awarded Research Fellowship of Rs. 26,360 under the science academies on project entitled 'Validation of the expressions of genes showing up or down regulation in Cfap300 zebrafish mutants obtained by next-generation sequencing' at Institute of Life Sciences, Bhubaneswar, Odisha from May-July, 2019.

- Ms. Dishita Mishra presented a poster titled 'Ethnobotanical remedy for hypertension' in an International conference on 'Contemporary Issues in Integrating Health and Nutrition with the Emerging Areas of Food Technology, Agriculture, Environment and Allied Sciences' held at Shyama Prasad Mukherji College for Women, University of Delhi on April 6, 2019.
- Ms. Yamini Singh presented a paper titled 'Water Pollution: Sources, Effects and Mitigation Methods' in National Seminar 'Challenges in climate change and sustainable development' held at Sri Venkateswara College, University of Delhi on April 6-7, 2019.

## DEPARTMENT OF CHEMISTRY

### *Departmental Activities*

- The Departmental Fest 'Chemcarnival' was organized under the Chemical Society 'Alchemy' on February 14, 2020. This day was also celebrated as 'Bhaskaracharya Chemistry Day'. Mr. Shwetank Pandey, Research Scholar, Department of Chemistry, University of Delhi, gave a presentation on 'Dioxin: Sources, Environmental Effects and How Can We Minimize its Effects'.
- The Chemical Society 'Alchemy' organized 'Colors of Chemistry' event on January 31, 2020. Poster making and slogan writing competitions were organised for students.
- Elections for the office bearers of 'Alchemy' Chemical society were held on January 28, 2020. The following students were elected: Ms. Priyanka (President), Ms. Ritu (Vice-President), Mr. Deepak (Treasurer) and Mr. Sushil Kumar (Secretary).
- As a part of Swachhata Pakhwada from January 16-31, 2020, teaching, non-teaching and students of the department took Swachhata Pledge on January 16, 2020.
- A scientific excursion trip to Regional Centre of Biotechnology, Faridabad on October 16, 2019 was organised. Ten students of fifth semester participated in this event under the supervision of Dr. Ashima Singh and Mr. Bholey Singh.
- The second National Conference titled 'Clean & Green Energy: The Chemical and Environmental Aspects' (NCGE-2019) was organized on September 26-27, 2019. The conference was generously funded by University Grants Commission (UGC) and Council of Scientific and Industrial Research (CSIR).
- Members of BEST (Bhaskaracharya Environmental and Sustainability Taskforce) attended Pt. Deendayal Upadhyayji's 103<sup>rd</sup> birth anniversary on 'Circular Economy on Plastic Waste and Livelihood Opportunities' on September 25, 2019 at NDMC, Connaught Place, New Delhi.
- BEST and Eco-Club organized a 'Plastic Free Campaign' on September 13, 2019 in the college premises to promote an environment-friendly campus.
- BEST and Eco-Club organized an 'Environmental Awareness Campaign' at Govt. Co-Ed. school near college on August 28, 2019.

- A debate and essay writing competition were organized by the Chemical Society ‘Alchemy’ on August 9, 2019.

### **Faculty Achievements**

#### **Dr. Lalit Kapur**

- Co-convener of a two-day second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organised in the college on September 26-27, 2019.

#### **Dr. Balaram Pani**

- Poster presentation on ‘Spatial distribution and potential health risk of groundwater uranium in alluvial landform’ in ISW-2020 International Summit on Women in STEM-‘Visualizing the future: New Skylines’ held at India Habitat Centre, Delhi on January 23-24, 2020.
- Singh, B., Bhatia, R., **Pani, B.**, & Gupta, D. (2020) Synthesis, crystal structures and biological evaluation of new pyridazine derivatives. *Journal of Molecular Structure*, 1200, 127084. ISSN: 0022-2860.
- Chugh, B., Singh, A.K., Chaouiki, A., Salghi, R., Thakur, S., & **Pani, B.** (2020). A comprehensive study about anti-corrosion behaviour of pyrazine carbohydrazide: Gravimetric, electrochemical, surface and theoretical study. *Journal of Molecular Liquids*, 299, 112160. ISSN: 0167-7322.
- Singh, A.K., Chugh, B., Saha, S. K., Banerjee, P., Ebenso, E.E., Thakur, S., & **Pani, B.** (2019). Evaluation of anti-corrosion performance of an expired semi synthetic antibiotic cefdinir for mild steel in 1 M HCl medium: An experimental and theoretical study. *Results in Physics*, 14, 102383. ISSN: 2211-3797.
- Sirohi, S., Mittal, A., Nain, R., Jain, N., Singh, R., Dobhal, S., **Pani, B.**, & Parida, D. (2019). Effect of nanoparticle shape on the conductivity of Ag nanoparticle poly(vinyl alcohol) composite films. *Polymer International*, 68(12), 1961-1967. ISSN: 1097-0126.
- Barwa, M. S., Barwa, S., & **Pani, B.** (2019). Swasth Bharat Samridh Bharat. In R. Kohli & G. Gyani (Eds.), *Healthcare systems in India: challenges and futuristic path* (pp. 81-87). International Publishers. ISBN: 978-93-89198-02-7.
- Appointed as Director (Additional charge), Campus of Open Learning, University of Delhi, Delhi.
- Convener of a two-day second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organised in the college on September 26-27, 2019.
- Keynote address at three-day National Seminar on ‘Environmental Protection - An Avenue for Better Tomorrow’ from September 23-25, 2019 at Seva Sadan’s College of Education, Ulhasnagar, Thane, Maharashtra.
- Chairperson, Swachhata Ranking of Higher Education Institutions by UGC, New Delhi.

**Dr. Manjeet Singh Barwa**

- Singh, S., Mangawa, S.K., & **Barwa, M.S.** (2020). Alcohol: Introduction, Preparation and Reactions'. A module in the development of teacher's e-kit (e-content in four quadrants) in chemistry at GAD-TLC of MHRD under PMMMNMTT, SGTB Khalsa College, University of Delhi, Delhi.
- Poster presentation on 'Spatial distribution and potential health risk of groundwater uranium in alluvial landform' in ISW-2020 International summit on Women in STEM- 'Visualizing the future: New Skylines' held at India Habitat Centre, Delhi on January 23-24, 2020.
- **Barwa, M. S.**, Barwa, S., & Pani, B. (2019). Swasth Bharat Samridh Bharat. In R. Kohli & G. Gyani (Eds.), *Healthcare systems in India: challenges and futuristic path* (pp. 81-87). International Publishers. ISBN: 978-93-89198-02-7.
- Managing committee member of Mahashaya Chunilal Saraswati Bal Mandir, Harinagar New Delhi, for academic year 2019-20.
- Organizing Secretary of two-day second National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' organised in the college on September 26-27, 2019.
- Paper presentation on 'Design, synthesis and physico-chemical study of triazoles/schiff bases with potential anti-fungal activity' during the second National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects', September 26-27, 2019, in the college.
- Participated in the Workshop on 'Intellectual Property Rights' on August 26, 2019 organised by the Department of Botany, BCAS.
- Participated in one-day National Seminar on 'Blended Learning in Chemistry' organized by and held at Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi, Delhi on May 28, 2019.
- Member of organizing committee of three-day National Conference on 'Recent Trends and Advancements in Chemical Sciences' on March 29-31, 2019 at Conference Center, University of Delhi, Delhi. Presented a paper on 'Development of new biodegradable film for packaging materials' during the conference.
- Participated in a two-day Faculty Development Programme on 'Agriculture, Health & Society' (Interdisciplinary) on March 15-16, 2019, organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, Delhi.

**Dr. Swati Gupta**

- Member of Organizing Committee of second National Conference on 'Clean and Green Energy: The Chemical and Environmental Aspects' organized in the college on September 26-27, 2019.

- Oral Presentation titled ‘Genosensors: Innovative Tool for Monitoring Heavy Metal Water Pollutants’ at second National Conference on ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organised by the department in the college on September 26-27, 2019.
- Poster presentation titled ‘Degradation of organic pollutants using nanoparticles’ at second National Conference on ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organized by the department in the college on September 26-27, 2019.
- Poster presentation titled ‘Urine: Flush or Fuel?’ at the second National Conference on, ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organized by the department in the college on September 26-27, 2019.
- Poster presentation titled ‘Amazing chemistry of coconut coir’ at second National Conference on ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organized by the department on September 26-27, 2019.
- Poster presentation titled ‘Bioplastics from potato peels: A greener alternative to conventional plastic’ at second National Conference on ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organized by the department in the college on September 26-27, 2019.
- Poster presentation titled ‘Banana peel: food waste or green plastics’ at second National Conference on ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organized by the department in the college on September 26-27, 2019.
- Poster presentation titled ‘Vapor from hot electron activated liquid water: A greener approach for etching process’ at second National Conference on, ‘Clean and Green Energy: The Chemical and Environmental Aspects’ organized by the department in the college on September 26-27, 2019.
- Participated in one-day National Seminar on ‘Blended Learning in Chemistry’ organized by and held at Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi, Delhi on May 28, 2019.

#### **Dr. Sampat Singh Chauhan**

- Singh, P., Chauhan, D.S., **Chauhan, S.S.**, Singh, G., & Quraishi, M.A. (2020). Bioinspired synergistic formulation from dihydropyrimidinones and iodide ions for corrosion inhibition of carbon steel in sulphuric acid. *Journal of Molecular Liquids*, 298, 112051. ISSN: 0167-7322.
- Singh, P., Chauhan, D., **Chauhan, S.S.**, Singh, G., & Quraishi, M. (2019). Chemically modified expired Dapsone drug as environmentally benign corrosion inhibitor for mild steel in sulphuric acid useful for industrial pickling process. *Journal of Molecular Liquids*, 286, 110903. ISSN: 0167-7322.

- Singh, P., **Chauhan, S.S.**, Singh, G., Sharma, M., Singh, V., & Vaish, R. (2019). Anticorrosion and electromagnetic interference shielding behavior of candle soot-based epoxy coating. *Journal of Applied Polymer Science*, 137(19), 48678. ISSN: 0021-8995.
- Paper presentation on 'Electrochemical corrosion inhibition investigations of mild steel in 1M HCl solution' in International Conference on 'Condensed Matter and Applied Physics', October 14-15, 2019, at Govt. Engineering College, Bikaner.
- Member of Organizing Committee of a two-day second National Conference 'Clean & Green Energy: The Chemical and Environmental Aspects' held on September 26-27, 2019 in the college.
- Paper presentation on 'High performance composites based on poly(ether ketone)/carbon nanotubes as efficient shield against electromagnetic polluting radiations' in second National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' (NCGE- 2019) organised by the department in the college on September 26 -27, 2019.
- Poster presentation on 'Polyvinyl alcohol/MWCNTS composites as efficient shield against electromagnetic polluting radiations' in second National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' organised by the department in the college on September 26 -27, 2019.
- Paper presentation on 'Economical approach to develop anti-corrosion coating using waste materials with epoxy resin' in International Conference on 'Nanotechnology for better living' held on April 6 -7, 2019 at IIT Kanpur.

### **Dr. Shailja Singh**

- **Singh, S.**, Mangawa, S.K., & Barwa, M.S. (2020). Alcohol: Introduction, Preparation and Reactions. A module in the development of Teacher's e-Kit (e-content in Four Quadrants) in Chemistry at GAD-TLC of MHRD under PMMMNMTT, SGTB Khalsa College, University of Delhi, Delhi.
- Kumar, P., Gulia, S., Bisht, Y., **Singh, S.**, & Mangawa S.K. (2019). *Undergraduate chemistry: physical and organic*. Jawahar Nagar, Delhi: Shree Kala Prakashan. ISBN: 978-93-85329-41-8.
- Member of Organizing Committee of two-day National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' organised by the department in the college on September 26-27, 2019.
- Paper presentation on 'Synthesis and biological evaluation of 4-aminoquinoline derivatives against chloroquine-resistant *Plasmodium falciparum*' in second National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' organised by the department in the college on September 26-27, 2019.
- Poster presentation on 'Phytochemicals in tea as building blocks for production of biocompatible iron nanoparticles: A greener approach' in second National Conference on

‘Clean & Green Energy: The Chemical & Environmental Aspects’ organised by the department in the college on September 26-27, 2019.

- Participated in one-day National Seminar on ‘Blended Learning in Chemistry’ organized by and held at Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi, Delhi on May 28, 2019.
- Participated in two-day Faculty Development Programme on Agriculture, Health & Society (Interdisciplinary) on March 15-16, 2019, organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, Delhi.
- Member of Organizing Committee and participated in a three-day National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ on March 29-31, 2019 at Conference Center, University of Delhi, Delhi.

#### **Mr. Bholey Singh**

- **Singh, B.**, Bhatia, R., Pani, B., & Gupta, D. (2020). Synthesis, crystal structures and biological evaluation of new pyridazine derivatives. *Journal of Molecular Structure*. 1200, 127084. ISSN: 0022-2860.
- Poster presentation on ‘Self-assembly of phosphine oxide-based acyclic and monocyclic fac-Re(CO)<sub>3</sub> complexes, their photophysical and cytotoxic studies’ in International Summit on Women in STEM-‘Visualizing the Future: New Skylines’ India Habitat Centre, Delhi, January 23- 24, 2020.
- Oral Presentation on ‘Design, Synthesis, Characterization, and Antimicrobial Action of Tri-functionalized Pyridazines’ in National Conference on ‘Relationship between Chemical Sciences and Society’ (RCSS-2020) at Department of Chemistry, Shivaji College, University of Delhi (January 16-17, 2020).
- Member of Organizing Committee of two-day second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organised by the department in the college on September 26-27, 2019.
- Oral presentation on ‘Self-Assembly of Phosphine oxide-Based Acyclic and Monocyclic fac-Re(CO)<sub>3</sub> Complexes, their Photophysical and Cytotoxic Studies’ in second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organised by the department in the college on September 26-27, 2019.
- Poster presentation on Review: Marijuana “A Weed or Need” in second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organised by the department in the college on September 26-27, 2019.
- Poster presentation on ‘Synthesis, crystal structures, antimicrobial activities of new pyridazine derivatives’ in second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ in the college, September 26-27, 2019.
- Oral presentation on ‘Self- Assembly of Phosphine oxide-Based Acyclic and Monocyclic fac-Re(CO)<sub>3</sub> Complexes, their Photophysical and Cytotoxic Studies’ in National

Conference on ‘Nano-polysaccharides for Environmental Sustainability’ at Department of Chemistry, Jamia Millia Islamia University, New Delhi, on September 25, 2019.

## DEPARTMENT OF COMPUTER SCIENCE

### *Departmental Activities*

- CS.Net Society of the Department organized its annual inter college techno-cultural festival “Interface 20” on February 12-13, 2020 convened by Mr. Bhavya Deep and co-convened by Dr. Sangeeta Srivastava.
- A talk on ‘Importance of Higher Education and Career Prospects’ by Mr. Raju Giri, AVP Sales, Sunstone Eduversity, Greater Noida, on February 6, 2020.
- The department organised an Outreach programme for girl students of Vandana International School, Dwarka on ‘Internet of Things – Latest Trends and Applications’ in collaboration with ICT on January 23, 2020.
- Cloud Literacy Day, was celebrated in association with Amazon Web Services and ICT Academy on October 15, 2019.
- A seminar on ‘Careers in I.T after Graduation’ was organized in the department with Landmark Institute, on September 25, 2019.
- A seminar on ‘Machine Learning using Python’ was organised in association with DUCAT, Noida on September 20, 2019.

### *Faculty Achievements*

#### **Mr. Bhavya Deep**

- Attended Webinar on ‘Data Lakes and Analytics on AWS’ by AWS Educate on February 19, 2020.
- Participated in a lecture by Dr. Anita Aggarwal, Senior Scientist, DST on February 17, 2020. The lecture was organized by the Research and Project Assessment Committee of the college.
- Participated in one-day workshop on ‘National Programme on Technology Enhanced Learning (NPTEL)’ jointly organized by NPTEL, IIT Madras and JC Bose University of Science and Technology, YMCA, Faridabad on January 31, 2020 at JCBUST Campus.
- Attended Webinar on ‘Effectively and Efficiently Creating Your Paper’ by Wiley Author Series on January 30, 2020.
- **Deep, B., Mathur, I., & Joshi, N. (2020).** An approach toward more accurate forecasts of air pollution levels through fog computing and IoT. In M. Tuba, S. Akashe, A. Joshi (Eds). *Information and Communication Technology for Sustainable Development: Advances in Intelligent Systems and Computing* (pp 749-758). Vol. 933. Singapore: Springer. ISBN: 978-981-13-7165-3.

