

**Annual Report
2021-22**

**MIRANDA HOUSE, UNIVERSITY OF DELHI
DELHI 110 007**

Name of the College: Miranda House

Name of the Principal: Prof. Bijayalaxmi Nanda

Email of the Principal: principal@mirandahouse.ac.in

College Email: principal@mirandahouse.ac.in

Mobile No of the Principal: 9891443469

Picture of the College:



Brief history of the College (200 Words):

Miranda House (MH) started its existence as a hostel for women students in 1946 from an old colonial bungalow situated at 7, Probyn Road (now renamed Chhatra Marg). The college eventually started in 1948, under the stewardship of Sir Maurice Gwyer, Vice Chancellor of the University of Delhi (1938–1950). Ms. Veda Thakurdas was appointed the first principal. 122 young women were admitted into several departments: English, Economics, Hindi, History, Philosophy, Mathematics, Sanskrit, Physics and Zoology. The college pioneered basic science education for women. Today, the college has eighteen departments that span humanities, social and natural sciences, 200 faculty members and close to 5000 students.

The history of Miranda House chronicles the history of women's education as well as that of the women's movement in post-Independence India. The foundation stone for what is now the Hostel building was laid by Edwina Mountbatten on 7 March 1948. MH has created a space for quality and holistic education in Humanities, Social Sciences and basic Sciences that is inclusive and dedicated to turning out sensitised, capable students who aspire to be leaders and responsible citizens of the country. It has been awarded All India Rank One amongst colleges under the National Institutional Ranking Framework (NIRF) for six consecutive years from 2017 to 2022. It has an

Institutional Grade of A+ from NAAC, with a CGPA of 3.61 and granted the Star College status by the Department of Biotechnology.

Major Activities and Achievements (Maximum 200 words) during the relevant period

Miranda House was awarded All India Rank One amongst colleges under the National Institutional Ranking Framework (NIRF) 2022 for the sixth consecutive year. It was also ranked amongst the top five college in the Science Stream and Arts & Humanities Stream in the India Today Best College Survey 2022. This strengthened its reputation as a college accredited with A+ by NAAC and granted the Star College status by the Department of Biotechnology. Established on 7 March 1948, the college celebrated seven decades of sustained excellence. The college received the ZeeMedia Education Excellence 2021 – Excellence in the field of Education.

Various events organized during this year: International Conference on “Science and Society” in light of National Education Policy (NEP) 2020 funded by CSIR-INDIA and Indian Council of Social Science Research; Faculty Development programme on Concept of Indian Language in National Education Policy (NEP) 2020 under the aegis of Mahatma Hansraj Faculty Development Centre; Patent drafting workshop for Women Scientists of 12th Batch jointly organized by Patent Facilitating Centre in collaboration with TIFAC, DST, Government of India; Five-days Face to Face Training program on Understanding the Vulnerability and Risk associated with Urban Areas organized by NIDM, Government of India in collaboration with University of Delhi and Department of Environmental Studies; IPR awareness/training program under the special mission called “National Intellectual Property Awareness Mission (NIPAM)” The College won six prestigious cups at the Flower Show which include the Platinum Jubilee Cup, The Department of Sanskrit Cup, The Devi Prasad Sarin Cup, The Kirorimal College Cup, The Department of Hindi Cup, The Ved Prakash Cup.

Honours/Distinctions (Faculty of the College) in last one year:

The Principal, Professor Bijayalaxmi Nanda and Dr. Hena Singh were felicitated by the Ministry of External Affairs on the occasion of International Women's Day, March, 2021.

Dr. Hena Singh received Dr. S Radhakrishnan Memorial Award for exemplary work in Teaching and Learning in September 2021.

Dr. Skylab Sahu is awarded Barbo Kelin Fellowship 2022-2023 from the Swedish Collegium for Advanced Study.

Dr. Senganglu Thamei is appointed by invitation as Research Fellow at Highland Institute of Research Fellowship, Kohima, February 2022.

