

RAM LAL ANAND COLLEGE
Annual Report for session 2019-20
Department of Mathematics

Section A: Faculty Information

a. Awards Received by faculty

S.No	Title of the Award	Name of the Awardee	Awarding Agency	Date of Award	Incentives (Award Certificate/Award Money, other)	Category (Research/innovation/other)
1	Young Achiever Award	Pooja Bansal	Institute of Scholars	10 Jun 2019	Award Certificate and Bronze Memento	Research

b. Publications

S. No	Title of the Book/Chapters/Chapter Published	Name of the authors	Title of the proceedings	Name of the conference	ISBN/ISSN	Name of the publisher
1.	Hopf Real Hypersurfaces in the Complex Quadric Q^m with Recurrent Jacobi Operator	Pooja Bansal	Advances in Intelligent Systems and Computing	Soft computing for Problem Solving	ISSN 2194-5357, 2194-5365 ISBN 978-981-13-1591-6 , 978-981-13-1592-3	Springer
2.	Optimization Approach for Bounds Involving Generalized Normalized - Casorati Curvatures	Pooja Bansal, M. H. Shahid	Advances in Intelligent Systems and Computing	Harmony Search and Nature Inspired Optimization Algorithms - Theory and Applications, ICHSA	ISSN 2194-5357, 2194-5365 ISBN 978-981-13-1591-6 , 978-981-13-1592-3	Springer

c. Refresher course/Orientation/FDP /Professional Course/ NPTEL/other course attended by Faculty

Name of Faculty	Course	Date and Duration	Organising Body
Basant Kumar Mishra	FDP on "Moodle"	12-17 May, 2020 (6 days)	ABVU (Bilaspur) in association IIT Bombay & UGC (An Initiative of National Mission on

			Education through ICT, MHRD, Govt. of India)
Basant Kumar Mishra	FDP on “Scilab and Xcos”	22-2 June, 2020 (12 days)	A N College Patna in association with IIT Bombay, ICT, MHRD, Govt. Of India
Kapil Kumar	CALCULUS OF ONE REAL VARIABLE	Jul-Dec 2019	NPTEL
Pooja Bansal	One week online FDP on “R Programming”	11-15 May, 2020	ICT, MHRD, Govt. Of India
Pooja Bansal	One week online FDP on “LaTex and Xfig”	11-17 May, 2020	A.N. College(Patna) in association with Spoken Tutorial Project, IIT Mumbai & UGC
Pooja Bansal	One week online FDP on “Moodle”	12-17 May, 2020	ABVV (Bilaspur) in association with Spoken Tutorial Project, IIT Bombay & UGC

d. Collaborations/MoU Signed by department in 2018-19

S.NO	Organisation	Date/year of MoU signed	Activities conducted under MoU	Number of students/teachers participated under MoUs
1	IIT Mandi	19 th Feb, 2020	Seminar on “Dynamical System and Chaos Theory” on 29 th Feb, 2020 at IIT Mandi	41+21(Students from RLA & IIT) and 4+3(teachers from RLA & IIT resp)

e. Seminars and Conferences Attended by Faculty

Name of Faculty	Name of the conference/seminar	Date and place	National/ international /local	Participation (attended/presented /chair/organiser)
Basant Kumar Mishra	Seminar on “Dynamical System and Chaos Theory”	29 th Feb, 2020 IIT Mandi, Himachal Pradesh	National	Organiser
Basant Kumar Mishra	Seminar on “Cryptography and Network Security”	28 th Feb, 2020 Ram Lal Anand College	National	Organiser

Basant Kumar Mishra	Workshop on “Yoga and Meditation”	19 th June, 2019 to 21 st June, 2019 Ram Lal Anand College	National	Organiser
Basant Kumar Mishra	Webinar on “Recent trends Of teaching in MatheMatics in present situations”	14 th May, 2020 Govt. P.G. College, Pipariya Hoshangabad(MP) Barkatullah University Bhopal	International	Attended
Basant Kumar Mishra	Webinar on “NAAC: Systematic Data Organization and Presentation”	16 th May, 2020 VIT, Mumbai	National	Attended
Basant Kumar Mishra	Webinar on “Understanding The Corona Virus: Some Good News”	05 th May, 2020 Kalindi College, University of Delhi	National	Attended
Basant Kumar Mishra	Webinar on ”Importance of Research in Field of Law”	22 nd May, 2020 School of Law, Sharda University	National	Attended
Basant Kumar Mishra	Webinar on “TOOLS AND TECHNIQUES OF ADVANCED RESEARCH FOR MANAGEMENT AND SOCIAL SCIENCE”	17 th May, 2020 Department of Commerce, Faculty of Commerce & Management Indira Gandhi National Tribal University (IGNTU)	National	Attended
Basant Kumar Mishra	Webinar on “An Insight into Online Teaching-Learning and the Journey of Zero-“ Department of Mathematics,	19 th May, 2020 Department of Mathematics, Vivekananda College,	National	Attended