- Participated in National Conference on ‘Empowering Students to be Industry Ready & Choosing the Right Career Path & Launch of Panasonic Ed-Tech Solutions’ organized by CMAI Association of India on January 28, 2020 at Vigyan Bhawan, New Delhi.
- Co-convener of the outreach activity organised by the department for girl students of Vandana International School, Dwarka on ‘Internet of Things – Latest Trends and Applications’ in collaboration with ICT Academy on January 23, 2020.
- Participated in Cisco Connect 2020 at Pullman, Aerocity, New Delhi on January 16, 2020.
- Participated in BRIDGE 2019 – New Delhi (A High Impact Industry Institute Interaction Event of India), organized by ICT Academy on December 11, 2019 at AICTE Auditorium, New Delhi.
- Participated in ‘National Cyber Security Summit & Awards 2019’ along with ‘National Round Table Conference on Cyber Risks for Corporates’ on November 20, 2019 at Telecommunication Engineering Centre, New Delhi. The event was organized by TEMA CMAI Association of India.
- Attended Online Conference by Amazon Web Service on November 6, 2019.
- Participated in IBM-TechData AI event on October 16, 2019 at Radisson Blue, Delhi.
- Attended Hitachi and Commvault Webinar on September 26, 2019 on the topic titled ‘Are you ready to solve your data protection dilemma’.
- Convener of workshop on ‘Machine learning using Python’ by DUCAT, NOIDA on September 20, 2019 in the college.
- Attended Amazon Web Service, Public Sector Summit, New Delhi on September 6, 2019.
- Participated in one-day National Seminar cum Workshop on ‘e-Content, MOOCs (SWAYAM) and ARPIT’ jointly organized by All India Council for Technical Education (AICTE) and Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on August 31, 2019.
- Participated in one-day National Workshop on ‘Advance Excel for Teaching and Research: Data Management and Data Analysis’ organized by and held at Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi on August 30, 2019.
- Participated in one-day National Workshop on ‘Academic Leadership’ organized by and held at Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi on August 27, 2019.
- Participated in the Faculty Development Programme on Oracle ‘Java Fundamentals and Programming’ during June 10-14, 2019. The FDP was organized by ICT Academy and Oracle Academy at JIMS Engineering Management Technical Campus, Greater Noida. After clearing the OCA (Oracle Certified Associate) equivalent test held at JIMS,

received Certificate of Completion as well as Certificate of Learning and became an authorized trainer to train students enrolled through Oracle Academy.

- Participated in Faculty Development Programme on ‘Deep Learning and Applications’ conducted by Electronics and ICT Academy, IIT Roorkee at Indian Institute of Technology, Roorkee from May 27-31, 2019.
- Attended Online Conference by AWS on May 30, 2019 towards learning of essential AWS core services for compute, storage, database and networking.
- Departmental Coordinator (Computer Science) of DBT Star College Scheme, Government of India.
- Membership of IEEE (Institute of Electrical and Electronics Engineers) Technical Committee on Services Computing (TCSVC).
- Chief Editor of *International Journal of Distributed and Cloud Computing* (IJDCC), ISSN Number 2321-6840.

#### **Dr. Sangeeta Srivastava**

- Participated in a two-day workshop on ‘Sexual Harassment of Women at Workplace’ organised by Internal Complaints Committee, JNU and National Commission for women (NCW) at JNU, New Delhi on February 24-25, 2020.
- Bhalla, K., **Srivastava, S.**, Gosain, A. (2020). Presented a paper titled ‘Systematic analysis and prediction of air quality index in Delhi’ in the Springer AISC Series, 3<sup>rd</sup> International Conference on ‘Innovative Computing and Communication (ICICC-2020)’, organised by Shaheed Sukhdev College of Business Studies, University of Delhi in association with National Institute of Technology, Patna & University of Valladolid, Spain, February, 21-23, 2020.
- Convened an Outreach programme for girl students of Vandana International School on January 23, 2020 on ‘Internet of things: latest trends and applications’ in the college by the department in collaboration with ICT Academy.
- Member of the Advisory committee of Ph.D student Ms. Seema Rani of Department of Computer Science, University of Delhi, in January 2020.
- TPC Member and Reviewer for third International Conference on Computing and Network Communications (CoCoNet’19) held in Trivandrum, Kerala, India on December 18-21, 2019. The conference was organized by Indian Institute of Information Technology and Management-Kerala (IIITM-K), Trivandrum in association with ACM Trivandrum Professional Chapter.
- Awarded Doctorate of Science (D.Sc) degree in Computer Science on November 30, 2019 from University of Petroleum and Energy Studies, Dehradun.
- TPC Member and Reviewer for IC32020 13<sup>th</sup> International Conference on ‘Contemporary Computing’, organised by JIIT and University of Florida and IEEE TCPPP, USA since Novemeber 2019

- Organized the “Deepotsav” event for celebrating Diwali on October 24, 2019 for the college students.
- A member of the Reviewing Committee of International Conference in ‘Fuzzy System and Data Mining 2019 (FSDM)’ held on October 18-21, 2019, Kitakyushu City, Japan.
- Participated in a Gender Sensitization workshop in the college organised by Gender Sensitization Committee on October 18, 2019.
- Convener, ‘Cloud Literacy Day’ organised by the department in association with Amazon Web Services and ICT Academy, held on October 15, 2019 in the college.
- Convener of Seminar organised in the department in association with Landmark institute on ‘Careers in I.T after Graduation’ on September 25, 2019.
- Scrutiny Officer in the BSA-DUSU 2019-2020 Election Committee for BSA -DUSU and DUSU student elections held on September 12, 2019 in the college.
- Participated in ‘Intellectual Property Rights’ Seminar organised by the Department of Botany in the college on August 26, 2019.
- Supervising three Ph.D. students, Jyoti Malik, Kountay Dwivedi and Sudhir Kumar Gupta enrolled in 2019 in the Department of Computer Science, University of Delhi.
- Appointed as Nodal Officer for grant of Merit Scholarship to the students of SC/ST/OBC/Min studying in Colleges/ professional /technical institutions - State Scheme by Govt. of Delhi.
- ICT Coordinator for the college for coordinating the ICT designed Seminars, Workshops and other activities from May 2019 onwards.
- Taught Ph.D students for Research Methodology, Pre-Ph.D coursework, in University of Delhi in May 2019.
- Member of restructuring of B.Sc. (H) Computer Science Course Curriculum in May 2019.

#### **Mrs. Arti Batra**

- Bedi, P., Mittal, A., Gangwar, M., & **Dua, A.** (2020). Identifying forged images using image metadata. In P. Singh, B. Panigrahi, N. Suryadevara, S. Sharma, & A. Singh (Eds), *Lecture Notes in Electrical Engineering: Proceedings of ICETIT 2019* (Vol 605, pp.1071-1081 ) Springer Cham. ISBN: 978-3-030-30576-5
- Presented a paper titled ‘Network steganography using the overflow field of timestamp option in an IPv4 packet’ at third International Conference on ‘Computing and Network Communications (CoCoNet’19)’ held at Indian Institute of Information Technology and Management, Kerala (IIITM-K), Trivandrum, during December 18-21, 2019.
- Attended a TEQUIP III sponsored one week Short Term Training Program on ‘Recent Trends in Security and Cryptography’ organized by Department of Applied Mathematics, Delhi Technological University, Delhi during November 18-22, 2019.

- Attended a TEQUIP III sponsored one week Short Term Training Program on ‘Graph Theory and Its Applications’ organized by Department of Applied Mathematics, Delhi Technological University, Delhi during November 25-29, 2019.
- Participated in one-day National Seminar cum Workshop on ‘e-content, MOOCs (SWAYAM) and ARPIT’ jointly organized by All India Council for Technical Education (AICTE) and Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi, on August 31, 2019.
- Completed a Massive Open Online Course (MOOC) titled ‘Ethical hacking’ from SWAYAM held from July-October, 2019.
- Presented a paper titled ‘Identifying forged images using image metadata’ at International Conference on ‘Emerging Trends in Information Technology-2019’ (ICETIT 2019) held at Institute of Information Technology and Management, Delhi, during June 21-22, 2019.
- Attended a two-day workshop on ‘Cyber Security and Cyber Laws’ organized by Institute of Cyber Security and Law, Shaheed Sukhdev College of Business Studies and Department of Computer Science, University of Delhi on March 25-26, 2019.

## DEPARTMENT OF ELECTRONICS

### *Departmental Activities*

- The Annual Intercollegiate departmental fest ‘TECHMANIA’ was organised by Sparks, the Electronics Society on February 20, 2020. The fest included many technical events like creation and innovation, circuit making and fun games.
- An educational visit was organised for second and third year students to Vigyan Samagam at National Science Centre, Pragati Maidan on February 14, 2020.
- A lecture on ‘High Electron Mobility Transistors’ by Dr. D. S. Rawal, Scientist-G, Solid State Physics Laboratory was organized followed by Alumni Interaction on February 6, 2020 by the Electronics Society ‘SPARKS’ under Electronics Fest, TECHMANIA.
- A lecture on ‘Embedded Systems’ by Dr. Dhananjay V. Gadre, Netaji Subhas University of Technology was organised on September 9, 2019.

### *Faculty Achievements*

#### **Dr. Geeta Mongia**

- Participated in a two-day National Seminar on ‘Emerging Trends in Electronics and Computer Technology’ organised by Department of Electronics, Sri Aurobindo College, University of Delhi, on February 27-28, 2020.
- Participated in a two-day National Conference on ‘Clean and Green energy: The Chemical & Environmental Aspects’ organised by the Department of Chemistry, in the college, held from September 26-27, 2019. Also presented a poster titled ‘Designing a prototype of a sediment microbial fuel cell (SMFC) for electricity generation: A green energy initiative’ in the poster category in the conference.

- Participated in a five-day Faculty Development Programme on ‘MOOCs and e-content Development’ organised by IQAC, Deen Dayal Upadhyaya College, University of Delhi, in collaboration with SWAYAM held from July 13-17, 2019.
- Acted as Coordinator for Self-defence training by Women Development Cell held from July 2-12, 2019.
- Attended 25<sup>th</sup> global edition of the International ‘Women Economic Forum (WEF)’ held on April 11-16, 2019.

#### **Dr. Inderbir Kaur**

- Participated in two-day National Seminar on ‘Emerging Trends in Electronics and Computer Technology’ organised by Department of Electronics, Sri Aurobindo College, University of Delhi held on February 27-28, 2020.
- Acted as Co-coordinator for Departmental Alumni Meet 2019-20.
- Participated in a two-day National Conference on ‘Clean and Green Energy: The Chemical & Environmental Aspects’ organised by the Department of Chemistry, in the college, held from September 26-27, 2019. Also presented a poster titled ‘Designing a prototype of a sediment microbial fuel cell (SMFC) for electricity generation: A green energy initiative’ in the poster category in the conference.
- Participated in five-day Faculty Development Programme on ‘MOOCs and e-content Development’ organised by IQAC, Deen Dayal Upadhyaya College, University of Delhi, in collaboration with SWAYAM held from July 13-17, 2019.

#### **Dr. Avneesh Mittal**

- Attended National Science Day celebrations, 2020 at Vigyan Bhawan, New Delhi on February 28, 2020 organised by Department of Science and Technology, Government of India. The Hon’ble President of India was the Chief Guest in the event.
- Worked as the Course Convener for the Short term course on Personality Development and Value Education conducted by the CPDHE, UGC-Human Resource Development Centre, University of Delhi during February 13-19, 2020.
- Acted as convener of the annual inter-college technical fest ‘Mnemonics 2020’ of the Department of Instrumentation, held on February 11, 2020.
- Resource person for two sessions for the Orientation Programme (OR-99) conducted by the CPDHE, UGC-Human Resource Development Centre, University of Delhi during January 3- 23, 2020.
- Resource person for one session for the Orientation Program (OR-97) conducted by the Centre for Professional Development in Higher Education (CPDHE), UGC- Human Resource Development Centre, University of Delhi during June 28-July 18, 2019.

- Resource person for one session catered under the Workshop on MOOCs, E-Content Development and Open Educational Resources conducted by CPDHE, UGC-Human Resource Development Centre, University of Delhi during July 12-18, 2019.
- Resource person for four lectures delivered under the Orientation Program (OR-96) conducted by the CPDHE, UGC- Human Resource Development Centre, University of Delhi during May 31- June 21, 2019.
- Contributed as member of the organizing committee in three-day National Conference on 'Recent Trends and Advancements in Chemical Sciences' held at Conference Centre, University of Delhi, during March 29-31, 2019.
- Participated in the Workshop on 'MOOCs, E-Content Development and Open Educational Resource' at Centre for Professional Development in Higher Education (CPDHE), UGC- Human Resource Development Centre, University of Delhi held from March 13-19, 2019.
- Sirohi, S., **Mittal, A.**, Nain, R., Jain, N., Singh, R., Dobhal, S., Pani, B., & Parida, D. (2019). Effect of nanoparticle shape on the conductivity of Ag nanoparticle poly(vinyl alcohol) composite films. *Polymer International*, 68(12), 1961-1967.
- Member, Committee of Courses, Department of Electronic Science, University of Delhi South Campus.
- Approved academic counsellor for the IGNOU- Learners' Support Centre- 38042 in the college.

#### **Ms. Shweta Gupta**

- Attended the Short Term Course on 'Personality Development and Value Education' organized by CPDHE, University of Delhi held during February 13-19, 2020.
- Attended the Short Term Course on 'MOOCs, E-learning and ICT' organized by CPDHE, University of Delhi held during June 15-21, 2019.

#### **Dr. Jitender Kumar**

- Approved academic counsellor for the IGNOU learners support centre 38042 in the college.
- Appointed as a part-time assistant coordinator for the IGNOU learners support centre 38042 in the college.
- Participated in UGC sponsored one-week workshop on 'MOOC, e-content Development and Open Educational resources' organised by UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi from February 25-March 2, 2019.

### **Dr. Amit Kumar**

- Participated in three-day Faculty Development Programme on ‘Teaching Techniques’ conducted by ICT Academy at Jagannath International Management School, GGS Indraprastha University on December 26-28, 2019.
- Participated in 43<sup>rd</sup> edition of BRIGDE 2019-New Delhi (A high impact industry institute interaction event of India) organised by ICT Academy at AICTE Auditorium, New Delhi on December 11, 2019.
- Participated in a one-week Faculty Development Programme on ‘Salesforce Essentials for Business Specialists’ conducted by ICT Academy at Ram Lal Anand College, University of Delhi, on December 9-14, 2019.
- Organised one-day Workshop on ‘Embedded Systems’ in association with DUCAT for college students and faculty on September 20, 2019.
- Participated in a one-day workshop on ‘Foldscope as an Educational and Research Tool’ at IGNOU on August 23, 2019.
- Member, organising committee of ‘National Conference on Recent Trends and Advancements in Chemical Sciences’ University of Delhi, held from March 29-31, 2019. Presented paper titled ‘Enhanced performance of single layer MEH-PPV light emitting diode using Alq<sub>3</sub> electron transporting layer and LiF:Al cathode contact’ in the conference.
- Participated in the workshop on ‘MOOC’s, e-content development and Open Educational Resources’ from March 13-19, 2019 from CPDHE, University of Delhi.

### **Ms. Aarti Malyan**

- Participated in two-day National Conference on ‘Clean and Green Energy: The Chemical & Environmental Aspects’ organised by Department of Chemistry in the college, held on September 26-27, 2019. Also presented a poster titled ‘Designing a prototype of a sediment microbial fuel cell (SMFC) for electricity generation: A green energy initiative’ in the poster category in the conference.
- Contributed as a Member, organising committee for Self-defence Training by Women Development Cell in the college held from July 2-12, 2019.

### ***Students’ Achievements***

- A team of four students - Abhishek Jain (third year), Divyanshu Varshney (second year), Himanshu Kr. Gupta (second year), and Atul Kumar (second year) participated in ‘DDU HACKATHON’, a hardware and software-based competition organised by Deen Dyal Upadhyaya College, University of Delhi in collaboration with MHRD on January 21, 2020. The students presented a project titled ‘Light Fidelity’ under the guidance of Dr. Geeta Mongia.

- A team of four students - Pankaj Rawat (third year), Aditya Raj (third year), Saurabh Yadav (second year) and Sahil (second year), of the department participated in 'DDU HACKATHON', a hardware and software-based competition organised by Deen Dyal Upadhyaya College, University of Delhi in collaboration with MHRD on January 21, 2020. The students presented a project titled 'Automated Railway Level Crossing' under the guidance of Dr. Inderbir Kaur.
- Akshay Shakya and Harshit Dubey of third year served as volunteers for the work of science communication for Vigyan Samagam 2020, held at National Science Centre, Pragati Maidan, New Delhi.

