

Hindi Vidya Prachar Samiti's
RAMNIRANJAN JHUNJHUNWALA COLLEGE
of Arts, Science & Commerce



DBT Star Status
and DBT Star College Scheme
Success Stories

Ramniranjan Jhunjhunwala College Ghatkopar (West) Mumbai 400 086

DBT Star Status and DBT Star College Scheme Success Stories

The departments of Botany, Zoology, Chemistry and Physics were awarded the DBT star college scheme in the year 2014, after 3 years of star college scheme and one year for strengthening, these departments were awarded the Star Status in 2019. Looking at the impact of the scheme on undergraduate teaching and research the departments of Biotechnology, Computer Science, Information Technology, Statistics and Mathematics were inspired, and they made a proposal and presented for the sanction of financial assistance under the DBT star college scheme and were sanctioned the same in 2019. The DBT Star college scheme has opened new avenues and opportunities for students pursuing science education. It has given a new lease of life to undergraduate science education. All departments with multiple sets of equipment's could enable students to enjoy performing practical's and additional practical's under the star college scheme.

The department of Physics which was established in 1963, was motivated to start the postgraduate programme in Physics in 2017 due to the response from students who enjoyed the mini-projects. Similarly, to facilitate student progression PG programs in Analytical Chemistry, Data Science and Artificial intelligence, Statistics in 2019, 2020 and 2021 respectively were started. Mini projects undertaken by students have been instrumental in students progressing to institutions of repute like IIT, TIFR, ACTREC to name a few.

To summarise, a few of the highlights in the subject of Biotechnology placements were very good because of the hands-on training students received. Ms. Neelam Bhattarai (TY 21-22 Batch) got a two-month internship at FRIGE's Institute of Human Genetics Ahmedabad in April 2021, under Dr. Harsh Sheth, Head of Advanced Genomic Technologies Division. She also got GAT-B Rank of 75 & Ankit Yadav (TY 21-22 Batch) got a GAT-B Rank 100. Chaitanya Ghatkal (SY 21-22 Batch) - Could get 2 months of summer research paid fellowship at Indian Academy of Sciences, Bangalore, in May and June 2022, under Prof. NB Ramachandran. Abhishek Randive (TY 20-21 Batch) got an internship of 6 months at ATREC under Dr. Abhijeet Dey, Ms. Lydia Mathew (TY 19-20 Batch) is now pursuing Ph.D. in Biotechnology at IIT Mumbai, Shreya Duby, Shriya Yadav, Priya Tripathi, Jyoti Sahani, Shivam Shukla, Satyam Tiwari (TY 20-21 Batch), Krishna Shukla (SY 20-21 Batch) got employed in Metropolis healthcare Pvt. Ltd. as Junior scientific officers in the Covid 19 testing department. Nilay Upadhyay (TY 19-20 Batch) got employed in Lal Pathology Laboratory.

Students of Mathematics Mr. Vikas Sharma (TY 2020-21 batch) got admission for MSc in NIT, Manipur, Mr. Vishvajeet Rai (SY 2021-22 batch) qualified IIT-JAM 2022 with all India rank 980. Ms. Mubashera (TY 2021-22 batch), Mr. Vishvajeet Rai (SY 2021-22 batch) got selected for the Mathematics Training and Talent Search Programme - 2021 organized by MTTS Trust and funded by the National Board of Higher Mathematics. Fifty percent of students offering a Statistics major progressed to higher studies.

