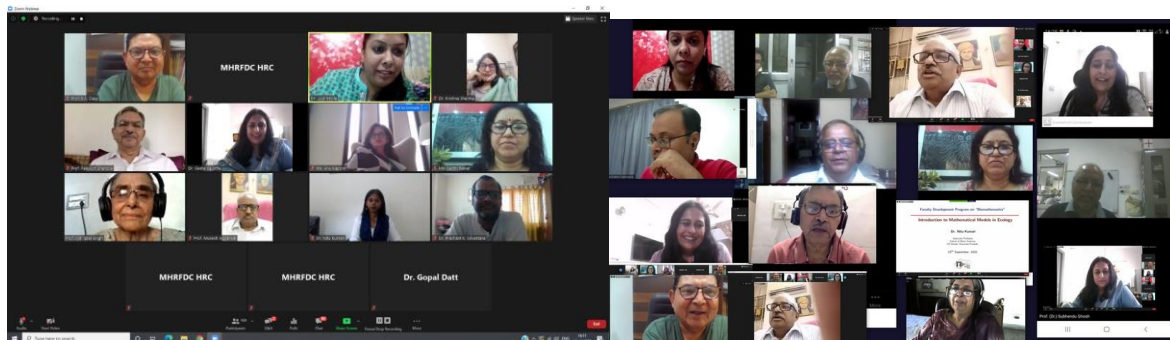# Department of Mathematics

Report 2020-2021

Although time and multiverse travelling has not been invented yet, we might be on the right path to better understand the dynamics of deadly diseases and even improve current treatments by relying on Biomathematics. With this as inspiration, Department of Mathematics Teacher In-charge Dr. Geeta Kalucha, P.G.D.A.V. College and Internal Quality Assurance Cell (IQAC) under Director Mr. K.K, Srivastava, P.G.D.A.V. College organised a **two week (online) International FDP on BIOMATHEMATICS**, from 15th -28th October,2020 in collaboration with Mahatma Hansraj Faculty Development Centre (MHRFDC), A Centre of MoE under PMMMNMTT Scheme, Hansraj College, University of Delhi. With renowned resource persons namely Prof. Ajit Iqbal Singh, INSA Emeritus Scientist, Formely Professor and Head, Department of Mathematics, University of Delhi , South Campus ,Dr. Peeyush Chandra,Prof.(Retd.), Department of Mathematics & Statistics, IIT Kanpur, Dr. Nitu Kumari, Associate Professor, School of Basic Sciences, IIT Mandi, H.P, Dr. Prashant K. Srivastava, Associate professor, Department of Mathematics, School of Basic Sciences, Indian Institute of Technology, Patna, , Prof.(Dr.) K.R. Pardasani, Professor of Mathematics, Former Head, Department of Mathematics, Bioinformatics And Computer Applications, Maulana Azad National Institute of Technology, Bhopal, Prof. Subhendu Ghosh, Formerly Professor and Head, Department of Biophysics, University of Delhi, South Campus, Dr. Rajan Shrivastava, Senior Research Fellow, Department of Biophysics, University of Delhi, South Campus, , Prof. Sankar K. Pal, National Science Chair, Emeritus Professor, Distinguished Scientist, Former Director Indian Statistical Institute,Center for Soft Computing Research, Kolkata, Prof. Sunita Gakkhar, Emeritus Fellow, Department of Mathematics, Indian Institute of Technology, Roorkee, Prof. James Murray, Emeritus Professor of Mathematical Biology, University of Oxford, Emeritus Boeing Professor of Applied Mathematics, University of Washington, Prof. Siddhartha Pratim Chakrabarty, Dept. of Mathematics, IIT Guwahati and Prof (Dr). Sitabhra Sinha, Institute of Mathematical Sciences, C. I. T. Campus, Taramani, Chennai shared their resources with all the panellist and attendees. Prof. (Dr.) B.K. Dass, Prof. (Retd.), Department of Mathematics, University of Delhi, Prof. C.S. Lalitha, Head, Department of Mathematics, University of Delhi, Dr. J.K Krishnamurthy, Formerly Principal, PGDAV College, Dr. Mukesh Aggarwal, (then) Principal, PGDAV College and Dr. Krishna Sharma, Vice-Principal, PGDAV College, graced the programme with their presence and guidance.
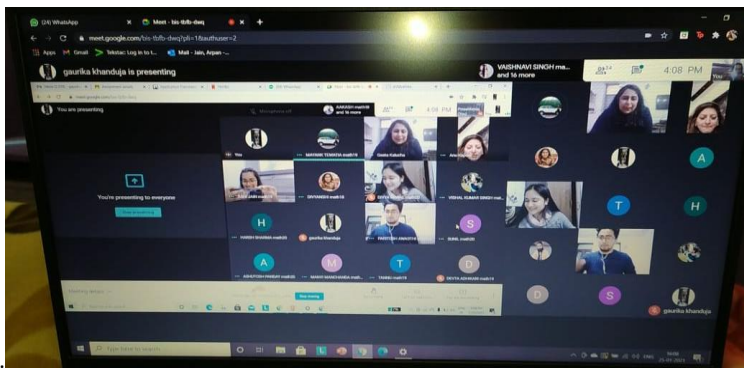

With a total of 92 participants all over the India and outside, the FDP and its learning outcomes such as hands on computer sessions using PYTHON 2.7, the theory of bifurcation and chaos, modelling molecular evolution, population growth, cell division and the ongoing disease COVID-19 etc. were appreciated by all.

An online orientation for the first- year students of B.Sc. (Hons.) Mathematics was also organised on 7th December,2020 in which the students were made familiar with their course, faculty members of the department and its society namely, Anant Mathematics Society. Dr. Krishna Sharma, Principal, P.G.D.A.V. College welcomed and motivated the students with her inspiring words. All other faculty members also guided them for the course they have chosen and wished them luck and success for the years to come.

Interviews for the members of Anant Mathematics Society was conducted online and once it was finalised, the over enthusiastic seniors of second and third year organised a welcoming party for the students of first year on 25th January,2021.

An online mathematical fest 'Spectrum'21' was organised by Anant Mathematics Society on 5th and 6th of April, 2021. It included an Inaugural talk by Dr. Sitabhra Sinha, Institute of Mathematical Sciences, C. I. T. Campus, Taramani, Chennai on 'Going Viral! Epedemics and the Mathematical Modeler'. The programme also covered four other academic events namely 'Presentomania' which had presentations from students on various topics of mathematics, 'Cresmos' in which the students used various mathematical equations to draw various pictures of the real world using "Desmos graph plotter", 'King's Gambit', an online chess game and 'Infinity Macedons', a riddle based quiz competition. The department further plans for more academic programmes for the students.

We hope that in the upcoming year, the Department of Mathematics would flourish more and our students would come out with flying colors, hoping that a lot of opportunities would come in our way and we would work on them.

Dr. Geeta Kalucha

Teacher-in-charge

Department of Mathematics

2020-21