Dr. Senganglu Thamei, selected for the Nehru-Fulbright Post Doctoral Fellowship 2022-23 on 8 February 2022, fellowship to begin from 1 September, 2022 to 31 August, 2023 in University of Vermont, Vermont, USA. (Grant amount: Rs. 33,89,100)

Students with Distinctions (Maximum 5):

Ms. Ruby Shekhawat was awarded the University medal for securing first position in B.A. Programme

Ms. Priyanka Ghosh was awarded the University medal for securing first position in B.A. (Hons.) Bengali

Ms. Saumya Rai was awarded the University medal for securing first position in B.A. (Hons.) Philosophy

Ms. Bhumika Nebhani was awarded the University medal for securing first position in B.A. (Hons.) Political Science

Ms. Rubal was awarded the University medal for securing first position in B.Sc. (Hons.) Chemistry

Publications Total Number (Best 10), In terms of H-Index of the Journals (In case if H-index is same the publication having the higher number of citations will have higher priority)

Authors	Year	Title	Journal	Issue	Volume	Page nos.	No. of citations
Rahman, Afreen Jahan, Deepti Sharma, Deepanshu Kumar, Mallika Pathak, Anju Singh, Vinod Kumar, Raman Chawla, and Himanshu Ojha.	2021	Spectroscopic and molecular modelling study of binding mechanism of bovine serum albumin with phosmet	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	1	244	118803	10
Rahman, Afreen Jahan, Lajpreet Kaur, Mallika Pathak, Anju Singh, Piyush Verma, Rahul Singhal, Vinod Kumar, and Himanshu Ojha.	2021	Spectroscopic studies of binding interactions of 2-chloroethylphenyl sulphide with bovine serum albumin	Journal of Molecular Liquids	1	340	117144	7
Kumar, Sumit, Prem Prakash Sharma, Charu Upadhyay, Prakasha Kempaiah, and Brijesh Rathi.	2021	Multi-targeting approach for nsp3, nsp9, nsp12 and nsp15 proteins of SARS-CoV-2 by Diosmin as illustrated by molecular docking and molecular dynamics simulation methodologies	Methods	1	195	44-56	6
Kumar, Sumit, Yash Gupta, Samantha E. Zak, Charu Upadhyay, Neha Sharma, Andrew S. Herbert, Ravi Durvasula, Potemkin, Vladimif;Dye, John M, Poonam, Kempaiah, Prakash	2021	A novel compound active against SARS-CoV-2 targeting uridylylate-specific endoribonuclease (NendoU/NSP15): In silico and in vitro investigations	RSC Medicinal Chemistry	10	12	1757-1764	5

Gupta, Yash, Steven Goicoechea, Catherine M. Pearce, Raman Mathur, Jesus G. Romero, Samuel K. Kwofie, Matthew C. Weyenberg, Daravath, Bharathi Sharma, Neha Pooname Akala, Hoseah M, Kanzok, Stefan M	2022	The emerging paradigm of calcium homeostasis as a new therapeutic target for protozoan parasites	Medicinal Research Reviews	1	42	56-82	4
Sharma, Smriti, and Vinayak Bhatia	2021	Phytochemicals for drug discovery in Alzheimer's disease: In silico advances	Current Pharmaceutical Design	25	27	2848-2860	4
Sinha, Sneha, Sujit Kumar, Sunil K. Arora, Anjali Sharma, Monika Tomar, Han-Chun Wu, and Vinay Gupta.	2021	Enhanced interlayer coupling and efficient photodetection response of in-situ grown MoS ₂ -WS ₂ van der Waals heterostructures	Journal of Applied Physics	15	129	155304	4
Pathak, Mallika, and Rahul Singhal.	2022	Therapeutic and diagnostic applications of nanocomposites in the treatment Alzheimer's disease studies	Biointerface Research in Applied Chemistry	1	12	940-960	3
Ahmad, Tahir, Kajal Jindal, Monika Tomar, Pradip K. Jha, and Vinay Gupta.	2021	Role of charge states and dopant site in governing electronic properties of Cr doped BiFeO ₃	Materials Chemistry and Physics	1	263	124438	3
Yadav, Gunjan, Vinay Gupta, and Monika Tomar.	2022	Double Schottky metal-semiconductor-metal based GaN photodetectors with improved response using laser MBE technique	Journal of Materials Research	2	37	457-469	2

Journal published by the College(in APA Format):