The departments of computer science and Information technology provided students with the necessary technical skill sets using Raspberry pi purchased from DBT funding and we could even give it to students to take it home during the Pandemic. Gaurav Gupta (TY 2021-22) completed an internship of six months at Inkoop consultancy private limited as a Software Engineer, John Machado (TY 2021-22) completed an internship of two months at Interns pool in Cyber Security, Ganesh Halpatrao (TY 2021-22) completed an internship of 2 months at SHAPEAI in Full Stack Web Deployment, Harshad Sonawane (TY 2021-22) completed an internship of one month at Bokeh Photogenic Pvt Ltd as Android Developer. Ganesh Halpatrao (TY 2021-22) completed an internship of two months at SHAPEAI as Data Analyst. Tanvi Sawant (TY 2021-22) completed an internship of five weeks at Internship Studio in AWS. Yasin Khan (TY 2021-22) completed an internship of one week at SHAPEAI in Basic Web Development with JS and React JS Bootcamp. Mr. Rohan Pawar (SYBSc IT 2021-22) successfully completed an internship of 1 week as “C and C++ development associate” with “The Entrepreneurship Network” in January 2022. Mr. Deepak Adal (SYBSc IT 2021-22) successfully completed an internship of 1 month for the Cancer Survivorship and Rehabilitation of Indian Cancer Society under Ms Bhiravi Gawade. His roles and responsibilities included visiting students, and patients, data entry, and organizing various activities. Mr. Shubham Singh (TYBSc IT 2021-22) successfully completed an internship of 3 months as a “Software Development Ninja Intern” for “Decoders lab Pvt Ltd” from Nov 2021 - Jan 2022. The department of chemistry has 120 students graduating every year. The DBT star college scheme has resulted in students progressing to higher studies and exploring new avenues by going out of state few examples are Ms. Army Mohammed Yusuf Sayed (2019-20 T Y) cleared JAM and joined NIT Karnakata Suratkal for PG, Mr Narendra Chauhan and Mis Khan Suraiya Khatoon of the same batch joined NIT Rourkela. Students from the department of Physics excelled in project work. The funding received from DBT under the Star College Scheme has enabled us in organising popular lectures by eminent scientists that give students the glimpse of the frontiers of the field which incites their interest. The field visits are arranged to research Institutes in the city, Nehru Science Center or a star gazing night. They all

add to their excitement. New experiments are introduced which help in broadening the knowledge base. DBT funding has allowed us to introduce projects in our undergraduate curriculum. Students carry out several formal or informal projects. This gives them practical hands-on experience and leads to enhancement of their motivation to study the subject. All this has definitely started yielding results. We find that students are more forthcoming to study the subject further. The number of students going for higher studies in the subject and also securing seats in renowned universities and Institutes is increasing day by day. One of our students Mr. Saurav Varma (BSc 2019) went to JNU, New Delhi for his MSc and he has qualified for most of the national examinations with flying colors. He has also secured admission to many Institutes including Tata Institute of Fundamental Research, Mumbai and the Indian Institute of Science, Bengaluru. Another student Mr. Faraz Mehdi (BSc 2019) who went to the University of Mumbai for an MSc has got admission to Wayne State University, USA. Mr. Omkar Jadhav (BSc 2020) qualified national level examinations with good rank and has an offer from S. N. Bose Institute, Kolkata. Mr. Kunal Singh, Ms. Fatima and Ms. Shikha Pandey (all BSc 2021) joined Xaviers College for their MSc in Astrophysics. Mr. Shiv Gupta and Mr. Amir Hamza (BSc 2019) secured admission to IIT Gandhinagar and IIT Palakkad respectively for their MSc.

Mr. Siddhesh Sitaram Bhor has completed his graduation in Zoology in 2017. During his academics he had undertaken DBT project on the “Study of haemin crystals from blood sample of different vertebrates”. This project had nurtured his interest in the field of research. He further



completed his Master's in Marine Zoology and was declared the topper in the College in 2019.

He went on to pursue his research interest in the field of ornithology. Currently, he is working as a junior research biologist at Salim Ali Center for Ornithology and Natural History (SACON) Coimbatore, Tamil Nadu.



He has accomplished success in several projects. Few of these include “Characterization of community reserves and assessment of their conservation values in Meghalaya for mammal component”, “Assessing the population status of synanthropic bird species of India, including house sparrow and house crow, and their response to urbanization in Tamil Nadu and Rajasthan and also “Avian botulism outbreak in Sambhar Lake”. He has also completed the Certificate Course in Bird Identification & Basic Ornithology under the Green Skill Development Programme, MoEF & CC, Govt. of India held in Salim Ali Centre for Ornithology & Natural History.

Mr. Abhishek Maurya had completed his schooling and Junior College in vernacular medium from the state of Uttar Pradesh. With minimal resources and infrastructure at the native educational institution, he was deprived of good educational projects and well-equipped laboratory facilities. His family shifted to Mumbai, and he joined R. Jhunjhunwala College in 2017. During his undergraduate studies, he up took research projects under the DBT Scheme. In F.Y.B.Sc he worked on the project titled “Bird egg



shells - a scope for heavy metal bioremediation”. This project was also presented at the Aavishkar Research Convention organized by the University of Mumbai. DBT funding has supported the students to procure the necessary materials to carry out the research activities without any financial difficulties. Owing to this support he undertook another project in S.Y.B.Sc titled “Studies on the physicochemical properties of the Kalu river at Titwala”. This project was presented at the Wetland Day Conference on 2nd February 2019. These opportunities have enhanced his professional skills and given him the required confidence to explore new avenues.

