

ANNUAL REPORT 2023



भारत 2023 INDIA



आज़ादी का
अमृत महोत्सव



KIRORI MAL COLLEGE UNIVERSITY OF DELHI

NAAC Accredited A++ Grade with 3.54 CGPA, Cycle 2

011-27667861

| www.kmcollege.ac.in

| University of Delhi, Delhi – 110007



Annual Day
30th April 2023



Prof. Dinesh Khattar
(Principal)

PRINCIPAL'S ADDRESS

The Annual Day 2023

Namaskāra,

It is a matter of great joy for an institution or an academic body that the students who are enrolled or who have been taught are given a day, fully dedicated to celebrate their hard work, commitment and dedication when their achievements are certified, acknowledged and awarded. Today is that very day, which we call the Annual Day of the College, when we all gather to see together the exuberance and high flying energy of all our young and talented minds, preparing themselves to touch any height of success in present as well as in future, and determined to bring a number of accolades and laurels to their alma mater without any doubt.

As we all know about the global pandemic of Covid-19 which took over all the countries of the world in its grip, it was only last year February 2022 onwards, we were able to meet our students in person. It's not that the pandemic has only harmed or destroyed the humanity in many ways, but, in fact, it has also taught us many lessons to learn from life. It has taught us that life is transitory so there's no need to hurry or worry for anything. The best way as ever has been to live the present moment and try to do as many good things to people as one can. To engage in any kind of hatred or blame-game is not just futile but also an unnecessary step which all of us should get away with. What's, in reality, necessary is to be total in every moment that passes by. It is this totality of 'being' in a work that makes it a worship. And when work becomes worship, the result is nothing but ecstasy, the ecstasy which translates itself into everlasting happiness, which all of us are searching in life. And this has been a great message from our own very soil, which is condensed in Bhagwana Sri Krishna's Gita as –

**Karmaṇyevādhikāraṣṭe Mā Faleṣu Kadācana,
Mā Karmaphalaheturbhurmā Te Saṃgo'stvakarmani.**

Apart from the messages that cautioned every human being to be conscious of his/her health and make sanitizer and mask a part of his/her daily life, the Covid- 19 brought our attention to many new dimensions which have now become common affairs of our day-to-day life style: be it an on-line meeting or using digital interface for communication or conducting our classes or workshops through hybrid mode or using different social media platforms for disseminating information or so on and so

forth. When, last year, we came to offline mode from online, and at sometimes we have been both online and offline, it became very difficult for the teachers as well as the students to cope up with the new situation. It was very arduous, strenuous and challenging. But all our teachers and students did their best and came out of this whole new mess successfully.

I would like to thus congratulate all the teachers who have put in all their energy to make the teaching-learning process as smooth as possible in the moment of utter crisis as we faced in recent years. You all have given all your time without asking anything extra in return. You all have sacrificed your summer vacations. You all have gone beyond all measures to help our students. The College would like to salute you all and would like to express that it's you who have made what KMC stands today –

Tall, Towering and Tempestuous Cautioned, Composed and Continuous

The College has gone through a massive change and shift in terms of its faculty strength and promotion of teachers in the span of last one year. We have done appointments on permanent basis very quickly and today we are about to finish all of them very soon. We have done 91 permanent appointments till date. Promotions of teachers also being the top priority, I would like to say it with a great proud feeling that there's no pending promotion of any of our faculty members till date. We have right now 33 Professors, 57 Associate Professors along with every eligible teacher having been promoted from one stage to the other senior stage.

The College library has now become the best place to cherish the world with books available in physical as well as in e-forms. The additional top floor in the library building has helped us in many other facilities library is able to provide now-a-days. The College has also done great in terms of electricity by installing many solar panels on the top of the Heritage Building. The College is now DBT Star College among all Delhi University colleges and is also known for CDRT, a Centre for Disability Research and Training, which is run by Prof. Someshwar Sati, the 1st Professor of English Department of our College.

One of the best achievements that the College had in the last academic year 2022- 23 has been the accreditation by NAAC in the month of December 2022. It's something which not only I but every Kirorian would like to say proudly that KMC has taken us ahead from its 1st Cycle of Accreditation. So, KMC is now A++ with 3.54 CGPA.

When I say KMC is A++, I want everyone not to forget that we have got this grade when we are yet to have a Girls' Hostel and the renovation of our Auditorium. You can imagine the growth of KMC in time to come when we will have both of them. I'm sure KMC will take a quantum leap in all India rankings. Further, we have also improved our NIRF taking from Top 20 to Top 10. At present, we are one of the best and premier institutions of the country which students wish to get admission in.

Amidst all this happiness, I further state that the Alumni Meet 2023 has also been a great success when we were able to enliven the feeling of nostalgia among all our Alumni after a long gap of 6 years after 2017. With a heavy heart, I remember the sudden departure of one of our most cherished Alumni, Shri Satish Kaushik Ji, who has been very supportive and active in bringing back the glory of Auditorium. But I can feel his energy every time which will be guiding us throughout and his dream project of the KMC Auditorium will be accomplished in near future. I also remember KK, one of the best playback singers KMC has ever produced and Hindi Cinema has ever known in its history.

Friends, nothing is impossible for a Kirorian. I know the KMC has produced the Best of the Best talents that are engaged in serving the Nation and the Globe around the world. It is a dream of every Kirorian which we are committed to fulfil that the KMC Auditorium after its renovation be inaugurated by our Mega Alumnus, Shri Amitabh Bachchan ji, who has always been supportive and expressed his cordial gesture to the College every time without fail.

With these words, let's celebrate our work, our commitment and our dedication to ourselves, our college and our society.

Jai Hind! Jai Bharata!

(Prof. Dinesh Khattar)
Principal

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Academic Awards

Academic Awards

Sr. No.	Name	Exam. Roll No.	CGPA	Course
UNDER-GRADUATE STUDENTS				
1	ANOUSHKA HOODA	19036510007	9.689	B.A.(H) Economics 3 rd Yr.
2	ABHIPSITO DAS	19036511003	7.959	B.A. (H) English 3 rd Yr.
3	BISTIRNA SAIKIA	19036513013	9.365	B.A.(H) Geography 3 rd yr.
4	UMESH KUMAR	19036516045	8.662	B.A.(H) Hindi 3 rd Yr.
5	DAKSH YADAV	19036518033	7.851	B.A. (H) History 3 rd Yr.
6	SAKSHI SEMWAL	19036527182	8.500	B.A.(H) Political Science 3 rd Yr.
7	ANJALI KAMAKSHI	19036529006	8.635	B.A. (H) Sanskrit 3 rd Yr.
8	ARSHI NAAZ	19036533018	8.068	B.A.(H) Urdu 3 rd Yr.
9	PADMA ANGMO	19036556026	9.257	B.Sc.(H) Botany 3 rd Yr.
10	TARNIJA MIDHA	19036557090	9.797	B.Sc. (H) Chemistry 3 rd Yr.
11	VIDHITA	19036563068	9.865	B.Sc. (H) Mathematics 3 rd Yr.
12	DIVYA	19036567042	9.486	B.Sc. (H) Physics 3 rd Yr.
13	TULIKA	19036568037	9.595	B.Sc. (H) Statistics 3 rd Yr.
14	JATIN PAL	19036569009	8.797	B.Sc.(H) Zoology 3 rd Yr.
15	PRACHI SHARMA	19036504058	9.216	B.Com. (H) 3 rd Yr.
16	DHRUV WADHWA	19036501050	8.364	B.A. (Prog.) 3 rd Yr.
17	AKSHITA SAGAR	19036503007	9.121	B. Com. (Prog.) 3 rd Yr.
18	SHUBHAM DAGUR	19036585027	9.318	B.Sc. (Prog.) Anal. Chemistry 3 rd Yr.
19	DOLAR	19036583007	9.621	B.Sc. (Prog.) Life Science 3 rd Yr.
20	BALKRISHAN MISHRA	19036582020	9.667	B.Sc. (Prog.) Physical Science (with Chem.) 3 rd Yr.
21	DEEPAK KUMAR SINGH	19036582104	9.455	B.Sc. (Prog.) Physical Science (with Comp. Sc.) 3 rd Yr.
POST-GRADUATE STUDENTS				
22	SUMIT SAGAR	20036745012	8.580	M.Sc. Botany Final Yr.
23	KUNIKA	20036746030	8.750	M.Sc. Chemistry Final Yr.
24	AGRIMA DUDEJA	20036758002	9.143	M.Sc. Mathematics Final Yr.
25	MANSI ARORA	20036761016	8.950	M.Sc. Operational Research Final Yr.
26	KM CHANCHAL	20036762024	7.950	M.Sc. Physics Final Yr.
27	SHILPA NANDI	20036766010	8.532	M.Sc. Zoology Final Yr.
28	JAHNAVI VAID	20036708008	7.446	M.A. English Final Yr.
29	SUDHIR	20036713024	7.500	M.A. Hindi Final Yr.
30	TANYA SINGH	20036716023	7.938	M.A. History Final Yr.
31	NITIN GUPTA	20036724029	7.300	M.A. Political Science Final Yr.
32	ATISH KUMAR ARYA	20036728009	8.744	M.A. Sanskrit Final Yr.
33	MOHAMMAD HATIM RAZA	20036732021	8.235	M.A. Urdu Final Yr.

Academic Awards

Dr. N S PRADHAN AWARD				
1	ABHIPSITO DAS	19036511003	7.959	B.A. (H) English 3 rd Yr.
2	UMESH KUMAR	19036516045	8.662	B.A.(H) Hindi 3 rd Yr.
3	ARSHI NAAZ	19036533018	8.068	B.A.(H) Urdu 3 rd Yr.
4	JAHNAVI VAID	20036708008	7.446	M.A. English Final Yr.
5	ANJALI KAMAKSHI	19036529006	8.635	B.A. (H) Sanskrit 3 rd Yr.
Dr. N SUBRAHMANYAM AWARD				
1	DIVYA	19036567042	9.486	B.Sc. (H) Physics 3 rd Yr.
2	KM CHANCHAL	20036762024	7.950	M.Sc. Physics Final Yr.
Sh. N. S. KHARE AWARD				
1	DIVYA	19036567042	9.486	B.Sc. (H) Physics 3 rd Yr.
Dr. Y N BHATT AWARD				
1	SHREYANSH ANKIT	21036511062	8.230	B.A.(H) English 1 st Yr.
Sh. JAI DEV AWARD				
1	JATIN PAL	19036569009	8.797	B.Sc.(H) Zoology 3 rd Yr.
Sh. GANGA SARAN AWARD				
1	AMAN FALOR	20036510005	9.250	B.A. (H) English 2 nd Yr.
SULTAN CHAND MEMORIAL AWARD				
1	KAVISH PRANAV SHAH	20036504068	9.570	B. Com. (H) 2 nd Yr.
SULTAN CHAND DROPADI DEVI MEMORIAL AWARD				
1	SANIA MALHOTRA	21036504129	9.00	B.Com. (H) 1 st Yr.
Sh. OM PRAKASH MEMORIAL AWARD				
1	DAKSH YADAV	19036518033	7.851	B.A. (H) History 3 rd Yr.
2	VANSHIKA PODDAR	20036518059	7.820	B.A.(H) History 2 nd Yr.
3	PREYA PAWAR	21036518037	7.770	B.A.(H) History 1 st Yr.
Prof. B B SARKAR MEMORIAL AWARD				
1	SAKSHI SEMWAL	19036527182	8.500	B.A.(H) Political Science 3 rd Yr.
2	SANYA AHUJA	20036527084	8.040	B.A.(H) Political Science 2 nd Yr.
3	ISHANI GARG	21036527041	8.320	B.A.(H) Political Science 1 st Yr.
Dr. B D SYNGLE MEMORIAL AWARD				
1	ABHIPSITO DAS	19036511003	7.959	B.A. (H) English 3 rd Yr.
2	AMAN FALOR	20036510005	9.250	B.A. (H) English 2 nd Yr.
3	SHREYANSH ANKIT	21036511062	8.230	B.A. (H) English 1 st Yr.
Dr. V P SHARMA MEMORIAL SCHOLARSHIP IN CHEMISTRY				
1	TARNIJA MIDHA	19036557090	9.797	B.Sc. (H) Chemistry 3 rd Yr.
2	RADHIKA SHARMA	20036557104	9.500	B.Sc. (H) Chemistry 2 nd Yr.
3	ISHITA	21036557028	9.320	B.Sc. (H) Chemistry 1 st Yr.

Academic Awards

Dr. V P SHARMA MEMORIAL SCHOLARSHIP IN MATHEMATICS				
1	VIDHITA	19036563068	9.865	B.Sc. (H) Mathematics 3 rd Yr.
2	DEEPAK YADAV	20036563031	9.710	B.Sc. (H) Mathematics 2 nd Yr.
3	HIMANSHU	21036563044	9.730	B.Sc. (H) Mathematics 1 st Yr.



Many luminaries who have benefited our society with their skills and expertise came from Kirori Mal College. The IIT-JAM MS and Indian Statistical Service exams were successfully passed by the following college students. In the annual report for 2023, the college is honoured to include them.

Sr. No.	Name	Course	Rank	Examination
1	DHRUV AGGARWAL	B.Sc. (Hons.) Statistics (2020-2023)	28	IIT-JAM MS
2	LAGAN GUPTA	B.Sc. (Hons.) Statistics (2020-2023)	43	IIT-JAM MS
3	Shreya Aggarwal	B.Sc. (Hons.) Statistics (2016-2019)	9	Indian Statistical Service



***ACADEMIC
CREDENTIALS***

(Faculty Members)



Prof. Dinesh Khattar (Principal)
Professor of Mathematics

Administrative Assignments:

- Member, Academic Council, University of Delhi.

Papers published:

1. Dinesh Khattar, Neha Agrawal, Mukul Sirohi, Dynamical Analysis of a 5D novel system based on Lorenz system and its hybrid projective synchronization using adaptive control, Pramana, Springer. (Accepted: December, 2022).
2. Dinesh Khattar, Neha Agrawal, Govind Singh, Triple compound combination synchronization of eleven n- dimensional chaotic systems, International Journal of Dynamics and Control, Springer. (Published Online: February, 2023).
3. Dinesh Khattar, Neha Agrawal, Govind Singh, Chaos synchronization of a new chaotic system having exponential term via adaptive and sliding mode control, Differential Equations and Dynamical Systems, Springer. (Published Online: March, 2023).

