SCHOOL OF SCIENCES

DEPARTMENT OF SCIENCES(MATHEMATICS)

EVENT REPORT

Topic: One Small Theorem and Big Applications

Date: 25 Jan.2024.

Time: 11:00 A.M. - 12:45 P.M.

Venue: IIT Delhi Campus.

No. of Participants: 28 Students & 11 Teaching Faculties.

Prof. R. K. Sharma delivered the talk on "One Small Theorem and Big Application". The talk was very interactive, focusing on the importance of information security. He started his talk by introducing numbers and their importance in our lives. Dr. Sharma explained how number theory plays a significant role in our lives and how it forms the basis of cryptography. Dr. Sharma also mentioned how we are prone to security breaches while using the internet and suggested the usage of adequate measures to protect our personal information.

The lecture was followed by an interactive question-and-answer session, allowing the audience to engage with the speaker directly. The session was concluded with a vote of Thanks proposed by Dr. Aparna Vyas, Program Head-Mathematics, Department of Sciences.


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New Delhi, Delhi, India
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SCHOOL OF SCIENCES

DEPARTMENT OF SCIENCES(MATHEMATICS)

EVENT REPORT

Topic: Applications of Mathematics in Data Sciences

Date: 22 Nov. 2023

Time: 11:00 - 12:10 P.M.

Venue: IT09

No. of Participants: 32

Resource Person: Prof.(Dr.) Mansaf Alam, Professor, Deptt. of Computer Sciences, Jamia Millia Islamia , New Delhi.

School of Sciences, Program Mathematics, Manav Rachna University organized an expert talk on "Applications of Mathematics in Data Sciences" on 22nd November 2023, from 11 a.m. onwards for the UG and PG students and the faculty members.

The expert speaker was welcomed by presenting him with a sapling as a token of love and gratitude. Ms. Anshika, a student of M.Sc.(Mathematics) gave a brief introduction of the speaker and the objective of the invited talk.

Prof. Alam commenced the talk with an overview of the foundational mathematical concepts essential for understanding the intricacies of data sciences. He emphasizes the significant role played by linear algebra, calculus, statistics, and optimization techniques in providing the groundwork for data analysis.

A significant portion of the lecture was dedicated to exploring the various statistical methods employed in data analysis. Prof. Alam elucidated the role of statistical techniques such as hypothesis testing, regression analysis, and probability in making informed decisions based on data.

The integration of mathematical models into machine learning algorithms was a central focus. The speaker explained how mathematical concepts, particularly linear algebra and calculus, are integral to the development and optimization of machine learning algorithms.

The importance of effective data visualization for communication and decision-making was explored. Prof. Alam demonstrated how mathematical principles, including geometry and graph theory, contributed to creating visually compelling representations of complex datasets.

The lecture was followed by an interactive question-and-answer session, allowing the audience to engage with the speaker directly. Attendees had the opportunity to seek clarification on specific concepts and delve deeper into the practical aspects of applying mathematics in data sciences.

The session was concluded with a vote of Thanks proposed by Dr. Aparna Vyas, Program Head-Mathematics, Department of Sciences.


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GPS Map Camera
Faridabad, Haryana, India
I-Block, Manav Rachna Campus Rd, Gadakhor Basti Village, Rocky Area, Faridabad, Haryana 121003, India
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SCHOOL OF SCIENCES

DEPARTMENT OF SCIENCES (MATHEMATICS)

EVENT REPORT

TITLE - An International Webinar on "Introduction to Wavelets".

Date: 25th September 2023, 2:30 PM

Venue: Online Mode, Microsoft Teams

Resource Person: **Prof. Maria Skopina**, Department of Higher Mathematics, St. Petersburg University, Russia.

No. of Participants: 33 Students

The Department of Sciences, Program - Mathematics, Manav Rachna University organized an International Webinar on Introduction to Wavelets on September 25, 2023. Prof. Maria Skopina, Department of Higher Mathematics St. Petersburg University, Russia was the Guest Speaker.
Prof. Maria is DSc. in Mathematics (2000) from St. Petersburg, Department of Steklov, Mathematical Institute, RAS and Ph.D. in Mathematics (1980) from Leningrad (St. Petersburg) State University. Her Research areas include Wavelets, Fourier analysis, approximation theory, p-adic harmonic analysis, sampling theory. She has authored more than 80 research papers & 2 books in AMS & Springer. She has diverse teaching experience as visiting professor at Universities in Brazil, USA., Ukraine, Iran etc. She has guided many Ph.D. & D.Sc. students as well. Prof. Skopina has served as Chairman, Vice chairman, Advisory board member in various Editorial boards of journals, societies, conferences etc. She has been the recipient of many Research grants from the Russian Foundation for Basic Research since 1993 till date.

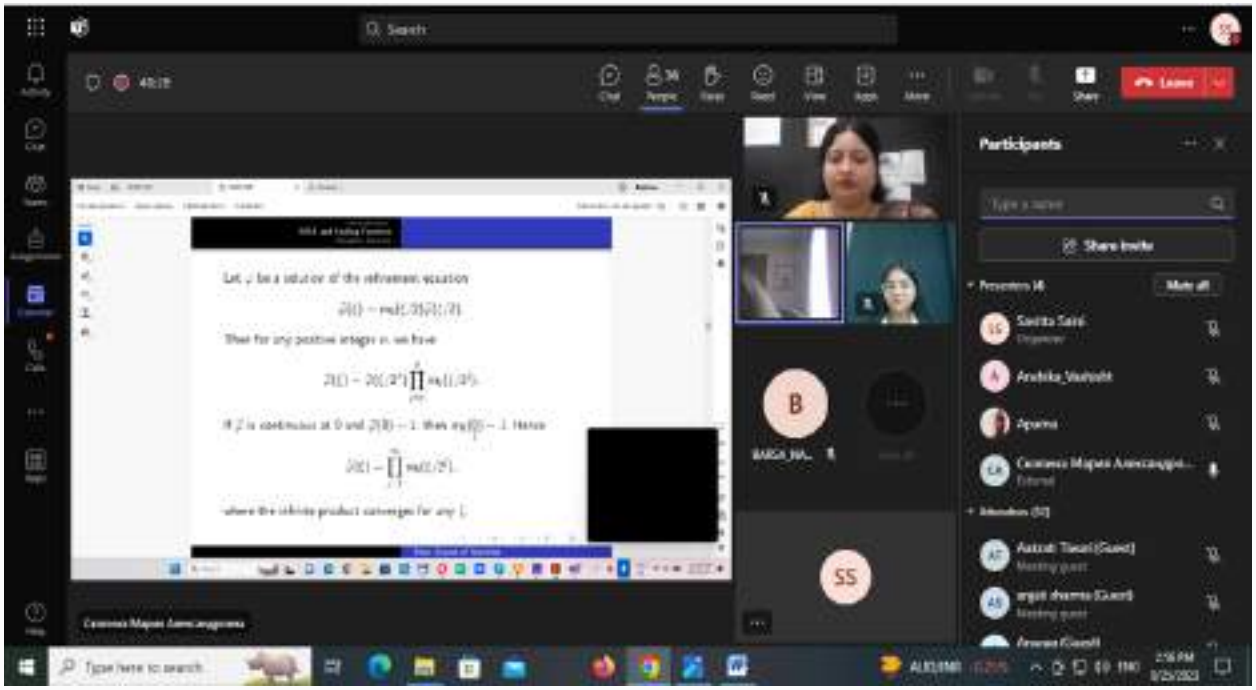
Ms. Anshika Vashisht, M.Sc. Mathematics 3rd semester student started the session and welcomed the guest & audience. Then Dr. Aparna Vyas, Program Head-Mathematics, introduced the guest speaker to the audience.