	Vivekananda College	University of Delhi		
Basant Kumar Mishra	Webinar on "Role of Intellectual Property Rights Post Covid-19 Pandemic"	20 th May, 2020 School of Law, Sharda University	National	Attended
Basant Kumar Mishra	Webinar on 'Role of Mathematics in Covid-19 : Existing Literature, Outcomes and Challenges in Various Directions'	14 th May, 2020 ARSD College, University of Delhi	National	Attended
Basant Kumar Mishra	Webinar on "Current Trends in Information Technology"	15 th May, 2020 Bharti College, University of Delhi	National	Attended
Kapil Kumar	Webinar on 'Referencing and citation,	20 April 2020 ,Ram Lal Anand College & Sri Aurobindo College(Evening), University of Delhi	National	attended
Kapil Kumar	Webinar on 'Being Happy By Choice not Chance in Covid Times'	01 May 2020, Kalindi College, University of Delhi	National	attended
Kapil Kumar	Webinar on 'Graph Theory & petri Nets Applications'	01 May 2020, Shyama Prasad Mukherji College for Women, University of Delhi	National	attended
Dr. Dileep Kumar	Webinar on "Understanding The	05-May-2020, / Kalindi College,	National	Attended

	Corona Virus: Some Good News”	University of Delhi		
Dr. Dileep Kumar	Webinar on “Covid-19 Pandemic and Immunity & Socio Psychological Issues and Covid-19”	6-May-2020, Deshbandhu College, University of Delhi	National	Attended/
Dr. Dileep Kumar	Webinar on “Quality Assurance in Higher Education: Practices And Issues”	04-May-2020 To 08-May-2020, Hansraj College, University of Delhi	National	Attended/
Dr. Dileep Kumar	Webinar on “Transformative Power of Mentoring”	09-May-2020, SPM college, University of Delhi	National	Attended/
Pooja Bansal	Webinar on “Being Happy By Choice not Chance in Covid Times”	01 May 2020, Kalindi College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Graph Theory & petri Nets Applications”	01 May 2020, SPM College for Women, University of Delhi	National	Attended
Pooja Bansal	Webinar on “COVID-19: Challenges to Police and Efficacy of The Epidemic Diseases (Amendment) Ordinance”	03 May 2020, Sangyartham Research Foundation (SRF)	National	Attended

Pooja Bansal	Webinar series on “Quality Assurance in Higher Education: Practices and Issues”	04 to 08 May 2020, Hansraj College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Understanding The Corona Virus: Some Good News”	05 May 2020, Kalindi College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Psychological well- being and COVID 19:An Internal Journey”	07 May 2020, Shivaji College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Transformative Power of Mentoring”	09 May 2020, SPM College for Women, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Vaishvik Paridrishya mein bhartiya Sanskriti”	11 May 2020, Ramanujan College, University of Delhi	International	Attended
Pooja Bansal	Webinar on “CYBER CRIME, LAW AND SECURITY”	12 May 2020, Shivaji College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Research Methodology: An overview”	12 May 2020, ARSD College, University of Delhi	National	Attended
Pooja Bansal	Webinar on ‘Role of Mathematics in Covid-19 : Existing Literature, Outcomes	14 May 2020, ARSD College,	National	Attended

	and Challenges in Various Directions’	University of Delhi		
Pooja Bansal	Webinar on “Future of Management Education Post COVID-19”	15 May 2020, Arybhatta College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Current Trends in Information Technology”	15 May 2020, Bharti College, University of Delhi	National	Attended
Pooja Bansal	Webinar on “Recent Advances in Information Technology & Mathematics”	17 May 2020, Govt. Narmada college Hoshangabad	International	Attended

f. Any other Professional Engagement of Faculty

1. **Mr. Basant Kumar Mishra-** Organised One day workshop/seminar on Dynamical system and Chaos theory in collaboration with IIT Mandi, at IIT Mandi on 29th February, 2020
2. **Dr. Pooja Bansal-** Reviewer of Filomat Journal
3. **Dr. Pooja Bansal-** Reviewer of International Journal of Basic and Applied Sciences

Section B: Departmental Information

a. Departmental Activities details (Seminar, Departmental Fest, Quiz or any other competition organised):

Name of the activity / Title	Organizing Unit/Collaborations / sponsorship (address and amount)	Details of the speakers	Title of the talks	Date and duration (hrs/days)	No. of teachers /students participated