Books published:

1. Dinesh Khattar, Neha Agrawal, Group Theory, ISBN 978-93-90658-94-7, Ane Books Pvt. Ltd. (January, 2022).
2. Dinesh Khattar, Neha Agrawal, Ring Theory, ISBN 978-93-90658-48-0, Ane Books Pvt. Ltd. (May, 2022).
3. Dinesh Khattar, Abhishek Tandon, Neha Agrawal, Linear Algebra, ISBN: 978-93-94883-35-2, Ane Books Pvt. Ltd. (September, 2022).



Dr. Ajay Kumar (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Workshop on Arduino Programming (24th - 25th March 2023) at Department of Physics, Kirori Mal College, University of Delhi.
2. International Workshop on QCD with Electron Ion Collider (QEIC) (18th - 20th December 2022) at IIT Delhi.
3. Online Orientation Course: 01 (21st November - 20th December 2022) conducted by TLC, Ramanujan College, University of Delhi.
4. Online Refresher Course: 01 (27th October -11th November 2022) conducted by GAD-TLC and SGTB Khalsa College, University of Delhi.



Ms. Arti (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Coordinator in the conduct of Seminar on “Einstein and the Magic of Space Time” by Mr. Syed Umar Husain Naqvi, Jagiellonian University, Krakow, Poland organized by The Physics Seminar Society on May 06, 2022.

2. Coordinator in the conduct of Seminar on “Astronomy: Brief Answers to Big questions” organized by the KMC Physics Astronomy Club under Physics Seminar Society on 30th August 2022.
3. Coordinator in the conduct of Seminar on “Indian Science@75 years: Azadi Ka Amrit Mahotsav” organized by the Physics Seminar society on January 23, 2023 at 12:00 pm.
4. Educational visit to: National Physical Laboratory on 29/09/2022 with 30 students On the occasion of CSIR-NPL open day.



Dr. Biplob Barman (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/ Colleges/Institutes of Higher Education” from 20th January – 18th February, 2023.
2. Online Two - Week Refresher Course in “PHYSICS” from 27 February – 13 March, 2023.
3. Completed 2-days Workshop on Arduino Programming held on March 24th and 25th March 2023 organised by KMC Physics Robotics Club, Physics Department, Kirori Mal College.



Dr. Gyanendra Pandey (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Refresher course (two weeks) on SEC, organized by Delhi University in collaboration with GAD-TLC SGTB Khalsa college North campus”, sponsored by Ministry of Education, Pandit Madan Mohan Malviya National mission on Teachers and Teaching, from October 27, 2022 to November 11, 2022.
2. Induction program (one month) organized by Teaching Learning Centre Ramanujan College”, University, sponsored by Ministry of Human resource development, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching, from Nov 21, 2022 to 20 Dec, 2022.
3. Completed 2-Days Workshop on Arduino Programming held on March 24th and 25th March 2023 organised by KMC Physics Robotics Club, Physics Department, Kirori Mal College.



Dr. Ishpal (Assistant Professor)
Department of Physics

Papers published:

1. Hydrogen environment-assisted temperature-dependent space charge-limited current conduction in n-ZnO/p-Si⁺⁺ hetero-junction device,

- Ishpal Rawal, V Kumar, V Kumar, P Gautam, Journal of Materials Science: Materials in Electronics, 34 (2023) 463.
2. Dielectric characteristics of multiwall carbon nanotube-filled polyaniline, R Pal, SL Goyal, Ishpal Rawal, V Gupta, Materials Chemistry and Physics, 297 (2023), 127428.
 3. Fabrication of ZnMn_2O_4 spinel thin film devices for solar-blind ultraviolet photodetectors: Effect of Zn^{2+} concentration, S Agrohiya, S Dahiya, Ishpal Rawal, PK Goyal, A Ohlan, R Punia, AS Maan, Journal of Materials Science: Materials in Electronics, 34 (2023) 514.
 4. Self-powered solar-blind UV photodetectors based on Zn:NiO/p-Si heterojunction devices, Sunil Agrohiya, Ravinder Singh, Sajjan Dahiya, Ishpal Rawal, Anil Ohlan, R. Punia, A.S. Maan, Applied Physics A, 129 (2023) 233.
 5. Nickel doped zinc oxide thin films for visible blind ultraviolet photodetection applications, S Agrohiya, S Dahiya, PK Goyal, Ishpal Rawal, A Ohlan, R Punia, AS Maan, ECS Sensors Plus, 1(2022) 043601.
 6. Tailoring of EMI shielding properties of polyaniline with MWCNTs embedment in X-band (8.2–12.4 GHz), R Pal, SL Goyal, Ishpal Rawal, AK Gupta, Journal of Physics and Chemistry of Solids, 169 (2022) 110867.
 7. Structural characteristics and opto-electrical properties of in-situ synthesized polyaniline films, A Sharma, PK Goyal, Ishpal Rawal, A Rajpal, A Khokhar, V Kumar, S Dahiya, Optical Materials, 131 (2022) 112712.
 8. Highly sensitive and selective room temperature ammonia sensor based on polyaniline thin film: in situ dip-coating polymerization, A Sharma, Ishpal Rawal, A Rajpal, A Khokhar, V Kumar, PK Goyal, Journal of Materials Science: Materials in Electronics, 33 (2022) 14071.
 9. Fabrication of n-TiO₂/p-Si Photo-Diodes for Self-Powered Fast Ultraviolet Photodetectors, Sunil Agrohiya, Vipin Kumar, Ishpal Rawal, Sajjan Dahiya, Parveen K. Goyal, Vinod Kumar, Rajesh Punia, Silicon, 14 (2022) 11891.
 10. Selective methanol sensors based on polyaniline/V₂O₅ nanocomposites, R Pal, SL Goyal, Ishpal Rawal, Iranian Polymer Journal, 31 (2022) 519.
 11. Self-driven solar-blind ultraviolet photodetectors based on p-Zn_{1-x}Sb_xO/n-Si⁻ (x = 0.03, 0.05) heterojunction diodes, V Kumar, Ishpal Rawal, V Kumar, Journal of Materials Science: Materials in Electronics, 33 (2022) 920.
 12. Fabrication of n-ZnO/p-Si⁺⁺ Hetero-junction Devices for Hydrogen Detection: Effect of Annealing Temperature, V Kumar, Ishpal Rawal, V Kumar, Silicon, 14 (2022) 7711.

Professional Trainings/ Refresher Courses/ Workshops:

1. Educational visit to: National Physical Laboratory on 29/09/2022 with 30 students on the occasion of CSIR-NPL open day.
2. Faculty Development Program: One-Week Online National Faculty Development Program on “Python: Essentials, Programming and Analytics” jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education from October 27 to Nov. 3rd, 2022.

3. Online Refresher Course/Faculty Development Program: on “*Managing Online Classes and Co- Creating Moocs 21.0*” organized by the Teaching Learning Centre, Ramanujan College, University of Delhi under the Ministry of Education (erstwhile, Ministry of Human Resource Development), Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) In collaboration with Shri Guru Ram Rai University Dehradun, Uttarakhand from December 07-21, 2022.
4. Online Faculty Induction/Orientation Program: organized by Teaching Learning Centre (TLC), Ramanujan College, under the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from December 21, 2022 to January, 19, 2023
5. Faculty Development Program: on “Intellectual property rights” organized by the Teaching Learning Centre, Ramanujan College, University of Delhi under the Ministry of Education (erstwhile, Ministry of Human Resource Development), Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from January 23-29, 2023.



Dr. Kajal Jindal (Assistant Professor)
Department of Physics

Papers published:

1. “Fabrication of GaN-based MSM droplet triboelectric nanogenerator by the conjunction of Photovoltaic and Triboelectric effect”, Gunjan Yadav, Kajal Jindal, Monika Tomar, Journal of Alloys and Compounds, 944 (2023) 169178 (IF = 5.316).
2. “Determination of Chromium in Contaminated Water Samples Using Chemically Modified Nano-adsorbent: A Computational and Experimental Study”, Dr. Shelja Tiwari, Amit Lochab, Dr. Kajal Jindal, Prof. Reena Saxena, ChemistrySelect (2023) 8, e202203316 (IF=2.307).
3. “Theoretical insight of origin of Rashba–Dresselhaus effect in tetragonal and rhombohedral phases of BiFeO₃”, Tahir Ahmad, Kajal Jindal, Monika Tomar, Pradip K. Jha, Phys. Chem. Chem. Phys., (2023) 25, 5857-5868 (IF=3.676).
4. “Influence of pulsed laser deposited hafnium oxide thin film as gate dielectric on the fabrication of Al_{0.1}Ga_{0.9}N/GaN MOS-HEMT”, Gunjan Yadav, Kajal Jindal, Monika Tomar, Materials Science in Semiconductor Processing, 153 (2023) 107136 (IF=4.644).
5. “Microfluidics Integrated NiO based Electrolyte-Gated FET for detection of Cortisol”, Nidhi Dhull, Gurpreet Kaur, Kajal Jindal, Mallika Verma, Monika Tomar, Journal of Materials Chemistry B, (2022) 10(44):9226-9234 (IF=7.57).
6. “Influence of post deposition annealing on thermoelectric properties of In₂Se₃ thin films, Chanchal, Monika Tomar, Kajal Jindal, Anjali Sharma, Pradip K. Jha, Materials Science in Semiconductor Processing, 153 (2023) 107127 (IF=4.644).
7. “Role of coordination site in governing the structural, electronic and optical properties of Ca-doped strontium barium niobate”, Tahir Ahmad, Monika Tomar, Kajal Jindal, Pradip K. Jha, Physica Scripta, 97 (2022) 095814 (IF=3.081).
8. “Role of vacancies in tuning the electronic and magnetic properties of BiCoO₃”, Manisha Kumari, Kajal Jindal, Monika Tomar, Pradip K. Jha, Physica Scripta, 97 (2022) 075819 (IF=3.081).

Invited Talks/ Paper presented/ Session chaired in National/ International Conferences:

1. Invited talk on “Density Functional theory as a powerful computational tool to probe the properties of materials” in “2nd International Conference on “Advanced Functional Materials and Devices (AFMD-2023)” organized by Atma Ram Sanatan Dharma College, University of Delhi, from March 13-15, 2023.
2. Session Chair in “2nd International Conference on “Advanced Functional Materials and Devices (AFMD-2023)” organised by Department of Physics & IQAC, ARSD College, University of Delhi during 13 -15 March 2023.
3. Paper presentation: “Development of integrated uric acid biosensor based on Al:GaN/GaN MOS-HEMT for point-of-care diagnostics”, Kajal Jindal, Gunjan Yadav, Monika Tomar presented at “Recent advances in Nano Medical Sciences (RANMS-2022)” organized by Institute of Nano medical Sciences (INMS) and Institution of Eminence (IoE), University of Delhi from 22nd -23rd June 2022.

Professional Trainings/ Refresher Courses/ Workshops:

1. Coordinator in the conduct of “2-day Hands-on Workshop on Arduino Programming” organized by the KMC Physics Robotics Club, Department of Physics, Kirori Mal College, University of Delhi during 24th - 25th March, 2023.
2. Member of the organizing committee in the conduct of “Two Week Hands-on Training Workshop on Semiconductor Devices Fabrication” from 20 March– 03 April 2023 organized by Miranda House in association with Center for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Delhi School of Skill Enhancement and Entrepreneurship Development (DSSEED).
3. Online Inter-Disciplinary Two-Week Refresher Course On “Managing Online Classes & Co- creating MOOCS 21.0” from 07 - 21 December, 2022 organized by the Teaching Learning Centre, Ramanujan College University of Delhi in collaboration with Shri Guru Ram Rai University Dehradun, Uttarakhand under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.
4. Faculty Development Programme (FDP) on Incubation, Entrepreneurship And Innovation, 28th Nov. 2022 to 4th Dec. 2022 organized by the Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching in collaboration with Miranda House, University of Delhi.
5. 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/ Colleges/Institutes of Higher Education” from 20 January – 18 February, 2023 organized by Teaching Learning Centre Ramanujan College, University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.



Dr. Kavita Gupta (Assistant Professor)
Department of Mathematics

Papers published in Journals /Conference Proceedings:

1. Gupta, K., “Naïve Bayes Classifier Model for Predicting Admission in Master’s Program Based on Academic Grades”, accepted for publication in Conference Proceedings of 4th virtual International Conference path to a knowledge society-managing risks and innovation.

Papers presented:

1. Presented paper entitled “Naïve Bayes Classifier Model for Predicting Admission in Master’s Program Based on Academic Grades” in The 4th Virtual International Conference Path To A Knowledge Society-managing Risks And Innovation, December 08-09, 2022, Mathematical Institute Sanu.

Professional Trainings/ Refresher Courses/ Workshops:

1. Completed online two - week refresher course in “Mathematical Sciences” organized by Ramanujan College University of Delhi under the aegis of Ministry Of Education Pandit Madan Mohan Malaviya National Mission On Teachers And Teaching from 26th September- 10th October, 2022 and obtained grade A+.
2. Completed a 4-week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher education” from 21.12.2022 – 19.01.2023 organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry Of Education Pandit Madan Mohan Malaviya National Mission On Teachers And Teaching and obtained grade A+.
3. Completed online Inter-Disciplinary Two-Week Refresher Course on “Managing Online Classes & Co- creating MOOCS 23.0” from 07 - 21 February, 2023 organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry Of Education Pandit Madan Mohan Malaviya National Mission On Teachers And Teaching and obtained Grade A+.



Mr. Kirtee Kumar (Assistant Professor)
Department of Physics

Papers published:

1. Effect of electric and magnetic field on thermal property of two dimensional harmonic oscillator, M Arora, R Giri, Varsha, K Kumar,

C Yadav, B Vidhani, M Gambhir, V Prasad Results in Physics-2023.

Professional Trainings/ Refresher Courses/ Workshops:

1. Completed 15 days Online **National Refresher Course** on “Python: Essentials, Programming and Analytics & Visual Communication, Photography, Graphic Design & Animation and Digital Film Production” jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education, during 27th October – 11th November, 2022.
2. Completed a **4-Week Faculty Induction/Orientation Programme** for “Faculty in Universities/Colleges/Institutes of Higher Education” jointly organized by University of Delhi and Teaching Learning Centre, Ramanujan College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education, during 21st November – 20th December, 2022 and obtained Grade A+.