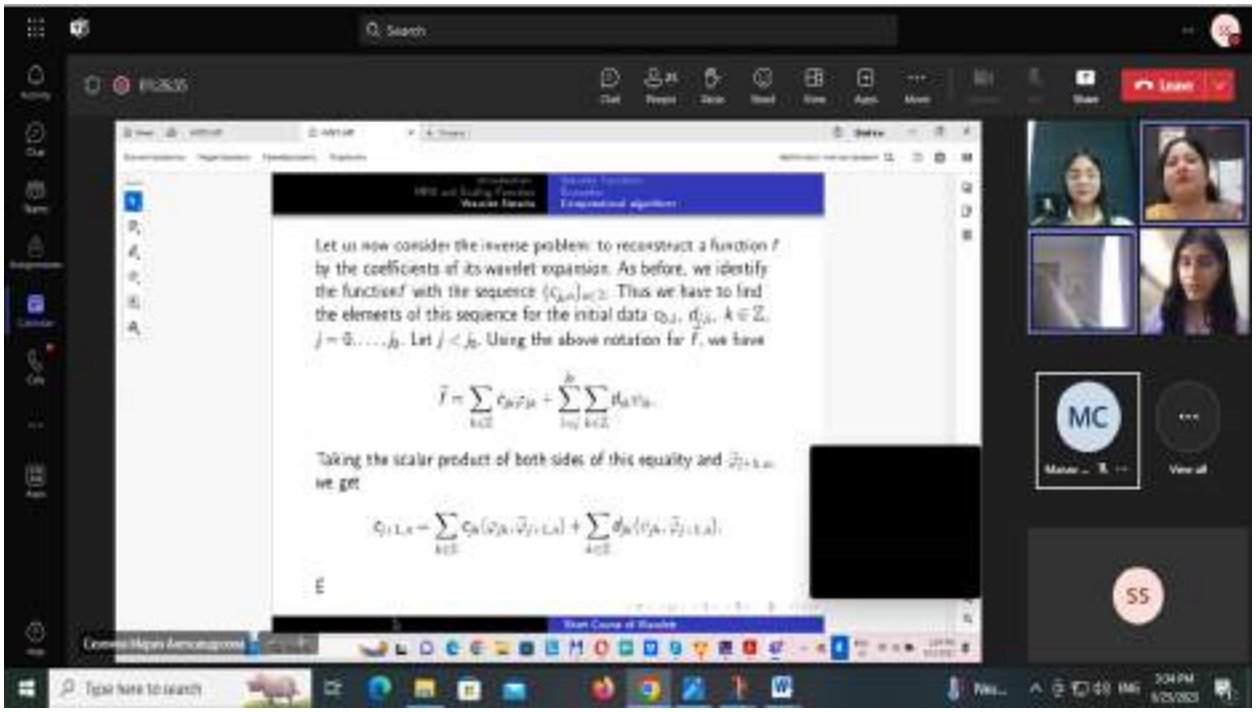
Prof. Maria briefly introduced the term wavelets and its applications. Wavelets are mathematical functions that cut up data into different frequency components, and then study each component with a resolution matched to its scale. They have advantages over traditional Fourier methods in analyzing physical situations where the signal contains discontinuities and sharp spikes. The wavelet approximation technique is a recent tool to detect and analyze abrupt change in seismic signal processing. Prof. In mathematical analysis, and especially in real and harmonic analysis, an Orlicz space is a type of function space which generalizes the Lp spaces. She detailed wavelet, bio-orthogonal wavelets frames, multi- wavelet systems, Bessel function and matrix existential function. She briefly

explained all the basic notions and terminology with examples. She also covered the applications of wavelets in many areas like science and engineering; particularly, wavelets are very successfully used in image analysis, communication systems, biomedical imaging, radar, air acoustics, theoretical mathematics, control systems, signal analysis for waveform representation and segmentation, time-frequency analysis and fast algorithms for easy implementation.

The overall talk enriched the students and faculty with the current Applications of Wavelet Approximation. Prof. Maria humbly and satisfactorily answered the queries. More than 40 participants including faculty members attended the session and showed interest in the interactive session.

At the end, the session was concluded with a vote of thanks by Ms. Savitta Saini.




Let us now consider the inverse problem: to reconstruct a function f by the coefficients of its wavelet expansion. As before, we identify the function f with the sequence $(c_{j_0,k})_{k\in\mathbb{Z}}$. Thus we have to find the elements of this sequence for the initial data $c_{0,k}$, $d_{j,k}$, $k\in\mathbb{Z}$, $j=0,\dots,j_0$. Let $j<j_0$. Using the above notation for $\bar{f}$, we have
$$\bar{f}=\sum_{k\in\mathbb{Z}} c_{j_0,k}\varphi_{j_0,k}+\sum_{j=j_0}^{j_0}\sum_{k\in\mathbb{Z}} d_{j,k}\psi_{j,k}.$$
Taking the scalar product of both sides of this equality and $\tilde{\varphi}_{j+1,n}$, we get
$$c_{j+1,n}=\sum_{k\in\mathbb{Z}} c_{j,k}(\varphi_{j,k},\tilde{\varphi}_{j+1,n})+\sum_{k\in\mathbb{Z}} d_{j,k}(\psi_{j,k},\tilde{\varphi}_{j+1,n}).$$
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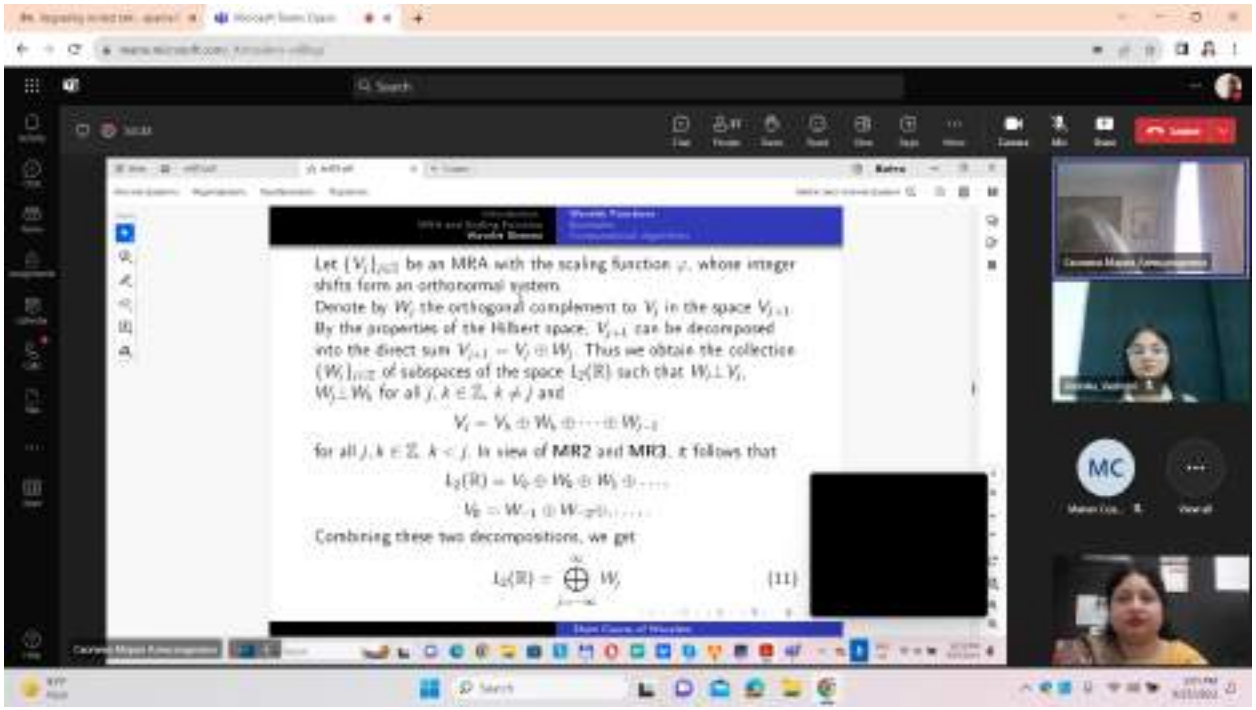
Let $\{V_j\}_{j\in\mathbb{Z}}$ be an MRA with the scaling function φ, whose integer shifts form an orthonormal system.
Denote by W_j the orthogonal complement to V_j in the space V_{j+1}. By the properties of the Hilbert space, V_{j+1} can be decomposed into the direct sum $V_{j+1}=V_j\oplus W_j$. Thus we obtain the collection $\{W_j\}_{j\in\mathbb{Z}}$ of subspaces of the space $L_2(\mathbb{R})$ such that $W_j\perp V_j$, $W_j\perp W_k$ for all $j,k\in\mathbb{Z}$, $k\neq j$ and
$$V_j=V_k\oplus W_k\oplus\cdots\oplus W_{j-1}$$
for all $j,k\in\mathbb{Z}$, $k<j$. In view of MR2 and MR3, it follows that
$$L_2(\mathbb{R})=V_0\oplus W_0\oplus W_1\oplus\dots,$$
$$V_0=W_{-1}\oplus W_{-2}\oplus\dots.$$
Combining these two decompositions, we get
$$L_2(\mathbb{R})=\bigoplus_{j=-\infty}^{\infty} W_j \qquad (11)$$
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MANAV RACHNA UNIVERSITY
Manav Rachna University presents a
Token of Appreciation
to
Professor Maria Shcherbina
Department of Applied Mathematics and Control Processes,
St. Petersburg State University, Russia
as a resource person for an international webinar on "An Introduction to Wavelets" held on 15th September, 2023.