## DEPARTMENT OF FOOD TECHNOLOGY

### *Departmental Activities*

- The department in association with Food Fortification Resource Centre, FSSAI and Network of Professionals of Food and Nutrition (NetProFAN), FSSAI organised a seminar on 'Significance of Fortified Food in Daily Life' on February 21, 2020. Ms. Shivani Bansal and Mr. Areeb Irshad, Coordinators, FFRC, FSSAI conducted an interactive session on fortification with the students. Ms. Veena Sharma, Country Manager, GSK Consumer Healthcare Ltd. India gave a talk on 'Food fortification- An Industry's Perspective'. Chef Sibal, from NetProFAN highlighted how chefs act as a link between the taste and nutritional benefits of food. A contest on 'Healthy recipe formulation using fortified foods' was also conducted wherein thirteen teams, from various colleges of University of Delhi *viz.*, Institute of Home Economics, Lady Irwin College, Lakshmi Bai College, Shyama Prasad Mukherji College including ours, as well as other universities like Manav Rachna University, Faridabad participated. Veeba foods sponsored gift hampers for the prize winners of the contest. The event was coordinated by Dr. Eram Rao.
- A skill enhancement and entrepreneurship management initiative was undertaken by the department for the final year students from the month of February 2020. Walnut brownies, chocolate truffles and eggless muffins were prepared, packaged, labelled and sold by the students within the college to generate funds for future entrepreneurial tasks. The enterprise was supervised by Dr. Eram Rao, Dr. Meenakshi Garg and Dr. Roshan Lal.
- Forty students from the first year visited Ambassador Skychef on January 28, 2020. Dr. Eram Rao coordinated the visit and also accompanied the students along with Dr. Rizwana.
- A workshop on 'Sensory Science' was conducted on January 22, 2020 in the department by 'TagTaste', a firm that provides consultancy on 'Sensory Evaluation'. Ms. Raj Prity Sabharwal, was the resource person for the event. Students from first and final year along with faculty members of the department enthusiastically participated in the workshop, which was convened by Dr. Eram Rao.

- Six students namely, Deodeep Kumar, Monal, Chandni Tayal, Litakshi, Lovepreet and Sanjeev, from the final year provided ‘student support’ at the Cost Congress 2019, an International Conference on Total Cost Management, organised by CII on November 26-27, 2019 at The Lalit hotel, New Delhi. It was coordinated by Dr. Rizwana.
- A batch of twenty-two students of B.Sc. (H) Food Technology from Institute of Home Economics, DU visited the department along with two faculty members on October 30, 2019. The purpose was to explain the principle and demonstrate the working of various food engineering and packaging instruments such as Brookfield’s viscometer, packaging machines and various package testing machines. This was coordinated by Dr. Meenakshi Garg, co-coordinated by Dr. Sakshi Khurana, and assisted by Mr. Pramod Kr. Shukla.
- National Nutrition Week was celebrated in the department on September 9, 2019 in collaboration with Pepsico, India Holdings Pvt. Ltd. Dr. Rekha Sharma, Nutritionist at All India Institute of Medical Sciences and Ms. Ankita Marwaha, Associate Director, R&D Pepsico were the resource persons for the event. ‘Share your bowl of oats’ recipe contest and Tack Boards/Display Boards contest were organised for the students of the department.
- Shri. Sanjay Dave, Fr. Chairperson of CODEX Alimentarius and Advisor to FSSAI delivered a lecture on ‘Food Safety’ to the students of the department on August 26, 2019. An inter-collegiate ‘Food Safety Quiz’ was also organised by the department in association with AFST(I), Delhi chapter and Confederation of Indian Industry. The quiz was held as a part of ‘Surakshit Khadya Abhiyan’ initiative of CII. Students from Delhi University colleges, Amity University (Noida), Manav Rachna International Institute of Research and Technology (Faridabad) and National Institute of Food Technology Entrepreneurship and Management (Sonepat) participated in the quiz.
- As an endeavour to promote latest advances in food safety and food security, CII-HUL Initiative on Food Safety Sciences (CHIFSS) in partnership with FSSAI organised its sixth Stakeholder Forum on ‘Scientific Advances in Food Safety and Food Security’ on July 26, 2019 at India Habitat Center, New Delhi. Eight students of final year namely Deepanshu Shokeen, Deodeep Kumar, Amit Kumar, Shubhangi Gaur, Vintee Sangwan, Lovepreet, Komal, Twinkle Kesharwani accompanied by Dr. Rizwana and Dr. Meenakshi Garg participated in the seminar.
- A Nutrition Awareness Activity with the theme ‘Good Food for Healthy Life’ was organized by the department in collaboration with Protein Foods & Nutrition Development Association of India and AFST (I) Delhi Chapter on March 15, 2019. All the students of the department and faculty members participated in the event. Four speakers were invited for the technical session – Dr. Sakshi Bhushan, Principal Nutritionist Marico; Ms. Mili Bhattacharya Scientific, Nutrition and Regulatory, Coca Cola; Ms. Neelanjana Singh, Former President IDA, Delhi Chapter and Mr. Indranil Chatterjee from Dupont. It was coordinated by Dr. Eram Rao.

- A workshop on the use of Texture analyser was organised by Dr. Eram Rao for the students of final year on March 5, 2019. Ms. Ragini, Manager, Technical Services, SDS, was the resource person.
- An industrial project on ‘Sensory evaluation of trout fish’ sponsored by Bio String Industries, Bangalore, was carried out in the month of March 2019. The students of second year and final year along with four teachers of the department namely, Dr. Rizwana, Dr. Eram Rao, Dr. Sakshi Khurana and Dr. Tanya participated in the project. It was coordinated by Dr. Rizwana and Dr. Meenakshi Garg.
- Two mega outreach activities in association with FSSAI and PepsiCo India Holdings Pvt. Ltd., were carried out on creating awareness about consuming ‘Safe and Nutritious Food’ amongst school children. In one activity, January 2019 to May 2019, the focus was on ‘Iron’ and in the other, August 2019 to December 2019, on ‘Whole Grains’. The students visited various schools in Delhi and sensitised the students about consuming iron-rich foods and whole grains. In this regard, a MoU was signed between the college and PepsiCo India Holdings.
- An industrial project, sponsored by Mother Dairy Fruit and Vegetable Pvt. Ltd. was carried out on ‘Sensory evaluation of organic vs non organic fruits and vegetables’. Thirteen students from final year participated in the organoleptic evaluation of organic and non- organic fruit and vegetable samples provided by the industry. In this regard, a MoU was signed between the college and Mother Dairy Fruit and Vegetable Unit.

### ***Faculty Achievements***

#### **Dr. Rizwana**

- Participated in a two-day International Summit on Women in STEM-‘Visualizing the Future: New Skylines’ held at India Habitat Centre, Delhi on January 23-24, 2020 organised by DBT and ICGEB.
- Attended Master Class II ‘Innovative Solutions for Food Packaging and Product Formulation’ organised by FACE, CII, New Delhi on December 12, 2019.
- Attended 14<sup>th</sup> CII, New Delhi on ‘Food Safety, Quality and Regulatory Summit on Smart Interventions in strengthening the Food Safety Ecosystem’ on December 11, 2019.
- Participated in FICCI Conference in New Delhi on ‘Ingredients-Tool towards Innovation’ on December 10, 2019.
- Attended a seminar on ‘Current Trends in Food and Nutrients Consumption in India’ organised by ILSI, New Delhi, on December 5, 2019.
- Attended a two-day International Conference on ‘Total Cost Management on Innovating Cost Pathways for sustainable Business Growth-TCM way’, organised by CII, Chennai on November 26-27, 2019, at Hotel Lalit, New Delhi.

- Attended a two-day ‘The Future of Protein Summit: Building the Food system of Tomorrow’ organised by GFI India, MOFPI and HSI, India on November 11-12, 2019 at India Habitat Centre, New Delhi.
- Judged Display Board Competition for National Nutrition Week celebration organised by PepsiCo India and the college on September 9, 2019.
- Attended DBT-BIRAC Leadership Dialogue series in partnership with AIIMS, New Delhi by Dr. Trevor Mundel, on ‘Innovating for Impact: How India can lead in helping solve some of the world’s toughest health challenges’ on July 29, 2019.
- Attended 6<sup>th</sup> FSSAI-CHIFSS Stakeholder Forum-Scientific Advances in Food Safety and Food Security on July 26, 2019 at New Delhi.
- Attended a seminar on ‘Value Addition to Agriculture through Food Processing Science, Technology, Benefits’ organized by ILSI, New Delhi on April 26, 2019.
- Attended Annual Women Economic Forum-2019 on Reimagining Societies: Reclaiming Humanity with Gender Equality organised by Women Economic Forum on April 11, 2019 at Vivanta Taj, Dwarka, New Delhi.
- Member of Organising Committee and participated in National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ on March 29-31, 2019, University of Delhi.
- Coordinated an Industrial Project ‘Preparation and Sensory evaluation of Rainbow trout fish’ sponsored by STRING BIO Pvt. Ltd. on March 20, 2019.
- Attended a Seminar on ‘Good Food for Healthy Life’ organised by PFNDI in collaboration with AFST(I) Delhi chapter and the department on March 15, 2019.
- Attended a two-day International Conference titled ‘Towards collaborative leadership to ensure food safety’ organised by the AOAC-INDIA SECTION, 2019 on February 28-March 1, 2019 at New Delhi.

#### **Dr. Eram S. Rao**

- Training of Food Safety Officer for Govt. of Kerala, on February 13, 2020 as a National level resource person for FSSAI.
- Attended a vetting committee meeting at FSSAI on - Eat Right School Training content for the Yellow Book on February 7, 2020.
- Talk on Live Community Radio Program (92.1 FM) for National Institute of Open Schooling on ‘Eat Right India’ on February 6, 2020.
- Attended National Conference AMIFOST-2019 on ‘Functional foods- research, innovations and challenges’ at Amity University, NOIDA on December 18, 2019.
- Attended the 14<sup>th</sup> Food Safety, Quality and Regulatory Summit held on December 11, 2019 at New Delhi.

- Attended FICCI Conference on ‘Ingredients- Tool towards innovation’ on December 10, 2019 at New Delhi.
- Attended ‘Bringing global wisdom on Healthy and Sustainable diets to India’ at FSSAI in New Delhi, on December 6, 2019.
- Attended ILSI Seminar on ‘Current Trends in Food and Nutrients Consumption in India’ on December 5, 2019 at New Delhi.
- Attended a National Consultation Workshop on ‘Draft Regulations for School Children’ and presented the success story of SNF at School program on November 28, 2019 at FSSAI, New Delhi.
- Participated in the CII ‘Cost Congress 2019’ on November 26-27, 2019 at New Delhi.
- Invited Speaker on ‘Nutraceuticals and Functional Foods-Emerging Trends and Perspectives’ at the Malaysian Palm Oil Board International Palm Oil Congress (PIPOC) held on November 19 -21, 2019 at Kuala Lumpur, Malaysia.
- Participated in ‘Eat Right India Lighthouse’ event at the 21<sup>st</sup> Codex Coordinating Committee Asia meeting on September 26, 2019, Goa, Panaji organized by the World Bank.
- Invited speaker for ‘Media Dialogue on Hypertension Management and Trans-fat Elimination in Telangana’ at Hyderabad, Telangana organized by Voluntary organization in interest of consumer education on September 25, 2019.
- Invited speaker at ASEAN-India Training workshop on ‘Emerging Technologies for Young Biotech Professionals from ASEAN MS’ CSIR-Institute of Genomics and Integrative Biology on September 23, 2019 on ‘Food Safety is the KEY to Sustainable Development’.
- Invited speaker at Institute of Home Economics, University of Delhi on ‘The Future Trends in Food Processing’ a panel discussion on ‘Emerging Concerns in Food and Nutrition’ on September 17, 2019.
- FICCI Advisory Board Meeting under Centre for Nutrition Excellence September 14, 2019.
- Training of Food Safety Officer for Govt. of Kolkata on July 8-9, 2019 as a National level resource person for FSSAI.
- Invited speaker for ‘Media Dialogue on Hypertension Management and Trans-fat Elimination in Maharashtra’, at Nagpur, Maharashtra organized by Disha Foundation on July 6, 2019.
- Invited speaker at Coca-Cola, Gurugram, India on ‘World Food Safety Day’ June 7, 2019 on ‘Food Safety is Everyone’s Business’.
- You-tube videos on Food Allergies, FSSAI Initiatives, Food Fortification, Macro and Micronutrients for e-course developed for FSSAI video Library, June 2019.

- Resource person for ‘Workshop for enrichment of script for NCERT MOOC’s on SWAYAM’, CIET-NCERT, New Delhi on May 13 -14, 2019.
- Participated in ILSI- India Annual Meeting Seminar on ‘Value Addition to Agriculture Through Food Processing, Science, Technology, Benefits’ at Hotel Le Meriden, New Delhi on April 26, 2019.
- Invited speaker for ‘Media Dialogue on Hypertension Management and Trans-fat Elimination in Chandigarh’, Punjab on March 14, 2019.
- Invited speaker for National Seminar on ‘The saga of Food- Politics, Aesthetics and Technology ‘at Vivekananda College on March 13, 2019 and spoke on ‘Recent trends in Food Technology’.
- Training of Food Safety Officer for Govt. of Ranchi on March 1, 2019 as a National level resource person for FSSAI.
- Participated in the AOAC- India two-day International Conference held on February 28, 2019 at New Delhi.
- Attended third Stakeholder Forum - ‘The Future of Supplements’ on February 21, 2019.
- Recipient of National award by Food Safety Authority of India in the ‘Professional Category’ on the First ‘World Food Safety Day’.
- **Rao, E.S.** (2019). *Foundations of Food Technology and Preservation*. New Delhi: Variety Book Publishers. ISBN: 978-93-81156-45-2.
- Khanna, K., Puri, S., **Rao, E.S.**, Roday, S., & Singh, N. (2019). The Pink Book- Your guide to safe and Nutritious Food at Home, Food Safety and Standards Authority of India, New Delhi.
- Project Coordinator for ‘Sensory Evaluation of organic v/s conventionally grown fruits and vegetables’ for Mother Dairy, Delhi.
- Project Coordinator, for the Project titled ‘Safe and Nutritious Food Fellowship Program’ for FSSAI from July to Dec 2019.
- Member (2018-20), Doctoral Committee, Departmental Research Committee (DRC), Amity Institute of Food Technology, Amity University, NOIDA, UP.
- Member-Board of Studies, Faculty of Applied Science, Manav Rachna University.
- Member, FICCI Advisory Board, Centre for Nutrition Excellence, New Delhi.

#### **Dr. Meenakshi Garg**

- Participated in 10<sup>th</sup> India Probiotics Symposium titled ‘Cutting Edge Science and Applications: Intestinal Microbiota and Probiotics’ from February 29-March 1, 2020 organised by Gut Microbiota and Probiotic Science Foundation (India).
- Participated in NPTEL workshop organized by IIT Madras conducted on January 31, 2020 at J.C Bose University of Science and Technology, YMCA Faridabad, Haryana.

- Attended Faculty Development Programme on Entrepreneurship from December 13-23, 2019 at NIFTEM, Kundli, Haryana.
- Attended seminar on ‘Current Trends in Food and Nutrient Consumption in India’ organised by Institute of Life Science-India (ILSI), New Delhi on December 5, 2019.
- Member, Committee of Courses for B.Sc. (H) Food Technology, Department of Home Science, University of Delhi for 2019-20.
- Principal investigator for minor project ‘Establishment of herbal garden and utilization of herbal plants for value added food products’ sanctioned by the Ministry of Ayush.
- Presented paper titled ‘Physico-chemical and microbiological analysis of starch based biodegradable film using green banana peel powder’ at National Conference on ‘Innovation Packaging Techniques for Food Products and its Safety Aspects’ at New Delhi organised by Indian Institute of Packaging, Delhi on May 10, 2019.
- Presented paper titled ‘Development and physico-chemical and thermal analysis of copper nano film using PVA and PEG’ at National Conference on ‘Innovation Packaging Techniques for Food Products and its Safety Aspects’ at New Delhi organised by IIP Delhi on May 10, 2019.
- Attended seminar on ‘Value addition to Agriculture through Food processing Science, Technology, Benefit’ organised by Institute of Life Science-India (ILSI), New Delhi on April 26, 2019.
- Presented paper ‘Development and Nutritional Analysis of Multigrain Mixture to Improve Nutritional Status of Obese Individuals’ at International Conference on ‘Obesity, Healthcare Nutrition and fitness Expo’ held during March 18-19, 2019 in New York, USA.
- Coordinated industrial project ‘Sensory Analysis of Trout Fish’ in March, 2019 sponsored by Bio String industries, Bangalore, India.
- Dhyani, A., Chopra, R., & **Garg, M.** (2019). A Review on Nutritional Value, Functional Properties and Pharmacological Applications of Perilla (Perilla Frutescens L.). *Biomedical & Pharmacology Journal*, 12(2), 649-660. ISSN 0974-6242.

