

Departmental Activities- Department of Mathematics

The Department of Mathematics, Kamala Nehru College, organized a webinar on 11th June 2020 through the Zoom Platform. The topic of the webinar was “Unfastening the social knots against Mathematics” and the speaker for the event was Dr. Rita Malhotra, former Principal, Kamala Nehru College.

The webinar was in the form of an open lecture. Dr. Rita Malhotra talked about how students in general have a fear regarding studying Mathematics and how teachers can play a great role in removing these fears. She discussed various ideas on how to motivate students and make Mathematics as a subject more approachable and interesting.

Over 150 students and teachers from various colleges of Delhi University participated in the webinar. The webinar was a highly engaging session and there was a question answer round at the end of the session. The participants filled a feedback form through Google forms at the end of the webinar and all registered participants received E-certificates.

The Department of Mathematics, Kamala Nehru College, organized a webinar workshop on 31st August 2020 on the topic “Introduction to Wolfram Mathematica” via Zoom platform. The speaker for the event was Mr. Mahendra Singh Bisht, System engineer SCUBE Scientific Software Solution Pvt. Ltd., New Delhi.

The aim of the webinar was to explore the technologies on the Wolfram platform including Mathematica for a wide variety of practical applications. The students and faculty were introduced to the new features in the Wolfram language and received various examples to begin using the platform.

Personal Achievements- Department of Mathematics

Dr. Pooja participated in the following FDPs:

1. Online FDP on Emotional Intelligence conducted by ICT Academy on 13th May 2020 to 18th May 2020.
2. Two weeks FDP on "Bio Mathematics" organised by Department of Mathematics, P. G. D. A. V. College, University of Delhi in Collaboration with MHFDP Centre Hansraj College from 15th October 2020 to 28th October 2020.
3. Two weeks FDP on "Transformation in Higher Education: Issues and Road Ahead" organised by Govt. Degree College for Women,

Anantnag, University of Delhi in Collaboration with MHFDP Centre Hansraj College from 28th September 2020 to 12th October 2020.

4. One week FDP on "Applications of Algebra and Number Theory in Network Security" organised by MHFDP Centre Hansraj College from 22nd December 2020 to 29th December 2020.

Apart from this, Dr. Pooja attended a series of workshops under 'Paramarsh', UGC Project organised by IQAC, Kamala Nehru College on the following dates:

1. 15th July 2020
2. 22nd July 2020
3. 6th to 8th August 2020

She also attended the moderation board meeting for the courses MTE-04 and MTE 06 titled "Elementary Algebra" and "Abstract Algebra" respectively. She also attended the meeting to moderate the question paper for the term end examination at IGNOU in October 2020.

Dr. Pooja organised an e- Lecture by Dr. Rita Malhotra and online presentation on Mathematica in the Department of Mathematics, Kamala Nehru College in August 2020.

Dr. Pragati Gautam has published seven research articles in Scientific Publications of the State University of Novi Pazar Ser. , Annals of Fuzzy Mathematics and Informatics , Mathematics (SCI) , AIMS (SCI), SYMMETRY (SCI), Wesleyan Journal of Research (Scopus) and European Journal of Molecular & Clinical Medicine (Scopus) , in the field of Fixed Point Theory and its Applications. She has also authored a book entitled "Analytic Geometry and Applied Algebra" for undergraduate students. She has also attended 4 FDP (Faculty Development Programme) organized by the Ministry of Education, Government of India during the period January-December 2020.

Mr. P.K. Vashishtha participated in the following events during the period January-December 2020:

1. 8 Hours of Faculty Development Program on Emotional Intelligence (Online Live FDP) conducted by ICT Academy on 13th May 2020 to 18th May 2020.
2. Three day online workshop on Understanding the Seven Criteria for the NAAC SSR as per the latest NAAC Guidelines under 'Paramarsh', UGC Project organised by Kamala Nehru College from August 6th – 8th, 2020.

3. Webinar on R software organised by the department of mathematics, TMBU, Bhagalpur on 6th and 7th June, 2020.
4. Webinar on “ Smart skills for Online Teaching “ organised by the Department of Mathematics, Ansal University on 23rd May, 2020
5. National Webinar on “Unfastening the social knots against Mathematics” organized by Department of Mathematics, Kamala Nehru College ,University of Delhi on June 11th 2020.
6. One day online workshop on Understanding the NAAC accreditation process as per the latest NAAC Guidelines under ‘Paramarsh’, UGC Project organised by Kamala Nehru College on July 15th 2020.

Dr. S.K. Bharati published the following research articles during the period January-December 2020:

1. Bharati, S. K. (2020). Transportation problem with interval-valued Intuitionistic fuzzy sets: impact of a new ranking, Progress in Artificial Intelligence Springer, <https://doi.org/10.1007/s13748-020-00228-w>.
2. Bharati, S. K. (2020). Interval-Valued Intuitionistic Fuzzy Linear Programming Problem, New Mathematics and Natural Computation World Scientific, 16(01), 53-71

Dr. M. M. Hasnain published a research article on “Algebraic Identities and Commutativity in 3-Prime Nearings” in Palestine Journal of Mathematics.

Ms. Swapnil Verma published the following research articles in reputed SCI journals in the field of Fixed Point Theory and its Applications during the period January-December 2020:

1. Gautam, P.; Sánchez Ruiz, L.M.; Verma, S. Fixed Point of Interpolative Rus–Reich–Ćirić Contraction Mapping on Rectangular Quasi-Partial b-Metric Space. *Symmetry* 2021, 13, 32
2. Mishra, V.N.; Sánchez Ruiz, L.M.; Gautam, P.; Verma, S. Interpolative Reich–Rus–Ćirić and Hardy–Rogers Contraction on Quasi-Partial b-Metric Space and Related Fixed Point Results. *Mathematics* 2020, 8, 1598
3. Pragati Gautam, Vishnu Narayan Mishra, Rifaqat Ali, Swapnil Verma. Interpolative Chatterjea and cyclic Chatterjea contraction on quasi-partial b-metric space, *AIMS Mathematics*, 2021, 6(2): 1727-1742

She has also authored a book titled “Analytic Geometry and Applied Algebra” for the undergraduate students. She attended 4 Faculty

Development Programme organized by Ministry of Education, Government of India during the period January-December 2020.

Ms. Divya Saigal participated in a national Webinar on “Unfastening the social knots against Mathematics” organized by Department of Mathematics, Kamala Nehru College, University of Delhi on June 11th 2020. She also attended a national webinar on “Relevance of Mathematics in today’s fast changing world” organised by Motilal Nehru College, University of Delhi on 18th June 2020.

She completed a one week online certificate course on “Digital Teaching Techniques” organised by ICT Academy from 29th June- 4th July 2020.

She participated in a 3-day workshop on “R-Programming” organised by Malla Reddy Institute of Technology & Science from 28th July to 30th July 2020.