EVENT REPORT

SCHOOL OF SCIENCES
DEPARTMENT OF SCIENCES(MATHEMATICS)

TITLE -Creating Stable Mind in Challenging Times
Date: 23rd August, 2023
Time: 12:15AM
Venue: I-Block Auditorium

Resource Person:BK Er. Sonika(Rajyoga Teacher & Trainer)

Participants: 108 Students and 12 Faculty members

The Department of Sciences (Program - Mathematics), Manav Rachna University organized a Life Skills Session on **"Creating Stable Mind in Challenging Times " by "BK Er. Sonika "** on **August 23, 2023,** for the students and faculty members.

B.K. Sonika, a Rajyoga teacher and trainer under the domain of the Om Shanti Retreat Center (ORC), Gurugram was the guest speaker for the session. The aim of the session was to guide and offer insights into the principles and practices that can aid individuals in fostering resilience,emotional equilibrium and mental clarity.

The session began with the welcoming of the speaker and audiences. A brief introduction about B.K. Sonika Ji was given by the Program Head – Mathematics, Dr. Aparna Vyas.

B. K. Sonika gave us an informative and comprehensive overview of types of problems an individual faces and how one should look at tough times. Giving examples from students' lives, sister Sonika guided students to foresee challenges as an opportunity to learn, grow and emphasized on how to improve the situation rather than cribbing on the problem. She also shared strategies to create a positive lifestyle and offered some intriguing studies, anecdotes, and facts. At the same time the speaker highlighted the key issues and made some recommendations for potential remedies.

The audience tasted the essence of peace and positivity through mediation conducted during the session. The session was attended by respected Deans, HOD's, faculty members and students from different departments of the university.

The entire session was highly interactive and was fruitful for the audience followed by questions from students and faculty members. The session was concluded with the vote of thanks by the organiser of the event, Dr. Deepa Arora, Associate Professor, Mathematics.

Kindly find a few pictures of the event.


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SCHOOL OF SCIENCES
DEPARTMENT OF SCIENCES(MATHEMATICS)

EVENT REPORT

TITLE - Invited Talk on Profession in Actuary
Date: 27th April, 2023
Time: 11:15AM
Venue: I-Block Auditorium

Resource Person: **Mr. Ashok Kumar Garg, Consultant Actuary**

Participants: 24 Students

The Department of Sciences (Program - Mathematics), Manav Rachna University organized an invited talk on **"PROFESSION IN ACTUARY "** by "**Mr Ashok Kumar Garg - a consultant actuary"** on **April 27, 2023**. Mr Ashok Garg is a consultant actuary. He passed actuarial examination from Institute of Actuaries (London). He is Fellow of Institute of Actuaries of India, Associate of Insurance Institute of India. He has also served in LIC for 28 years in various capacities. He also held the prestigious position of "Appointed Actuary" of GIC of India for 8 years till 2016. Currently, Mr. Garg is running his own consultancy for last 12 years which has had many prestigious clients BEML, Container Corporation of India, Car Manufacturers besides many foreign clients. He has also participated in about 100 seminars and conferences abroad.

The session began with the welcoming of the speaker and audiences. A small sapling was presented to Mr. Ashok Garg by Dean, School of Sciences-Prof.(Dr.) Pradeep Varshney, Head of Department-Dr.Sandeep Kumar, Program Head-Mathematics-Dr. Aparna Vyas, and Program Head-Chemistry-Dr.Arpit Sand. A brief introduction about Mr. Ashok Garg was given by Ms.Savitta Saini..

Mr Garg started the talk by sharing his experiences as an Actuary. He explained in detail about jobs in Actuarial Sciences. Actuaries analyze the financial costs of risk and uncertainty. by the use of mathematics, statistics, and financial theory to assess the risk of potential events. This helps businesses and clients to develop policies that minimize the cost of that risk. Actuaries' work is essential to the insurance industry.

Mr. Garg encouraged the students by assuring them that Mathematics helps in sound reasoning. He quoted "A person who knows compound interest will get compound interest and one who doesn't will pay compound interest". He called Mathematicians as "Technocrats". He encouraged students to have good communication skills as it is essential for an Actuary and also for all professions. According to him an actuary can get a start of yearly CTC of Rs.2 million/annum.

Many questions were asked by the students and faculties which Mr.Ashok Garg answered very skilfully. He shared the procedure to be an Actuary :one can write exams of Actuarial Common Entrance Test(ACET) conducted by Institute of Actuaries of India which has in total 13 exams. Overall, the session was very informative and the students were very happy to listen to him. The session was concluded with the vote of thanks by Ms Savitta Saini.

Kindly find attached some photographs of the event .