### Dr. Sakshi Khurana

- Participated in a two-day workshop on ‘Context of Food Safety, FSSAI Act & Regulations and Codex Alimentarius’ at Jamia Hamdard University, New Delhi from November 4-5, 2019.
- Participated in National Nutrition Week celebrations at college on September 9, 2019.
- Co-coordinated a project on ‘Sensory evaluation of organic v/s conventionally grown fruits and vegetables’ for Mother Dairy, Delhi.
- Participated as a panelist for the ‘Sensory evaluation of Rainbow Trout Fish’ in the industrial project sponsored by String Bio on March 20, 2019.

- Participated in the seminar on ‘Good Food for Healthy Life’ organised in college in collaboration with PFNDAI and AFST(I) Delhi Chapter on March 15, 2019.

### ***Students’ Achievements***

- Twinkle Kesharwani of third year was awarded ‘Italian Technical Services Award’ for the year 2018 on December 19, 2019 during the 75<sup>th</sup> Annual Conference of All India Food Processors’ Association at Bengaluru.
- Vaibhav Singh of second year was awarded the PFNDAI Merit cum Means Scholarship for Undergraduate students in Food Science and Nutrition by Protein Foods and Nutrition Development Association of India.
- Akshat Kaushik of first year secured second position in the event ‘Photo crusades’ held during EBULLIENCE 2020 – The annual film & photography fest of P.G.D.A.V College held on February 25, 2020.
- Divyanshu Gupta of first year secured first prize in the Poster Competition organized by CSIR-National Physical Laboratory, during the Vigilance Awareness Week held from October 28-November 2, 2019.
- Aman Yadav and Saamir Akhtar of first year secured first prize in ‘Food Charades’ competition held on October 16, 2019 at Lady Irwin College.
- Prachi Jain and Vinay Pramod Balodi of third year secured second position in Adroit 2019, National Tech Fest on Food Processing Technology held on October 16-17, 2019 on the occasion of World Food Day at Anand Agricultural University, Anand, Gujarat.
- Divyanshu Gupta of first year secured third position in ‘Test your senses’ competition organized on the occasion of ‘World Food Day’ on October 16, 2019 at Lady Irwin College.
- Aman Yadav of first year secured first prize in ‘Taste for all’ held on October 3, 2019 at Shaheed Rajguru College of Applied Sciences for Women.
- Divyanshu Gupta, Shagun Mishra and Rozy Mehra (first year students) – third prize in ‘Display board’ competition held in September 2019 organized by the Department of Food Technology at Lakshmibai College, University of Delhi.
- Chandni Tayal and Komal of third year, secured second position in Inter college ‘Food Safety Quiz contest’ held on August 26, 2019 organized by the department in association with ASTF(I) Delhi chapter, Surakshit Khadya Abhiyan.

## DEPARTMENT OF HUMAN COMMUNICATION

### *Faculty Achievements*

#### **Dr. Madhulika Bajpai**

- Invited as a subject expert for appointment for the post of Assistant Professor in Department of Psychology on Ad-hoc basis by Shaheed Rajguru College of Applied Sciences on January 13, 2020 and July 19, 2019.
- Attended a one-day International Seminar & Interactive Workshop on 'Effective Mentoring for Academic Excellence' organized by Shyam Lal College, University of Delhi on October 30, 2019.
- Participated and presented a paper on 'Holistic Education: The Way Forward' in NAAC-sponsored National Seminar on 'Quality in Higher Education: Current Priorities & Future Challenges' at Sri Venkateswara College, University of Delhi held on October 18-19, 2019.
- **Bajpai, M.** (2019). Stress Management for Youth: From Weeding the Wrong to Feeding the Strong. In A.P. Singh (Ed.). *Health and well-being issues in specific population groups* (pp. 1-35). India: Rishabh Books. ISBN: 978-81-935620-2-4.
- Invited as a resource person to conduct an experiential workshop on 'Communication Skills' by Sri Aurobindo College (Evening) for B. A. (H) Applied Psychology students on April 5, 2019.
- Attended the National Conference on 'Recent Trends and Advancements in Chemical Sciences' at Conference Centre, University of Delhi held between March 29-31, 2019.

## DEPARTMENT OF INSTRUMENTATION

### *Departmental Activities*

- One day Technical Festival 'Mnemonics 2020' was organized by Sensors Society of the department on February 11, 2020. Various technical and cultural events like circuit making competition, debate competition on artificial intelligence, harry potter quiz, alumni meet, photography competition 'Instrugraphy', open mic competition were organized during the festival. The event witnessed a huge participation from students of the college as well as other colleges from all over Delhi. Dr. Avneesh Mittal was the Convener of the fest.
- Organized an invited talk by Shri Satish, Senior Scientist, Electrical and Electronics Metrology Division, CSIR, National Physical Laboratory (NPL) on September 25, 2019. The topic of his talk was 'Metrology and its role in improving quality of life.'

### **Faculty Achievements**

#### **Ms. Gurkiran Kaur**

- **Kaur, G.**, Khan, M., & Siddiqui A.S, (2020). Oral presentation on ‘Role of Big Data Analytics in improving healthcare systems’ in JTA Multidisciplinary International Conference Jamia Millia Islamia, New Delhi held on February 16-18, 2020.
- **Kaur, G.**, Kaur, A., Siddiqui, A.S., & Khan, M. (2019). Conglomeration of Artificial Intelligence and Nanotechnology. Published in Proceedings of International Conference on Advanced Materials (pg 416) organized by Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi on March 6-7, 2019.

#### **Ms. Shweta Dua**

- Worked as departmental Coordinator for the Annual Alumni Meet 2019 held on February 11, 2020.
- Attended International Conference on ‘Human Rights: National and International Issues and Challenges’ organized by Shaikshik Foundation in association with Deshbandhu College and Dr. Ambedkar International Centre, Delhi held on February 22-23, 2020.

#### **Dr. Anil Kumar**

- Attended International Conference on ‘Human Rights: National and International Issues and Challenges’ organized by Shaikshik Foundation in association with Deshbandhu College and Dr. Ambedkar International Centre held on February 22-23, 2020.
- Saini, R., **Kumar, A.**, Bhatt, G., Kapoor, A., Paliwal, A., Tomar, M., & Gupta, V. (2020). Lossy mode resonance based refractive index sensor for sucrose concentration Measurement. *IEEE Sensors Journal*, 20(3), 1217-1222.
- Kumar, M., **Kumar, A.**, Khanna, M. K., & Kapoor, A. (2019). High extinction ratio TM pass polarizer using PbSe clad planar waveguide. Published in Proceedings of International Conference on Advanced Materials (pg 336), Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, held on March 6-7, 2019.
- Rakesh, Bhatt, G., **Kumar, A.**, & Kapoor, A. (2019). Optical sensor based on PbSe-clad lossy mode resonance. Published in Proceedings of International Conference on Advanced Materials, (pg 283) Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, held on March 6-7, 2019.

#### **Mr. Pawan Kumar**

- Attended International Conference on ‘Human Rights: National and International Issues and Challenges’ organized by Shaikshik Foundation in association with Deshbandhu College and Dr. Ambedkar International Centre, Delhi held on February 22-23, 2020.
- Awarded Transformational Teacher Award 2019 by Sharda University.

**Mr. Rakesh**

- Attended International Conference on ‘Human Rights: National and International Issues and Challenges’ organized by Shaikshik Foundation in association with Deshbandhu College and Dr. Ambedkar International Centre, Delhi held on February 22-23, 2020.
- Saini, R.**, Kumar, A., Bhatt, G., Kapoor, A., Paliwal, A., Tomar, M., & Gupta, V. (2020). Lossy Mode Resonance based Refractive Index Sensor for Sucrose Concentration Measurement. *IEEE Sensors Journal*, 20(3), 1217-1222.
- Rakesh**, Bhatt, G., Kumar, A., & Kapoor, A. (2019). Optical sensor based on PbSe-clad lossy mode resonance. Published in Proceedings of International Conference on Advanced Materials (pg 283) organized by Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi on March 6-7, 2019.

**Mr. Manoj Kumar**

- Attended International Conference on ‘Human Rights: National and International Issues and Challenges’ organized by Shaikshik Foundation in association with Deshbandhu College and Dr. Ambedkar International Centre, Delhi held on February 22-23, 2020.
- Kumar, M.**, Kumar, A., Khanna, M.K., & Kapoor, A. (2019). High Extinction Ratio TM Pass Polarizer using PbSe Clad Planar waveguide. Published in Proceedings of International Conference on Advanced Materials, Centre for Nanoscience and Nanotechnology (pg 336), Jamia Millia Islamia, New Delhi on March 6-7, 2019.

**Dr. Amandeep Kaur**

- Kaur, A.** (2020). Abstract titled ‘Women of the 21<sup>st</sup> Century: A Blooming Tree’ published in International Conference on Human Rights: National and International Issues and Challenges (pg 103-104) organized by Shaikshik Foundation in association with Deshbandhu College and Dr. Ambedkar International Centre, Delhi held on February 22-23, 2020.
- Presented poster titled ‘Utilization of CO<sub>2</sub> in Synthesis of Carbon Nanotube’ in second National Conference on ‘Clean and Green Energy: The Chemical and Environmental Aspects’ held on 26-27 September, 2019 in the college.
- Kaur, G., **Kaur, A.**, Siddiqui, A.S., & Khan, M. (2019). Conglomeration of Artificial Intelligence and Nanotechnology. Published in Proceedings of International Conference on Advanced Materials (pg 416) organized by Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi on March 6-7, 2019.
- Completed online course on ‘Introduction to Programming with MATLAB’ from Coursera on January 12, 2020.

## DEPARTMENT OF MATHEMATICS

### *Faculty Achievements*

#### **Dr. Ragini Jindal**

- Awarded certificate of achievement for the successful completion of 26 module, 40 hours course ‘The Fundamentals of Digital Marketing’ by Google Digital Unlocked on February 10, 2020.
- Member, Organising Committee and participated in three-day National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at the Conference Centre, University of Delhi on March 29-31, 2019.
- Participated in two-day National Conference on ‘Complex Systems in Interdisciplinary Sciences’ held at Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi from March 11-12, 2019.

## DEPARTMENT OF MICROBIOLOGY

### *Departmental Activities*

- Thirteen students of second and third year participated in ‘आरोहण: RCB Open Day’, an outreach program on National Science Day held in Regional Centre for Biotechnology, Faridabad on February 28, 2020.
- One day seminar on ‘Advancements in molecular microbiology in the revolutionary ‘Omics’ era’ was organized as part of the annual festival of the Department, MicroQuest on February 20, 2020. The seminar included talks from Dr. Syed Shamz Yazdani, ICGEB and Dr. Vikram Saini, AIIMS. Various fun-filled co-curricular activities like Streak Art, Doodle, MicroMeme, MicroExpedition, Poster presentation, Whisper-O-Charades, Microquizitive and Creative Writing competition. Around 150 students participated in the college festival from our college and other colleges of University of Delhi and actively participated in various activities. The fest conveners were Dr. Purnima Anand and Dr. Pawas Goswami. The events were coordinated by Dr. Ruchi Gulati Marwah.
- The department has a strong alumni network through which our current students can interact with their seniors. This year for the first time in the college, the department organised a Distinguished Alumni Lecture Series (October-February) titled ‘*Careers in Microbiology and Beyond*’. The series was graced by our six alumni (Ruchi Bhatnagar, Shubham Singh, Dr. Sanjana Mukherjee, Pooja Gupta, Dr. Sneha Chatterjee, and Udit Malik) who visited the college and interacted with students and faculty. They talked about various career prospects in microbiology and inter-related areas and guided them on how to prepare for the first step after graduation.
- On February 15, 2020 departmental ‘Alumni Meet’ was organized in which 22 alumni participated. They interacted with teachers and students of all the three years. All the alumni were felicitated by memento by the Principal. The meet organisers were Dr. Purnima Anand and Dr. Ruchi Gulati Marwah and was coordinated by Dr. Gunjan Sirohi.

- Dr. Saurabh Saran, CSIR-IIIM, Jammu interacted with students on February 14, 2020 to inform them about opportunities provided by the institute for entrepreneurship and research training.
- Dr. Qasim Beg, Lecturer in Microbiology at Boston University and an expert in Systems Microbiology talked about systems microbiology, bioinformatics, synthetic biology research, and gave career advice to students on February 13, 2020. The talk was organised by Dr. Pawas Goswami.
- Students attended a talk on topic 'My Adventures in the Ribosome' by Nobel Laureate Dr. Venki Ramakrishnan, tenth edition speaker of the TNQ Distinguished Lectures in the Life Sciences held at AIIMS, Delhi on January 22, 2020.
- Third-year students along with Dr. Gunjan Sirohi and laboratory staff visited the Department of Biochemical Engineering and Biotechnology, IIT, Delhi on November 4, 2019. Prof. Ashok Kumar Srivastava demonstrated to students about fermentation techniques and different types of fermenters.
- Six students of third year along with Dr. Neeru Bhagat attended Open Day of Regional Center for Biotechnology (RCB), Delhi on October 16, 2019.
- Students of third year and Dr. Vijaya K. Nalla of the department attended a lecture of Dr. Trevor Mundel, President, Global Health, Bill and Melinda Gates Foundation as part of Leadership Dialogue Series organized by DBT-BIRAC in association with AIIMS on July 29, 2019.
- Four students and Dr. Vijaya K. Nalla attended the workshop on 'Biotechnology Start-Up Ecosystem in India' organized by INSA on March 18, 2019. The registration of students and faculty was sponsored by the Star College Scheme of the department.
- Two first-year students participated in the Hands-on training on 'Molecular and Serological Assays of Plant Viruses' organized by Amity University on March 11-12, 2019. The registration of students was sponsored by the Star College Scheme, of the department.
- The department in association with Women Development Cell organized a signature campaign on 'Breast Cancer awareness' on March 8, 2019.
- The students attended the DBT-BioCARE Conclave: Women scientists achieving great heights" at National Institute of Plant Genome Research, New Delhi, on March 8-9, 2019 and was coordinated by Dr. Nitin Chauhan.
- One-day seminar on 'Advances in Sequencing Technology: Accelerating Progress in Biological Sciences' was organized as part of the annual festival of the Department, MicroQuest on March 6, 2019. The seminar included talks by distinguished speakers Dr. Saurabh Raghuvanshi, University of Delhi South Campus and Dr. Ashwini Pareek, JNU. The annual festival included various co-curricular activities like Poster making competition, Bollywood Pictionary, Wizards Tournament, MicroQ, and Microbe Meme.

The conveners were Dr. Vijay K. Nalla and Dr. Pawas Goswami and coordinated by Dr. Neha Bansal and Dr. Ratyakshi.

### ***Faculty Achievements***

#### **Dr. Vijay K. Nalla**

- Participated in one-week Faculty Development Programme on ‘Co-creating Moocs Hands-On Training for Designing and Developing MOOCs’ under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD held at Ramanujan College, New Delhi from February 10-16, 2020.
- Participated in the NPTEL workshop organized by IIT Madras at J.C Bose University of Science and Technology, YMCA, Faridabad on January 31, 2020.
- Participated in a day workshop on ‘Foldscope: An Educational and Research Tool’ organized by the School of Sciences, IGNOU, New Delhi in collaboration with the Department of Biotechnology, Govt. of India on August 23, 2019.
- Involved in undergraduate curriculum revision committees – 2019 for the restructuring of CBCS-LOCF syllabus for B.Sc. (H) Microbiology, University of Delhi.
- Attended National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at the Conference Center, University of Delhi, India from March 29-31, 2019.