Dr. Leena Shakya (Assistant Professor)
Department of Botany

Papers published:

1. Singh, D.; Dhiman, S.K.; Kumar, V.; Babu, R.; Shree, K.; Priyadarshani, A.; Singh, A.; Shakya, L.; Nautiyal, A.; Saluja, S. Crop Residue Burning and Its Relationship between Health, Agriculture Value Addition, and Regional Finance. *Atmosphere* 2022, 13, 1405. <https://doi.org/10.3390/atmos13091405>
2. Sachin; Raj, Rohit ; Dhiman, Srishti ; Shakya, Leena Nanotechnological interventions in sustainable agriculture *IJBB* Vol. 59 (12) [December 2022] <https://DOI: 10.56042/ijbb.v59i12.67308>

Professional Trainings/ Refresher Courses/ Workshops:

1. Participated in Course Workshop on “Science and Society” organised by Value Addition Courses Committee (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi on 20th October, 2022.
2. Workshop Convenor in One day National Workshop in Hybrid Mode on Hydroponics-Smart Urban Farming On 11th March 2023 in Kirori Mal College, University of Delhi (Under the aegis of DBT Star Status Scheme) In collaboration with Indian Agricultural Research Institute, New Delhi.
3. Participated in the webinar on "Legal Framework of Disaster Management in India" organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India on 25 Nov 2022.
4. Attended the workshop on Discrimination against Women Pakhwada organized by ICC in collaboration with IQAC, Kirori Mal College, University of Delhi.
5. Attended the Webinar on Mushroom: Nutraceuticals Capsule, Organised by Medini-The Botanical Society of Kirori Mal College on the occasion of "Poshan Maah".
6. Online One-week Faculty Development Programme on National Education Policy 2020 from Feb. 1, 2023 - Feb. 7, 2023 conducted by Teaching Learning Centre, Ramanujan College, under the aegis of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Ministry of Education.
7. Completed 2nd Certificate course in hybrid mode on Nano biotechnology (NBT (2)-2022) From 20th July (Wednesday), 2022 organized by Kirori Mal College & Institute of Nano medical Sciences (INMS) University of Delhi.
8. Completed Online Refresher Course in Botany (18th February 2023 to 4th March 2023), conducted by Teaching Learning Centre, Ramanujan College, under the aegis of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Ministry of Education.



Dr. Manisha Tyagi (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Participated in an Online Inter-Disciplinary Two-Week Refresher Course on “Managing Online Classes & Co-creating MOOCS 21.0”

organized by the Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with Shri Guru Ram Rai University Dehradun, Uttarakhand under the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers, and Teaching from 07th Dec 2022 – 21st Dec 2022.

2. Participated in a 4-Week Induction/Orientation Program for “Faculty in Universities/Colleges/Institutes of Higher Education” organized by the Teaching Learning Centre, Ramanujan College, University of Delhi under the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers, and Teaching from 21st Dec 2022 – 19th Jan 2023.
3. Participated in an Online Two-week Refresher Course in “PHYSICS” organized by the Teaching Learning Centre, Ramanujan College, University of Delhi under the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers, and Teaching from 27th Feb 2023 – 13th Mar 2023.
4. Completed 2-Days Workshop on Arduino Programming held on March 24th and 25th March 2023 organised by KMC Physics Robotics Club, Physics Department, Kirori Mal College.



Dr. Mujeeb Ahmad Khan (Assistant Professor)
Department of Urdu

Papers published:

1. Allama Iqbal: Hayat aur Fikr-o-Fun ki Asas, July to September 2022, Page No. 89-100, Published by Javed Anwar, Mahaveer Press, Varanasi (UP) 221103. Tahreek-e-Adab (Quarterly Magazine), Issue-58, Vol-15, UGC Care Listed, Peer Reviewed Journal, Referred Literary and Research Journal, Website: www.tahreekeadab.com , email: tahreekeadab2008@gmail.com, ISSN: 2322-0341.
2. Ghalib aur Unka Fun, January to March 2023, Page No. 268-280, Published by Javed Anwar, Mahaveer Press, Varanasi (UP) 221103, Tahreek-e-Adab (Quarterly Magazine), Issue- 61, Vol-16, UGC Care Listed, Peer Reviewed Journal, Referred Literary and Research Journal, Website: www.tahreekeadab.com , email: tahreekeadab2008@gmail.com, ISSN: 2322-0341.

Professional Trainings/ Refresher Courses/ Workshops:

1. One week FDP on “Indian Ethics and Human Values” organized by UGC – Human Resource Development Centre, Jamia Millia Islamia, New Delhi – 110025, from 2nd January to 7th January 2023.



Dr. Nirmal Kumar (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Online Faculty Induction/Orientation Program: organized by Teaching Learning Centre (TLC), Ramanujan College, under the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) from December 21, 2022 to January, 19, 2023.



Mr. Pankaj Bharti (Assistant Professor)
Department of English

Paper presented:

1. "Using Science Fiction Prototyping to Improve Cognitive and Problem-solving Skills in Indian Students" at ICON-BITS 23, an international conference on Best Innovative Teaching Strategies, organized at BITS Pilani, Pilani campus, from 9 to 11th February, 2023.



Dr. Prachi Yadav (Assistant Professor)
Department of Physics

Poster presented:

1. Poster presentation in International Conference, Advanced Functional Material & Device organised by ARSD college, University of Delhi, 13th - 15th March 2023.

Professional Trainings/ Refresher Courses/ Workshops:

1. Online Faculty Induction/Orientation Program organized by Teaching Learning Centre, Ramanujan college university of Delhi in collaboration with Women's college, Tinsukia from 20 October-18 November 2022.
2. Refresher course organized by Teaching Learning Centre, Ramanujan college university of Delhi in collaboration with Shri Guru Ram Rai University Dehradun, Uttarakhand from 7- 21 December, 2022.
3. Participated in workshop on Arduino Programming on 24-25 march, 2023 organized by KMC Physics Robotics club, Department of physics, Kirori Mal College.



Dr. Pranav Kumar (Assistant Professor)
Department of Physics

Papers published:

1. Theoretical analysis of relativistic energy corrections, partition function and thermodynamic properties of spherically confined hydrogen atom, Rachna Joshi, Arun Goyal, Pranav Kumar & Man Mohan, The European Physical Journal D volume 76, Article number: 149 (2022), <https://doi.org/10.1140/epjd/s10053-022-00484-6> E-ISSN: 1434-6079.
2. Above Threshold Ionization spectra for Debye plasma embedded atom interacting with femtosecond laser pulse, Rachna Joshi, Pranav Kumar, Alok Kumar Singh Jha & Man Mohan, 2023, Published online on 31st March 2023. <https://doi.org/10.1080/00387010.2023.2194366>

Professional Trainings/ Refresher Courses/ Workshops:

1. Teacher Coordinator to conduct a webinar on "INSTRUMENTS IN INDIAN ASTRONOMICAL TEXTS" by Dr. B.S. Shyalja, Director, JLN Planetarium, Bangluru, on the day of Equinox 21st March 2023 organised by KMC Physics Astronomy Club, Department of Physics, Kirori Mal College, University of Delhi
2. Teacher Coordinator to conduct a Seminar on "Astronomy: Brief Answers to Big Questions", 30th August 2022, organised by KMC Physics Astronomy Club, Department of Physics, Kirori Mal College, University of Delhi.

3. Short course on 'Fundamentals of Astronomy Using Stellarium' 8th to 26th August 2022, TLC, IUCAA.
4. Online Inter-Disciplinary Two-Week Refresher Course On "Managing Online Classes & Co-creating MOOCS 21.0" from 07 - 21 December, 2022 organized by the Teaching Learning Centre, Ramanujan College University of Delhi in collaboration with Shri Guru Ram Rai University Dehradun, Uttarakhand under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.
5. 4-Week Faculty Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" from 20 January – 18 February, 2023 organized by Teaching Learning Centre Ramanujan College, University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.
6. Online Two - Week Refresher Course in "PHYSICS" from 27 February – 13 March, 2023 organized by the Teaching Learning Centre, Ramanujan College, University of Delhi under the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers, and Teaching.
7. Completed 2-Days Workshop on Arduino Programming held on March 24th and 25th March 2023 organised by KMC Physics Robotics Club, Physics Department, Kirori Mal College.



Dr. Praveen Kumar Anshuman (Associate Professor)
Department of English

Books published:

1. Shabd-Dasrhan, Diamond Publication, New Delhi. ISBN: 978-93-5529-267-4
2. Main Kavi-Hriday Hoon, Kavi Nahin. Authorspress, New Delhi. ISBN: 978-93-5584-044-7

Publications in Magazine:

1. A film review titled "दृश्यम 2 मात्र एक फिल्म नहीं है" published in Purvai e-magazine from London. Link of the article – <https://www.thepurvai.com/an-article-on-drishyam-2-by-dr-pravin-kumar-anshuman/>
2. A film review titled "रूमनियत के एहसास से ज्यादा रात की दहशतगर्दी बयाँ करती है सिद्धांत गुप्ता अभिनीत फिल्म 'ऑपरेशन रोमियो'" published in Purvai e-magazine from London. Link of the article – <https://www.thepurvai.com/operation-romeo-movie-review/>
3. An article titled "सतीश कौशिक देहमुक्त हैं, चेतनामुक्त नहीं" published in Purvai e-magazine from London. Link of the article – <https://www.thepurvai.com/special-story-on-legendary-actor-director-late-satish-kaushik/>

Other Publications:

1. A 160 line poem titled "Women Today" published in a major research project Woman Atlas of India: Science & Technology Perspective by Seema Mehra Parihar in collaboration with Govt. of India.
2. Five Poems titled – 'बेहोशी के आगोश में', 'दबे पाँव आकर भी', 'ज़िन्दगी का कतरा-कतरा', 'हर क्षण का इतिहास', और 'बेहोश जीवन का प्रतीक' – published in an anthology of "दबे पाँव" edited by Sona Saharavat and Pragya Bajpai. ISBN: 978-9355-04-1500.

3. A Poem on Elizabeth published in The Queen anthology of poems The Poet, Uniting the World through Poetry: <https://www.facebook.com/Poetryforthequeen/>
4. Publication of my shot stories in *Man Ki Laghukatha*, e-magazine, by Mera Panna: बात ही गलत है “कि कुछ भी असम्भव नहीं इस दुनियाँ में” - चतुर्थ अंक, 2022
5. Poems published in Brahmand: Voices of the Cosmos, e-magazine for creative writing (A Literary Warrior Group Initiative) Volume 2, Issue 2:
 - a) ‘Fate of Female Foetus’
 - b) ‘Bimb Kaa Pratibimb’
6. Poem titled ‘Palpably, Sea affects’, published in an edited anthology of ‘Soul Serenade: Sea Songs for the Soul’, Rhyvers ONE, New Delhi, ISBN: 9789392014369.

Honours:

1. Selected among 100 writers for History TV18 out of the competition conducted by #Kalakar.
2. Name included in the Harvard World Record 2022 for having written highest number of Shayaris in a day as 207, in a month as 1990 and in a span of two years 16716 along with a record of 100 poem written in Hindi in a day on 7th May 2021.
3. Honoured with the BEST ILLUSTRATOR AWARD Q2, 2022 by Ukiyoto on my book “शब्द-संवाद: ‘अविचारों’ की अविरल धारा”.
4. Enlisted as one of the poets in the list of the biggest online platform of कविता कोश.
5. Awarded with Best Professor of the Year by Indian Shiksha Awards 2022 of Education Sensations.

Research Associateship: Indian Institute of Advanced Study, Summer Hill, Shimla

Serial Number	Tenure	Spell
2022-23		
1.	October 2022	Three

Papers presented:

1. Presented a Paper on ‘Ambedkar’s Idea of India: Whether United or Partitioned?’ in a Two Day National Seminar on ‘Partiton of Indian and Dr. Ambedkar: Context, Causes, Consequences of the Partition and Challenges for Contemporary India’ organized by Dr. Ambedkar International Centre, 15, Janpath, New Delhi on 22-23 February, 2023.
2. Presented a Paper on ‘Bharata, the Only Hope for the World: The Role of Vishwa-Guru in the Vishwavidyalaya’ in a Two Day National Seminar on ‘India’s Future and Higher Education’, organized by Hansraj College, University of Delhi and organized at Vigyan Bhawan on 23-24 March, 2023.