Seminar on “Cryptography and Network Security”	Department of Mathematics, Ram Lal Anand College	Dr. G C Mishra (Scientist F, DRDO, Govt. of India)	Cryptography and Network Security	28 th Feb, 2020 (1 hr & 30 minutes)	9 & 150
Workshop on Dynamical System and Chaos Theory	IIT Mandi & Dept. of Mathematics, RLA	Dr. Nitu Kumari, Associate Professor, SBS IIT Mandi	Dynamical System & Chaos Theory	29 th Feb, 2020 (4 hours)	4 & 41
Inter College Departmental Fest IMPLOSION’20	INFINITY-The Mathematical Society of RLA & DIPS Academy		Events like PPT presentation, Mathematical Relay, IPL Auction, Quiz etc were organised	28 th Feb, 2020 (Full day)	5 & 200
Cleanliness Drive	Department of Mathematics, Ram Lal Anand College	NA	NA	09-01-2020	4 & 55
Election of Office Bearer	Department of Mathematics, Ram Lal Anand College	NA	NA	03-09-2019	
Orientation Programme	Department of Mathematics, Ram Lal Anand College	NA	NA	22-07-2019	4 & 32

b. Field Trips organized:

Field trip	Date and Place	Duration (days)	No. of teachers participated	No. of students participated
Educational Trip	29 th Feb -2 nd March, 2020 (IIT Mandi & Manali, HP)	29-02-2020 to 02-03-2020	4	41

Detailed Information about Events:

Event-1: Seminar on “Cryptography and Network Security”:

1. The Department of Mathematics had organized a National Level Seminar on “Cryptography and Network Security” on 28-02-2020. **Dr. Girish Mishra (Scientist, DRDO, Govt of India)** was the resource person and deliver a lecture on **Cryptography and Information Security** in front of large gathering of undergraduate students, research scholars and faculties from various colleges of Delhi University & other universities of Delhi-NCR. The event was started lightning of lamp followed by Saraswati Vandana. The inaugural speech was given by Mr. Basant Kumar Mishra, Teacher-in-charge and convener of the seminar, who emphasized on the importance of cryptography in Mathematics and its

application in the real world. He also welcomed the gathering and eminent personalities attended the event. Professor (Dr.) Rakesh Kumar Gupta, the patron, welcome the resource person and motivated the students. His speech really motivates the audience. After that Dr. Girish Mishra took over the stage. He delivered and conquered the hearts of participants with brilliant presentations. Dr. Sandeep Bhatt took the queries at the end.

We received 215 feedback for the participants and were given the certificates of participation.

Event-2: Implosion 2020 (Annual Fest):

2. The Department of Mathematics organized its annual inter college mathematical fest ***Implosion '20*** on February 27, 2020. The festival was started with lamp-lighting ceremony and Ganesh Vandana. Dr. Rakesh Kumar Gupta, Principal, Ram Lal Anand College inaugurated the festival and encourage students for showing their abilities in mathematical modelling, doing project work and simulation technique application. He also encouraged students to do project in relevant areas under the supervision of any faculty member, engage themselves in internship and other career oriented short-term courses. Dr. Mukta D Mazumdar, Dr. Seema Gupta, Mr. Basant Mishra, Mr. Kapil Kumar, Mr. Sandeep Bhatt, Dr. Dileep Kumar, Dr. Pooja Bansal along with other faculty members of college were present during the inauguration. The lecture was followed by various mathematical and entertaining events like Presentus: the PPT competition, Mathematical Quiz: Brain It On 2.0, Mathematical Relay, HIT Wicket: The IPL Auction etc. The office bearers of Mathematical Society "*INFINITY*", Mr. Joginder Singh (President), Ms. Shruti Goyal (VP), Mr. Sarthak Mehta (Treasurer), Mr. Pranoy Dey (Secretary) & Mr. Sagar Yadav (Joint Sec) worked day and night for the success of IMPLOSION'20. The students, teachers and the sponsors thoroughly enjoyed the events and get motivated for next year show.

Event-3: Educational trip to IIT Mandi & Manali:

3. The department of Mathematics organized an educational trip for their students to IIT Mandi and followed by Manali, Himachal Pradesh from 28th February, 2020 to 3rd March, 2020. IIT Mandi had conducted a workshop on **Dynamical System and Chaos theory** in collaboration with Ram Lal Anand College, University of Delhi at Dr. C. V. Raman Auditorium, IIT Mandi. The resource person was *Dr. Nitu Kumari, Associate Professor, SBS, IIT Mandi*. The workshop includes lecture, paper presentation and followed by practical session on Matlab. Dr. Abbas, HOD, School of Basic Sciences, IIT chair the workshop and Mr. Basant Mishra gave the introductory speech on Dynamical system & Chaos theory. Dr. Nitu discussed the entire concept and practical application of the topic, which students apply during lab session. They experienced how the weather forecasting is done, Butterfly effect on weather, as well as how a slight change in climatic condition at one place affect the other place, which is very far away from the origin. The workshop was very meaning full and it was a learning experience for them.