#### **Dr. Purnima Anand**

- Coordinator of visit of thirteen students (second & third year) to attend Open Day of Regional Center for Biotechnology, Delhi on February 28, 2020.
- Attended the National Seminar on ‘Antimicrobial Therapy Challenges and Future Trends’ organized by Department of Microbiology, Shaheed Rajguru College of Applied Sciences for Women on February 25, 2020.
- Participated and presented a poster titled ‘A highly hydrophobic and robust biofilm produced by a novel strain of *Bacillus* sp.: understanding its physicochemical nature and its role in temporal development of antibiotic resistance’ in the International Conference on ‘Frontiers in Biochemistry and Biotechnology: Strategies to Combat Human Diseases’ organized by the Department of Biochemistry, Shivaji College and South Campus, University of Delhi on February 12-13, 2020.
- Involved in undergraduate curriculum revision committees – 2019 for restructuring of CBCS-LOCF syllabus for B.Sc. (H) Microbiology, University of Delhi.
- Marwah, R.G., **Anand, P.**, Adhikary, A., Bansal T. et al. (2019). *Bacillus* sp. (in: Bacteria) strain bcasdu2018/01 16S ribosomal RNA gene. GenBank accession no. MK881510.

**Dr. Ruchi Gulati Marwah**

- Participated and presented a poster titled ‘A highly hydrophobic and robust biofilm produced by a novel strain of *Bacillus* sp.: understanding its physicochemical nature and its role in temporal development of antibiotic resistance’ in the International Conference on ‘Frontiers in Biochemistry and Biotechnology: Strategies to Combat Human Diseases’ organized by the Department of Biochemistry, Shivaji College and South Campus, University of Delhi on February 12-13, 2020.
- Marwah, R.G.**, Anand, P., Adhikary, A., Bansal, T. et al. (2019). *Bacillus* sp. (in: Bacteria) strain bcasdu2018/01 16S ribosomal RNA Gene. GenBank accession no. MK881510.
- Attended and presented a poster titled ‘Designing a prototype of a sediment microbial fuel cell (SMFC) for electricity generation: A green energy initiative’ in the two-day National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organized by Department of Chemistry in the college, held from September 26-27, 2019.
- Contributed as Co-Coordinator, Organizing Committee, for Self-defence Training organized by Women Development Cell in collaboration with Delhi Police, BCAS held from July 2-12, 2019.
- Involved in undergraduate curriculum revision committees – 2019 for restructuring of CBCS-LOCF syllabus for B.Sc. (H) Microbiology, University of Delhi.
- Coordinator of visit of six students (third year) to attend Open Day of Regional Centre for Biotechnology, Delhi on October 16, 2019.

**Dr. Pawas Goswami**

- Coordinator for the visit of students to attend a talk by Nobel Laureate Dr. Venki Ramakrishnan, who was the Tenth Edition Speaker of the TNQ Distinguished Lectures in the Life Sciences on topic ‘My Adventures in the Ribosome’ held on January 22, 2020.
- Involved in undergraduate curriculum revision committees – 2019 for the restructuring of CBCS-LOCF syllabus for B.Sc. (H) Microbiology, University of Delhi.

**Dr. Ratyakshi**

- Sirohi, S., Mittal, A., **Nain, R.**, Jain, N., Singh, R., Dobhal, S., Pani, B., & Parida, D. (2019). Effect of nanoparticles shape on conductivity of Ag nanoparticle PVA composite films. *Polymer International*, 68(12), 1961-1967. ISSN: 1097-0126.
- Surah, S.S., Vishwakarma, M., Kumar, R., **Nain, R.**, Sirohi, S., & Kumar, G. (2019). Tuning the electronic band alignment properties of TiO<sub>2</sub> nanotubes by boron doping. *Results in Physics*, 12, 1275-1231. ISSN: 2211-3797.

### **Dr. Gunjan Sirohi**

- Contributed as Departmental Co-Coordinator for the Annual Alumni Meet 2019 held on February 15, 2020.
- Teacher coordinator for the visit of third-year students to Department of Biochemical Engineering and Biotechnology, IIT, Delhi on November 4, 2019.

### **Dr. Neeru Bhagat**

- Participated in the NPTEL workshop organized by IIT Madras at J.C Bose University of Science and Technology, YMCA, Faridabad on January 31, 2020.
- Teacher coordinator for the visit of third-year students to ‘Open Day’ organized by Regional Centre for Biotechnology (RCB), Faridabad on October 16, 2019.

### ***Students' Achievements***

- A team of three students of B.Sc. (H) Microbiology, second year (Nitesh Kumar, Priyam Chopra, and Romita Trehan) secured third position in innovative idea presentation in MicroVitae 2020 organized by Department of Microbiology, Ram Lal Anand College, held on February 4, 2020.
- A team of four students- Ayush Upadhyay (third year), Nitesh Kumar (second year), Priyam Chopra (second year), and Romita Trehan (second year) were selected for the final round of MindSpar 2.0 ‘Meeting New Challenges’ organized by Department of Biochemistry, Sri Venkateswara College, on November 4-5, 2019.
- Marwah, R.G., Anand P., **Adhikary A., Bansal T. et al.** (2019). *Bacillus* sp. (in:Bacteria) strain bcasdu2018/01 16S Ribosomal RNA Gene. GenBank Accession number MK881510.
- Anirban Adhikary and Tanu Bansal of Batch 2016-19 under supervision of Dr. Ruchi Gulati Marwah presented a poster titled ‘A robust biofilm-forming strain of *Bacillus licheniformis* isolated from air: Studies related to colony morphology and antibiotic resistance patterns’ in International Conference on ‘Changing Environment: Understanding the Emerging Challenges and their Management Strategies’ organized by Department of Zoology, Kalindi College on April 11-12, 2019. The poster was given second best poster award.
- Mr. Saumein Sain (Batch 2016-19) received Gold medal in convocation on November 4, 2019.

## **DEPARTMENT OF PHYSICAL EDUCATION**

### ***Faculty Achievements***

#### **Mr. Pawan Dabas**

- **Kumar, P. & Shaw, D.** (2019). *Obesity management*. Khel Sahitya Kendra. ISBN 978-93-88159-93-7.

- Bali, A., **Kumar, P.** & Kapur, L. (2019). A comparative study of lung functions of college boys and girls. *Online International Interdisciplinary Research Journal*, 9(3), 44-49. ISSN: 2249-9598.

## DEPARTMENT OF PHYSICS

### *Departmental Activities*

- A visit was organized for second year students to IUAC, New Delhi for a one-day workshop on February 28, 2020 to celebrate National Science Day.
- The QUBIT society of the department organized two-day Annual Fest ‘EPISTEME’ on February 17-18, 2020.
- A visit was organized for second year students to Vigyan Samagan at the National Science Centre, New Delhi for the first multi-venue MegaScience Exhibition on February 11-13, 2020.
- A visit was organized for students of all three years to CSIR-NPL on September 30, 2019 to update the knowledge of students about new technologies and sophisticated analytical equipments/Labs/facilities like Globe/Wall of SI units, PPMS/Superconductivity, Micro Raman, Bharatiya Nirdeshak Dravya, Sound Transmission Lab, NPL Film show etc.
- The QUBIT society of the department organized a two-day Annual Fest ‘EPISTEME’ on March 7-8, 2019.

### *Faculty Achievements*

#### **Dr. Anand Bharadvaja**

- **Bharadvaja, A.**, Kaur, S., & Baluja, K.L. (2019). A comparative study of electron-impact cross sections of  $C_4F_6$  isomers from 15 to 5000 eV. *Physics of Plasmas*, 26 (6), 063506.
- Shukla, S.K., **Bharadvaja, A.**, & Dubey, G.C. (2019). Micro-cellulose sheet and polyvinyl alcohol blended film for active packaging. *Chemistry Africa*, 2(4), 723-732.
- **Bharadvaja, A.**, Kaur, S., & Baluja, K.L. (2019). Study of electron collision from bioalcohols from 10 to 5000 eV. *European Physical Journal D*, 73(12), 251.
- **Bharadvaja, A.**, Kaur, S., & Baluja, K.L. (2019). Electron-impact cross sections of  $X_2CO$  ( $X = H, F, Cl, Br$ ) from ionization threshold to 5 keV. *The European Physical Journal D*, 73 (9), 199.
- Bassi, M., **Bharadvaja, A.**, & Baluja, K.L. (2019). Elastic and vibrationally-resolved excitation cross sections for electron impact with MgF radical using R-matrix. *The European Physical Journal D*, 73 (8), 187.
- Kaur, S., Baluja, K.L., Singh, J., & **Bharadvaja, A.** (2019). Vibrationally-resolved excitation and dissociation collision strengths of  $AlO^+$  by electron-impact using the R-matrix method. *The European Physical Journal D*, 73(7), 142.

### **Dr. Vandana Batra**

- Coordinator for the ‘Annual Alumni Meet 2019’ held in February, 2020 organised by the college.
- Attended National Seminar on ‘Nuclear, Particle & Accelerator Physics’ organised by Department of Physics, Kalindi college, University of Delhi, in association with NASI-Delhi Chapter on November 6, 2019.
- Attended two-day National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ on September 26-27, 2019, organised in the college by the Department of Chemistry.

### **Dr. Meetu Luthra**

- Attended two-day National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ on September 26-27, 2019 organised in the college by the Department of Chemistry.

### **Mr. Sandeep Kumar**

- Yadav, P., Rattan, S., Tripathi, A., & **Kumar, S.** (2020). Tailoring of complex permittivity, permeability, and microwave-absorbing properties of CoFe<sub>2</sub>O<sub>4</sub>/NG/PMMA nanocomposites through swift heavy ions irradiation. *Ceramics International*, 46, 317-324.
- **Kumar, S.**, Dubey, D.P., Shannigrahi, S., & Chatterjee, R. (2019). Complex permittivity, permeability, magnetic and microwave absorbing properties of Ni<sup>2+</sup> substituted mechanically milled U-type hexaferrites. *Journal of Alloys Compounds*, 774, 52-60.
- Yadav, P., Rattan, S., Tripathi, A., & **Kumar, S.** (2019). Swift heavy-ions irradiated nano-magnetite/exfoliated-nanographite/polymethylmethacrylate nanocomposites with excellent microwave-absorption performance. *Materials Letters*, 253, 222–225.
- Dubey, D.P., **Kumar, S.**, & Chatterjee, R. (2019). Magnetic and microwave absorption properties of Zn<sup>2+</sup>-Ti<sup>4+</sup> substituted U-type hexaferrites. *Physica B: Condensed Matter*, 570, 19–23.

### **Dr. Herendra Kumar**

- Departmental coordinator for the ‘Annual Alumni Meet 2019’ held on February 17, 2020 organised in the department.

### ***Student Achievement***

- Ram Vikas Mishra student of first year secured first position in the event of Tech Anveshan (Project Exhibition) on October 4, 2019 organized by Silizium at Deen Dayal Upadhyaya College, University of Delhi.

## DEPARTMENT OF POLYMER SCIENCE

### *Departmental Activities*

- Dr. Sidhharth Sirohi, Dr. Anil Barak and students of the department participated in celebrations of National Science Day on February 28, 2020 at Vigyan Bhavan, New Delhi. Shri Ram Nath Govind (Hon'ble President of India) graced the occasion as Chief Guest while Sh. Harsh Vardhan (Union Minister of Science & Technology & Earth Sciences) presided over the function.
- Dr. Sidhharth Sirohi, Dr. Anil Barak and students of the department attended a special talk of eminent scientist Prof. Gagandeep Kang, Director of the Translational Health Science and Technology Institute (THSTI), Faridabad on the theme of NSD-2020 on February 28, 2020.
- Dr. Anju Srivastava, Principal, Hindu College (University of Delhi) and Dr. Suman Sharma, Principal, Lady Shri Ram College (University of Delhi) visited the department on February 25, 2020.
- The department organized a visit of second year students to Recycling Industry on February 18, 2020 to Nidhi Enterprises, Bawana, Delhi.
- Prof. Avinashi Kapoor (Head, Department of Electronic Science, University of Delhi) visited the department on February 11, 2020.
- The department organized a visit of third year students to the Department of Textile and Fibre Engineering, IIT, Delhi on February 6, 2020.
- The departmental Alumni Meet was organized on February 4, 2020.
- The department organized the annual tech fest ‘CROSSLINK 2020’ on February 3-4, 2020. The fest was coordinated by Dr. Siddharth Sirohi and Dr. Susmita Dey Sadhu.
- The department organized a visit of second and third year students to ‘World Book Fair-2020’ held at Pragati Maidan, New Delhi on January 4-12, 2020.
- A visit of second and third year students was organised to ‘5<sup>th</sup> International Footwear Fair 2019’ on September 25, 2019 held at Pragati Maidan, New Delhi.
- The department organized a visit of third year students to the Department of Textile Technology, IIT, Delhi on March 6, 2019.

### *Faculty Achievements*

#### **Dr. S. K. Shukla**

- Singh, V.K., Kushwaha, C.S., & **Shukla, S.K.** (2020). Potentiometric detection of copper ion using chitin grafted polyaniline electrode. *International Journal of Biological Macromolecules*, 147, 250-257.
- Singh, P., & **Shukla, S.K.** (2020). Structurally optimized cupric oxide/polyaniline nanocomposites for efficient humidity sensing. *Surfaces and Interfaces*, 18, 100410.

- Singh, P. & **Shukla, S.K.** (2020). Advances in polyaniline-based nanocomposites. *Journal of Materials Science*, 55, 1331-1365.
- **Shukla, S. K.** (2020). Rice husk derived absorbents for water purification. In M. Naushad & E. Lichtfouse (Eds). *Green materials for Wastewater Treatment: Environmental Chemistry for a Sustainable World* (Vol 38, pp 132-144), Springer, Cham.
- **Shukla, S.K.**, Rizwana, Bhardvaja, A., & Dubey, G. C. (2019). Micro-cellulose sheet and polyvinyl alcohol film for smart packaging. *Chemistry Africa*, 4, 723-732.
- Kushwaha, C.S., & **Shukla, S.K.** (2019). Non-enzymatic potentiometric malathion sensing over chitosan-grafted polyaniline hybrid electrode. *Journal of Materials Science*, 54, 10846-10855.
- Dubey, N., Kushwaha, C.S., & **Shukla, S.K.** (2019). A review on electrically conducting polymer bio-nanocomposites for biomedical and other applications. *International Journal of Polymeric Materials and Polymeric Biomaterials*, 69, 709-727.
- **Shukla, S.K.**, Kushwaha, C.S., Guner, T., & Demir, M.M. (2019). Chemically modified optical fibers in advanced technology: An overview. *Optics & Laser Technology*, 115, 404-432.
- Barak, A., Kumari, M., Mishra D, Giri, N.G., & **Shukla, S.K.** (2019). Thermo-catalytic conversion of waste polyethene bags into value added products. *Indian Journal of Chemical Technology*, 26(2), 95-99.
- **Shukla, S.K.** (2019). Polymer-based catalysts for water purification: fundamentals to applications. In R. Das (Ed.). *Polymeric Materials for Clean Water* (pp. 121-148). Springer, Cham.
- Singh, P., Kushwaha, C.S., **Shukla, S.K.**, & Dubey, G.C. (2019). Synthesis and humidity sensing properties of NiO intercalated polyaniline nanocomposite. *Polymer-Plastics Technology and Materials*, 58, 139-147.
- Organised a three-day National Conference on ‘Recent Trends and Advancements in Chemical Sciences’ held at Conference Centre, University of Delhi on March 29-31, 2019.

#### **Dr. Sidhharth Sirohi**

- Participated in UGC sponsored Short Term Course on ‘Personality Development and Value Education’ from February 13-19, 2020 at CPDHE, University of Delhi, Delhi.
- Coordinator, visit of third year students to IIT Delhi on Feb 6, 2020.
- **Sirohi, S.**, Mittal, A., Nain, R., Jain, N., Singh, R., Dobhal, S., Pani, B., & Parida, D. (2019). Effect of nanoparticle shape on the conductivity of Ag nanoparticle poly(vinyl alcohol) composite films. *Polymer International*, 68(12), 1961-1967. Online ISSN: 1097-0126.