Editor(s)	Year	Title	Frequency Annual/ Bi-annual/ Quarterly	Issue	Volume	Page nos.
NA	NA	NA	NA	NA	NA	NA

Research Projects (Maximum 5):

Funding Agency	Year/Period	Title	Amount sanctioned (in Lakh Rupees)
North Eastern Council, Government of India	2022-2025	Establishing the Northeastern Regional Research and Resource Centre at Miranda House	Rs. 275.40 lakhs
DRDO	2019-2022	Fabrication of Lamb Wave Devices on SiO ₂ /Si Membrane for strategic applications	Rs. 428.03 Lakhs
DST	2019-2022	Realization of MEMS based Dual Energy Harvester using ferroelectric and ferromagnetic thin film layered structures	Rs. 51.48 Lakhs
DRDO	2021-2022	Development of process and evaluation of electron suppression coating on the grids used in TWTs	Rs. 23.58 Lakhs
ICMR (approved)	2022-2023	Rapid diagnosis of pulmonary tuberculosis based on detection of mycobacterial antigens within serum/urine samples by immuno-PCR assays	Rs 36.3 Lakhs
SERB (approved)	2022-2025	Immunological validation and protective efficacy of multiepitope vaccine constructs designed from Mycobacterium tuberculosis dormancy associated proteins Rv2627c and Rv2628 in mouse model of tuberculosis	Rs 30 Lakhs

Patents Filed/Granted:

Number of National/International/Collaborative Patents	Title of National/International/Collaborative Patents
National – 06 International – 02	<ol style="list-style-type: none"> USA Patent: Multi-States Nonvolatile Opto-Ferroelectric Memory Material and Process for preparing the same thereof. US Patent: Calxinin Compositions and Method of Treating Viral Infections. Indian Patent: A novel highly sensitive and reliable LRSPR biosensor for detecting uric acid and fabrication thereof. Indian Patent: Electric field assisted low power consuming conducto-metric gas sensor. Indian Patent: A sensitive, selective and rapid fuel gas sensor.

	<p>6. Indian Patent: SPR based DNA biosensor for the detection of Puccinia striiformis f. tritici, causal agent of yellow rust in wheat.</p> <p>7. Indian Patent: Electrochemical based genosensor for the detection of Puccinia striiformis f. tritici, causal agent of yellow rust in wheat.</p> <p>8. Indian Patent: A novel cost effective method of fabrication of inverted Light Emitting Diodes.</p>
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Seminars Organized (Maximum 5) Arranged on the basis of priority (highest first):

Name of Speaker	Designation and Affiliation	Title of Talk	Theme of Seminar	Date
Dr. Anil Kumar Mishra	Director, Institute of Nuclear Medicine and Allied Sciences, DRDO	Basics of Metal and Modern Medicine	Metal and Modern Medicine	29 March 2022
Mr. Vedveer Arya	Joint Secretary (R&D), DRDO, Ministry of Defence	Emergence of Mahajanapadas and Urbanisation in India	Emergence of Mahajanapadas and Urbanisation in India	4 February 2022
Nicola Smith	Senior Lecturer of Political Science and International Relations in the University of Birmingham, UK	Understanding Capitalism	Author Speak Series Seminar	
Mr. Kunal Satyarthi	Joint Secretary (Advisor), National Disaster Management Authority, Ministry of Home Affairs, Govt. of India	Environmental Conservation: The Contemporary Realities	Environmental Conservation: The Contemporary Realities	19 January 2022
Dr. Shankar Dutta	Scientist F, MEMS Division, Solid State Physics Laboratory, DRDO	MEMS Technology for miniaturized sensors and impact of residual stress	MEMS Technology for miniaturized sensors and impact of residual stress	22 July 2021

Conferences Organized (Maximum 5) Arranged on the basis of priority (highest first):

Conference title	Date	Funding agency support
Science and Society	23 February 2022 to 25 February 2022	CSIR-INDIA and Indian Council of Social Science Research
Global Women's Breakfast, IUPAC	16 February, 2022	Department of Chemistry, Miranda House
Understanding the Vulnerability and Risk associate with Urban Areas	23 November 2021 to 27 November 2021	NIDM, Government of India
Saral Sanskrit Vyakaran Aur Sambhashan Kaushal	15 July 2021 to 19 July 2021	Department of Sanskrit, Miranda House