Extracurricular Activities:

1. Invited as a Guest in the talk-show of Archana Jain, “Baaten Archana Ki” on 11.12.2022 at 11.00 am LIVE on Facebook – <https://fb.watch/hlcaoFcV8S/>
2. Kavya Paath at Kavya Manjusha FB Page on the occasion of Mother’s Day on 07.05.2022 at 09.00 pm – <https://fb.watch/el2lxUM-aX/>
3. Online Poetry Café at Mera Panna FB Page Season 1, Episode 4 on 31.05.2022 at 08.00 pm – <https://fb.watch/dKAZjoCOOo/>
4. Kavya Goshthi – 58 at Neelam Sexena FB Page on 03.06.2022 at 09.00 pm – <https://fb.watch/dKBLYxILPK/>

5. Poetry Recitation at Sahityoday-Antarrashtriya Sahitya Kala Sanskriti Nyas FB Page on 08.06.2022 at 09.00 – <https://www.facebook.com/groups/sahityoday/permalink/1186772225511413/>
6. Kavya Paath on the theme of Aayaa Chaand Zameen Par at Kavya Manjusha FB Page on 022.06.2022 at 09.00 pm – <https://fb.watch/eI2J03HJf/>
7. Geet Tumhaare, Bol Hamare at Kavya Manjusha FB Page on 06.07.2022 at 09.00 pm – <https://fb.watch/e5rZVXVUW0/>
8. Kavya Paath and Anchoring in the 63rd Kavya Goshti on Neelam Saxena FB Page on 29.07.2022 at 09.00 pm – <https://fb.watch/eEuVd6jUvQ/>
9. Kavya Paath at Neelam Saxena FB Page on 19.08.2022 at 09.00 pm – <https://fb.watch/f8rEB9cFi7/>
10. Ekal Kavya Paath at Neelam Saxena FB Page on 28.08.2022 at 07.00 pm – <https://fb.watch/fbbVr6pXrZ/>
11. Kavya Paath at Neelam Saxena FB Page on 02.09.2022 at 09.00 pm – <https://fb.watch/fhXriIDXdQ/>
12. Kavya Paath at Priyanshu Saxena's FB Page Mera Panna on 14.09.2022 at 08.00 pm – <https://fb.watch/v/6h9AYNEKc/>
13. Kavya Paath at Neelam Saxena FB Page on 25.11.2022 at 09.00 pm – <https://fb.watch/h8iMfEmxS8/>
14. Kavya Paath at Priyanshu Saxena's FB Page Mera Panna on 29.11.2022 at 08.00 pm – <https://fb.watch/h5SvvhzKlZj/>
15. Kavya Paath (Dil Ke Alfaaz) at Deepti Saxena's FB Page Kavyadeep on 10.12.2022 at 08.30 pm – <https://fb.watch/hkoLYMc--z/>
16. Kavya Paath – 80 at Neelam Saxena FB Page on 30.12.2022 at 09.00 pm – <https://fb.watch/hKP-QbAj7g/>
17. Kavya Paath at Deepti Saxena's FB Page Kavyadeep on 01.01.2023 at 09.00 pm – https://fb.watch/hNuTJ7ZO_9/
18. Kavya Paath at Deepti Saxena's FB Page Kavyadeep on 08.03.2023 at 08.00 pm – <https://fb.watch/juOBRhGmN6/>

Invited lectures:

1.	International Conference on "Teaching and Learning English Language and Literature in the 21 st Century: Preparing Learners for a Global Citizenship"	Christ Academy Institute for Advanced Studies, Bengaluru	14.07.2022	Chairperson
2.	Lecture on Hindi Divas – "Hindi Bhasha Mein Vahya Shabdavalayon Ke Shabdon Ka Prayog Evam Iska Samkaleen Swaroop"	Shaheed Rajguru College for Women, DU	14.09.2022	Guest Speaker
3.	Lecture on Hindi Divas – "Hindi Hai Bharat Ki Bindi"	Mera Panna Official FB Page	14.09.2022	Guest Speaker

4.	Lecture on “Choiceless Awareness: The Way of J. Krishnamurti”	S.B.N. Govt. P.G. College Barwani, Madhya Pradesh	03.12.2022	Guest Speaker
5.	Lecture on “Creative and Critical Thinking”	Department of English Language & Literature, Govt. Degree College Tral, Kashmir	13.12.2022	Resource Person
6.	Lecture on “What is Classical in Indian Classics?”	Department of English, Rajdhani College, University of Delhi	29.03.2023	Resource Person



Dr. Prikshit Gautam (Assistant Professor)
Department of Physics

Paper published:

1. Hydrogen environment-assisted temperature-dependent space charge-limited current conduction in n-ZnO/p-Si⁺⁺ hetero-junction device,

Ishpal Rawal, V Kumar, V Kumar, P Gautam, Journal of Materials Science: Materials in Electronics, 34 (2023) 463.

Professional Trainings/ Refresher Courses/ Workshops:

1. Educational visit to: National Physical Laboratory on 29/09/2022 with 30 students On the occasion of CSIR-NPL open day.
2. Two day Workshop on *Arduino programming* organized by KMC Physics Robotics Club, from 24-25 March 2023.
3. Online Faculty Induction/Orientation Program: organized by Teaching Learning Centre (TLC), Ramanujan College, under the Ministry of Education, Pandit Madan Mohan Malviya National Mission on Teachers, and Teaching (PMMMNTT) from December 21, 2022 to January, 19, 2023.
4. Two Week Online Refresher Course on "FDP-102 Python: Essentials, Programming and Analytics" and "FDP-106 -Big Data Analytics" organized by the University of Delhi in collaboration with GAD-TLC of the Ministry of Education. National Online FDPs organized by University of Delhi in collaboration with GAD-TLC, a Centre under PMMMNTT, Ministry of Education, Government of India held from 27 October to 11 November 2022.



Dr. Pushendra Kumar (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/ Colleges/Institutes of Higher Education” from 20 January – 18 February, 2023.

2. Online Two - Week Refresher Course in "PHYSICS" from 27 February – 13 March, 2023.
3. Completed 2-days Workshop on Arduino Programming held on March 24th and 25th March 2023 organised by KMC Physics Robotics Club, Physics Department, Kirori Mal College.



Prof. Rakesh Kumar Pandey (Professor)
Department of Physics

Invited Talks/ Paper presented/ Session chaired in National/ International Conferences:

1. Participated virtually in an international conference: The 2nd World Conference on Sustainability, Energy and Environment and presented a paper virtually in a hybrid mode by www.steconf.org in Berlin, Germany on 9-11 December. Paper Title: "Sustainable World: Protection of Emotional Resources".
2. Chaired a session in an international conference: International Conference on Advances in IoT, Security with AI (ICAISA-2023) Approved by Springer for LNNS series in Deen Dayal Upadhyay College, Delhi on 24-25 March 2023.
3. Presented a paper in an international conference: International Conference on Advances in IoT, Security with AI (ICAISA-2023) Approved by Springer for LNNS series in Deen Dayal Upadhyay College, Delhi on 24-25 March 2023. Paper Title: "Entropic Analysis of Reservation Policy of Government of India".

Professional Trainings/ Refresher Courses/ Workshops:

1. Coordinator in the conduct of "2-day Hands-on Workshop on Arduino Programming" organized by the KMC Physics Robotics Club, Department of Physics, Kirori Mal College, University of Delhi during 24th - 25th March, 2023.



Dr. Raksha Sharma (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Awarded the certificate of excellence for planning and organizing the annual training camp of NCC.
2. Successfully completed the refresher course from 30 January to 18 February 2023 at officers training academy gwalior leading to the promotion from lieutenant to the captain rank.



Ms. Rashmi Meena (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Orientation program-"Faculty in Universities/Colleges/Institute of Higher Education" conducted by Teaching Learning Centre, Ramanujan College, University of Delhi for period 20 October, 2022 to 18 November, 2022.
2. Refresher Course- "Managing online classes & co-creating MOOCS 21.0" conducted by Teaching Learning Centre, Ramanujan College, University of Delhi for period from 07th December, 2022 to 21 December, 2022.



Prof. Renu Kathpalia (Professor)
Department of Botany

Papers published:

1. Kathpalia R, Biswas L, Bhardwaj K, Kapinder and Verma AK. 2022. Evaluation of cytotoxic and genotoxic effects of Butyl Hydroxylated Anisole (BHA) on somatic cells of *Allium cepa* L. Biospectra 17(1):135-140 (ISSN:0973-7057)
2. Kaur I and Kathpalia R 2022. Want To Assist Soils – Just Mulch. International Journal of Creative Research Thoughts 10 (8):
3. Kathpalia R, Kaur I and Kaur P. 2022. Hydroponics-Changing Plantation Zones. International Journal of Multidisciplinary Educational Research 11(6): 29-33.ISSN2277-7881.
4. Kathpalia R, Bhardwaj K, Biswas L and Verma AK. 2022. Cyto-Genotoxic Evaluation of Frequently Added Food Preservatives on the Root Meristem Cells of *Allium cepa*. International Journal of Current Science Research and Review 5 (10):3812-3817.
5. Kathpalia R 2022. Phytomedicinal Potential of “*Dimocarpus Longan* Lour.” as an Essential Nutraceutical. International Journal of Current Science Research and Review 05 (11): 4226-42231
6. Bharadwaj K, Jha BS, Kathpalia R. 2022. Biofabrication and optimization of silver nanoparticles using *Campsis sp.* to explore their antimicrobial properties. Indian Journal of Biochemistry & Biophysics 59:
7. Rajpal VR , Singh A, Kathpalia R , Thakur Rk , Khan MK , Pandey A, Hamurcu A and Raina SN 2023. The Prospects of gene introgression from crop wild relatives into cultivated lentil for climate change mitigation. Front. Plant Sci., Sec. Technical Advances in Plant Science Volume 14

Professional Trainings/ Refresher Courses/ Workshops:

1. Participated Two-day National conference on “Sustainable Environmental Perspectives: A journey from Ancient India” organized by Deen Dayal Upadhyaya College in collaboration with Prayavaran Gatividhi on 5-6th June, 2022.
2. Attended webinar on “Nanotechnology in Natural Food Colors” organised by DBT-TDNBC- Deakin “Research Network Across Continents for Learning and Innovation” (DTD-RNA) TERI on October 20, 2022.
3. **Co-Coordinator** Certificate course in hybrid mode on **Nanobiotechnology** (January - April 2022).
4. **Co-Coordinator** 2nd Certificate course in hybrid mode on **Nanobiotechnology** organized by Kirori Mal College in collaboration with Institute of Nanomedical Sciences (INMS), July –October 2022.
5. **Botany Coordinator, DBT Star Status** 2023. The following activities were organized under the aegis of DBT Star Status.
 - Organized online “Gender Sensitization” Survey” <https://forms.gle/kmPeXSfZAqmeJciVA> on 20th November 2022
 - Convenor for the workshop on “Sustainable Urban Gardening” organised on the occasion of World environment day on 6th June 2022
 - Conducted a Science workshop for the school students on 8th December, 2022

- A National Workshop on “**Hydroponics-Smart Urban Farming**” in hybrid mode was organized under the aegis of DBT Star Status on 11th March 2023.

Awards:

1. Received “Distinguished Alumnus Award” on 61st Annual Day of Shivaji College, University of Delhi on 27th April 2022



Dr. Sangeeta D. Gadre (Associate Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Coordinator in the conduct of Workshop on Arduino Programming-Level 01 organized by Department of Physics under the aegis of DBT star college scheme in collaboration with Physics Seminar society on June 28-29, 2022.
2. Coordinator in organizing seminar on “Formation of Structures in the Universe” by Dr. Sampurn Anand, Central University of Tamil Nadu, India by the Department of Physics under the aegis of DBT star college scheme in collaboration with Physics Seminar society on June 30, 2022.



Prof. Seema Mehra Parihar (Professor)
Department of Geography

Professor Seema Mehra Parihar contributed significantly to academics in 2022- 2023. First and foremost is her being accorded a “Fellow” at the Delhi School of Public Health (DSPH), Institute of Eminence (IoE), University of Delhi (DU) on 01 June 2022 based on her contributions in academics over the years. Also, what is essential to be mentioned here is the “Exit meeting” during the recent NAAC visit in December 2022, where all three experts said two Unique Academic activities with extensive outreach that they observed in the college and one of them was the contribution of the project "Women Empowerment Atlas of India: Science & Technology Perspective" where Professor Parihar is a Principal Investigator and the project sanctioned by Department of Science & Technology, GoI. In addition, she is also a Visiting Scholar at Le Havre University, Normandie, France, for the fourth consecutive year in 2023.

Dr Parihar is also engaged with three Research Projects one entitled, 'Mapping Good Practices of Institutions for Supporting Redressal of Violence Against Women in India' sanctioned by the World Health Organisation and the second entitled "WEB GIS-based Women's Health Atlas of India: Public Health Perspective" approved by Delhi School of Public Health, Institute of Eminence, University of Delhi. Her third project, “Women Empowerment Atlas of India: Science and Technology Perspective”, sanctioned by SEED Division, Department of Science & Technology, till now had four deliverables with “Atlas” and “Movie” duly launched by the Honourable Minister of Science and Technology, Shri Jitendra Prasad Jee. Geospatial experts launched ten thematic booklets and a dashboard later during the UN conference. All these documents add value to the missing gaps of the gender-disaggregated data and promise to empower women and society and contribute towards SDG 5.

In addition, presently, Dr Parihar is also a Programme Coordinator of a ‘Capacity Building

Programme Creating Healers in Public Health in Higher Education (CBP-HHH:2023.-2025)' approved by Delhi School of Public Health, Institute of Eminence, University of Delhi. The first programme under this banner "Enabling Youth to Address Suicide Prevention" was held at Kirori Mal College, University of Delhi on February 7, 2023. She also got three papers published in three journals during 2022-2023. They include "International Sustainability Indices", jointly hosted by Eren, G. Sirin and Parihar, S. M. (2022), " in Geographies, Planning & Tourism Studios-2022, 2(1): 46-57, <https://doi.org/10.5505/gpts.2022.43043>; "Landuse Dynamics and Impact on Regional Climate Post-Tehri Dam in the Bhilangana Basin, Garhwal Himalayas" jointly published by Parihar, SM et al., (2022), in the journal Sustainability, Vol.14, Issue 16,10221 and "The Idea of Geospatial-Gender-Based Data Infrastructure for Protecting Women Living in Post Covid-19 Created Global Village" jointly published by Parihar, SM et al., (2022), in the journal, Advances in Social Sciences Research Journal – Vol. 9, No. 10 DOI:10.14738/assrj.910.13232.

Professor Parihar has also been a speaker at 17 plus national and international programs and panel discussions on gender, women, health and various geospatial themes, tool, and related technologies in 2022-2023. Currently, Professor Parihar is also a National Trainer under *Rashtriya Kishor Swasthya Karyakram (RKSK)*, Ministry of Health and Family Welfare, GoI, facilitated with the support of the UNFPA and its technical partner Plan India for State Master Trainers Welfare targeted for State Master Trainers (Medical Officers) located in different parts of India. (Participants States- Meghalaya, Tripura, Gujarat, Bihar, Punjab, Andaman & Nicobar, Daman & Diu, Jammu & Kashmir in October 2022 & (Participants States- DNH, Meghalaya, Nagaland, AP, Kerala, Karnataka, Jharkhand, Assam, Telangana and West Bengal in November 2022) Her theme of the presentation is , "*Prevention of Injuries and Violence*". To name a few selected exhibitions include a presentation at UGI - IGU , Paris, in July 2022 on "*Emerging New Ideas in Validating Gender Disaggregated Data in the Making of the Women Empowerment Atlas of India during Pandemic (2020-2022): Strengthening GI Sciences*" and "*Mapping Healers of Spaces of Women's Trauma: Geographical Insights from VAWG Redressal Institutions of India 2017-2022*". As an Invited speaker, she talked about "*Women Empowerment Atlas-Focus Livelihood Opportunities and Health Sector*" at the National level stakeholders Meeting for the study of Women Technology Parks (WTPs) for the Integrated Development of Rural Women across the country on 12 July 2022 in a programme organized by Vigyan Prasar, Department of Science and Technology, Government of India at India International Centre, New Delhi and on "*Agricultural Resource Information System & Micro Level Planning for enhancing Farm Health -Key to achieving the DFI by 2022 Agenda put forth*" in a 93rd Edition of national Webinar Series on Doubling Farmers' Income by 2022 organized by Centre for Agricultural Informatics and e-Governance Research Studies (CAIRS) and Center for Agribusiness and Disaster Management Studies (CADMS), Shobhit Institute of Engineering and Technology, India in September 2022. Professor Parihar presented an invited talk on "*Contextualising Health and Women Empowerment: Sharing Challenges and Usefulness in Geospatial Visualisation of 300+ gender-disaggregated data in the making of three Atlases*" (Invited Presentation presenting to Addl—Chief Secretary Planning & Development, Government of Tamil Nadu, (25 November 2022). In November 2022, the Keynote Address "*Geographers' Perspective of Five P was IN 2022: An Integrated Lens*" at the thematic International Geographical Union (IGU-2022) Congress at Mahender Garh, Haryana. In October 2022, Dr Parihar also presented a paper during the Second United Nations

World Geospatial Information Congress in a session called TP10A – “*Celebrating diversity in geospatial information management*” at Hyderabad, India. On 15 March 2023, Professor Parihar gave a talk on “*Push in Higher Education Institutions 2023: Insights & Reality Checks*” in a “Gender Sensitisation Programme organized by ICC in collaboration with IQAC at Kirori Mal College.