Welcoming of Guest (27 April 2023)

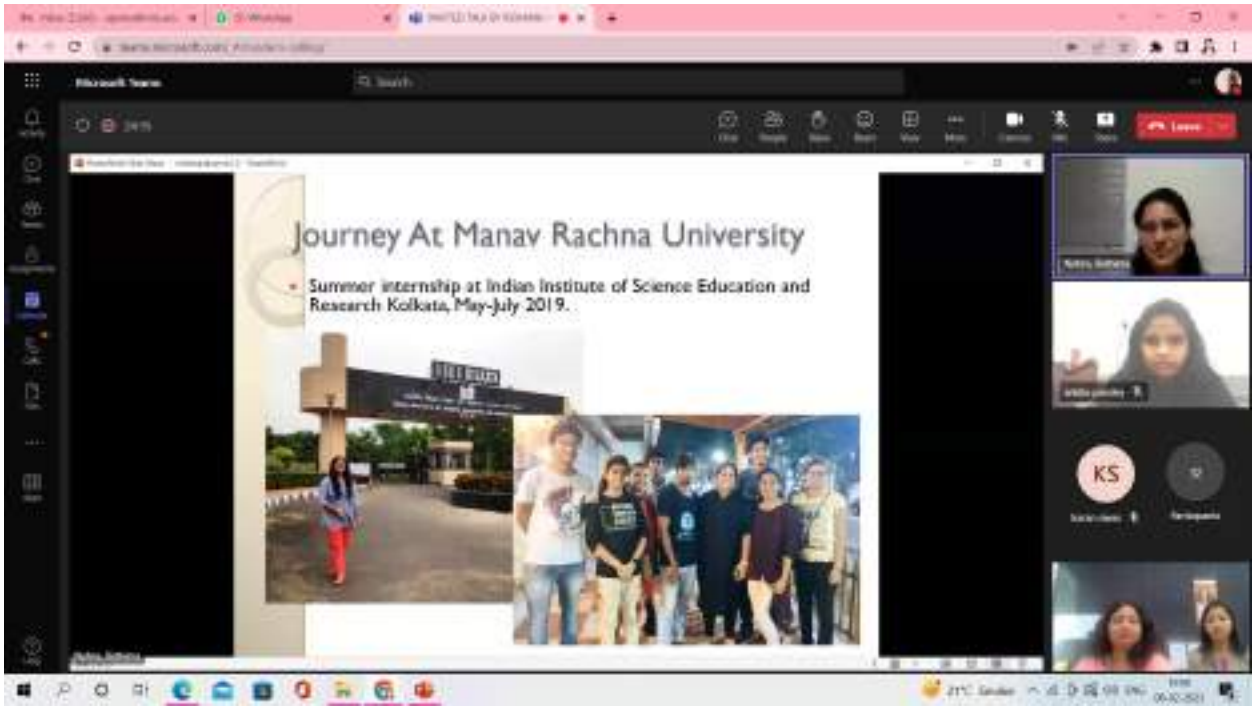
Speaker is Presenting(27 April 2023)

Students and Faculties attending the session (27 April 2023)

REPORT ON "UNDERSTANDING HIGHER EDUCATION PATHWAYS"

Alumni Talk

The Department of Sciences (Program - Mathematics), Manav Rachna University organised an invited talk on **"UNDERSTANDING HIGHER EDUCATION PATHWAYS"** by its alumni (M.Sc. Mathematics 2018-2020 batch), **Ms. Ridhima Nehra** on **February 6, 2023.**. She is currently pursuing PhD from North Dakota State University, USA. The session was conducted in online mode on Microsoft Teams (Link: https://tinyurl.com/5n867x7r) from 10 AM onwards. The session began with the welcoming of the speaker and audiences. A brief introduction about Ms Ridhima was given by the Program Head – Mathematics, Dr. Aparna Vyas. Ms Ridhima started the talk by sharing her experiences of the journey from Manav Rachna to PhD in USA. She shared how research guidance and encouragement from her research mentor Dr Aparna helped her to get admission in PhD. She also shared that the guidance from her research mentors helped her to grow as a researcher and made her capable of presenting papers in various workshops and conferences during her masters tenure. Many questions were asked by the students which Ms Ridhima answered very skilfully. She shared the procedure to apply for admission to PhD and Master's degree programs. She motivated students to be self-managed and to manage time effectively so as to participate in extracurricular activities while keeping their grades on the higher side. She inspired students to stay focused on their goals and to *never stop learning*. Overall, the session was very informative and the students were very happy to listen to her. The session was concluded with the vote of thanks by the organiser of the event, Ms Savitta Saini.


Journey At Manav Rachna University
Summer internship at Indian Institute of Science Education and Research Kolkata, May-July 2019.
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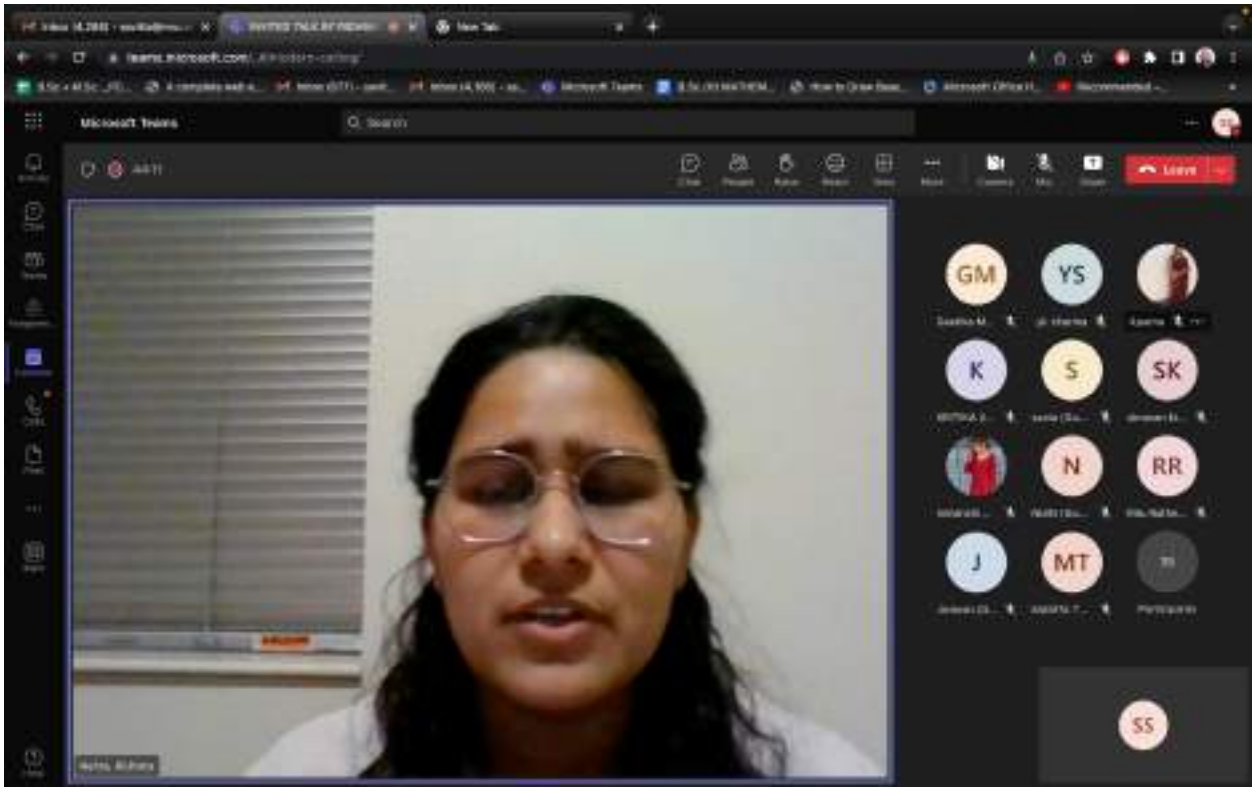
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FACULTY OF APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS

EVENT REPORT

TITLE - An International Webinar on Wavelet Approximation in Orlicz Spaces

Date: 27th September 2021, 2:00 PM

Venue: Online Mode, Google Meet

Resource Person: **Prof. Maria Skopina**, Department of Higher Mathematics, St. Petersburg University, Russia.