- Kumar, R., Kumari, S., Surah, S.S., Rai, B., Kumar, R., **Sirohi, S.**, & Kumar, G. (2019). A simple approach for the isolation of cellulose nanofibers from banana fibers. *Materials Research Express*, 6(10), 105601. Online ISSN: 2053-1591.
- Chaired poster session at International Conference on ‘Advances in Polymeric Materials & Human Healthcare’ held on October 16-18, 2019 at Goa, on October 17, 2019.
- Nominated by the college to represent it at India International Science Festival-2019 held during November 5-8, 2019, organised by the Ministry of Science and Technology, Govt. of India, at Kolkata.
- Presented poster titled ‘Effect of Shape of Ag Nanoparticles on Photocatalytic Behavior of Hybrid Ag/SiO<sub>2</sub> Composite Nanostructures’ at Young Scientist Conference as a part of India International Science Festival-2019 (November 5-8, 2019) at Kolkata.
- Visited Indian Jute Industries Research Association, Kolkata on November 5, 2019.
- Oral presentation titled ‘Surface Plasmon Mediated Degradation Of Methylene Blue Using Ag Decorated Silica Nanoparticles’ in International Conference on Advances in Polymeric Materials & Human Healthcare (October 16-18, 2019) organized by Asian Polymer Association (APA-2019) at Goa.
- Ms. Shivani defended her Ph.D thesis in August 2019.
- Participated in UGC sponsored Short Term Course on ‘MOOCs, E-Learning and ICT’ from June 15-21, 2019 at CPDHE, University of Delhi, Delhi.

### **Dr. Susmita Dey Sadhu**

- Coordinated visit to Recycling Industry on February 18, 2020 to Nidhi Enterprises, Bawana for second year students.
- Coordinator, visit of third year students to IIT, Delhi on February 6, 2020.
- Coordinator, Editorial Team of the departmental magazine ‘Bahulak- 2020’.
- Poster presentation on ‘Recent Advancement in Carbon Nanotubes-based Applications’ in the National Conference on ‘Relationship between Chemical Sciences and Society (RCSS-2020)’ organized by Department of Chemistry, Shivaji College, University of Delhi, on January 16-17, 2020.
- Presented a talk on ‘Preparation and characterization of polyaniline and polythiophene based co-polymer and it’s nano composite’ in International Conference on Advances in Polymeric Materials & Human Healthcare, organized by Asian Polymer Association at Goa, India on October 16-18, 2019.
- Poster presentation on ‘Development and physico chemical & thermal analysis of copper nano-film using polyvinyl alcohol (PVA) and polyethylene glycol (PEG)’ in the National Conference on ‘Innovative Packaging Techniques for Food Products and its Safety Aspects’ at Hotel Le-Meridien, New Delhi, May 10, 2019.

- Presented poster titled 'Physico-chemical and microbiological analysis of starch based biodegradable film using green banana peel powder' during National Conference on 'Innovative Packaging Techniques for Food Products and its Safety Aspects' at Le Meridien, New Delhi on May 10, 2019.
- Member of organizing committee in three-day National Conference on 'Recent Trends and Advancements in Chemical Sciences' held at Conference Centre, University of Delhi on March 29-31, 2019.
- Poster presentation on 'Preparation of copolymer based on aniline and thiophene and it's characterization' during National Conference on 'Recent Trends and Advances in Chemical Sciences' held from March 29-31, 2019, University of Delhi.
- Oral Presentation on 'Preparation and Properties of active nanofilm based on Polyvinyl Alcohol (PVA) and Polyethylene Glycol (PEG) using Citric Acid as curing agent' in National Conference on 'Recent Trends and Advances in Chemical Sciences', March 29-31, 2019, University of Delhi.
- Sanctioned a Minor Project on 'Establishment of herbal garden and utilization of herbal plants for value-added food products' as Co-PI, sponsored by Ministry of Ayush, Govt. of India.

#### **Dr. Krishna Dutt**

- Oral presentation titled 'Preparation of Water Resistance UV Cure Paints for Outdoor Applications' during National Conference on 'Recent Trends and Advances in Chemical Sciences', March 29-31, 2019 at University of Delhi.

#### **Dr. Anil Barak**

- Awarded 'Best Poster presentation' for the poster titled 'Conversion of waste plastic into value-added products in a self-designed thermocatalytic chamber' in the National Conference on 'Relationship between Chemical Sciences and Society (RCSS-2020)' organized by Department of Chemistry at Shivaji College, University of Delhi on January 16-17, 2020.
- Barak, A.**, Goel, Y., Kumar, R., & Shukla, S.K. (2019). Removal of methyl orange over  $\text{TiO}_2$ /polyacrylamide hydrogel. *Materials Today: Proceedings*, 12, 529-535.
- Barak, A.**, Kumari, M., Mishra D., Giri, N.G., & Shukla S.K. (2019). Thermo-catalytic conversion of waste polyethene bags into value added products. *Indian Journal of Chemical Technology*, 26, 95-99.
- Presented poster titled '4-(4-amino phenoxy) benzene-1,3-diamine-based covalently cross-linked sulfonated polyamide membranes (CCSPIs) for fuel cell applications' in the second National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' organized by the Department of Chemistry at the college on September 26– 27, 2019.

- Member of organising Committee and attended National Conference on 'Recent Trends and Advancements in Chemical Sciences' held at Conference Centre, University of Delhi on March 29-31, 2019.

### **Dr. Prem Lata Meena**

- Poster presentation on 'Recent advancement in carbon nanotubes based applications' in the National Conference on 'Relationship between Chemical Sciences and Society (RCSS-2020)' organized by Department of Chemistry, Shivaji College, University of Delhi, on January 16-17, 2020.
- Oral presentation on 'Cellulose Acetate/Gelatin/Polyethylene Glycol Blend: Its Preparation, Characterization and Biodegradation' in International Conference on 'Advances in Polymeric Materials & Human Healthcare', organized by Asian Polymer Association at Goa, India on October 16-18, 2019.
- Awarded Best Poster titled 'Importance of packaging in pharmaceutical industries' in the two-day National Conference on 'Clean & Green Energy: The Chemical & Environmental Aspects' held in the college on September 26-27, 2019.
- Organizing member of Self-defence Training organized by Women Development Cell (An outreach programme under IQAC) in collaboration with Delhi Police held at college from July 2-12, 2019.
- Poster presentation on 'Development and physico chemical & thermal analysis of copper nano film using polyvinyl alcohol (PVA) and polyethylene glycol (PEG)' in the National Conference on 'Innovative Packaging Techniques for Food Products and its Safety Aspects' at Hotel Le-Meridien, New Delhi, May 10, 2019.
- Oral presentation on 'Preparation and Properties of active nanofilm based on Polyvinyl Alcohol (PVA) and Polyethylene Glycol (PEG) using Citric Acid as curing agent' at National Conference on 'Recent Trends and Advances in Chemical Sciences', March 29-31, 2019, University of Delhi.
- Poster presentation on 'Preparation of copolymer based on aniline and thiophene and it's characterization' at National Conference on 'Recent Trends and Advances in Chemical Sciences', March 29-31, 2019, University of Delhi.
- **Meena, P.L.**, Sandilya, A., & Sharma, S. (2019). A review of singular and hyphenated analytical techniques in trace element analysis. *Chemistry Research Journal*, 4(1), 117-124. ISSN: 2455-8990.

### **Dr. Umesh Kumar**

- Invited speaker in National Conference on 'Novel Advancement in Applied Chemical Science' held in SS Jain Subodh (autonomous) P.G. college, Jaipur, January 27-28, 2020 and spoke on 'Novel advancements: reference to nanochemistry, polymer and biochemistry'.

### **Dr. Gulshan Dhra**

- Presented poster titled ‘4-(4-amino phenoxy) benzene-1,3-diamine-based covalently cross-linked sulfonated polyamide membranes (CCSPIs) for fuel cell applications’ in the second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organized by the Department of Chemistry at the college on September 26– 27, 2019.

## **DEPARTMENT OF ZOOLOGY**

### ***Departmental Activities***

- Thirteen students participated in ‘आरोहण: RCB Open Day’, an outreach program on National Science Day held in Regional Centre for Biotechnology, Faridabad accompanied by Dr. Anjali Saxena and Dr. Pallee Shree on February 28, 2020.
- The department organized a one-day workshop on ‘Reproductive Biology’ for third year students on February 14, 2020. The workshop was conducted by Dr. Reetuparna Basak in collaboration with the research laboratory of Prof. Umesh Rai at the Department of Zoology, University of Delhi.
- The department organized its annual zoological festival ‘ZOOSANGAM’ on February 7, 2020 under the umbrella of zoological society ‘ERANKO’. The festival conducted various scientific as well as fun-filled activities.
- The department organized a one-day workshop on ‘Immunology’ for third year students on September 26, 2019. The workshop was conducted by Dr. Alivia Roy and Dr. Reetuparna Basak in collaboration with the research laboratory of Prof. Umesh Rai at the Department of Zoology, University of Delhi.
- An educational trip to Madhav National Park, Shivpuri, Madhya Pradesh on September 15, 2019 was organized by the Department. Thirty-one students of all three years along with four faculty members (Dr. Pallee Shree, Dr. Reetuparna Basak, Dr. Satyam Ravi Dwivedi and Dr. Laljee Ram Meena) took part in this trip.
- A one-day visit to the Animal House and Museum facility of the Department of Zoology, University of Delhi was organised on March 15, 2019 for the students of second year under the supervision of Dr. Reetuparna Basak, Dr. Alivia Roy and Dr. Anjali Saxena.
- The department conducted a visit to Central Silk Board Regional Sericultural Research Station, Dehradun on March 12, 2019 as part of curriculum for the skill-enhancement course ‘Sericulture’ for second year students. Twenty-one students and four faculty members of the Department (Dr. Pallee Shree, Dr. Reetuparna Basak, Dr. Alivia Roy and Dr. Souvik Sen Sharma) took part in this trip.

### **Faculty Achievements**

#### **Dr. Anil K. Bali**

- Delivered an invited lecture on ‘Metabolic engineering to improve production of biohydrogen (Green alternative fuel)’ in the second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organized by Department of Chemistry, in the college on September 26-27, 2019.

#### **Dr. Pallee Shree**

- Presented poster titled ‘Uncovering the possibility of nimbin by targeting the glutathione s-transferase for the management of *Spodoptera litura*, through molecular docking’ in the National Conference on ‘Insect-Plant Biology in 21<sup>st</sup> Century’ organized by Department of Zoology, Deshbandhu College, University of Delhi on November 4-5, 2019.

#### **Dr. Laljee Ram Meena**

- Presented poster titled ‘Study on physio-chemical characteristics of Siliserh lake’ in the second National Conference on ‘Clean & Green Energy: The Chemical & Environmental Aspects’ organized by Department of Chemistry in the college on September 26-27, 2019.

#### **Dr. Alivia Roy**

- Attended the conference on ‘Golden Jubilee Celebration of the Insecticides Act, 1968 (Promoting Food Safety and Security)’ organized by International Institute of Biotechnology and Toxicology (IIBAT) at Radisson Blu hotel, Faridabad, on February 22, 2019.

#### **Dr. Reetuparna Basak**

- Attended the conference on ‘Golden Jubilee Celebration of the Insecticides Act, 1968 (Promoting Food Safety and Security)’ organized by International Institute of Biotechnology and Toxicology (IIBAT) at Radisson Blu hotel, Faridabad on February 22, 2019.

### **Student Achievement**

- Mr. Pawan Kumar Gola of second year secured first prize in sketching event at ‘आरोहण: RCB Open Day’, an outreach program on National Science Day held in Regional Centre for Biotechnology, Faridabad on February 28, 2020.

# Departmental Activities



# Departmental Activities



# Committee/Cell/Club Activities



# Committee/Cell/Club Activities



## **LIBRARY**

**(Convener: Dr. Anil K. Bali)**

- **Growth in Collection of the Library**
- Library has a collection of 27068 volumes of books (end of Financial Year) including reference books, 336 bound volumes of journals and many CDs/DVDs. Apart from the regular subscription to some journals, the library, this year, has renewed its subscription to N-LIST (National Library and Information Services Infrastructure for Scholarly Contents) programme of INFLIBNET. This has provided the facility to access a large number of e-resources to the students and staff throughout the year 24 x 7.

During the year 2018-19, 185 books (out of 695) were withdrawn and written off the library stocks.

- **Footfall, Circulation and Overdue Charges**

Library Footfall (July 2019 to 28 February 2020)	21186
Library Circulation - Issued (July 2019 to 28 February 2020)	6182
Library Circulation - Returned (July 2019 to 28 February 2020)	5768
Collection of Overdue Charges (1 April 2019 to 28 February 2020)	Rs. 20395

- **Future Plans**

- Self check-in/ check-out system.
- Library Air conditioning system.

## **COLLEGE ACTIVITIES**

*(Activities Organized by Various Committees/Clubs/Cells)*

### **ALUMNI COMMITTEE**

**(Convener: Dr. Vandana Batra)**

- The Alumni Committee organized Annual Alumni Meet-2019 in the month of February 2020. A total of 106 alumni from different courses participated in the meet- six from B.Sc.(H) Biomedical Science, eleven from B.Sc.(H) Computer Science, three from B.Sc.(H) Electronics, twenty-nine from B.Sc.(H) Food-Technology, five from B.Sc.(H) Instrumentation, twenty-two from B.Sc.(H) Microbiology, ten from B.Sc.(H) Physics and twenty from B.Sc.(H) Polymer Science.
- All the alumni were felicitated. Alumni remembered their sweet and sour memories of their college time during their interaction and resolved to actively participate in various activities relating to growth and development of the college. At present, there are 1131 alumni registered via the online portal available on the college website.

### **ANTI TOBACCO CELL**

**(Convener: Dr. Krishna Dutt)**

- A two-day lecture series on 'Addiction-free India' was organized by the cell along with Bhaktivinod ISKCON, Delhi, on October 3-4, 2019. H.G. Toshan Nimai Das was the

Chief Guest. He shared his views on spiritual knowledge and motivated the audience to lead a good life and highlighted the path to rehabilitation from various kinds of addiction.

- A lecture was organized by the Anti-tobacco Cell on the topic entitled ‘My Delhi, Addiction Free Delhi’ on August 27, 2019. The invited speakers were Dr. Ram Mudholkar (Former President of DuPont) and B.K. Vivek Pahwa (associated with the Ministry of Home Affairs). In addition to this, the Anti-Tobacco Pledge was also taken by all present.

#### **AUTOMATION AND DIGITISATION COMMITTEE**

**(Convener: Dr. Avneesh Mittal)**

- ***General Elective (GE) Segregation***

The committee devised a mechanism to allot General Elective (GE) paper to students based on ‘*Merit-cum-Preference*’. The system segregation not only helped to ensure complete transparency of the process but also brought down the manual effort by generating GE lists automatically. This year all the first semester students were given GE allotment through the existing online mechanism.

- ***Intracollege Workshop***

An intra-college workshop on Digital Attendance utility was held on August 22, 2019 in the Computer Science Laboratory. More than 50 teachers attended the workshop and their various queries regarding the handling of the automated attendance module were addressed.

#### **CAREER COUNSELLING CELL**

**(Convener: Ms. Shweta Gupta)**

- The Career Counselling Cell has been constituted in the college to provide guidance and motivation to students in exploring various career avenues through lectures and seminars by inviting eminent personalities from academia, industries and renowned organizations. This year, a lecture on ‘Career options after graduation and how to build a strong profile’ was delivered by Mr. Aditya Bhardwaj, from IMS Institute, Dwarka on January 29, 2020.

#### **CENTRAL PURCHASE COMMITTEE**

**(Convener: Dr. Avneesh Mittal)**

- The college was registered under GeM in the year 2018-19. This year 33 users were added in the existing list making a total of 81 persons using the GeM, under 24 Divisions on the portal.
- Nearly 95 Lakhs were disbursed for Capital Asset to different departments as per the Grants received from DHE.
- The college has become the first in the University of Delhi to have a multi-currency enabled CPP portal account.

### **EQUAL OPPURTUNITY CELL**

**(Convener: Dr. N Vijay Kumar)**

- Equal Opportunity Cell of the college organized various events to bring awareness among students and faculty about the importance and functioning of the cell. As part of this, the cell screened a movie 'Theory of Everything' on February 10, 2020 which show-cased life of the great theoretical physicist, Prof. Stephen Hawking, who himself faced several challenges owing to his disability. The screening was attended by a large number of faculty and students who got inspired from the movie.
- The Cell also organised an Essay writing competition in association with North East Cell, on February 10, 2020 titled 'Prospects of Tourism development in Northeast India for National Integrity and Equality'.
- Poster making competition on February 6, 2020, on the theme, 'Innovative ideas for creating equal opportunities'. This event was followed by a Slogan writing competition on the same topic. Students were provided with required material and space to present their ideas in both the competitions.

### **EXTRACURRICULAR ACTIVITY COMMITTEE**

**(Convener: Mr. Ramesh Kumar)**

The Extra-curricular Activity (ECA) committee along with its 11 associated clubs, aims to provide a platform to students by organizing multiple and diverse extra-curricular events and activities throughout the year. These help students improve their interpersonal skills, pursue their interests and nurture their talents and hobbies. In this academic year, a number of events were organized under its umbrella.