During the pandemic, he cleared his entrance exams for admission to PG courses at the Central Universities. He successfully completed the M.Sc Zoology course from the Central University of Punjab, Bathinda in 2021. He has topped in the University and will be receiving gold medal and is eligible for the DST INSPIRE fellowship.

The main success has been a multidisciplinary approach to problem-solving, project work for learning by doing. There are many success stories of which we are sharing a few of them. Ms Susmita Gudulakar joined our institution as a first year B Sc student in 2015 with Botany, Zoology and Chemistry as subjects. A daughter of a police havildar with a zeal for innovation

found the correct ambiance in the college which has strong support from DBT under the star college scheme. With the funding received from DBT she and her classmates readily undertook active interest in mini projects and spent after hours of class in the laboratory. The teacher mentors facilitated her in the Lab work. She started with small projects like bioassay using onion root tips mitosis. Her curiosity and desire to explore new avenues helped her in interact with the local Vaidya's in her native village and she became curious to know more about use of plants in the treatment of kidney stones and worked on plant systems as a tool for validating ethnobotanical claims for kidney stone treatment, Biomineralization in Ficus leaves, extraction of natural products from plant material by using a microwave, a survey of plants with potential of being used as a natural surfactant, extraction and characterization of natural surfactant, formulation and product development, eco-friendly cleansing for all. Her zeal to work as a team enabled our college bag the first prize at the State level competition of ECHO (Environment conservation Heroes a activity of WWF) which involved more than a hundred students of undergraduate classes and four of them made the presentation at the State level and went to the National level in 2020 (YouTube link). DBT star college activity encouraged our students to participate actively at the research summit "AVISHKAR" of University of Mumbai we have been champions under the Pure Science category. Susmita won the Avishkar gold medal and also an innovation award from Nehru Science centre. She presented her work in India and abroad and was appreciated for the same. She won the gold medal for the paper presented at the National conference Interdisciplinary: Prospects and Challenges held at Maitreyi College, the University of Delhi in April 2017. Her strong research work in the undergraduate level helped in her progression to her Masters's program. A topper at UG and PG level with a flair for innovation lead to her placement with Hindustan Unilever in Hair care as an R and D Associate Product development in 2020 during the challenging time of PANDEMIC. She is one of the success stories wherein a career has been shaped due to undergraduate research and learning due to the financial support from the star college scheme of DBT. Mr Anmol Mishra joined our institution as an undergraduate student in 2018. He participated in activities organized under DBT Star college scheme and was part of the winning ECHO team in the pandemic he made videos for online virtual practicals and completed his B Sc Botany in 2021. The impact the DBT Star college scheme becomes more visible when a student progresses for higher studies due to the fun he had learning science as an undergraduate student. He has recently gone to Israel to participate in the four weeks intensive Sustainable Agricultural solutions international summer course in the Sede Boker Campus of Ben Gurion University in Negev. And has also been awarded a scholarship for the same. This dream he

could see only, and it was realized due to the support of DBT under the star college scheme as an undergrad student.

Dr. Himanshu Dawda
Principal and DBT Co-ordinator

Highlights of DBT Star College Activity showcasing Student Success stories and Activities









To Whom It May Concern,

This is to certify that Anmol Mishra, Passport W0373049, has been accepted to participate in the summer course held by French Association Institute for Agriculture and Biotechnology of Drylands from June 30st, 2022 to July 28th, 2022 at The Jacob Blaustein Institutes for Desert Research, Sede Boqer campus, Ben- Gurion University of the Negev.

Anmol Mishra has been awarded a scholarship by the Planning & Budgeting Committee - Council for Higher Education.

The amount of the scholarship awarded to Anmol Mishra will cover: tuition, field and lab work, organized tours, and full board accommodations at the Sede Boqer student campus, Midreshet Ben-Gurion.

Sincerely,

Dr. Natalie De Falco
Course Coordinator
agricourse@post.bgu.ac.il
French Associates Institute for
Agriculture and Biotechnology of Drylands
BIDR, BGU, Sede Boker Campus



Susmita Gudulkar receiving the GOLD MEDAL for her project in Avishkar