NAAC Accreditation: A Changed Perspective	1 July 2021 to 3 July 2021	IQAC Cluster India
Of Thieves and Theris, Hunters and Housewives	9 November 2021 to 10 November 2021	Co-Sponsored by Primus Books

Seminar/Conference Presentations (Maximum 10):

1. Prabha Arya presented a paper entitled, 'In silico analysis of the compounds for the effective treatment of breast and lung cancer subtypes' in the Health 2021 Virtual International Conference on "Cancer Biology on: Advances and Challenges" organized by Department of Zoology, under the aegis of DBT Star College Scheme and IQAC, Deshbandhu College, University of Delhi during 11 to 13 November 2021.
2. Bijyalaxmi Nanda presented a paper entitled, 'Contribution of HEIs in achieving gender equality and empower all women and girls' North Zone Annual Vice Chancellors' Meet on the theme Realising SDGs through HEIs by Association of Indian Universities on 26 November 2021. North Zone Annual Vice Chancellors' Meet on the theme Realising SDGs through HEIs by Association of Indian Universities on 26 November 2021.
3. Bijyalaxmi Nanda presented paper entitled "Global and State Discourses regarding Gender Discrimination: The case study of Gender biased Sex Selection" in the 8th Refresher Course in Global Studies (IDC): International Relations and World Politics, JNU on 26 November 2021.
4. Bijyalaxmi Nanda presented paper entitled "Deconstructing Caste and Gender: Reinterpreting Indic History" organized by Department of Political Science, School of Social Sciences and Humanities, Deen Dayal Upadhyaya College, University of Delhi on 16 November 2021.
5. Monika Tomar presented paper entitled "Exploring the capabilities of wide bandgap heterostructures and quantum wells for short wavelength photonic devices" at "International Symposium on Semiconductor Materials and Devices", at Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, 2 November 2020.
6. Anindita Sarkar presented paper entitled 'Smart Urban Water Infrastructure Beyond the Network: Comparative Cases of Water ATMs in Nairobi and Delhi', 6th International Conference on Urban E-Planning, Institute of Geography and Spatial Planning, University of Lisbon, Portugal & International Journal of E-Planning Research, Lisbon, Portugal, April 7 – 12, 2022.
7. Skylab Sahu presented a paper entitled 'Impact of Covid-19 Pandemic on Domestic Help Workers in Delhi', in the seminar COVID-19 in India & Sustainable Development Goals, Challenges, Responses & Way forward organised by ASISS in collaboration with ICSSR in February 18th -19th, 2022.
8. Rekha Kumari presented paper entitled "Structural changes in tnaA, gadB and tdc genes of human gut bacteria lead to variations in neurotransmitter levels during depression" at the INSCR International Conference University of Delhi, India, November 15-18, 2021.
9. Kalawati Saini presented present paper entitled "Degradation of Dyes by using Innovative Photocatalytic Reactor" International conference Nanotechnology Era, Organized by Amity University, Noida, 7-11 June, 2021.
10. Bharati Jagannathan presented paper entitled "An Attempt at Gendering of Pilgrimage. In: 26th European" Conference on South Asian Studies, 26- 29 July, Vienna-Online.
11. Ashu Thereja Malhotra presented Paper entitled "Exploring Reflective Practices for teaching and learning : A Study of B.El.Ed. Pre Service Teachers in online" Annual Research Meet at HBCSE , TIFR from 23rd September 2021 to 25th September 2021.

National/International MoUs Signed:

1. Institute of Nuclear Medicine and Allied Science
2. Technology Transfer Agreement with M/s Optiregion
3. Dakshina Foundation
4. Government Girls College, Ajmer

Other Inter-Institutional Collaboration:

Miranda House has linkages with a vast network of academic institutions, social organisations; corporate entities and eminent citizens at large. The webinar with University of Birmingham, UK

Students under Exchange Program

Inbound (Programs and number of Students)

Outbound (Programs and number of Students)

The Indo-Dutch Collaborative Program has been a unique exchange initiative between Miranda House, Sri Ram College of Commerce with Utrecht Business School, Hogeschool Utrecht University of Applied Sciences, Utrecht, since 2008. This year the 14th Indo-Dutch collaboration program was held in physical mode after two years with full enthusiasm and a week full of learning, exchanging cultural ideas and adapting to new environments. Students were provided with an opportunity for an international, inter-cultural interaction on an academic platform. It was a mix of lectures from academics as well as industry experts. The intensive international encounter of students and staff lead to the increase of international competencies for those who have not spent a longer period abroad and reinforcing the relations between both the universities.