- **National Security Guards (NSG) Mock Drill:** With rising threat of terror strikes across major cities in India, the elite NSG team conducted a mock-drill on February 28, 2020 in the college premises under the aegis of this committee. The NSG team is fully trained, equipped, kept in readiness for any adverse situation and is capable of swiftly and effectively tackling and combating terrorism, counter hijacking task on land, sea and air, bomb disposal and hostage rescue mission etc. The team was bravely led by colonel and his commandos who demonstrated its preparedness to tackle any exigency in the affected region. It was a proud moment for our college as our two alumni were also a part of this team. It was the first time that such a drill was conducted in our college.
- **SRIJAN 2020:** The Annual Cultural Festival and the most awaited extra-curricular event of the college was celebrated on February 25-26, 2020. In the inaugural ceremony, Chief guest Smt. Bhavna Gaur (Member of the Delhi Legislative Assembly, Palam) encouraged the students with her inspiring words and laid emphasis on the role of such festivals in holistic development of students.
- This year, the festival witnessed huge participation from the various Delhi University colleges and other institutes and colleges from Delhi-NCR and was a fun-filled and happening event. Various events and competitions such as singing, dancing, kavi-sammelan, debate, photography, fashion shows, street plays, quiz, battle of bands etc. were organised during the two-day fest. The stand-up comedian, Mr. Anubhav Singh

Bassi gave a stellar performance on the Star Night of the fest. The performance of “Awaan Band” was also enjoyed by one and all. The students made most of the festivities by dancing to the tunes of DJ Karan.

- **70<sup>th</sup> Republic Day** was celebrated with a lot of zeal and fervor. On this occasion, various events were organized that expressed the patriotic sentiments of the students through dance, songs, poetry etc.
- **73<sup>rd</sup> Independence Day** was celebrated with great enthusiasm. Students performed solo dance, group dance, patriotic songs, poem recitation, and dramas etc.

The following is the report of all the Clubs under the aegis of ECA committee:

***Astronomy Club***

**(Convener: Ms. Gurkiran Kaur)**

- The club organized a debate on the topic “Was this universe created or it always existed this way?” during Srijan 2020 on February 25, 2020. Students from various colleges participated in the event.
- The club also organized a Quiz Competition on the topic “Marvel: :X-MEN” during Episteme 2020, the festival of the Department of Physics, on February 17, 2020.

***Dance Club***

**(Convener: Dr. Alivia Roy)**

- During Srijan 2020, RAGE had organized two types of inter-college competitions namely, Western Go-group dance and Flight of feet-solo dance. Both the events witnessed appreciable participation from other colleges. In group dance the first position was secured by Crunk-dance society of Sri Aurobindo College and the second position by Enliven-dance society of Gargi College. In flight of feet, first position was secured by Ms. Shubhangi Jaiswal from Lady Irwin College and the first runner up was Mr. Arpit from Kasturi Ram College of Higher Education, Delhi.
- As a part of 70<sup>th</sup> Republic day celebrations on January 24, 2020, the Dance Club ‘RAGE’ had organized three dance events, two group dances and one solo dance.
- The RAGE team participated in Step Up-group dance competition of the Annual Cultural Fest of Fore School of Management, New Delhi on November 22, 2019.
- Our dance team won the third position in the group dance competition organized by Apeejay Institute of Mass Communication as a part of its annual cultural fest on November 16, 2019.
- RAGE team secured Second position in the group dance competition ‘Dance Maniac’ organized by Dream Launcher Dance Academy in Bipin Chandra Pal Auditorium, CR Park, New Delhi on October 20, 2019.
- Our dance team had cleared the video preliminary round and was shortlisted to participate in the group dance competition of IIT, Delhi fest- Rendezvous on October 2, 2019.

- On the occasion of 73<sup>rd</sup> Independence Day celebrations in the college on August 14, 2019 RAGE presented three dance performances- group, trio and a solo dance event.
- RAGE had conducted two intra-college dance competitions on April 9, 2019 based on two themes ‘Dance till You Drop’ and ‘Blast from the Past’. ‘Dance Till You Drop’ was a prop dance competition in which the contestants were given props on the spot and had to dance with that for about two minutes on a song of their own choice. First prize was bagged by Sanchit Pahwa from B. Sc (H) Electronics, second year and second prize was awarded to Bhumika Dhoundiyal from B. Sc (H) Food Technology, second year. ‘Blast from the Past’ was a dance competition in which the contestants had to dance on songs from the 90’s era. First prize was bagged by Yashika from B. Sc (H) Zoology, second year and the second prize was won by Krishankant from the B. Sc. (H) Polymer Science, first year.
- Srijan 2019 hosted several dance club events namely Western group, Solo and Duet dance competitions. It also organized a Fusion Group dance performance on this occasion.

***Debate Club***

**(Convener: Dr. Anjali Saxena)**

- An Intercollege “Just a Minute (JAM)” debate competition was conducted during the annual cultural festival SRIJAN 2020 where the participants were judged on the basis of fluency, topic justification and diction. First prize was bagged by Ayush from B. Sc. (H) Microbiology, third year and second prize was awarded to Shreevani from B Sc. (H) Botany, second year.
- An Intra college debate competition was organised by the debating society to ignite the vigilante theme in students and evoke their active participation in promoting vigilance awareness among their peers and society as a whole. The debate was held on the topic: “Is the current public participation playing a role in eradicating corruption and promoting integrity?” on January 31, 2020. Ayush from B. Sc. (H) Microbiology, third year and Shreevani from B. Sc (H) Botany, second year were awarded as best speakers and best interjector was bagged by Dhriti Jha from B. Sc. (H) Biomedical Science, third year.
- Trishna Rai from B. Sc (H) Microbiology, first year and Kamna of B.Sc. (H) Physics, first year, participated in an inter-debate competition titled ‘Outerspace colonisation ‘A pipedream’ held at Department of Science, Lady Irwin College, University of Delhi on September 6, 2019.
- The debate club organised another intercollege extempore debate competition ‘Consilium’ during the annual cultural festival SRIJAN on February 28, 2019 on the topic ‘Is the current public participation playing a role in eradicating corruption and promoting integrity?’

***Dramatics Club***

**(Convener: Mr. Rakesh)**

- In the annual cultural fest ‘Srijan’, the dramatics society ‘Darpan’ hosted the street play competition ‘Zami Parasti’ on February 25-26, 2020.

- A play on ‘E-Waste Management’ was performed by Darpan on February 10, 2020 to educate people about E-Waste and its proper disposal.
- On the occasion of Republic Day, the club presented an act on the ongoing crucial issue of ‘Voting’ in the college on January 24, 2020.
- At IIT-Delhi annual cultural fest, Rendezvous’19, the students performed on the topic ‘Euthanasia’ on October 2, 2019.
- Darpan also performed at the National Brain Research Centre for their annual fest on the topic ‘Euthanasia’ on September 18, 2019.
- The students presented a play on the occasion of Independence Day on the topic, ‘Swachh Bharat’ on August 14, 2019 in the college premises.
- A street play called ‘Zami Parasti’ and the Monoact Competition called ‘Natsamrat’ was organised during the Annual Cultural Festival Srijan, held on February 28-March 1, 2019.

#### ***Eco Club***

**(Convener: Dr. Franky Varah)**

- The Club organised a campaign titled ‘No Use of Firecrackers’ in the college premises on October 23, 2019. Students participated enthusiastically in the campaign and chanted the same while they marched around the college campus.
- The Eco Club in collaboration with Gandhian Study Centre organised a Poster Making Competition on the theme ‘Ek Kadam Swachhata Ki Aur- Plastic-free Emission’ on October 1, 2019 in the college.
- On the Pt. Deendayal Upadhyay ji’s 103<sup>rd</sup> Birth Anniversary, the members of Eco Club and BEST participated in ‘Circular Economy on Plastic Waste and Livelihood Opportunities’ at NDMC, Connaught Place, New Delhi on September 25, 2019.
- Students of the club participated in the ‘International Ozone Day’ celebration held at Delhi Secretariat on September 16, 2019. They received a cash prize of Rs. 2000/- for presenting Nukkad Natak on the theme titled ‘32 Years and Healing’ and Rs. 1000/- for paper presentation on the same theme.
- The club and BEST organized a ‘Plastic Free Campaign’ in the college premises to promote an environment-friendly campus.

#### ***Film Club***

**(Convener: Dr. Shailja Singh)**

- The Film Club screened the movie ‘Mission Mangal’ on January 24, 2020 for the students and faculty of the college.
- It also organized the screening of movie ‘Gandhi’ on October 3, 2019 on the occasion of Gandhi Jayanti.

**Modern and Fine Arts Club**

**(Convener: Dr. Prem Lata Meena)**

- Shiva from B.Sc (H) Polymer Science first year participated in Abhivyakti 2k19, an annual art fest of DTU held on November 6, 2019 and secured first position in Craft Modeling Competition.
- Shubham Singh from B.Sc (H) Polymer Science, third year, participated in Acrylica 2k19, an annual art fest of Shivaji College, University of Delhi held on October 24, 2019 and secured first position in ‘Sketchwalk’.
- Priyanka from B.Sc. (H) Chemistry, third year participated in Acrylica 2k19, an annual art fest of Shivaji College, University of Delhi held on October 24, 2019 and secured first position in Doodling Category.
- Poster making competition was organised by the club on the ‘Topic: मतदान हमारा अधिकार हमारा कर्तव्य’ on August 20, 2019, to draw people’s attention towards their rights to integrity, to democracy, to choose and ultimately to vote.
- Poster making competition on the topic ‘Historical episode of rebellion by Indian soldiers/freedom fighters’, on August 13, 2019, on the auspicious occasion of 73<sup>rd</sup> Independence Day to enlighten the spirit and soul of our brave martyrs.

**Literary Club**

**(Convener: Dr. Satywati)**

- The club on February 4, 2020 with the Gandhian study centre co-organised a bilingual essay writing competition on ‘Mother nature has enough for man's need but not for man's greed’ and ‘My dream India’. First, second and third prizes were bagged by Aman Yadav (first year, food technology), Dekanto Khersa (second year, botany), and Antarksh (year instrumentation) respectively. The event undoubtedly proved to be one of the productive and opinionated competitions.
- The literary quiz was organised on January 30, 2020. Pranjal Saxena, Romita Trehan and Nitesh from B. Sc. (H) Microbiology, second year secured the first position and Vibhat Kumar, Kumar Ashish and Mahi from B. Sc. (H) Physics, second year secured the second position.
- The club on October 22, 2019 organised a bilingual event ‘Kavi ki Kalpanaa’ where students gave funny, humorous, witty and rational performances by thinking out of the box. The first, second and third prizes were awarded to Antriksh Kumar of B.Sc. (H) Instrumentation of third year, Pooja Meena of B.Sc. (H) Microbiology third year and Vibhat Kumar of B. Sc. (H) Physics second year, respectively.
- ‘Blackout poetry’ competition was held on September 25, 2019 was one of the most interesting competitions. The first, second and third prizes were awarded to Antriksh Kumar, B. Sc. (H) Instrumentation, third year, Priyanka Meena, B. Sc. (H) Biomedical Science, second year and Aman Tripathi B. Sc. (H) Electronics, third year, respectively.

### **Music Club**

**(Convener: Dr. Shubhra Barwa)**

- Music club participated in Independence and Republic Day celebrations where students sang patriotic songs as a tribute to the slain soldiers. They also dedicated a song to the girl child.
- Students of the music club participated in the International Summit on women in STEM Visualizing the Future: New Skylines organized by ICGEB, New Delhi on January 23-24, 2020. Their performance was well appreciated and they were duly felicitated.
- An intra-college competition titled ‘Bollywood Antakshari’ was organized on September 19, 2019 where students enthusiastically participated, and showcased their talent. The winner and runner up were Manish Kumar, B.Sc. (H) Microbiology, third year and Yogesh Kumar from B. Sc. (H) Computer Science, first year, respectively.
- Saurabh Kishor, B.Sc. (H) Instrumentation, third year was shortlisted for the semi-finals of M.A.D’2.0 (Music, Art and Dance season 2) organised by Bondus Conventions, held on August 25, 2019.

### **Photography Club**

**(Convener: Dr. Umesh Kumar)**

- The Photography club ‘Clickerati’ organized various events and competitions during the annual cultural fest Srijan held on February 25-26, 2020. During this event, the photos clicked by society members and alumni were exhibited. On the second day three competitions were organised- Online competition on theme ‘Nostalgia’ and ‘Motion Blur’; Photostory competition on the theme ‘Trapped’; On the spot competition on the theme ‘Minimalization’.
- The club organized three photography contests on November 8, 2019- Online with the theme ‘Forgotten objects’, Offline with the theme ‘Texture’ and On-the-spot with the theme ‘Upside down’.
- The club organized a photo walk to Hauz Khas village and Archeological Park on September 10, 2019 along with our alumni who are still associated with the club.
- In college fest, ‘Srijan 2019’, a photography exhibition was organized February 28-March 1, 2019. On second day, two competitions were organized – online competition on themes ‘Passion’ and ‘Humor’ and offline competition on themes ‘Perception’ and ‘Monochrome’.

### **Yoga Club**

**(Convener: Dr. Kapil Roy)**

- Organized a seminar on ‘Resolution for Revolution’ on January 13, 2020 by H. G. Amogh Lila Prabhu, Vice President, Shri Shri Rukmani Dwarkadheesh Temple (ISKCON), Dwarka, who guided our students on how to keep resolutions more strongly.
- The club organised an outreach activity NSS Cell on the occasion of 5<sup>th</sup> International Yoga Day in association with People’s foundation on June 21, 2019 in the college premises with great enthusiasm. Many people from neighbouring residential societies

participated enthusiastically along with our students and faculty. The two-long Yoga sessions were conducted by Yogacharya 'Ms Kanika Verma'. It was fused with Indian classical music by VYOM group headed by Pt. Shailendra Mishra which rejuvenated the souls and left a positive effect on mind, body and soul.

#### **GANDHIAN STUDY CENTRE**

**(Convener: Dr. Shivani G. Varmani)**

The Gandhian study centre has organised innumerable events during the session of 2019-20 under Gandhi 150 to inculcate Gandhian values among the students both at college and inter-collegiate level.

- The centre organised a Biotic Talk on February 5, 2020, on the topic 'Mother Nature: Gateway to Health and Happiness'. The talk was conducted by Dr. Salila Tewari, an internationally renowned naturopath, who has healed thousands of incurable patients from the world over. Her magic touch has earned her accolades from several celebrities and appointment as the former personal physician of Late Shri Atal Bihari Vajpayee Ji, the former Prime Minister of India. Dr. Salila enlightened the audience about the various ways through which the most complex diseases can be cured just by the right approach towards nature and maintaining a healthy routine and lifestyle.
- The centre paid a tribute to Gandhiji by organising a recital of his favourite Bhajans through a Bhajnavali on February 5, 2020, titled 'Bapu Ke Priye Bhajan' in association with the Music club.
- An Essay Writing competition was organised in association with the Literary Club of our college on the topics 'Mere Sapno Ka Bharat' and 'Nature has enough for Man's needs but not for his greed' on February 4, 2020.
- On January 31, 2020, the centre organised a short poem writing competition "Haiku" in both Hindi and English on Gandhiji's values.
- The volunteers of this centre presented a Skit based on the topic "Hamare Sapno ka Bharat" on the occasion of Republic Day Celebrations in our College on January 24, 2020.
- In order to inspire the students and the staff of the college from the life of our Bapu, Film 'Gandhi' was screened on October 3, 2019 in association with Film Club.
- On October 2, 2019, our active volunteers along with the convener attended an event at Gandhi Bhawan, University of Delhi in order to celebrate 150 years of Gandhi Jayanti. The college along with the convener was appreciated for spreading the ideas of Gandhiji amongst students.
- Gandhian Study Centre in collaboration with Eco Club organised a Poster making Competition on 'Ek Kadam Swachhta Ki Aur-Plastic-free emission' in order to strengthen our resolve towards the Swachh Bharat Abhiyan on October 1, 2019.
- The centre organised a Slogan Writing Competition on October 1, 2019 on the topic 'Swachh Bharat, Samridh Bharat' which witnessed active participation from the students.

**GARDEN COMMITTEE****(Convener: Dr. Meenakshi Garg)**

- Plantation drive was organized on February 19, 2020 and February 22, 2020 in the college campus. Fifty herbal and carbon dioxide absorbing plants and saplings were planted.
- An outreach program on 'Use and Applications of Medicinal Plants' was conducted on February 17, 2020 at Prakash Model School, Bindapur, Mahaveer Enclave, Part 3, New Delhi.
- Minor project for an 'Establishment of herbal garden and utilisation of plants for value-added food products' sanctioned by the Ministry of Ayush for a cost of Rs. 45,000 July 2019 to the Garden Committee.

**GENDER SENSITISATION COMMITTEE****(Convener: Dr. Rizwana)**

- A Gender sensitization lecture was organized jointly with NSS cell of the college on October 18, 2019 with the collaboration of Special Police Unit for Women and Children, PTS Malviya Nagar, New Delhi. A lecture was delivered by Mr. Praveen, Advocate, Delhi High Court which was attended by around 100 students.
- A slogan writing competition on Gender Equality was held on October 3, 2019 and around 100 students took part in the event.
- A short talk on the topic 'Need of gender sensitization' was held on October 1, 2019 to select gender champions. Out of 18 student participants, six were selected as Gender Champions of the college.

**NATIONAL SERVICE SCHEME CELL****(Convener: Dr. Neeru Sharma)**

With an aim to reflect the essence of democratic living and upholding the need for selfless service towards the society, the NSS cell of the college organized various activities during the year 2019-20.

- Making the chilling winters bearable to the underprivileged, the volunteers of NSS cell collected clothes to distribute among them. The collected clothes were distributed on February 2, 2020 near the Palam flyover. This helped in inculcating humanitarian values among the college students who willingly donated their clothes to succour the needs of the poor. Ten NSS volunteers completed the distribution drive successfully.
- A lecture on 'Passport Seva' was organised by the NSS Cell of the college on October 23, 2019. The lecture aimed at providing the basic information about the procedure, the need of applying for a passport and the documentation required. The lecture was delivered by Mr. Rahul Dutt, Manager of Passport Seva Project, New Delhi. Around 80 students attended the lecture.
- A lecture on 'Gender Sensitisation' was organised by the NSS cell of the college in association with the Gender sensitisation Committee on October 18, 2019. The talk addressed gender sensitizing, which is about changing behavior and instilling empathy

into the views that we hold about our own and other genders. The lecture was delivered by Mr. Praveen who is an Advocate in Delhi High Court and has been solving various domestic violence cases against women. Around 100 students attended the lecture.

- The NSS Cell organised a Charity Event in the college on the occasion of Diwali celebrations. The students and staff of the college contributed dry snacks and sweets to be distributed to the needy children. The collection was done from October 17- 23, 2019. On October 24, 2019 a group of eight NSS volunteers accompanied by some teachers visited the MCD School, Bindapur and distributed the snacks amongst the children.
- The Cell organised a ‘Door to Door Plastic Collection Drive’ on October 4, 2019. About 30 volunteers participated in the event. The students went to the societies near the college and picked up the plastic waste from there. The waste collected was disposed-off properly in the designated dustbins for such waste.
- A ‘Plog (Collecting plastic while jogging) Run’ was organised by the Cell on October 4, 2019 in the wake of nationwide celebration of Mahatma Gandhi’s 150<sup>th</sup> Birth Anniversary this year. About 30 volunteers of NSS participated in the event enthusiastically. They picked up waste from the road while jogging near the college campus.
- The Cell organised a ‘Voter Verification Camp’ from October 3-5, 2019 in which verification of EPIC No. of existing voters and filling of application form for new voters was carried out. About ten volunteers helped in organising the camp.
- The Cell organised a ‘POSHAN (Prime Minister Overarching Scheme for Holistic Nourishment) Abhiyan’ on September 24, 2019. It was a health awareness campaign organised by the NSS cell in collaboration with the Integrated District Health Society (IDHS). The campaign consisted of Test, Treat and Talk (T3) and Defeat Diarrhoea (D2) camps. It was aimed at spreading awareness about anaemia and ways to treat it. Blood tests of students were carried out to measure their levels of haemoglobin.
- The Cell celebrated 50<sup>th</sup> NSS Day on September 24, 2019. The theme for this year’s celebration was ‘Plastic Pollution’. The celebration included ‘Lakshay Geet’ and a pledge by the volunteers to reduce the use of plastic. Poster making and slogan writing competitions were also organised by the cell which centered around the theme of ‘Plastic Pollution’. About 100 students joined in the celebrations.
- Two NSS volunteers attended a one-day workshop on road safety at IIT, Delhi on September 6, 2019. The workshop was organised by the NSS cell of IIT Delhi and aimed at highlighting the importance of traffic rules in ensuring the safety of people on the roads. The volunteers gained a lot of knowledge regarding road safety from the workshop.
- The Cell observed a long Cleanliness Drive under the Swachh Bharat Mission from August 22, 2019 - September 4, 2019. The complete cleanliness drive was divided into various sections which included cleaning of ground floor, first floor, second floor, library, canteen, auditorium and college ground. The NSS volunteers also went to the old age

home 'Godhuli' during this drive and participated actively. About 50 students participated in each leg of this activity.

- NSS Cell of the college in association with the 'Yoga Club' and 'People Foundation' organised an outreach Yoga Workshop on 'Holistic Health & Refreshing Mind Space' on June 21, 2019. More than 40 people from college and nearby societies actively participated in the workshop. Participants performed a myriad of Yogasanas, such as, 'Taadaasan', 'Vajrasana', 'Makarasana', 'Shashankasana', 'Utarasan', 'Kandrasan', 'Shavasana' etc.

#### **NORTH EAST CELL**

**(Convener: Dr. Saroj Shukla)**

- North East Cell organized a screening of the movie titled 'India North East paradise unexplored' on February 10, 2020. The students and faculty were made aware about the rich cultural heritage and bio-diversity of the North East region of India.
- Essay writing competition was organized on the topic 'Prospects of tourism in North East India creating National Integrity and Equality' on February 10, 2020 in association with Equal opportunity cell. Fifteen students participated in the competition from various departments of the college.
- North East Cell and Equal opportunity cell jointly organized a Poster making Competition on 'Festival of North East Region' on October 18, 2019. Several students participated and made goods and interactive posters.

#### **RESEARCH AND PROJECT ASSESSMENT COMMITTEE**

**(Convener: Dr. Uma Dhawan)**

The Research and Project Assessment committee of the college organized a lecture by Dr. Anita Aggarwal, Scientist E, Department of Science and Technology, Ministry of Science and Technology, New Delhi on February 7, 2020 in the college. The faculty members of different departments along with research scholars and other students of the college attended the lecture. Dr. Aggarwal talked about various funding opportunities and schemes offered by DST. She also apprised about writing a proposal for funding and the expectations of grant reviewers.

#### **SPORTS COMMITTEE**

**(Convener: Dr. Sidhharth Sirohi)**

The Sports committee organized inter-departmental sports activities throughout the year namely Cricket, Basketball, Volleyball, Badminton Singles, Badminton Doubles, Table Tennis Singles, Table Tennis Doubles, Chess, Kabaddi for boys and girls. The students also participated in various sports events organized by University of Delhi and other organizations in addition to various events organised in the college.

- The college celebrated Annual Sports Day on January 23, 2020 in the college sports ground. The Chief Guest was Dr. Dhananjay Shaw, Principal, Indira Gandhi Institute of Physical Education and Sports Sciences, University of Delhi, Dr. Gulshan, from Indraprastha University, New Delhi was the Guest of Honor and our Principal, Dr.

Balaram Pani declared the annual sports meet open. Vote of thanks was given by Dr. Sidhharth Sirohi (Convener, Sports Committee). The Sports Committee along with other staff were present to take the salute of the March Past.

- Sixth Bhaskaracharya Inter College Cricket Tournament was organized by the committee from January 9-17, 2020. Six teams from different colleges of University of Delhi *viz.* Sri Venkateswara, Aryabhatta, Shyamla, SGND Khalsa, Kirori Mal including our college participated in the tournament. Shyamla college was the winner and Sri Venkateswara college was the runner up of the tournament.

### ***Students' Achievements***

- Vikas Kumar of B.Sc.(H) Physics, second year, won Bronze Medal in National Football Championship (5<sup>th</sup> Small Side) 2019-20 held at Goa from December 30, 2019- January 1, 2020.
- Shreya Sharma of B.Sc.(H) Microbiology, third year, won Bronze Medal in Inter College Judo (Women) Championship 2019-20 organized by University of Delhi held on November 5-6, 2019.

### **STUDENT ADVISORY AND PR COMMITTEE**

**(Convener: Dr. Sangeeta Srivastava)**

- The committee was actively involved in the work of Scholarship disbursement to SC/ST/OBC/Min under the schemes initiated by the Delhi Government. Also, this year Fee concession was recommended for 27 students of the college.
- The committee was actively involved during the BSA-DUSU elections.
- The committee along with BSA DUSU office bearers organised 'Deepotsav' on October 24, 2019 for Diwali celebrations.
- The committee directed the departments to elect Class representatives of respective years of study and one CR was elected out of them to represent in this committee.
- An Orientation Program was held department wise on July 19, 2019 for the new students.
- The student advisory and PR committee hosted an Open Day on June 17, 2019 for the prospective college students related to UG admissions 2019-2020. A student help-desk was also established during UG admissions 2019-2020 to resolve the queries related to UG admissions in the college.

### **SWACCHATA AND WASTE MANAGEMENT COMMITTEE**

**(Convener: Dr. Anand Bharadvaja)**

- During the college Annual Fest *Srijan 2020*, the Swachhata Committee organized a Logo designing competition. The objective was to have a Swachhata Logo for the college.
- The committee endeavors to create a clean campus and meets regularly to obtain feedback from the faculty and students and address various issues.

- Swachhata Pakhwada was celebrated in the college from January 16-31, 2020 and under its aegis various events were conducted:
  - A competition was organized in collaboration with the Canteen Committee on Management of Kitchen Waste on February 22, 2020.
  - As a part of *E-waste* awareness program, a street play was organized in collaboration with the Dramatics club on February 10, 2020.
  - On February 10, 2020, a poster making and slogan writing competition was also organized where many students participated. The winners were given prizes and certificates.
  - A Swachhata pledge was taken on this occasion to ensure the commitment towards cleanliness.
- On August 13, 2019, the committee organized a Poster making and Slogan writing competitions on the theme 'Swachhata'.
- The committee has taken initiative to weed out the old newspapers, files etc. of the college.
- The committee is also committed to provide clean and hygienic conditions for all and various steps are being taken in this direction.

**TRAINING AND PLACEMENT CELL****(Convener: Dr. Sushmita Dey Sadhu)**

- Career-counselling event titled 'Let's Talk Future' was organised in association with Pearls Academy on January 20, 2020. Three speakers - Ms. Srishti Bajaj, Mr. Dinesh Abiram and Mr. Gopal Meena discussed various career opportunities with our students.
- Placement Drive by Trakinvest for Policy Bazar was organised on January 14, 2020. This interview was open for all the final year students across all branches. Eight students were offered training cum job opportunity.
- Students of the college registered themselves for internships and jobs on the Central Placement Cell of the University of Delhi.

**VIVEKANAND VICHAR MANCH****(Convener: Dr. Manu Kataria)**

- Birthday of Swami Vivekanand ji is celebrated as National Youth Day. This year Vivekanand Vichar Manch and BSA celebrated 'Yuva Diwas' on January 14, 2020. Commander V. K. Jaitley was the Chief Guest for the function. His impressive speech inspired many students and staff of the college to become disciplined, hardworking and responsible citizens of the country.
- The Manch organized 'Kargil Vijay Diwas' on August 2, 2019. A tribute was paid to the valiant Indian Martyrs of the 1999 Kargil War by the students, teachers and non-teaching staff. The program also included a lecture on 'Role of Youth in New India' by distinguished social worker Shri Shriniwas. The lecture highlighted the importance of

understanding India and all its intricacies and enlightened the students about their responsibilities towards the nation.

**WOMEN DEVELOPMENT CELL**

**(Convener: Dr. Geeta Mongia)**

- Organized a workshop on ‘What after Graduation’ in collaboration with Electronics society ‘SPARKS’ on January 27, 2020.
- A workshop was organized on ‘Role of Women in Healthcare Industry’ in collaboration with International Institute of Health Management and Research (IIHMR) on January 10, 2020.
- The cell celebrated Vigilance Awareness week in collaboration with NPL, CSIR by organizing a lecture on ‘Integrity: A Way of Life’ by Dr. Mahesh on November 6, 2019. On the spot quiz and poster competition was also conducted on the same theme.
- A ten-day Self-defence Training Program was conducted from July 2-12, 2019 for girls and women of neighbouring areas in collaboration with Delhi Police in our college as an Outreach Program.
- The cell organized a lecture on ‘Career Prospects in Healthcare Industry’ by Dr. Divya Aggarwal, International Institute of Health Management and Research (IIHMR) on March 12, 2019.
- A ‘Breast Cancer awareness’ signature campaign was organised in collaboration with the Sukshmjeev Society, Department of Microbiology on March 8, 2019.
- International Women’s Day ‘नारीUtsav’ was celebrated for the first time, on March 8, 2019 to rejoice womanhood. The Chief Guest for the occasion was Prof. Sushma Yadav, Chancellor, Bhagat Phool Singh Mahila Vishwavidyalaya. The Cell invited many eminent personalities such as Dr. Suman Govil (former Senior Advisor, Department of Biotechnology, Government of India), Dr. Sunaina Kanojia (OSD, Institute of Cyber Security and Law) and Ms. Archana Pathak Dave (Advocate, Supreme Court). The program also included a number of intercollegiate competitions for students such as Debate, Poster making, Rangoli making, Self-composed poem recital and Slogan writing where students showcased their knowledge, talents, values, and skills. A number of students from other colleges also participated.

# Sports @ BCAS



## Compiled and Edited by:

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Released on the occasion of  
**23<sup>rd</sup> ANNUAL DAY**

September 8, 2020

**Chief Guest**

**Prof. M. Jagadesh Kumar**

Vice-Chancellor

Jawaharlal Nehru University, New Delhi

**Guests of Honour**

**Prof. Avinash Chandra Pandey**

Director

Inter-University Accelerator Centre, New Delhi

**Prof. (Dr.) Nagesh Thakur**

Member

University Grants Commission, New Delhi

**Function presided by**

**Ms. Madhuri Varshney**

Chairperson, Governing Body, BCAS

Bhaskaracharya College of Applied Sciences, established in October, 1995, was named so to honour *Bhaskara II*, a great 12<sup>th</sup> century mathematician of India. It is a constituent college of University of Delhi and fully supported and funded by Government of NCT, Delhi. Accredited grade 'A' by NAAC, the college has achieved the 'Star College Status' by DBT, Government of India. Currently, the college offers eleven science honours courses at undergraduate level and has a strength of around 1300 students.

The college boasts of a beautiful campus built over eight acres of land, adorned with exquisite landscaping and a picturesque building and big playgrounds. It has a great infrastructure with modern and well-equipped laboratories, resourceful and expansive library, classrooms fitted with LCD projectors for enhanced learning experience, an audio visual room, a conference room and an amphitheatre for academic, co-curricular and extra-curricular events. We at the college believe that 'the proper use of science is not to conquer nature but to live in harmony with it' and thus have facilities for rain-water harvesting, waste management, solar energy powered campus lights, a paper recycling unit and lush green gardens surrounding the entire campus. An open gym is the new addition to these facilities.

It has been a constant endeavour of the college to ensure that the students evolve into responsible citizens through a comprehensive approach in learning, well supported by various co-curricular and extra-curricular activities. Thus, under the umbrella of various committees, clubs and societies, we aim to provide a holistic development by catering to physical, emotional, social, spiritual, and mental well-being of our students. These activities make them conscious towards the environment and society.

This academic year has witnessed our students advancing towards various academic pursuits not only within the college but also through seminars, industry visits, workshops, and hands-on training at other institutes as well. We are proud to apprise that our students not only excel in academics but also bring laurels in sports, dance, music, dramatics and other creative activities.

The key to the success of the college is collaboration of all individuals, executed over time through a clearly defined vision and mission and based on hard work and constant communication. This report presents the glimpses of all such endeavours. As our late President Shri A. P. J. Kalam once said "Educationists should build the capacities of the spirit of inquiry, creativity, entrepreneurial and moral leadership among students and become their role models". Thus, each stake-holder of Bhaskaracharya family strives towards excellence and will continue to work relentlessly to take our institution to yet greater heights and contribute to nation-building.

**BHASKARACHARYA COLLEGE OF APPLIED SCIENCES**

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