No. of Participants: 26 Students

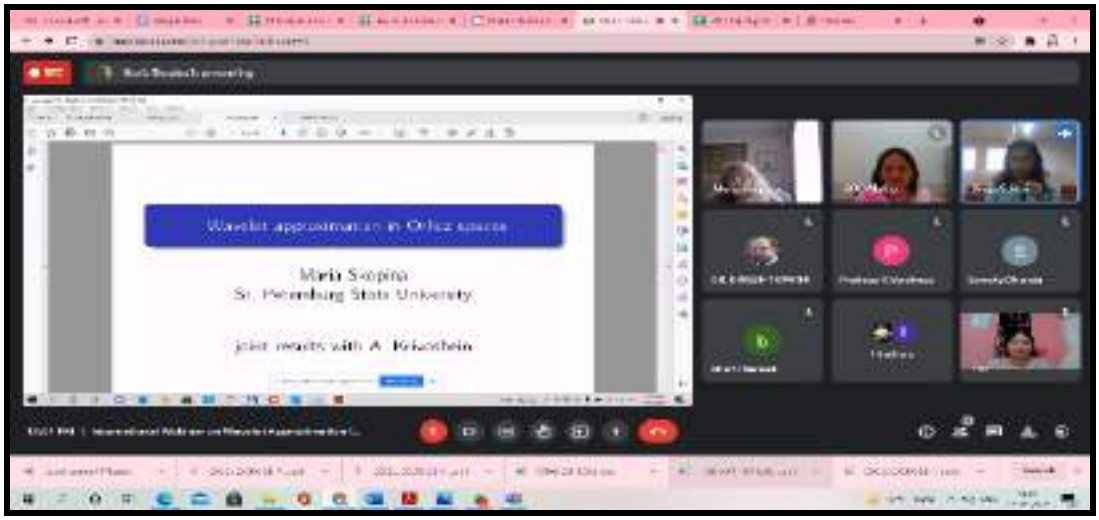
The Department of Mathematics, Manav Rachna University organized an International Webinar on Wavelet Approximation in Orlicz Spaces on September 27, 2021 to commemorate ***25 Years of Transferring Education Silver Jubilee Celebrations.*** Prof.

Maria Skopina, Department of Higher Mathematics St. Petersburg University, Russia was the Guest Speaker.
Prof. Maria is DSc. in Mathematics (2000) from St. Petersburg, Department of Steklov, Mathematical Institute, RAS and Ph.D. in Mathematics (1980) from Leningrad (St. Petersburg) State University. Her Research areas include Wavelets, Fourier analysis, approximation theory, p-adic harmonic analysis, sampling theory. She has authored more than 70 research papers & 2 books in AMS & Springer. She has diverse teaching experience as visiting professor at Universities in Brazil, USA., Ukraine, Iran etc. She has guided many Ph.D. & D.Sc. students as well. Prof. Skopina has served as Chairman, Vice chairman, Advisory board member in various Editorial boards of journals, societies, conferences etc. She has been the recipient of many Research grants from the Russian Foundation for Basic Research since 1993 till date.

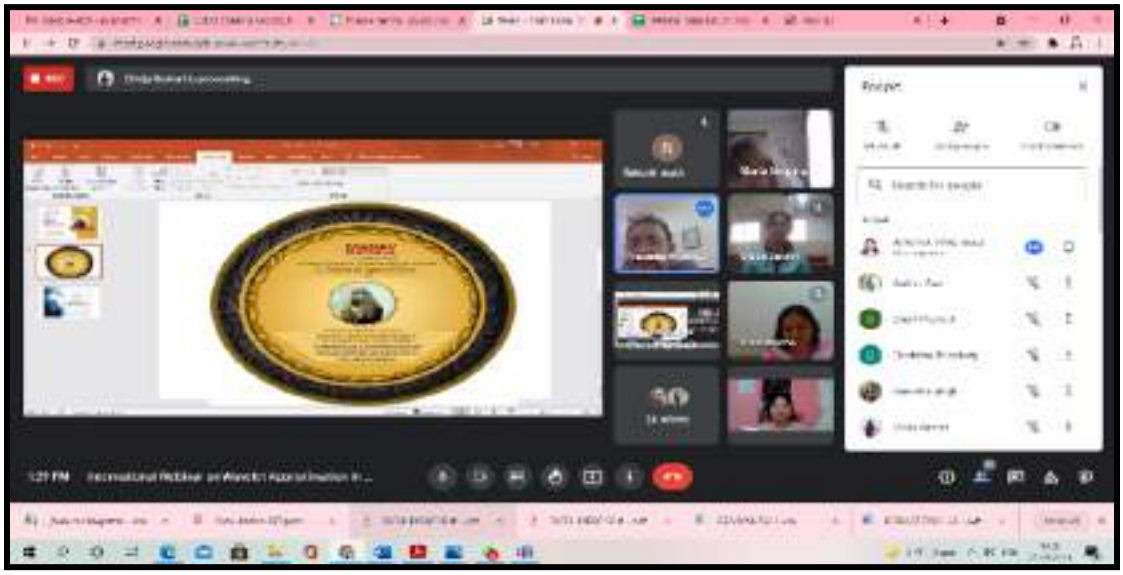
Ms. Divija Sekhri, B.Sc. (H) Mathematics 2nd year student started the session and welcomed the guest & audience. Then Dr. Deepa Arora, Head, Department of Mathematics introduced the guest speaker followed by the introduction of the University, Vision, Mission & its accomplishments.

Prof. Maria briefly introduced the term wavelets and its applications. Wavelets are mathematical functions that cut up data into different frequency components, and then study each component with a resolution matched to its scale. They have advantages over traditional Fourier methods in analyzing physical situations where the signal contains discontinuities and sharp spikes. The wavelet approximation technique is a recent tool to detect and analyze abrupt change in seismic signal processing. Prof. Maria focused her talk on the topic Wavelet Approximation in Orlicz Spaces. In mathematical analysis, and especially in real and harmonic analysis, an Orlicz space is a type of function space which generalizes the Lp spaces. She detailed dual wavelet frames, multi- wavelet systems, Bessel function and matrix existential function. She proved that the wavelet expansion has approximation order *s* in the sense of modular convergence. In addition, she also proved that the wavelet expansion has approximation order *s* in the sense of convergence in the Luxemburg norm.
The overall talk enriched the students and faculty with the current Applications of Wavelet Approximation in Orlicz Spaces. In recent years, wavelets have found their way into many different fields of science and engineering; particularly, wavelets are very successfully used in image analysis, communication systems, biomedical imaging, radar, air acoustics, theoretical mathematics, control systems, signal analysis for waveform representation and segmentation, time-frequency analysis and fast algorithms for easy implementation.
Prof. Maria humbly and satisfactorily answered the queries. More than eighty participants including faculty members attended the session and showed interest in the interactive session.

At the end, the session was concluded with a vote of thanks by Dr. Aparna Vyas, Associate Professor, Department of Mathematics, MRU.



Speaker is presenting



Memento is being presented to the speaker

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS

EVENT REPORT

TITLE - **An International Webinar on Advanced Symbolic Models for Linguistic Decision Making**

Date: 27th October 2021
Time: 2:30 pm
Venue: Online Mode, Google Meet
Joining Link: http://meet.google.com/gko-rbdt-qbs

Resource Person: **Prof. Luis Martinez**, Department of Computer Science, University of Jaen, Spain

No. of Participants: 26 Students and few faculties

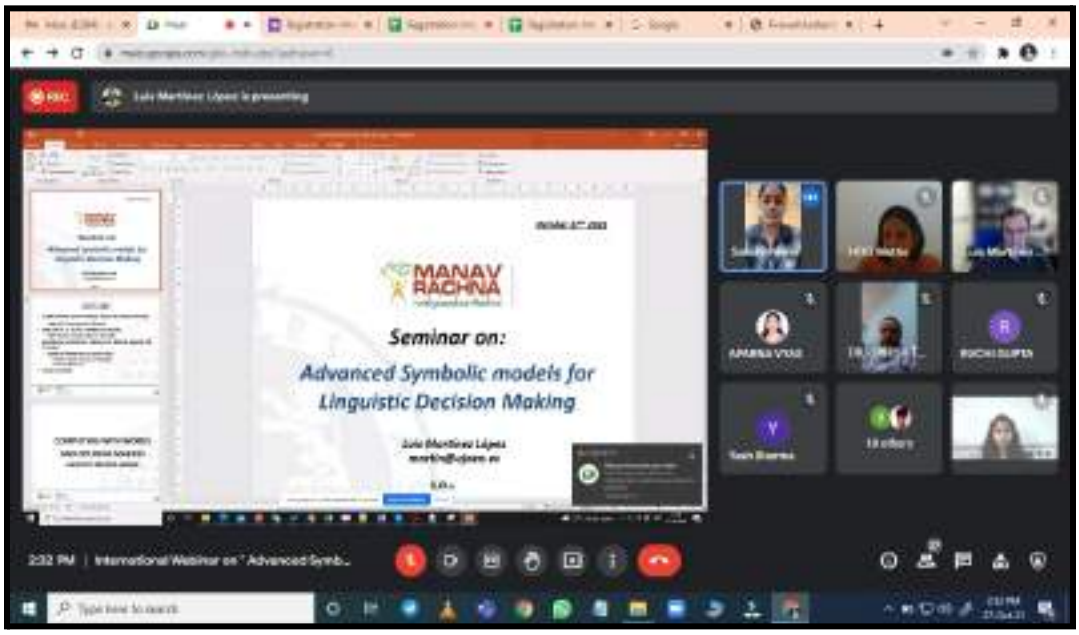
The Department of Mathematics, Manav Rachna University organized an International Webinar on Advanced Symbolic models for Linguistic Decision Making on October 27, 2021 to commemorate *25 Years of Transferring Education Silver Jubilee Celebrations.* Prof. Luis Martinez**,** Department of Computer Science University of Jaen, Spain was the Guest Speaker.

Prof. LUIS MARTíNEZ received the M.Sc. and Ph.D. degrees in computer sciences from the University of Granada, Granada, Spain, in 1993 and1999, respectively. He is currently a Full Professor with the Computer Science Department, University of Jaén, Jaén, Spain. He is also Visiting Professor in University of Technology Sydney, University of Portsmouth (Isambard Kingdom Brunel Fellowship Scheme), and in the Wuhan University of Technology (Chutian Scholar), Guest Professor in the Southwest Jiaotong University and Honorable professor in Xihua University both in Chengdu (China). He has co-edited eleven journal special issues on fuzzy preference modelling, soft computing, linguistic decision making and fuzzy sets theory and has been main researcher in 16 R&D projects, also has published more than 175 papers in journals indexed by the SCI and more than 200 contributions in Inter/national Conferences related to his areas. His current research interests include decision making, fuzzy logic-based systems, computing with words and recommender systems. He was a recipient of the IEEE Transactions on fuzzy systems Outstanding Paper Award 2008 and 2012 (bestowed in 2011 and 2015, respectively). He is a Co-Editor-in-Chief of the International Journal of Computational Intelligence Systems and an Associate Editor of the journals, including the IEEE Transactions on Fuzzy Systems, Knowledge Based Systems, Information Fusion, the International Journal of Fuzzy Systems, and the Journal of Intelligent & Fuzzy Systems. He is a member of IEEE and of the European Society for Fuzzy Logic and Technology. Eventually, he was appointed as Highly Cited Researcher 2017-2020 in Computer sciences.

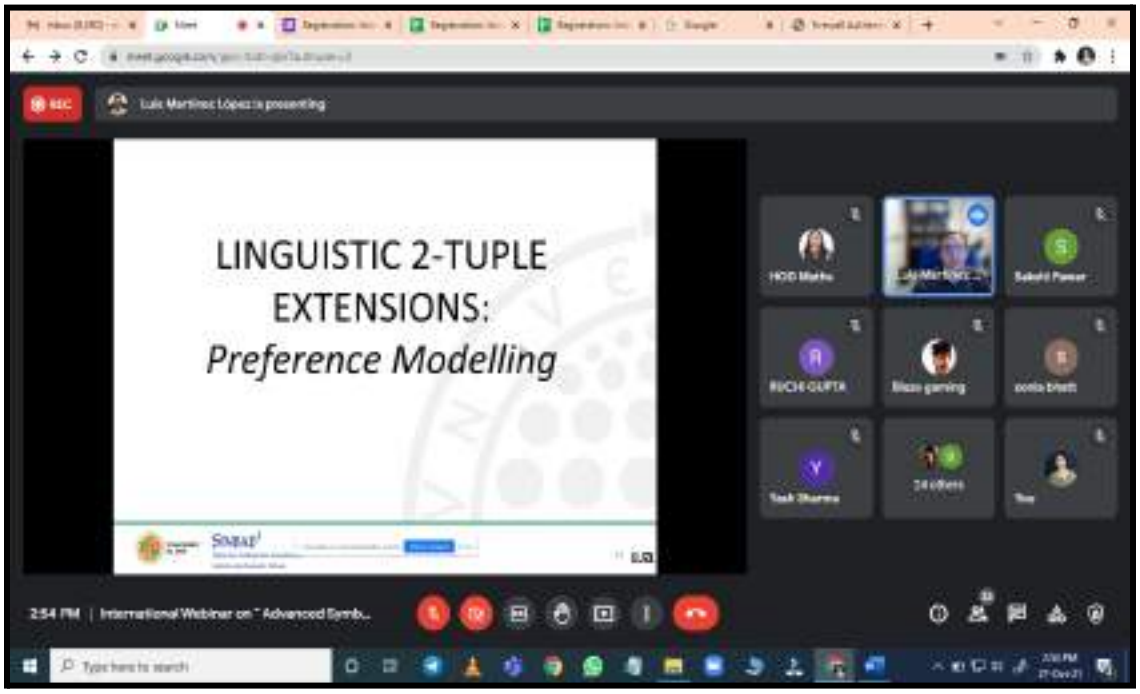
Prof. Martinez briefly introduced the term advanced decision making and its applications. He presented a comprehensive view about the symbolic linguistic models and provided a clear timeline explanation about recent models, methodologies, and software tools for symbolic models in Linguistic decision-making. Prof. illustrated the Real-world decision-making problems defined under uncertainty environments. Then he explained Linguistic decision-making that deals with problems in which uncertainty is related to the vagueness of meanings that usually arises when linguistic preferences/opinions are elicited in ill-defined decision situations. He emphasized that computing with words becomes crucial to achieve successful decisions in linguistic decision making. Prof. educated the audience about different models based on fuzzy arithmetic and symbolic approaches that have become more popular because of its less computational cost, greater accuracy and better understandability.

The overall talk enriched the students and faculty with the current Applications of advanced symbolic models in linguistic decision making.
Prof. Martinez humbly and satisfactorily answered the queries. He motivated students for collaborative research in future. More than forty participants including faculty members attended the session and showed interest in the interactive session.

At the end, the session was concluded with a vote of thanks by Dr. Ankita Gaur, Assistant Professor, Department of Mathematics, MRU.



Speaker is presenting



Students attending the online session

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS

EVENT REPORT

Topic: **Invited Talk on Fixed Point Theory – It's Emergence, Scope & Applications in various fields**

Venue: I Block Auditorium

Date and Time: 31st October 2018 at 1:00 pm - 2:30 pm

Resource Person: Dr. Pragati Gautam, Head – Department of Mathematics, Kamala Nehru College, University of Delhi

Participants: 49 Students

Department of Mathematics, Manav Rachna University organized an Invited lecture on 'Fixed Point Theory – It's Emergence, Scope & Application in various fields' on 31st October 2018. Dr. Pragati Gautam, Head – Department of Mathematics, Kamala Nehru College, University of Delhi delivered the lecture, which was attended by students of B.Sc. (H) & M.Sc. Mathematics and Faculty members of the department.

Dr. Pragati has a rich teaching experience of over 15 years in Department of Mathematics, Kamala Nehru College, University of Delhi and is an expert in the area of Fixed Point Theory & Operator Theory. She has contributed around ten papers to International journals like Fixed point theory and Applications (SCI journal), Advances in Fixed point theory and Applications , British Journal of Mathematics and computer Science , etc, presented around twelve papers in national and international conferences .She has authored a book for under-graduate students "Calculus"(ISBN : 978-81-7844-311-9). Moreover she has contributed five research papers on History and Sociology of Mathematics in Journals.

Dr. Pragati was accompanied by her colleague Ms. Swapnil Verma, who is an alumni of IIT Delhi and currently working on the Fixed point theory.

Dr. Parneeta Dhaliwal, HOD Mathematics & Dr. Hardeo Thakur, Associate HOD Mathematics welcomed the guests with a sapling. Ms. Bhavya, B.Sc. (H) student was the anchor of the session.

Dr. Pragati commenced her talk with a basic definition of the fixed point and ample real life examples and situations where one can locate fixed points. The beauty of the presentation was enhanced as she discussed the existence and importance of fixed points in various fields like Economics, Physical, Biological & Social Sciences, Computer Science, Electronics & Communication Engineering, Mechanical Engineering, Information Theory, Philosophy

etc. She then talked about the emergence of the fixed point theory, highlighting its evolution stages and their significance. She also presented the contributions of various mathematicians in this field and Advances of Fixed Point Theory in different Space. She concluded her talk by suggesting the future research aspects in fixed point theory. She also motivated the students to take a positive stride towards research and understand its significance.

Thereafter, students actively participated in an interactive session with the guest speaker and discussed their queries and questions. Dr. Pragati humbly and satisfactorily answered their questions.

Dr. Parneeta Dhaliwal, HoD Mathematics concluded the program with a vote of thanks.

The speaker is presenting

Students and faculty members attending the session

SCHOOL OF APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS

EVENT REPORT

TITLE - Invited Talk on Data Science : A Futuristic approach in Research and Development

Date: 12th January 2022
Time: 11:30 am
Venue: Online Mode, Microsoft Teams
Joining Link:
https://teams.microsoft.com/l/meetup-join/19%3ameeting_MzUxMWMwOTEtNWE4NC00YzBlLWJlMTAtZTMyMDFmNzdmOGI5%40thread.v2/0?context=%7b%22Tid%22%3a%22b8b32acb-f158-413f-90bd-ad4479a28acd%22%2c%22Oid%22%3a%220e3a8643-be20-455d-832d-09ab7053f364%22%7d

Resource Person: **Prof. (Dr.) N. Kumar,** Professor**,** Department of Science and Technology, ICFAI University, Jaipur Rajasthan

Participants: 34 Students

To Celebrate "National Youth Day" Department of Mathematics, Manav Rachna University organized an Invited Talk on "Data Science: A Futuristic Approach in Research and Development", on January 12, 2022 in online mode. Prof. (Dr.) N. Kumar Professor of Department of Science and Technology, ICFAI University, Jaipur Rajasthan was the Guest Speaker.

Dr. Narendra Kumar completed his M.Phil.(1994) with gold medal and Ph.D. (2003) in Bio Mathematical Models from Dr. Bhimrao Ambedkar University, Agra. He has worked more than 26 years as faculty, Dean, Joint Director and Director in various engineering institute and universities. He has organized many international conferences, faculty development programs and technical talk shows. He is founder member of Forum for interdisciplinary research in mathematical science/ Science and Technology, and life member of more than a dozen academic forums in India and abroad. He has published more than two dozen books in the domain of mathematics, statistics and computer science and engineering, more than 70 research papers in national/ international journals, delivered invited talk/keynote addresses in national/ international conferences and chaired the session in various conferences. He has guided research degree students in the domain of statistics, computer science and engineering, and mathematics. His key areas of research work are Mathematical modelling, Theory of relativity, Data science, and Image processing and network security. He is currently working in the Department of Mathematics, IcfaiTech, Faculty of Science and Technology, The ICFAI University School.
Dr. Ankita Gaur, Assistant Professor Department of Mathematics welcomed the guest & audience. Then Prof. (Dr.) Y.K. Sharma, Head, Department of Mathematics introduced the speaker.

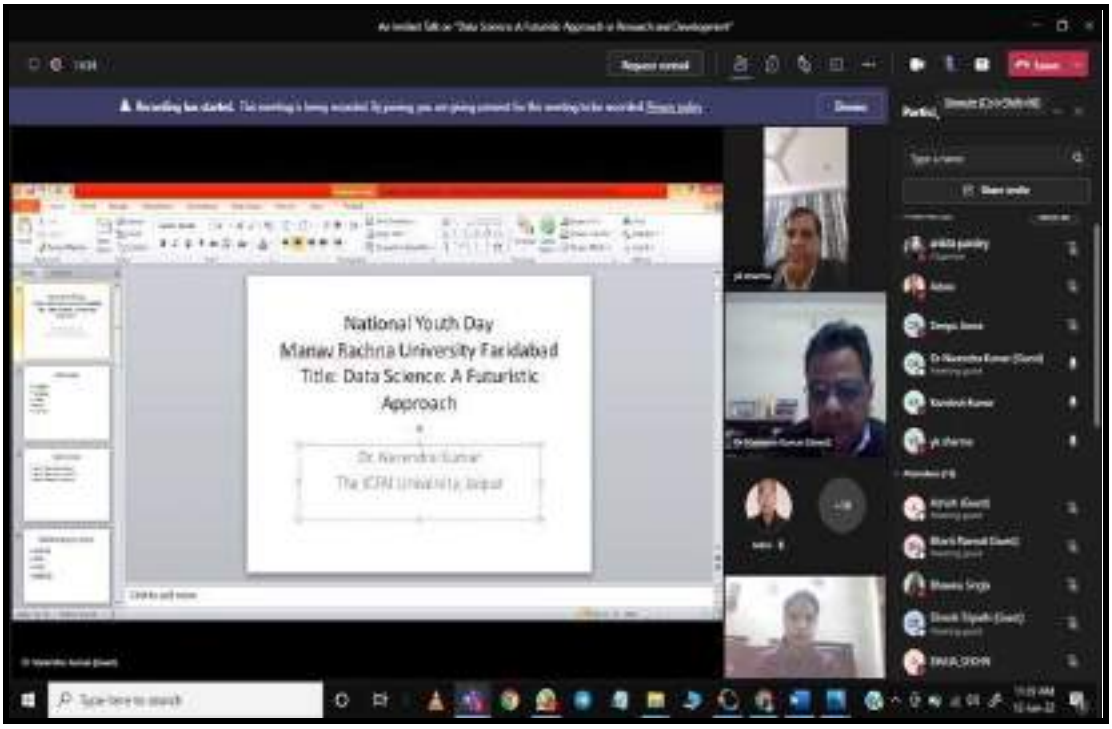
The main objective of this Invited talk was to create an awareness on the 'Data Science' domain, which is popular in academia, business sectors, and research & development, to make effective decisions in day-to-day activities.