Professor Parihar was also invited to be a Jury member at National and International Programmes during 2022-2023. One such programme was “*Geo Enabling the global village with Generation Z and Alpha*”, held on Monday, 10 October 2022, during the Second United Nations World Geospatial Information Congress (UNWGIC 2022), where students showcased the “spatial thinking” of Generation Alpha in localizing the SDGs. In addition, Professor Seema Mehra Parihar was also invited to be one of the three Jury Members of “FICCI National Geospatial Awards 2022”, which aimed to recognize and felicitate some of the path-breaking initiatives towards geo-enablement of the nation. The final ceremony was held on 27 March 2023 where awards were bestowed in five categories. In addition, Professor Parihar is a Steering Committee Member of five International Conferences and an Organising Committee Member of three National Level Programmes.



Dr. Shashwat Malhotra (Assistant Professor)
Department of Chemistry

Papers published:

1. Monoclonal antibodies in breast cancer: a critical appraisal.

Akanksha Behl, Zahoor A. Wani, Nagendra Nath Das, Virinder S. Parmar, Christophe Len, Shashwat Malhotra,* and Anil K. Chhillar*. *Critical reviews in Oncology/hematology*, 2023, 183, 103915 (Elsevier, Impact factor: 6.6) ISSN: 10408428.

2. Biodegradable PEG-PCL Nanoparticles for Co-delivery of MUC1 Inhibitor and Doxorubicin for the Confinement of Triple-Negative Breast Cancer. Akanksha Behl, Subhash Solanki, Shravan K. Paswan, Tirtha K. Datta, Adesh K. Saini, Reena V. Saini, Virinder S. Parmar, Vijay Kumar Thakur, Shashwat Malhotra*, Anil K. Chhillar*. *Journal of Polymers and the Environment*, 2023, 31, 999–1018 (Springer, Impact factor: 4.7) ISSN:15728900.

Professional Trainings/ Refresher Courses/ Workshops:

1. Participated in International Conference on “Contributions of Acharya Prafulla Chandra Ray as a Chemist and Freedom Fighter” held on 02nd and 03rd August, 2022, organized by the “Department of Chemistry, University of Delhi, Delhi”.



Dr. Shikha Jain (Assistant Professor)
Department of Computer Science

Papers published:

1. Shikha Jain, Navneet Kaur, Sahil Verma, Kavita, A. S. M. Sanwar Hosen, and Satbir S Sehgal. "Use of Machine Learning in Air Pollution Research: A Bibliographic Perspective" *Electronics* 11, no. 21: 3621. <https://doi.org/10.3390/electronics11213621>, 2022.

Professional Trainings/ Refresher Courses/ Workshops:

1. Participated in the 5-days Face to Face Training Programme on ‘Disaster Risk Reduction Measures For Urban Resilience’ from 14th to 18th November, 2022 at Kirori Mal College, University of Delhi.
2. Successfully completed a 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” from 20 February – 21 March, 2023.



Dr. Shyam (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Completed a 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” from 20 October – 18 November, 2022, organized by Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with Women’s College, Tinsukia under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on teachers and Teaching.



Dr. Siddhartha Lahon (Assistant Professor)
Department of Physics

Papers published:

1. T Study of third harmonic generation in $\text{In}_x\text{Ga}_{1-x}\text{As}$ semi-parabolic 2-D quantum dot under the influence of Rashba spin-orbit interactions (SOI): Role of magnetic field, confining potential, temperature & hydrostatic pressure. S. Dahiya, Siddhartha Lahon, Rinku Sharma, Physica E: Low dimensional System and Nanostructures, 147, 115620 (2023).



Dr. Sunita Singh (Assistant Professor)
Department of Physics

Professional Trainings/ Refresher Courses/ Workshops:

1. Refresher Course: Attended from 26 October - 11 November 2022, organised by University of Delhi in collaboration with GAD-TLC under PMMMNMTT, Ministry of Education, Government of India.
2. Faculty Induction Programme: Attended from 20 January-12 February 2023, organised by TLC, Ramanujan College, University of Delhi in Collaboration with PMMMNMTT, Ministry of Education, Government of India.
3. Completed 2-Days Workshop on Arduino Programming held on March 24th and 25th March 2023 organised by KMC Physics Robotics Club, Physics Department, Kirori Mal College.



Prof. Usha Kulshreshtha (Professor)
Department of Physics

Papers published:

1. Usha Kulshreshtha, Daya Shankar Kulshreshtha, Bheemraj Sihag,

- “Maxwell-Chern-SimonsHiggs theory”, Acta Polytechnica, 62(1):85-89 (2022).
2. Daya Shankar Kulshreshtha, Usha Kulshreshtha, “On the Wess-Zumino model: A supersymmetric field theory”, Acta Polytechnica, 62(1):80-84 (2022).

Invited Talks/ Paper presented/ Session chaired in National/ International Conferences:

1. Invited talk at the International Conference on Algebraic and Analytic Methods in Physics, Institute of Nuclear Physics, Prague, Czech Republic, September 6-9, 2022 (Online)
2. Invited talk at the International Conference on Physics of Hadrons on the light front September 19-23, 2022 (Online).



Dr. Vibha Gulyani Checker (Assistant Professor)
Department of Botany

Papers published:

1. Vibha Gulyani Checker, Bhavana Sharma, Renu Kathpalia (2022) Nanoinformatics - A newly introduced tool for research. Indian Journal of Biochemistry and Biophysics Vol. 59.
2. Renu Kathpalia, Vibha Gulyani Checker, Bhavana Sharma Jha and Tanushri Saxena (2022) Environmental Nanotechnological Applications for Sustainable Agriculture. Indian Journal of Biochemistry and Biophysics Vol 59: 1056-68.

Professional Trainings/ Refresher Courses/ Workshops:

1. Attended the Faculty Development Programme on First-Hand Experience on SPSS-Introductory Module, Organised by Research Foundation of India and RFI-CARE from 16-22 August 2022.
2. Completed One-Week Online National Faculty Development Program “Basic IT tools, Advanced Spreadsheet Tools and Statistical Software Package with SPSS” jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education from 27 October 2022 to 3 November 2023 in Grade A.
3. Successfully completed 4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" from December 21, 2022 - January 19, 2023 and obtained grade A+, organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on teachers and teaching.
4. Completed two-week Refresher course in ‘BOTANY’ from January 18 to March 4 2023 with A+ grade organized by Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with Government Arts College (Autonomous), Karur, Tamil Nadu, India under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on teachers and teaching.



Dr. Vijendra Kumar Pandey (Assistant Professor)
Department of Geography

Papers published:

1. Pandey, V.K.; Kumar, R.; Singh, R.; Kumar, R.; Rai, S.C.; Singh, R.P.; Tripathi, A.K.; Soni, V.K.; Ali, S.N.; Tamang, D.; Latief, S.U.; 2022. Catastrophic ice-debris flow in the Rishiganga River, Chamoli, Uttarakhand (India). *Geomatics, Natural Hazards and Risk*, 13:1, 289-309. ISSN No. 1947-5705 DOI:10.1080/19475705.2021.2023661
2. Pandey, Vijendra Kumar; Tripathi, A.K.; Sharma, K.K., 2022. Implications of landslide inventory in susceptibility modeling along a Himalayan highway corridor, India. *Physical Geography*, 43:4, 440-462, doi.org/10.1080/02723646.2021.1872857 ISSN No. 0272-3646
3. Prakash, S.; Sharma, M.C.; Sreekesh, S.; Chand, P.; Pandey, V.K.; Latief, S.U.; Deswal, S.; Manna, I.; Das, S.; Mandal, S.T.; Bahuguna, I.M., 2022. Decadal Terminus Position Changes and Ice Thickness Measurement of Menthosa Glacier in Lahaul Region of North-Western Himalaya. *Geocarto International*; 37:22, 6422–6441. doi.org/10.1080/10106049.2021.1939437 ISSN No. 1010-6049
4. Parihar, S.M.; Pandey, V.K.; Anshu; Shree, K.; Moin, K.; Ali, M.B.; Narasimhan, K.; Rai, J.; Kamil, A., 2022. Land Use Dynamics and Impact on Regional Climate Post-Tehri Dam in the Bhilangana Basin, Garhwal Himalaya. *Sustainability*, 14, 10221. https://doi.org/10.3390/su141610221 ISSN No. 2071-1050
5. Pandey, V.K., & Sharma, M.C., 2023. Sedimentological characteristics and their relationship with landsliding in the Bhilangana Basin, Garhwal Himalaya, India. *Earth Sciences Research Journal*, 26(4), 345-358. https://doi.org/10.15446/esrj.v26n4.94720

Professional Trainings/ Refresher Courses/ Workshops:

1. Land-Use Dynamics and Its Impact on Regional Climate Post-Tehri Dam in the Bhilangana Basin, Garhwal Himalaya. National Seminar and First Annual Meet of Geographical Society of Himachal Pradesh (GSHP) on “Geography, Development And Public Policy” jointly organized by Department of Geography, Himachal Pradesh University, Shimla & Geographical Society of Himachal Pradesh; September 23-24, 2022
2. Evaluation of GIS-based Machine Learning Methods of Landslide Susceptibility Analysis: A Case Study in Bhilangana River Basin, Garhwal Himalaya (India). Organized by “Department of Geography (UGC-DRS SAP-I& DST-FIST Supported) Faculty of Natural Sciences Jamia Millia Islamia, New Delhi; 01-02 November, 2022
3. Faculty Development Programme on “Qualitative Research and Issues in Plagiarism (An Interdisciplinary Approach).” Organised by Guru Angad Dev Teaching Learning Centre, A Centre of Ministry of Education under PMMMNMTT Scheme; February 16-22, 2023.

Research Projects (Major Grants/Research Collaboration)

1. Co-Project Director of a Major research Project funded by ICSSR on “Community Discourse of Climate Change and adaptation Policy in the Western Himalaya Region of India.”

Association with Professional Bodies

1. Life Member of National Association of Geographers, India (LM-2727).



Mr. Vishal Dhawan (Assistant Professor)
Department of Mathematics

Professional Trainings/ Refresher Courses/ Workshops:

1. Completed a 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/ Colleges/ Institutes of Higher Education” organised by Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with MIT School of Education & Research, MIT Art, Design & Technology University under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching from 20th September to 19th October 2022 and obtained A+ grade.
2. Completed an online Inter-Disciplinary Two-Week Refresher Course on “Managing Online Classes & Co-creating MOOCS 22.0” organised by Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with Jyoti Niwas College Autonomous, Bangalore, India under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching from 7th January to 21st January 2023 and obtained A+ grade.
3. Completed the Two-week Refresher Course in “Mathematical Sciences” organised by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching from 28th January to 11th February 2023 and obtained A+ grade.



Dr. Yamal Gupta (Assistant Professor)
Department of Botany

Papers published:

1. Yamal G, Biswas L, Kathpalia R (2022) Exploiting the potential of bio-synthesized silver nanoparticles to enhance the shelf life of *Gladiolus*. Indian Journal of Biochemistry & Biophysics 59, 486-490. ISSN 0975-0959 (Online), *Impact Factor 1.918*.
2. Yamal G, Singh M, Pardha-Saradhi P, Rao K.S. (2022) Roots of *Pennisetum* sp. possess the competence to generate nanoparticles of noble metals. Indian Journal of Biochemistry & Biophysics 59, 461-467. ISSN 0975-0959 (Online), *Impact Factor 1.918*.
3. Patel K, Bidalia A, Tripathi I, Yamal G, Arora P, Rao K.S. (2022) Effect of heat stress on wild type and A7a knockout mutant *Arabidopsis thaliana* plants. *Vegetos*. 35, 168-178. eISSN : 2229-4473), *Impact Factor 0.042*.
4. Yamal G, ‘Assessment of Heavy Metals in Sewage Sludge Generated From Sewage Treatment Plants of Delhi’ for Ecology and Environment Research Committee Published in Proceedings of the XLV Indian Social Science Congress, March 28 – April 01, 2022 at BSAR Crescent Institute of Science and Technology, Vandalur. Chennai. pp 391-392.

Paper presented:

1. Paper presented on ‘Assessment of Heavy Metals in Sewage Sludge Generated From Sewage Treatment Plants of Delhi’ for Ecology and Environment Research Committee of the XLV Indian Social Science Congress, March 28 – April 01, 2022 at BSAR Crescent Institute of Science and Technology, Vandalur. Chennai.

Professional Trainings/ Refresher Courses/ Workshops:

1. Completed an Online Induction Training for Faculty of Higher Education, 21 December 2022 to 19 January 2023, conducted by Teaching Learning Centre, Ramanujan College, under the aegis of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Ministry of Education.
2. Completed an Online Refresher Course in Botany, to be held from 18th February 2023 to 4th March 2023. The Program is conducted by Teaching Learning Centre, Ramanujan College, under the aegis of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Ministry of Education.