Placement Details:

Number and percentage of students placed: 52

Number of Companies visited for campus recruitment (Companies and nature of Industry) : 209

Extension and Outreach activities

Miranda House encourages all students to participate in extension work, community engagement and outreach.

The Centre for Environmental Studies and Disaster Management (CESDM) was instituted in November, 2021 as a centre for learning and research. The centre had been actively engaged with different organisations i.e., Department of Environmental Studies, University of Delhi (DES, DU), National Institute of Disaster Management, MoH, Govt of India (NIDM), and National Disaster Response Force, GoI (NDRF), Intellectual Property Rights, Govt. of India (IPR) for its various events.

Laskshita, the Enabling Society: A three days programme on World Braille Day including a talk on ‘Representation of Disability in Literature’ and a creative writing workshop; workshop on Sugamya Pustakalaya & Bookshare.

NCC: Cleanliness Drive under “Puneet Sagar Abhiyan”; Educational Trip to IMA, Dehradun; NISCHAY’22, annual fest of MHNCC COY was organized with Brigadier Anupam Sharma, Ms Santosh Yadav, First women in the world to climb the Mount Everest twice. CPL Manya M. Kumar was awarded as the All-India Best Cadet, SW (Army Wing) and received a medal and Prime Minister’s Baton on 28th January 2021.

NSS: On the occasion of Breast Cancer Day, an international symposium on Breast Cancer Awareness was organized with the aim of spreading the immense knowledge on breast cancer among the public. An initiative of nutri-garden plantation was also started by the volunteers under Poshan Abhiyan. A week-long initiative, Swachta Abhiyan, with the objective of spreading the importance of cleanliness among the people and this event succeeded in encouraging large number of people to maintain cleanliness in their surroundings.

Sports: REBOOT: A REDISCOVERY TOWARDS FITNESS: The department organized a 3 days fitness workshop. Organized a CERTIFICATE COURSE IN FOUNDATION OF YOG. An ‘Aerobics Online Workshop’ entitled “Step Up- Towards Fun Filled Fitness Hours” was conducted, aimed at developing fitness through Aerobics.

Placement Cell: The Placement Cell, Miranda House in association with Pradhan Mantri Kaushal Vikas Yojna (PMKVY) and National Skill Development Corporation (NSDC) launched skill-hub centres in the college. The objective of setting up Skill Hub is to impart and inculcate skills among underprivileged and school drop-out women between the age-group of 15-40 and make them empowered and Atmanirbhar (self-reliant). At Miranda House

arrangements are made to impart two skill courses under this initiative. Three months course on “Green Paper Bag Making”; 6 months course on “Artificial Intelligence”.

Unnat Bharat Abhiyan Cell: Conduct awareness programmes in five areas – Education (particularly for girl-child), Menstrual hygiene, Health awareness [protein-energy-nutrition (PEM)], Consumer awareness and Awareness about government welfare schemes. An online certificate course on ‘Community Outreach Program: ‘Together we can’ to UBA volunteers and faculties. The course was open to anyone who wanted to understand the nuances of positive collaborative community engagement and it saw a successful participation of 600 students from different parts of the country.

Library Development

The total sanctioned Library Budget was Rs. 11,64,571/-. In the academic year 2021-2022, 940 volumes of books were added.

Faculty Strength

Permanent: 123, Temporary: 02, Ad hoc: 69

Financial Allocation and Utilization

Grant sanction in 2021-2022: Rs. 65,37,21,233

Utilization 2021-2022: Rs. 66,04,37,223

Name and Contact details of Coordinator for Annual Report 2021-2022 of College

Name of Coordinator: Prof. Monika Tomar

Email of Coordinator: monika.tomar@mirandahouse.ac.in

Contact no of Coordinator: