Dr Renu Chugh

Professor and Former Head Department of Mathematics Maharshi Dayanand University Rohtak-124001 (Haryana), INDIA Mob. No. +91-9991132199,

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Date of Birth: 08-12-1962



Academic Experience: Research: 32 years, Teaching: 29 years

Head, Department of Mathematics, M. D. University, Rohtak from 01-05-2010 to 30-04-2013.

Director Research, M.D.University, Rohtak.

Chairperson, Committee to check the Menace of Sexual Harassment and Violence against Women at Workplace., w.e.f.01-01-2015

Awards & Honours:

- Selected as one of #100 Women Achievers of India in the category of education by Ministry of Women and Child Development, Government of India and received award by Hon. President Shri Pranab Mukherjee on 22nd January 2016.
- Received **Empowered Women Developed Society Award** by Hon'ble Chief Minister of Haryana, Sh. Manohar Lal Khattar on the occasion of "Changing Haryana- Growing Haryana" organized by Jagran Forum on 12th August, 2016.
- Selected amongst **100 Women Mathematicians from all over the World** to receive Travel Grant from Organizers of (ICM-2014) International Congress of Mathematicians at Seoul, South Korea.
- Received award on the occasion of workshop "Empowering Women, Empowering Humanity" held on 17th November, 2016 organized by Haryana Police, Rohtak.

Research Guidance: Ph. D students supervised: 25

Ph. D. Students Supervising: 07 M. Phil. Students Supervised: 32 Post-Doctoral Fellow Guided: 02

Research Publications: Published in Refereed/Peer reviewed Journals: 155 Published in Conference/ Seminar Proceedings: 10

Research Grants: * **Principal Investigator** of Major Research Project from UGC entitled " Non-linear Functional Analysis and Applications: Fuzzy and probabilistic approach" for 3 years (2011-14) (Rs. 8,87,000/-)

* Co-ordinator, (DRS-I, Department of Mathematics) under Special Assistance Program of University Grants Commission.

- **Research Interests:** *Approximation Theory
 - * Fuzzy Mathematics
- * Theory of Frames

* Non- Linear Functional Analysis

* Fractals and Chaos

Workshops/Conferences organized:

- Convenor, Workshop on "Gender Sensitization and Women Safety at Workplace" in M. D. University, Rohtak (16 Feb, 2017).
- Organized two days Workshop on "Women Safety & Self Defense Techniques" in collaboration with Women Police Station, Rohtak for the girls student in the girls' hostel complex, M. D. University, Rohtak (11-12 August, 2016).
- Convenor, Workshop on "Gender Sensitization and Women Safety at Workplace" in M. D. University, Rohtak (09-10 Feb, 2016).
- Convenor, Workshop on "Sexual Harassment and Violence against Women: Prevention, Prohibition & Redressal" in M. D. University, Rohtak .(26-02-15 and 17-03-15)
- Convenor, International Conference on History and Development of Mathematical Sciences(ICHDMS-2012), Department of Mathematics, M. D. University, Rohtak in collaboration with "Indian Society for History of Mathematics". (21-11-12 to 24-11-12). More than 450 participants (including 38 from abroad) attended the conference.
- Organizing Secretary, National Conference on History of Mathematics and Recent Developments, Department of Mathematics, Maharshi Dayanand University, Rohtak, (20-12-06 to 22-12-06).
- Convenor, Symposium on Non-Linear Analysis, International Colloquium on History of Mathematical Sciences and Symposium on Non-Linear Analysis, SSJ Campus Almora. (16-05-11 to 19-05-11).
- Organizer, Blood and Eye Donation Camp in the Department of Mathematics, M. D. University on 28-02-2011 to celebrate National Science Day. 128 units of blood was collected in the camp. An appreciation certificate was received for organizing the camp from PGIMS, Rohtak and Red Cross Society.

Public talks & Outreach activities:

- Delivered a Radio Talk on "Status of Women: Challenges and Achievements" on International Women's day (08-03-2017) in Naari Jagat Programme.
- Participated as speaker in the panel of the talk show on "The Social, Psychological & Legal Aspects of Sexual Harassment" organized by K.R. Mangalam University, Gurgaon held on 24th November, 2016.
- Delivered a talk entitled "Women Safety & Sexual Harassment at Workplace" in the workshop "Empowering Women, Empowering Humanity" held on 17th November, 2016 organized by Haryana Police, Rohtak.

- Delivered a talk on "Sexual Harassment and Violence against Women at Workplace: Prevention, Prohibition & Redressal" in BPSMV, Khanpur Kalan, Sonepat. (26-10-2016)
- **Delivered** lecture on 'Gender Sensitization' in NSS Seven Days Camp (22- 27, October, 2016) organized by All India Jat Heroes Memorial College, Rohtak (26-10-2016).
- **Guest of Honour** in Maths quiz organized by All India Jat Heroes Memorial College, Rohtak (16-09-2016).
- Delivered a talk on "Swachh Bharat Abhiyan" in the Workshop -"Training & Development in Hospitality & Tourism Industry: Opportunities & Challenges" organized by IHTM, M. D. University on 15-09-2016.
- Participated in one hour discussion on "**Khabar Fast**" T.V. channel on the topic "Mahila Suraksha" on 18-07-2016.
- Delivered a talk on "Work Hard, Dream Big" in Youth Red Cross Camp organized by M. D. University on 28-06-2016.
- Delivered a Radio Talk on "Awareness of violence against women" on 08-06-2016.
- Delivered a Radio Talk on International Women's day and women safety in Naari Jagat
 Programme on 06-03-2016.
- Guest of Honour and motivated students and villagers about Moral values and National Integrity on Republic Day -2016, organized by Roshni Manav Sewa Sanstha, approved by Govt. of India, VPO Dighal, Jhajjar (26-01-2016).
- **Guest of Honour** and delivered lecture on **Female foeticide** in NSS Seven Days Camp 2015-16 organized by Pt. N. R. S. Govt. College, Rohtak (27-01-2016)
- **Delivered** lecture on '**Beti Bachao, Beti Padhao & Moral Values**' in NSS Seven Days Camp (25- 31 January, 2016) organized by All India Jat Heroes Memorial College, Rohtak (29-01-2016).
- Acted as Chief guest and delivered lecture on Women rights in "Utsav-2016 Inter-college Competition" organized by Govt. College for Women Rohtak. (18-02-2016)
- Acted as **Chief guest** and delivered lecture on **Female Education** in the programme on the eve of International Women's day organized by Youth India Association on 07-03-2016.
- Acted as Chief guest and delivered lecture on "Be the change you wish to see in the
 World" in the function organized by Women Development Cell, Rajdhani College, Delhi
 University.(15-03-2016)
- Delivered a lecture on "Women Empowerment" in Youth Red Cross Camp organized by All India Jat Heroes Memorial College, Rohtak.(16-03-2016).
- Delivered a Radio Talk on the Topic "Women Harassment & Gender Sensatization" in All India Radio Rohtak Station, Rohtak. (25-05-2015)

Professional Activities & Committees:

University Grants Commission (UGC):

- Appointed as an expert in various Expert committees towards the evaluation and assessment of
 the research papers submitted by college Teachers concerning travel assistance to attend
 International Conferences abroad by University Grants Commission.
- Appointed as an expert member of assessment/ review committee for final review of the Special Assistance Programme (SAP) at the level of DSA, Phase- IV of Department of Mathematics, Pune University, Pune by University Grants Commission.
- Appointed as **UGC observer** by **University Grants Commission** in various selection committees for promotion from Reader to Professor under Career Advancement Scheme.
- Appointed as a subject expert member of the expert committee to select candidates under the scheme for post doctoral fellowship for SC/ST by **University Grants Commission**.
- Appointed as a subject expert member, NET Review Committee by University Grants Commission.
- Appointed as a member of the expert committee to evaluate their performance and academic autonomous status to Christian Eminent Academy of Management, Professional Education and Research, Indore (MP) by University Grants Commission.
- Appointed as a member of the subject expert committee for screening the proposals under innovative program by **University Grants Commission**.
- Appointed as an expert member to assess the performance of Shree Mata Vaishno Devi University, Katra during X plan and to evaluate its requirement for XI plan by University Grants Commission.
- Appointed as a member expert committee for the evaluation of proposals from college teachers for undertaking Minor Research project at Kolkata and Delhi by University Grants Commission.
- Appointed as a member of expert committee to examine the proposals received from the Colleges affiliated to University of Delhi to seek financial assistance from UGC to organize Seminars/Workshops/Conferences as per UGC XI plan Guidelines of the Scheme by University Grants Commission.

Universities:

- **Member of P. G. Board of Studies**, Department of Mathematics, Indira Gandhi University, Mirpur, Rewari.(2014-16)
- Member of P. G. Board of Studies, Department of Mathematics, CRS University, Jind. (2015-till date)
- **Member of Court**, BhagatPhool Singh MahilaVishavidyalya, KhanpurKalan.(2009-10)

- Member of U. G. Board of Studies, Department of Mathematics, Devi Lal University, Sirsa.(2013-15)
- Member of P. G. Board of Studies, Department of Mathematics, GJU S & T, Hisar.
- Member-Expert, Board of Research Studies for the School of Basic & Applied Sciences in Central University of Jammu, Jammu. (2013-14)
- Member of U. G. Board of Studies, Bhagat Phool Singh MahilaVishavidyalya, Khanpur-Kalan. (2009-11)
- Member of U. G. Board of Studies, Kurukshetra University, Kurukshetra.
- Member of P. G. Board of Studies, ITM University, Gurgaon. (2010-11)

Maharshi Dayanand University:

- Chairperson of the Committee to check the Menance of Sexual Harassment and Violence against Women at Workplace. ,w.e.f.01-01-2015
- **Member of Court**, M. D. University, Rohtak.(2015-17)
- Member, Admission Committee, M. D. University. (2012-14)
- Member, Board of Residence, Health and Discipline. M. D. University, Rohtak.
- Convener and Member, UMC Committee, M. D. University for the sessions 2001-2002, 2010-2011, 2012-2013, 2014-15, 2016-17.
- Member, Alumni Advisory Committee, M. D. University.
- Subject Expert and VC Nominee in various Selection Committees.
- Member of various Inspection Committees for the inspection of colleges affiliated to M.D. University, Rohtak.

Member of Editorial Boards of the following Journals:

- ➤ Journal of Non-linear Sciences and its Applications (2010-15)
- ➤ Journal of Non-linear Analysis and its Applications (2010-till date)
- Mathematical Journal of Interdisciplinary Sciences (2012 to till date)

Society Memberships:

- ➤ Member, Executive Council of Indian Society for History of Mathematics.(2006-till date)
- **Life Member** of Indian Mathematical Society.
- > Member Executive Committee of Indian Society for Industrial and Applied Maths.

Referee Work:

Refereed papers for the following Journals:

- Fillomat
- Hacettpe Journal of Mathematics and Statistics
- Journal of Advanced Math. Studies
- Southeast Asian Bulletin of Mathematics
- Journal of Natural Sciences
- Journal of Mathematical Sciences
- Fixed Point Theory and Applications
- Mathematica Vesnik
- The Journal of Advanced Topology
- Journal of Non-linear Analysis and its Applications
- Mathematical Journal of Interdisciplinary Sciences

Invited Talks:

- Chief Guest in Valedictory session in National Seminar on Recent Developments in Mathematics (NSRDM-2017), 12-13 January, 2017, Department of Mathematics, Kalindi College, Delhi University (13-01-2017).
- Chaired a session in 3rd International Conference on Recent Developments in Science, Engineering & Technology, REDSET-2016, 21-22 Oct. 2016, G.D. Goenka University, Gurgaon. (22-10-2016)
- **Invited talk** on "Fixed Point Theory & Application" in Faculty Development Program, Chandigarh University, Chandigarh. (13-07-2016)
- **Invited talk** on "Introduction to Fractals and Chaos" in International Conference on Mathematics for Brain Studies", in Noida International University, Gautam Budha Nagar. (01-02-2016)
- Invited talk on "Fuzzy Sets and Fuzzy Logic: Its Applications" in International Conference on the occasion of Silver Jubilee of Indian Society of Industrial and Applied Mathematics (ISIAM) at Sharda University, Greater Noida, Delhi.(31-01-2016)
- **Invited talk** on "Mathematical Environment of Fuzzy systems and Fractals" in National conference on Recent development in Mathematical Modelling and Fuzziology, Department of Mathematics Chandigarh University, Chandigarh. (28-10-15 to 29-10-15)
- Invited talk on "A Panorama of Fractals and Chaos" in Annual Conference of Jammu Mathematical Society in Jammu University, Jammu.(14-05-2015 to 16-05-2015)
- **Keynote address** on "Mathematics Everywhere" in International Seminar on "Sustainable Development in 21st Century: A Global Perspective" in Chaudhry Ranbir Singh University, Jind. (19-03-15 to 21-03-15)

- **Invited talk** on "Fuzzy Mathematics: Aspects of Vagueness" in National Conference on Emerging Trends in Mathematical Sciences, Department of Mathematics, Ch. Devi Lal University, Sirsa. (17-03-15 to 18-03-15).
- **Keynote address** on "A Panorama of Fractals and Chaos" in International Conference on Innovative Trends in Computing Technology and Mathematica (ITCTM-2015), Delhi Institute of Technology and Management, Gannaur, Sonepat. (14-03-15)
- Delivered an **Extension lecture** on "Mathematics: The Crest of a Peacock" in Ch. Ranbir Singh University, Jind. (24-02-15).
- **Keynote address** on "Mathematics in Nature" in National Conference on Recent Advances in Mathematics (NCRAM-2015), Aggarwal College, Ballabgarh. (20-02-15 to 21-02-15)
- Acted as a Chairperson in National Conference on Recent Advances in Mathematics (NCRAM-2015), Aggarwal College, Ballabgarh. (20-02-15 to 21-02-15)
- Delivered a **lecture** on "Career in Mathematics" in the Career Guidance Workshop in Shiksha Bharti School, Rohtak.(05-02-15)
- **Invited talk** on "Mathematical Environment of Fuzzy set theory" in International Conference on Emerging Areas of Mathematics for Science and Technology, Panjabi University, Patiala.(30-01-2015 to 01-02-2015)
- Acted as a Chairperson in International Workshop on Wavelets, Frames and Applications (IWWFA-14) in Department of Mathematics, Kirori Mal College, University of Delhi, Delhi. (December 24-30, 2014)
- Delivered a **lecture** on "Beauty of Mathematics with Medals" during DST Inspire programme in Om Institute of Engineering and Technology, Hisar (26-12-14).
- Delivered an **Extension lecture** on "Mathematics: The Crest of a Peacock" in University Campus School, Rohtak (22-12-14).
- Delivered an **Extension lecture** on "Mathematics and its History" in Model School, Rohtak. (19-12-14).
- Acted as a Chairperson, Resource Person and Delivered talk on "Iterative Algorithms for Nonlinear Operators" International Conference on Algebra, Geometry, Analysis and their Applications (ICAGAA-14),. Jamia Millia Islamia (27-11-2014 to 28-11-2014).
- Delivered an **Extension lecture** on "Beauty of Mathematics" in Central University of Haryana, Mahendargrah. (25-11-14).
- Delivered an **Extension lecture** on "Beauty of Mathematics with Medals" in Ch. Devi Lal University, Sirsa. (30-09-14).
- Participated in **International Congress of Women Mathematicians -2014** at Coex, Seoul, Korea on August, 14, 2014.

- Received travel grant of 120,00,00 ₩ from NANUM to attend International Congress of
 Mathematicians 2014 at Coex, Seoul, Korea on August, 13-21, 2014 and presented a paper
 entitled "A new approach to study the variants of Cantor sets".
- Invited talk on "The Beauty of Fractals" in **National Conference** on Advances in Mathematical Sciences and their Applications, Hindu Girls College, Sonepat. (March 28-30, 2014)
- Invited talk on "Some aspects of Stability of Functional Equations," **International Seminar** on History of Mathematics. Ramjas College, University of Delhi. (27-11-13 to 28-11-13)
- Invited talk on "Mathematical Environment of Fuzzy Set Theory", **International Conference** on Recent Trends in Materials and Devices, 2013, Amity University, Noida. (30-10-13 to 31-10-13)
- Delivered an **Extension lecture** on "Mathematics: The Crest of a Peacock", Vaish College, Rohtak (29-10-13).
- Delivered an **Extension lecture** on "Fractals and Chaos" in Ch. Devi Lal University, Sirsa. (20-09-13).
- Delivered an **Extension lecture** on "Fractals and Nature", Hindu Girls' College, Sonepat.(10-04-13)
- Delivered a **lecture** on "Development in Mathematics" during DST Inspire programme, KIIT Engineering College Gurgaon. (21-12-12)
- Delivered a Radio Talk in Yuvvani Program, All India Radio Rohtak Station, Rohtak. (10-10-2012)
- Delivered a **lecture** on "The Beauty of Mathematics" in **National Seminar** on Mathematics and its Applications at Vaish College Rohtak. (27-03-12 to 28-03-12)
- **Keynote address** on "Mathematics and Nature", National Conference on Recent Developments in Mathematics with their Applications, Govt. College (Women), Bhoria Kalan, Fatehabad (Haryana) India. (14-03-12 to 15-03-12)
- Delivered a lecture on "Mathematics: History, Developments and Future outlook", National Seminar on Recent Advances in Mathematics, Tika Ram P. G. Girls College, Sonepat. (14-03-12 to 15-03-12)
- **Keynote address** on "Mathematics: The Crest of a Peacock", National Seminar on Recent Developments in Mathematics and its Applications, Govt. Post Graduate College, Gurgaon(Haryana). (03-02-12)
- Delivered a lecture on "Some Fixed Point Iteration Techniques", National Seminar on Advanced in Mathematics: Historical Developments & Engineering Applications, Madhuben & Bhanubhai Patel Women's Institute of Engineering New Vallabh Vidyanagar, Gujarat. (09-01-12 to 11-01-12)
- Acted as **Chairperson** in paper presentation session of International Workshop on Wavelets, Frames and Applications, Kirorimal College, University of Delhi. (15-12-11 to 21-12-11)

- Acted as Chairperson and delivered a talk in International Colloquium on History of Mathematical Sciences and Symposium on Non-Linear Analysis, SSJ Campus Almora. (16-05-11 to 19-05-11).
- Delivered a **lecture** "Some Fixed point Iteration Techniques and Applications", National Workshop on Computational Mathematics, GJ University, Hisar (26-03-2011).
- Delivered a **lecture** "A fixed point approach to Ulam Stability problem for cubic and quartic mappings in Non-Archimedean Fuzzy Normed Spaces", The World Congress on Engineering, London, U.K. (30-06-10 to 02-07-10)
- Acted as **Chairperson** in paper presentation session of International Conference on Recent Trends in Mathematics and its Applications, Jamia Millia Islamia, (30-03-09 to 31-03-09)
- Delivered a **lecture** on "Some fixed point Iteration techniques", International Conference on Operator Theory and Related Areas, University of Delhi (09-01-08 to 12-01-08).
- Delivered a **lecture** on "Fuzzy Set Theory and Its Applications", UGC sponsored National Seminar of 21st Century Renaissance: Transformation in Technology and Life, Delhi College of Arts and Commerce. (02-04-07 to 04-04-07)
- Delivered a lecture on "Developments in Fixed Point Theory", International Conference of the New Millennium on History of Mathematical Sciences, University of Delhi (20-12-01 to 23-12-01)

Refresher Courses:

- Acted as a **Resource Person** and delivered lecture on "An introduction to various spaces," in Refresher Course in Mathematics, UGC Academic Staff College B.P.S. Mahila Vishwavidyalaya, Khanpur (Sonepat) on Dec. 03, 2014.
- Acted as a Resource Person and delivered lecture on "Hyers-Ulam-Rassias stability of Functional Equations," in Refresher Course in Mathematics, UGC Academic Staff College B.P.S. Mahila Vishwavidyalaya, Khanpur (Sonepat) on Dec. 30, 2013.
- Delivered an Extension lecture on "Topological and Uniform Spaces", Refresher Course in Mathematics, UGC Academic Staff College B.P.S MahilaVishawavidyalaya, Khanpur (Sonepat), Dec 2010.
- Delivered an **Extension lecture** on "Mathematics and Its Applications", Refresher Course in Mathematics, Govt. P.G. College, Bhiwani sponsored by Commissioner Higher Education, Haryana. (12-05-08 to 01-06-08)
- Delivered a **lecture** on "Non-Linear Functional Analysis", Refresher Course in Mathematics at C.P.D.H.E., University of Delhi. (14-12-07 to 05-01-08).
- Delivered a lecture on "Applications of Fixed Point Theory", Refresher Course in Mathematics,
 C.P.D.H.E., University of Delhi. (27- 12-04 to 15-01-2005)

- Delivered a **lecture** on "Fuzzy Fixed Point Theory", Refresher Course in Mathematics , C.P.D.H.E., University of Delhi, Delhi (15-12-03 to 06-01-04)
- Delivered a **lecture** on "Fixed Point Theorems," in Refresher Course in Mathematics, C.P.D.H.E., University of Delhi, Delhi. (13-03-02 to 04-04-02)