Participation in Activities of College

1. Participated as a resource person in a ‘Science Workshop’ organized for students of Navyug School, Mandir Marg, on December 8, 2023, under the aegis of DBT Star Status.
2. Member, Decoration-cum-Exhibition Committee for Founders Day Celebration.
3. Organized a Factory visit to Yakult Danone India Pvt. Ltd. HSIIDC, Rai, Sonipat, Haryana on March 2, 2023, for B.Sc. (H) Botany, VI Semester students.
4. Organizing Member for One day National Workshop on Hydroponics-Smart Urban Farming, organized by Department of Botany on March 11, 2023.



Dr. Yash Mangla (Assistant Professor)
Department of Botany

Chapter published:

1. Manisha, Mangla Y, Tandon R, Goel S. 2022. Current Status of Chromosome-Based Gender determination in Seabuckthorn. *In: The Seabuckthorn Genome*. Sharma P. Springer-Nature, Switzerland. *Equal contribution*. ISBN: 978-3-031-11275-1 (pp:67-78)

Book published:

1. Reproductive Biology of Angiosperms: Concepts and Laboratory Methods. **Yash Mangla**, Priyanka Khanduri, Charu Khosla Gupta Publisher: Cambridge University Press, UK. ISSN: 978-1-009-16040-7

Professional Trainings/ Refresher Courses/ Workshops:

1. Resource person for Six days hands-on National workshop on ‘Microtomy: Principle, Procedures and Applications’ October 07-12, 2022 in Department of Botany, University of Jammu, J&K.
2. Completed 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” from 20 January – 18 February, 2023 organized by Teaching Learning Centre, Ramanujan College, University of Delhi, under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching.
3. Served as Session Co-chair in 3rd International Symposium on Ciliate Biology November 8, 2022 in 7th International Conference of Indian Network for Soil Contamination Research. Jointly organized by Acharya Narendra Dev College and Maitreyi College, University of Delhi.
4. Manisha, Yash Mangla, Shailendra Goel, Rajesh Tandon. Poster entitled ‘Genomic similarities and differences at gender specific locus in geographically partitioned natural

populations of *Hippophae rhamnoides*' presented at International conference on Advances in plants, microbes and agricultural sciences. March 2-4, 2023, Organized by Department of Botany, University of North Bengal, West Bengal.

TOUR DE FORCE



**MEGA EVENTS
OF
THE COLLEGE**

Alumni Meet 2023

Convener: Dr. Ajeet Kumar

Student days, hostel life, canteen chit-chats, someone special in the college corridors, and, also, classes are a few things that always remain a memory as alive as a throbbing heart. The Alumni Committee of the College organized KMC Alumni Meet: ALUMNITE 2023, a programme to facilitate, consolidate and coordinate alumni activities in the Ashoka Lawn on 8th April 2023.

The Alumni that started arriving in College on 5:00 PM onwards were received by the Registration and Reception team. Hon'ble Justice of Delhi High Court Smt. Jyoti Singh was the Chief Guest on the occasion. Guests of Honour on the occasion included renowned historian Prof. Harbans Mukhia, Member of Rajya Sabha Sh. Vivek Thakur; Hon'ble Justice of Delhi High Court Sh. Kailash Gambhir (Retd.) along with bureaucrat Alumni like IPS Kumar Viswajeet, Seemant Singh, Sachin Badshah, Ashwini Chand, Ramesh Reddy, MLA from Bihar Sh. Sudhakar Singh, former Principal of the College Dr. Bhim Sen Singh among others. The Meet was attended by dignitaries from various walks of life – Director Vijaykrishna Acharya (Victor), Indresh Malik, Lyricist Rajshekhar, Actor Vidhaat all from Bollywood; Prof. Balram Pani, Dean of Colleges, DU; Hon'ble members of the Governing Body of the College, Oscar nominee Shaunak Sen, are a few to name. All of them shared their memories of their College time. The occasion provided a fantastic opportunity for graduates of various batches of the College to exchange ideas, memories and views.

The Alumni Meet started with a welcome address by the Alumni Committee Convener Dr. Ajeet Kumar, who expressed the Committee's resolve to hold the Annual Alumni Meet regularly. Addressing all the participants themselves as distinguished guest of honour themselves, the Principal Prof. Dinesh Khattar expressed his promise of renovating the FTD Auditorium at the earliest by soliciting the support from the alumni.

The College expressed gratefulness and paid tribute to its alumni – the Late Satish Kaushik, KK, Valentine, and Sonam Sherpa. It is worthwhile to mention here that the date of 8th April (2023) for the Alumni Meet was selected by Late Satish Kaushik himself. In this regard, a message of remembrance for the Late Satish Kaushik from the Mega Alumnus Shri Amitabh Bachchan was conveyed to the gathering. The Principal, while welcoming the august gathering, announced that the plan of naming the existing academic auditorium as The Satish Kaushik Memorial Academic Auditorium.

The Chief Guest of the event, Hon'ble Justice Jyoti Singh said that she had a deep association with the College. She began her academic career at University of Delhi from this College when she completed her B.S. Hons. in Botany. Later on, she joined Law Faculty of the (Delhi) University. Apart from this, she said that she met her life partner Shri Shakti Singh (B.A. History Hons.), who was two year senior to her. They are happily married and it was indeed a pleasure that both of them had joined the Meet. Prof. Harbans Mukhia, one of the first graduates of the College fondly remembered his days here when the renowned historian Prof. K. M. Ashraf happened to be a teacher whom he considered his revered 'Guru'. The Guest of

Honour Shri Vivek Thakur, MP, Rajya Sabha talked about how he decided to be here at this College only and did not leave it in his first year even when he got an opportunity to get admission in yet another institution of excellence. He promised financial assistance of Rs. 10 Lakh for the renovation of FTD Auditorium. Lastly, the cover page of the proposed first ever souvenir, by the name *kmc@alumni* was also unveiled by the distinguished guests on the occasion.

Thereafter, an enthralling performances by the college Societies 'The Musoc', 'The Sensation' and 'The Players' along with a performance by Raj Shekhar, and Bollywood playback singer Shaheen, which kept the audience entertained. The chief highlight of the event was the musical performance by MUSOC: The Music Society of the college as a tribute to K.K., alumnus of the College, who passed away in 2022. The tribute piece concluded with K.K.'s iconic song 'Yaaron'. K.K. was a very active member of The Music Society during his college days. Tribute was also paid to another popular alumnus of the College Mr. Satish Kaushik, who passed away in the month of March 2023. A special film screening was organised in memory of Late Satish Kaushik, documenting his journey as an actor. Rare photos and videos from his early acting days were featured in the movie from the time when he was a student of the College and an active part of PLAYERS: The Theatre Society of the College. Director Man Mohan Bhasin, a close friend of Shri Kaushik and his classmate/batch-mate too, was also present for the event. He had directed Shri Kaushik in his plays during the college days and also seen his journey as a first hand actor, which he reminisced about. The College Alumni turned up in great numbers for the event and had an enjoyable evening with nostalgic feelings.





Three-day Workshop For Educators On Vedic Mathematics

A three-day workshop was organized under the patronage of Prof. Yogesh Singh, the Hon'ble Vice Chancellor, University of Delhi, the Committee of Value Edition Courses (VAC) of the University in collaboration with Kirori Mal College from 11th April 2023 to 13th April 2023 in the Academic Auditorium. The main objective of this workshop was to attract and bring together experts and teachers of different streams involved in teaching and learning Vedic Mathematics.

The theme of the inaugural session was 'History and Evolution of Vedic Mathematics', which was chaired by Prof. Niranjan Kumar. The session started at 10:30 am with the lightning of lamp, Saraswati Vandana, and the Rashtryagaan, the students of The MUSOC. This was followed by felicitations and a thought-provoking welcome address by Prof. Dinesh Khattar, the Principal, Kirori Mal College. The dignitaries on the dais were the Hon'ble Chief Guest Dr. Atul Kothari, National Secretary, Shiksha Sanskriti Uthan Nyas, Special Guest, Shri Utpal Kumar, Editor, CNN and Opinion Editor, First-post, Prof. Niranjan Kumar, Chairman, Committee of Value Addition Courses and Dean Planning, University of Delhi and Prof. Prabhat Mittal, Coordinator, Vedic Mathematics (VAC).

The keynote speaker of the event Shri Atul Bhai Ji Kothari shared his struggle and the long fight to implement our old values of ancient times into the present New National Education Policy. He explained in a very motivational way how important it is to know our own ancient Vedic Mathematics. Shri Utpal Kumar also gave several examples of our ancient Mohenjodaro civilization, Mahabharata, and geometrical and astrological knowledge of that era. He pointed out with several examples how rich the Indian knowledge system of that time was.

Technical Session 1 was dedicated to the contributions of our ancient Indian mathematicians like Varahmihir, Brahmagupta, Srinivasa Ramanujan, Neelkanth Somayya, and Bharti Krishna Tirtha. Prof. Prabhat Mittal reminded the participants of the contributions of these greats, and motivated all attendees to discuss other famously known mathematicians and their contributions. Prof. Sarla Bhardwaj connected Vedic Mathematics with examples of real life. She explained Miracle Multiplication during technical session 2. Technical sessions 3 and 4 were taken by Dr. Rakesh Bhatia, a renowned name in the field of Vedic Mathematics. He explained the Baudhayana Theorem and the concept of an angle given by ancient Indian mathematicians in several Shulb-Sutra almost 400 years before Pythagoras. The entire trigonometry is based upon various amazing facts written in our ancient Sulbha-Sutras. Prof. Haneet Gandhi explained Geometrical constructions (such as Altars), the Transformation of simple shapes, and Kalpa Sutras-Srautha Sutras and Sulbha Sutras in the technical session 4. Shri Ram Chauthai Wale took two sessions before the valedictory session. It was another amazing experience of great learning.

The Valedictory Session was graced by the Chief Guest Shri Kapil Khanna, President, VHP Delhi, Guest of Honour, Dr. Vikas Gupta, Registrar, University of Delhi, Distinguished

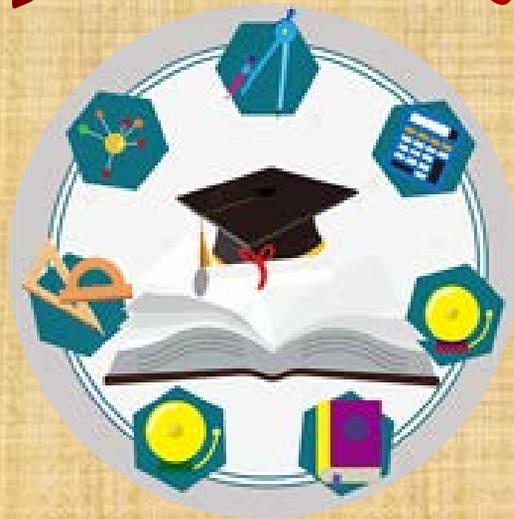
Guest Dr. Paresh Saxena, IPS, ADG Police, and Prof. Niranjana Kumar, Dean Value added courses committee.

The Workshop, which was attended by more than 90 teachers from across the colleges of the University set a perfect platform to discover new directions as well as potential applications of the Vedic Mathematics in the current educational world. The success of this three-day workshop on Vedic Mathematics was the result of the able and constructive guidance of Prof. Niranjana Kumar, along with the entire Value Addition Courses Committee that has implemented the VACs in all the course run at the College level itself.





DEPARTMENTS



DEPARTMENTAL SOCIETIES

DEPARTMENT OF BOTANY

Teacher-in-Charge and Staff Advisor: Prof. Renu Kathpalia

The Department of Botany entered in its fifty years of journey which has been all the way very beautiful and commemorating. To remember the Golden Jubilee Celebration, the Department organized various events under the aegis of the Departmental Society 'Medini' and the DBT Star Status. The ethos of Department since its inception is to inculcate scientific spirit among the students by engaging them in research activities, lectures, workshops etc. To further motivate them and make them aware about the legacy of Department in its 'Golden jubilee year', distinguished Alumni Lecture Series was programmed. Under this aim, six lectures were successfully held. Notable Alumni Ms. Meena Vaidyanathan, Prof. Archana Chugh, Prof. Ratnum Kaul Wattal, Mr. Priya Ranjan, Ms. Harshita Pant and Ms. Vishakha V. Jha from different fields appraised the students of the career options, recent research trends and shared their valuable experiences.

This academic year the Department feels elated for having seven permanent Assistant Professors specialized in their respective fields. In this Golden Jubilee year; the Department also marked the inauguration of the Botanical Garden, Mushroom cultivation facility, hydroponics unit, rock garden and zodiac garden.

Some of Students' Achievements worth citing are:

- Mr. Yash, a student of B.Sc. (H) Botany semester V, worked under the able guidance of Prof. Rajni Gupta and presented his work in form of a poster entitled 'Vertical farming - An alternative opportunity for food security' in an International Conference on Recent Advances in Horticulture Research, 8th & 9th August 2022, organised by Amity International University, Uttar Pradesh.
- Mr. Ayush, a student of B.Sc. (H) Botany, semester V, worked under the guidance of Prof. Renu Kathpalia. Students from SGTB Khalsa College and Department of Biotechnology, Jamia Millia Islamia, jointly presented poster on 'Seaweeds for sustainable agriculture - A preliminary study on the growth and survival of Brinjal, Chilli and moong plants using *Sargassum sp.* as fertilizer' in 7th Annual International Conference of Indian Network of Soil Contaminated Research (INSCR-2022) on 'Modulating the Environment with Microbes' 7th-11th November 2022.
- Mr. Ayush and Mr. Vishal Jhakar, B.Sc. (H) Botany, semester VI, under the guidance of Prof. Renu Kathpalia and Dr. Vibha G. Checker presented poster on the topic 'Medicinal Plants Cultivation Marketing and Entrepreneurship: Role Of Rural Youth' in National Conference on Medicinal Plants-Frontier Areas of Research and Developments, organised by Hans Raj college on 16th & 17th March 2023.
- Mr. Yash, B.Sc. (H) Botany, semester VI and Divyanshi, B.Sc. (H) Botany, semester IV under the guidance of Prof. Rajni Gupta, got the golden opportunity of representing the start-up idea of Mushroom cultivation in Inception'23 organized by CISE (Centre for Innovation and Social Enterprise) of the College on 20th & 21st March 2023. It was an impactful interaction at open platform where students networked with participants and

made them aware about mushroom cultivation as innovation start-up and earnings of high profit from the same.