Dr. N. Kumar started his talk with applications of Data Science such as preparing data for analysis, including cleansing, aggregating, and manipulating the data to perform advanced data analysis. He detailed the role of Data science and explained how it is used in Marketing, Finance, Human Resources, Health Care, Government Policies.

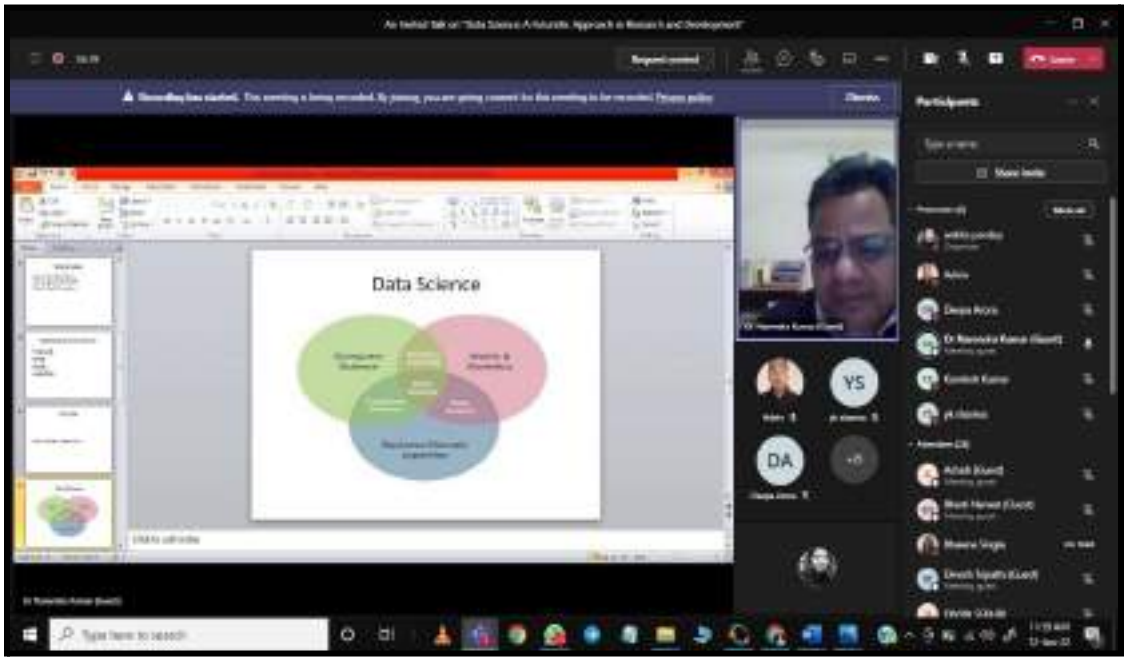
The overall talk enriched the students and faculty with the current Applications of Mathematics in the Areas data science. Around thirty-seven participants including faculty members attended the session and showed interest in the interactive session.

At the end, the session was concluded with a vote of thanks by Dr. Ankita Gaur, Assistant Professor, Department of Mathematics, MRU.

Some pictures of the event are attached herewith.



Speaker is presenting



Students and faculties attending the online session

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS

EVENT REPORT

TITLE - Webinar on Keeping Calm no Matter What

Date: 29th April 2021

Venue: Online Mode, Microsoft Teams

Resource Person: **Ms B K Sonika, Senior Rajyoga Trainer at ORC Gurgaon Brahma Kumaris Organisation**

Participants: 33 Students

Dr. Ankita Gaur, Assistant Professor Department of Mathematics welcomed the guest & audience. Then Dr. Deepa Arora, Head, Department of Mathematics introduced the speaker.

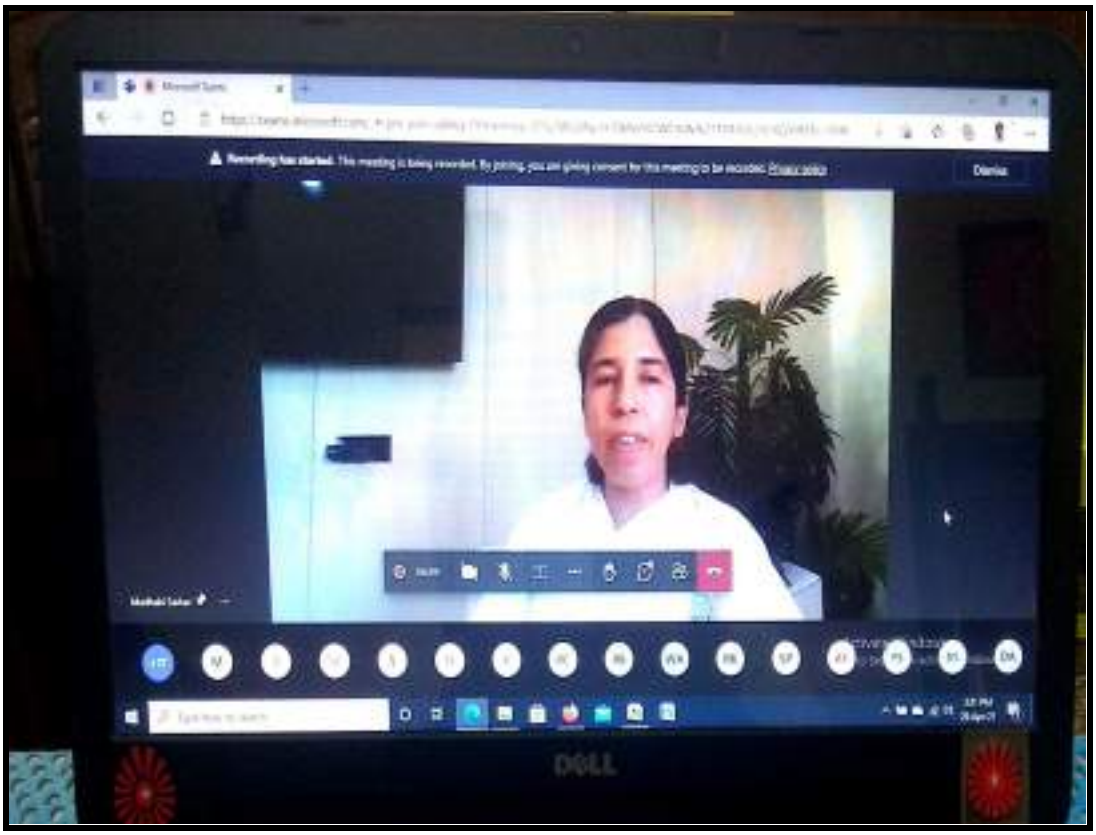
The main objective of this Invited talk was to motivate people on Keeping Calm on Matter What, which is essential in academia, business sectors, and research & development, to make effective decisions in day-to-day activities.

B.K. Sonika, a Raja Yoga teacher and trainer under the domain of the Om Shanti Retreat Center (ORC), Gurugram was the Guest Speaker for the session. The aim of the session was to create awareness to live and work in a balanced, stress-free and positive way.

B. K. Sonika explained that the same could be achieved by evoking dormant inner powers. She emphasized that the outside world can be perfect once the inner self is at peace. She gave simple techniques to create a positive lifestyle. The audience tasted the essence of peace and positivity through mediation conducted during the session. The session was attended by respected Deans, HOD's, faculty members and students from different departments of the university.

The entire session was highly interactive and fruitful for the audience. Every person was able to connect to the concept of Inner powers in one's life and the need to unleash them.

Department of Mathematics in collaboration with Manav Rachna Centre for Peace and Sustainability, Manav Rachna University organized a session on "Keeping Calm on Matter What" under the campaign "Inner Peace through Inner Technology" by IT Wing of Rajyoga Education and Research Foundation for faculty and students recently.



The speaker is presenting