The Department organized a National Workshop on ‘Hydroponics-Smart Urban Farming’ in hybrid mode on 11th March 2023 under the aegis of DBT Star Status. Seventy six researchers, faculty members from various colleges and universities participated in it. Thirty six participants attended the workshop in physical mode while the others attended in virtual mode. The workshop started with brief highlights of various programs conducted by the College under the aegis of DBT Star status by Prof. Anita Kamra Verma, Programme Coordinator, DBT Star Status. The Principal Prof. Dinesh Khattar welcomed the chief guest and encouraged the participants. Prof. D.S. Rawat, Chairperson of the College and Dean of Examinations, University of Delhi, was the Chief Guest for the workshop. He appreciated the efforts of the Department for promoting sustainable agricultural practices by means of hydroponics. The Guest Speaker Dr. Murtaza Hasan, Principal Scientist, IARI delivered a lecture on ‘Smart Urban Farming - Technological Details’. Next speaker for the day was Mr. Anand Zambre, Executive Director, National Committee on Precision Agriculture and Horticulture (NCPAH) under the Ministry of Agriculture and Farmers Welfare, New Delhi presented an illustrative lecture on ‘Hydroponics and vertical farming in India - Present status and way forward’. Persons from the booming industry of hydroponics, Mr. Venkesh (Barton Breeze Pvt. Ltd.) and Mr. Kapil Verma (Green Hack Pvt. Ltd.) discussed about the suitable specifications for Hydroponics set up in academic institutes. Ms. Rama Tyagi, President, Horticulture and Floriculture Society discussed the the topic ‘Future Urban Gardening’ with great zeal and enthusiasm. She motivated the participants for home gardening etc. In the end, an interjection session was eloquently conducted by Prof. Rajni Gupta. The workshop concluded with vote of thanks by Prof. Renu Kathpalia, Teacher-in-Charge & workshop convenor to every one present there.

DEPARTMENT OF CHEMISTRY

Teacher-in-Charge: Dr. Kiran Arora; Staff Advisor: Dr. Ram Sunil Kumar Lalji

The Department of Chemistry had a productive year by making progress in the areas of teaching and research for the academic year 2022-23. The Department is one of the four supporting Departments of the College, which received the DBT STAR STATUS SCHEME. This report will highlight some of the Department’s achievements and challenges over the past years. The Department’s faculty members were dedicated to provide high-quality education to the students at all levels – from introductory courses and lecture series to seminars, and from conferences to under graduate projects. The Department offers a variety of courses in B. Sc. Chemistry (H), B. Sc. (Prog) in Analytical, Physical Sciences, and Life Sciences. Apart from this under NEP, the Department is engaged in teaching Skill Enhancement Courses (SEC), Value Addition Courses (VAC) and Generic Elective (GE) papers to the interdisciplinary courses. The Department’s faculty members have been active in their services to the University and the broader community, by working in committees, organizing seminars and conferences, and volunteering their expertise for various outreach activities.

Some noteworthy achievements of the last academic year include: the implementation of a new curriculum under NEP for introductory chemistry courses that emphasizes problem-solving and critical thinking skills; the Department's faculty members continued making important contributions to their respective fields of research, publishing several articles in high-impact journals; the Department's faculty is also involved in core committee of the NEP syllabus framing for courses like B. Sc. Chemistry (H), B. Sc. (Prog.) in Analytical, Physical Sciences, and Life Sciences; the Department in collaboration with the Department of Forensic Medicine and Toxicology, AIIMS Delhi, conducted a certificate course in forensic sciences from 30th September to 18th October 2022. This course in hybrid mode included hands on session with experts from the field; the installation of PNG supply in the Department laboratories was completed successfully. This year, an eye station is also installed in the lab as one of the safety measures. B. Sc. (H) Chemistry students have also secured different ranks in IIT JAM Exam – Chetan Rathi – 44, Harshita Agarwal – 47, Rajat Chauhan – 48, Mehak Batra – 191, Mridul Shayam – 259, Priyanka Amrawat – 335, Reetik – 339, Shaurya – 354.

WORKSHOP ON LAB SAFETY AND GREENER LABS ON 31ST JANUARY 2023:

The Department organized workshop under the aegis of DBT Star Status Scheme on 'Lab Safety and Greener Labs' on 31st January 2023. Prof. Mallika Pathak, Department of Chemistry, Miranda House (University of Delhi) and Prof. Vimal Rarh, Coordinator - National Centre of Chemistry & Joint Director, GAD TLC, Ministry of Education, Govt. of India and a Faculty members in the Department of Chemistry, SGTB Khalsa College (University of Delhi) were the eminent speakers for the event. Prof. Mallika began with the discussion about the safety measures to be taken in Chemistry Labs. The speaker started with listing a few essential items that are must before entering the lab, out of which the most important is a lab coat most preferably made up of cotton. Then she discussed other protective clothing that the people need to wear in Chemistry Labs, including leather shoes, safety glasses, and clothes of appropriate length. She also talked about the general precautionary measures like avoiding eating or drinking in labs, not applying cosmetics, tied hair and also warned the students to always use a pipette dispenser for sucking acids or bases. She also enlightened the students about the various ways of disposing of chemicals about which she specifically mentioned that the liquid chemical wastes should be drained by flushing with water and the solid chemical wastes are always to be first diluted with sand and then disposed off in a chemical disposal pit. She further emphasized that chemicals should neither be ingested nor be inhaled directly, and, if required, one should smell the chemical by the method of wafting, and not directly. Moving ahead, she made the audience aware about various pieces of information cited on the labels of storage bottles, including its chemical name, molecular weight, melting point/boiling point, health hazards, various symbols drawn over it, its color, number coded labels, different materials in which these chemicals are stored along with emergency phone numbers. She then talked about the Material Safety Data Sheets (MSDS) and asked the students to download WISER and SDS mobile apps that contain all the information of various chemicals. To make the students conscious of the probable laboratory hazards, she also recalled some accidents that had happened in labs while working and concluded by again emphasizing upon precautionary methods that one needs to take care of while working in a chemistry lab. Following this, there was an interactive question-answer segment which was conducted.

The second speaker Prof. Vimal Rarh began the session with the lecture on Safer and Greener Methodologies in Chemistry Labs. She made students be acquainted with her self-written Chemistry Lab Manual (2010). She introduced SWAYAM, an Annual Refresher Programme in Teaching (ARPIT) and innovative & unique modules especially about Chemistry Safe Labs. She discussed about the sustainable developmental goals wherein she mentioned different approaches towards sustainable and environmental friendly and safer approaches in Chemistry Labs. After this, she extensively discussed different modules like lab safety and first aid measures. She additionally discussed some emergency assistance in case of chemical spill, for instance using NaHCO_3 , acetic acid (1%) and ammonia solution (2%) in case of acid, base and bromine spill respectively. She explained different ways through which chemicals can enter our body and informed the audience about cases of eye accidents, chemical poisoning and different case studies related to formalin, sodium and Kjeldahl's flask. She stressed upon the need of incorporating 3 Rs i.e. Recycle, Reuse and Reduce in Chemistry for a greener approach, and mentioned different safer methods for obtaining boiling point and melting point. Lastly, she also talked about various chemical disposal plans. Towards the end, the inquisitive minds got an opportunity to ask questions to the speaker during the question-and-answer segment. The event was a huge success with over 100 participants from different colleges.

Under Graduate Students Project:

S.No	Name of Student	Class	Teacher	Lab
1.	Harioum	I, Chemistry	Prof. Kalpana Bhrara	1
2.	Aaradhya	I, Chemistry	Prof. Kalpana Bhrara	1
3.	Ishika Sharma	III, Chemistry	Prof. Reena Saxena	3
4.	Shourya Bardiya	II, Chemistry	Prof. Reena Saxena	3
5.	Nishant Shekhar Jha	III, Chemistry	Dr. Shalini Baxi	3
6.	Purnima Tiwari	II, Chemistry	Dr. Shalini Baxi	3
7.	Palash Tripathi	III, Chemistry	Dr. Akhilesh Bharti	2
8.	Nidhi	III, Chemistry	Dr. Akhilesh Bharti	2
9.	Gaurav Kumar Jha	III, Chemistry	Dr. Priyanka Jhajharia	2
10.	Sarvdaman Singh Tomer	II, AC	Dr. Priyanka Jhajharia	2
11.	Priya Jaiswal	III, Chemistry	Dr. Jai Prakash Chaudhary	5
12.	Manish Kumar	III, AC	Dr. Jai Prakash Chaudhary	5
13.	Mahima Kumari	I, Chemistry	Dr. Ruchi Sharma Pandey	1
14.	Sahil Chaurasiya	I, Chemistry	Dr. Ruchi Sharma Pandey	1
15.	Akshat Bhatnagar	I, Chemistry	Dr. Hemlata Vashisht	5
16.	Shaurya	III, Chemistry	Dr. Hemlata Vashisht	5

STUDENT DEVELOPMENT PROGRAM ON 'MOLECULAR MODELLING WITH JMOL' FROM 31ST MARCH TO 4TH APRIL 2023:

The Department under the aegis of DBT Star Status Scheme organized a Student Development Program (SDP) on 'Molecular Modeling with JMol' in collaboration with the Spoken Tutorials, IIT Bombay in a hybrid mode from 31st March to 4th April 2023. An overwhelmingly a large number of students from all over the University (of Delhi) as well as

other universities, participated enthusiastically in the Programme. The Principal of the College gave a short speech and encouraged all the participants. Prof. Reena Saxena, DBT Star coordinator of the Department, explained the 5 day Programme in details, and explained that JMol is a computer software for molecular modelling chemical structures in 3-dimensions. JMol returns a 3D representation of a molecule that may be used as a teaching tool for research in chemistry and biochemistry. Then Dr. Kiran Arora, TiC of the Department was invited to honour the guest.

Inaugural session was held on 31st March 2023, in the Academic Auditorium of the College. Dr. Divya Nayar, Assistant professor, Department of Material Science and Engineering, IIT, Delhi, was invited to deliver a lecture on ‘Molecular Modeling and Computer Simulation Methods in Chemistry’. The session began with a discussion on how lab experiments can be simplified and done through software by using ‘Computational Chemistry’. She further gave the reference of the Covid time and told that how the various experiments were done through computational chemistry. Molecular modelling encompasses all methods, theoretical and computational, used to model or mimic the behaviour of molecules. The methods are used in the fields of computational chemistry, drug design, computational biology, and materials science to study molecular systems ranging from small chemical systems to large biological molecules and material assemblies. She then gave example of water molecule and how its model is made by using various bond lengths and bond angle. Following this, an interactive question-answer session was conducted in which the students cross-questioned Dr. Divya. Dr. Ruchi Sharma Pandey, Assistant Professor, Department of Chemistry proposed the formal vote of thanks to the speaker. The event was a massive success attended by more than 120 participants from different colleges and universities of Delhi.

Second session in an online mode through Zoom Meeting was held on 1st April 2023. The participants were welcomed by Prof. Reena Saxena. Prof. Anita Kamra Verma, Programme Coordinator, DBT Star Status Scheme explained about the scheme and how the Department is trying to teach the students beyond the textbooks. The first lecture was delivered by Ms. Sudehaa Shirke from the Spoken tutorial, IIT Bombay that helped the students to install the JMol applications on their computers and then access the self-learning online modules. The second lecture of the day was delivered by Prof. Smriti Sharma Bhatia from the Department of Chemistry, Miranda House, DU, on ‘Drug Designing using JMol’. Students learnt the JMol application using the video lectures provided by the Spoken Tutorials, and attempted practice assignments and quizzes, which could be done at their own pace over the next three days. The Programme was aimed at introducing students to the basics of molecular modeling and the use of JMol in drug discovery. A discussion session to clarify doubts of the students was held on 4th April 2023, the last day which was a continuation of the previous session. Prof. Smriti Sharma Batia introduced various open-source software tools, including Auto dock, Chimera, Discovery Studio, Avogadro, Open Babel, PyreX, and JMol. She explained how these tools can be used for molecular modeling and how they can be downloaded and explored by beginners. She explained the various applications of molecular modeling in drug discovery, such as designing new drugs, predicting drug interactions, and optimizing drug properties. She highlighted on the importance of molecular modeling in drug discovery and how it can save time and resources in the drug development process.

The talk concluded with a question-answer session, wherein Prof. Smriti Sharma Batia answered all the questions related to molecular modeling and its applications. After the session, there was a discussion and doubt-clearing session about the assignment, certification, and other related topics. The session concluded with vote of thanks by Dr. Ruchi Sharma Pandey, accentuating on the importance of computational chemistry in providing insights and directions for wet lab chemists.

STUDENTS ACTIVITY DONE BY SEMINAR COMMITTEE:

ChemSoc, The Chemistry Society, has been one of the renowned Societies of the College. It has been organising insightful lectures, enthralling events, quizzes, and still counting more in the queue. Not just summing up to Chemistry, The ChemSoc has engaged hundreds of students that beautified our college with their creative minds. The Colloquium-International lecture series facilitate the interaction of students with the International Scientists. The Alumni Speak Event gives our Alumni the platform to share their experiences. And Nobelium is a newly started series of enlightening lectures over the topics presented by esteemed Nobel Laureates worldwide and on the Nobel Prize winning reactions which hope to bring forth love for Chemistry among the young minds. These events cover a wide range of topics, including Organic Chemistry, Biochemistry, Physical Chemistry, and Materials Science. The Society's aim is to cultivate interest in students for Chemistry, make them be acquainted with the developments in the field of Chemistry and provide them with the opportunities to learn and engage with Chemistry outside the classroom. Overall, The ChemSoc provides a valuable platform for students to explore their passion for Chemistry and enhance their knowledge and skills about it.

The successful execution of the tasks and the achievement of their incredible results require teamwork, collaboration and guidance of the teachers. The Department has a wonderful team of teachers and students: Prof. Geetanjali, Co-Convener, Seminar Committee, Team Chemsoc; Nishant Shekhar Jha, (President), IIIrd yr B. Sc. (H) Chemistry; Ishika Sharma (Vice-President), IIIrd yr B. Sc. (H) Chemistry; Manish Mandiya (Vice- President), IIIrd yr B. Sc. (Prog.) Analytical Chemistry; Radhika Kesar (Gen Sec.), IInd yr, B. Sc. (H) Chemistry; Lakshita (Gen Sec.), IInd yr, B. Sc.(H) Chemistry; Sarvadaman Singh (Joint Secretary); Rakesh Yadav (Joint Secretary); Nitesh Mohan Mishra (Treasurer); Harsh Singh (Coordinator); Deepak Singh (Coordinator); Ishita (Content Head); Shreya Sharma (Content Co- Head); Aakriti Aggarwal (Event Head); Gaurav (Event Co-Head); Varun Jindal (Technical Head); Reetwik Kumar Mishra (Technical Co-Head); Tejinder Mohan (Colloquium Head); Aditi Patra (Colloquium Co-Head); Ayush Diwakar (Marketing Head); Rijul Kumar Mishra (Marketing Co- Head); Rashi (Outreach Head); Deepak Kumar (Outreach Co-Head); Harshita Ahuja (Creative Head); Rohan Meena (Creative Co-Head); Skand Sharma (Alumni Head); and Kartik Sharma (Alumni Co-Head).

The ChemSoc has till now successfully organised all six Colloquium lectures - both online and offline. The very first lecture of the session 2022-23 i.e. the fifth lecture of the Colloquium Series was on 'Recent Successes in Continuous Catalytic Routes for the Selective Synthesis of

Bio-sourced Chemicals' on 29th September 2022. Prof. Dr. Christophe Len, FRSC, was the eminent speaker for the event. The speaker discussed different types of catalysis and the beneficial impact of ICHEM.

The sixth lecture of the Series was on 'Rare-Earth Metal-Organic Frameworks' conducted on 24th February 2023. Dr. Ashlee J. Howarth, Concordia University Research Chair at Concordia University in Montreal (Canada), who was invited introduced the various research areas associated with MOFs, such as synthesis catalysis and enzyme encapsulation. She talked about the RE-MOFS Research Programme, SHP topology and sustainable synthesis.

The Alumni Speak is another interactive series which provides the students with a chance to interact with the Alumni, get to know about their success journey, and learn many things from their experiences. This helps them in getting proper guidance for their future initiatives. The first Alumni Speak Event of this session was held on 31st October 2022 to discuss the career opportunities after graduation. It was addressed by Dr. Abhishek Kumar Singh, a post-doctoral fellow from Freie Universität, Berlin, Germany. He intensively discussed the process of getting admission into foreign universities and ways to excel there.

Another lecture under the same series was organised on 21st January 2023 that discussed the career journey of five speakers who had completed their undergraduate at KMC itself. The panellists shared bits of their journey on how to get into the prestigious Master's Degree college(s) and demonstrated a pathway to the young college students. They discussed the importance of reading books, solving past-year question papers, preparing concise notes for exams, the importance of different Societies in the college life, and the opportunities to study abroad.

An Inaugural lecture on recent advances in Drug Design and Development was held on 24th November 2022. Prof. Sunil Kumar Sharma was the eminent speaker. He discussed the importance of drugs and their synthesis, the Pharma Drug Cycle, and the various side effects of drugs.

The culture of Fest and fun events has always been prevalent in the Delhi University campus. Due to COVID-19, all this was put to a halt. But, with the reopening of the institutions, everyone herein has revived that culture and successfully organised the Official Fresher's Party - Synergy 23 for the batch of 2022-26 on 7th February 2023. The event was attended by students with great enthusiasm, and they got to interact with their seniors. It was great fun with everybody enjoying several dances and singing performances.

This year, The ChemSoc organised the very first lecture of its new lecture series, Nobelium, on 'Click Chemistry: A Nobel Prize Reaction, the Growing Impact in Glycoscience' on 20th February 2023. Prof. Vinod Kumar Tiwari, Department of Chemistry, Institute of Science, Banaras Hindu University, was the eminent speaker for the event. Dr. G. L. Sharma, a former scientist at IGIB, Delhi was the special guest. He talked about the importance of biomedical sciences and highlighted the importance of the research work. Prof. Tiwari gave an interactive lecture on Click Chemistry and Click Reactions in Carbohydrate Chemistry and triazole-appended glycodendrimers. The lecture covered various compounds and methodologies,

including Bertozzi Methodology, One-Pot Three-Enzyme Synthesis, and CuAAC-Click Inspired Synthesis. The lecture was informative and engaging with the discussion of real-life applications of the compounds.

Last but not least, the Society recently organised the most awaited Annual Departmental Fest – KHRUSOS'23, which was a 2 day event. Inaugural lecture on 'Chemical Ways of finding Neuropathic Biomolecules ' on 22nd March 2023 by Prof. Biswajit Kundu, IIT Delhi. He discussed proteins getting misfolded due to which they function abnormally and result in various abnormalities in the human body. He talked of various types of diseases being caused by the mis-folding of amyloids like Alzheimer's and Parkinson etc. and their successful prevention methods. The Society also organised various games and competitions for the students of different colleges and departments. There has been an arrangement of amazing food, books and game stalls. There were various competitions and games held on both the days that included Oral and Poster Presentation, Quiz, Open-Mic and Treasure hunt and Debate competitions etc. Winners of all these competitions were provided with exciting gift hampers and certificates. The grand success of this event is clearly an example of successful teamwork and cooperation of members of Department of Chemistry.

INDUSTRIAL VISIT TO SUN PHARMA, GURUGRAM:

The Department organised an Industrial Visit to Sun Pharma on 19th April 2023 under the guidance of Dr. Bhagat S. Bhakuni. Visit Comprise 46 final-year students B.Sc. (H) IIIrd Yr. and B.Sc. IIIrd Yr. Analytical Chemistry students along with additional two faculty member, Dr. Jai Prakash Chaudhary and Dr. Swati Bishnoi. Students were provided with refreshments and were moved to the auditorium where they were explained about the motto, vision and working in Pharma industrial setups. Students visit three important section at Sun Pharma:

API Section: This department works on the synthesis of compound which is bioequivalence to patent drugs.

Analytical Department: This department uses various chromatography techniques (majorly using HPLC & LC chromatography), spectroscopy (using FTIR, UV, XRD).

Formulation Section: This department works on the final stage of drug manufacturing where API and excipients are mixed.

Students were well motivated, encouraged and enlightened by Industrial Visit and learnt significant aspect of Pharma companies and various career option available for chemistry graduates.

Overall, the Department of Chemistry (KMC) had a successful year with achievements in research, teaching, and service. The Department is committed to continuously improvise and look forward to another year of progress and innovation. Finally, the Department is pleased to announce the appointment of 14 new faculty members on a permanent basis, who bring with them diverse research interests and expertise, and will contribute to the Department's continually accelerated growth and success.

DEPARTMENT OF COMMERCE

Teacher-in-Charge: Mr. Pankaj Solanki; Staff Advisor: Mr. Vipin Kumar

The Department of Commerce's Society is known as COMSOC which Mr. Vipin Kumar is running as the Convener for the year 2022-23. The Society has Dr. Aishwarya Nagpal as the Co-Convener. The Society has been successfully in moving towards creating a vibrant academic environment under the mentorship of the advisors and the team members. This Society is an association of students that represents the Department of Commerce. It is one of the most eminent and fulgent Societies of the institution. Office bearers of the Society are – President: Vanshita Sharma, Vice-President: Rohan Fulwari, General Secretary: Akshat Gandhi, Secretary: Apoorv Arora, Event Heads: Aditi Gupta, Aryan Kapoor and Gunjan Bhatia, Marketing Head: Japneet Kaur, Corporate Head: Nandini Pandey, Content Head: Shreya Sharma, Technical Heads: Poorva Narang and Kashish Mehta, PR & Promotions Head: Bhumica Gupta and Mohit Grover, Administration & Treasury Head: Shouraya Miglani, Operations & Logistics Head: Pulkit Mittal, Creative Head: Arushi Rajpurohit, and Alumni Relations Head: Avni Jain.

The Society works with a view to foster social and intellectual activity among the students through talks, lectures, group discussions, competitions, seminars, and conferences throughout the year.

The COMSOC takes utmost pride in its 4A's namely Aarohan, Advent, Appulse and Adieu.

- *Aarohan*: It is what infuses the young blood into the Society. The orientation programme welcomes the new recruits into the Society and marks the first step of their COMSOC journey.
- *Advent*: It is a one-day inter-college event which gives a spectacular chance for the new members to showcase their skills in organizing and event management.
- *Appulse*: It is an inter-college initiative which attempts to bring together the creative potential of young minds in the University. Sharing a common dream, the Society grooms itself every year to excel and add new dimensions.
- *Adieu*: Last, but not the least, Adieu, is the Farewell that the Society hosts for the senior year students in order to celebrate their graduation and college life and bid them bon voyage for their journey ahead.

The last academic year 2022-23 witnessed many activities of the Society as follows:

APPULSE'22: The COMSOC conducted its Appulse'22 on 24th & 25th April 2022. An array of events and competitions spread over 2 days tested the intelligence and creativity of students across the University by putting them in dynamic events. It brought 4 intriguing events to the table this year, namely Lyons Range X, Madness in Multiverse - an auctioning event, NBA- a trading event, and Phantom - The Treasure Hunt. The Society successfully pulled off Aspirations 2022, a flamboyant speaker session, as a part of its Annual Flagship Event -

Appulse on 26th April 2022. Every year, the Society invites illustrious personalities from allwalks of life, and allows the students of the College to meet real-life epitomes of successful personas, witness the charisma of their personalities and get engaged in some enriching and fascinating discussions.

This year we had the following eminent personalities on board: Mr. Anant Ladha, a distinguished Chartered Accountant, Certified Financial Planner, Chartered Financial Analyst Level 3 candidate and has conducted 200+ Financial Literacy Sessions covering more than 15000 people. He is the founder of INVEST AAJ FOR KAL. Another personality was Mr. Nishkarsh Arora, an Indian, Calisthenics Athlete, Founder of Delhi based start-up ‘Koozies Ice Cream’ and a dancer. He is a TV Star who made his debut in the Popular Youth show MTV Roadies. Last personality was Mr. Anil Swarup who is the author of ‘Ethical Dilemmas of a Civil Servant’ and ‘Not Just a Civil Servant’. He is a former civil servant belonging to the Indian Administrative Service (IAS). He held the post of Secretary to the Government of India from 2014 to 2018 in the Ministry of Coal and subsequently in the Department of School Education.

ADIEU‘2022

Adieu is a name of the Farewell that the Society hosts for the senior year students to celebrate their graduation and college life and bid them bon voyage for their journey ahead. It took place on 5th May 2022 this year.

ADVENT‘22

With the notion of reviving the age-old DU culture after the corona pandemic, The COMSOC conducted its first offline Semi-Annual Fest Advent‘22 on 23rd September 2023. This one-day inter college event consisted of three sub-events namely, Lyon’s Range 12.0 - The Mock Stock Competition, Campus Diaries - One-of-a-kind treasure hunt, and Show-biz - A trading event, based on OTT platform and series. The Fest provided a platform for various like-minded participants to test their intellect and challenge it at the same time. With a great number of participants from throughout the Delhi University and beyond, ADVENT‘22 was marked with great success owing to the combined efforts and dedication of the entire Team COMSOC.

AAROHAN‘22

The COMSOC organized its Orientation Program Aarohan‘22 for the first-year students of the Department on 21st November 2022. It was aimed to welcome the enthusiastic first-year students of the Department into the Society’s illustrious fold. The meticulously planned Orientation Programme served as a primary platform for the eager newcomers to gain profound insights into the inner workings and lofty aspirations of the Society. The experienced representatives and heads of the Society left no stone unturned in clarifying the intricate nuances and the multifaceted aspects of the Society, and patiently solved all queries and apprehensions of the inquisitive first years with precision.

FRESHERS’ – AAGAZ

The Society hosted the Department’s First-Year’s students in one of its kind Departmental

Freshers'- AAGAZ on 4th February 2023. The theme of the Freshers' was 'Jab Reel Met Real' which offered a first-hand experience of the dreamy Bollywood college life people generally yearn. It was where the students got to dress as their favourite Bollywood/fictional characters. The faculty, the seniors and the juniors all came together to mark the commencement of the college life for the batch 2025-26. The event was marked by an astounding talent show with dance, drama and songs with exciting prizes and titles.

DEPARTMENT OF COMPUTER SCIENCE

Teacher-in-Charge: Dr. Mamta Sarin; Staff Advisor: Dr. Geethanjali Kher

The Department of Computer Science made continuous and valuable contributions to the learning and growing process of both students and teachers in this session. Staff Coordinators for the academic session 2022-23 were Dr. Mamta Sareen, Ms. Shikha Jain.

The third year began their session in July and second years began in August. The Orientation Program for the first year students was held on 02nd November 2022. Teachers provided various facets of information about the College, courses, extracurricular activities and different Societies along with rules and regulations to the enthusiastic batch of the first year. The students also got an opportunity to interact with their faculty members like Dr. Mamta Sareen, Ms. Geethanjali Kher and Ms. Shikha Jain. This session was followed by the Orientation Programme of The Computer Prodigies, the Computer Science Society. The first-year students got to know more about the Society and its working along with various events that were held in the past. They also interacted with the second and third-year students of the Department.

The Computer Prodigies, the CSS organized several interesting events this academic year: On 19th & 20th January 2023, the Society hosted Tech Talks, in which current and emerging technologies were addressed through seminars and workshops led by experts. There were a total of 4 seminars and 1 workshop held in the Academic Auditorium. The speaker of the seminars and workshop were as follows:

Mr. Shashank Yadav, a well-respected senior software engineer at the prescient healthcare group, spoke on the topic 'Machine Learning'. He held an interactive session on Machine Learning in which the students were explained in great detail about different kinds of Machine Learning models, Artificial Intelligence, Deep learning, and much more.

Ms. Nidhi Sharma who spoke on the topic 'Personal Branding' is presently working at Adobe as a software development engineer. She is also an influencer with more than 30,000 followers. In her talk, the students were able to learn different methods to present themselves on social media and how to be consistent in building a growing their brand.

Dr. Pinaki Chakrabarty, a Professor at the Netaji Subhash University of Technology, spoke on the topic 'Human-Computer Interaction: Software for everybody' and made everyone understand the importance of Human Computer Interaction and how it has helped us in the