The next stop was Manali, where they experience snow fall at Solang Valley, enjoyed ZIP Line (700mt), Skiing, Zorbing, snowboarding etc. for complete day. Next day we visited Hidimba temple, Manu temple, Vasishta temple, where students enjoyed hot spring and then we tracked 195 ft to Jogini falls. In the evening we enjoyed surfing at Mall Road. The entire trip was memorable and students & teachers truly enjoyed every bit of life.

Event-4: Cleanliness Drive:

4. Clean environment is an indicator of progress of human being and with the motto of Clean environment Government of India has initiated ‘Swacchta Bharat Abhiyan’. The Department of Mathematics, Ram Lal Anand College, University of Delhi has taken this opportunity and initiated cleanliness drive in and outside the college campus on January 09, 2020 under Swachhata Action Plan (SAP). All the stakeholders assembled at the Front lawn of the college and the drive was Initiated at 2:00PM and continued for 45 minutes. All the students and the Faculties (4 in nos.) actively took part in the drive with great enthusiasm. The entire Volunteers were divided into four teams under the supervision of faculties and gloves, bin bags, hand brooms were provided to them. The entire campus was virtually separated into four parts viz.. Canteen area, Central Lawn, Front Lawn, Parking area and outside gate (approach road) area. During the activity volunteers and faculties have cleaned the respective areas (Central Lawn, Canteen, Front Lawn and Parking Area) and chopped the unwanted bushes along the road side. They also removed the unwanted stickers from the wall and picked up all plastic garbage from the campus. Best thing was they segregated the Biodegradable and non-biodegradable waste into separate big bin and handed over to the Sulabh people. The drive was concluded at the main stage around 2:55PM. The Volunteers and Faculties of the Department of Mathematics have also taken pledge to continue this work in future as well. The Department of Mathematics is thankful to the Swachhata Action Plan committee for providing gloves, bin bags, hand-brooms etc... for the activity.

5. **Event-5: Orientation Programme (For First Year Students):**

The Department of Mathematics organised its Orientation programme for 1st year students admitted for the session 2019-20 on 22-07-2019 in Lab-15. The event was started with welcome of students by office bearers of Mathematical Society of RLAC “Infinity”. The PPT was given by Mr. Basant Kumar Mishra to inform them about the college, past activities of the department, achievement of alumnus, LMS used by the department, Rule and regulations of the college and many more. Dr. Sandeep Bhatt discussed about the time-table, examination, CGPA score and other aspects that student is going to face. Few entertainment session was done by the seniors and Snack were distributed to the new members of the department.

Section C: Student Information

a. Students undertaking Internships/trainings:

S.No.	Name of the student	Title of the project/Position held	Name of Institution/industry	Period Date and duration
1	Abhishek Chaubey	AI from the data center to the edge- An Optimised path using Intel Architecture	Intel	27 th Nov, 2019
2	Peeyush Choudhary	Programming with everybody	University of Michigan (Coursera)	23/5/2020 (10 days)

3	Rupendra Yadav	Calculus of one Variable	NPTEL	July-Sept, 2019 (8 WEEKS)
4	Rupendra Yadav	Webinar on "Covid 19-Pandemic" Under NSS	S S Jain Subodh PG College, Rajasthan (NSS)	May, 2020
5	Priyesh Raj	Splendour-2020 (Volunteer)	Ram Lal Anand College	14-16 Feb, 2020
6	Priyesh Raj	Prajana Foundation, NGO (Volunteer)	Prajana Foundation, NGO	Aug-Sept, 2019
7	Priyesh Raj	Excel online Course	Sankhyiki, Delhi	March-April, 2020
8	Anurag Mathpal	Financial Market	University of Yale (Coursera)	12/4/2020 (10 days)
9	Kautilya Sharma	Problem Solving with Excel	PWC (Coursera)	19/10/2019 (10 days)
10	Anish Kumar	Calculus of one Variable	NPTEL	July-Sept, 2019 (8 WEEKS)
11	Manish Raj	Calculus of one Variable	NPTEL	July-Sept, 2019 (8 WEEKS)
12	Rupendra Yadav	Introduction to Abstract Group Theory	NPTEL	July-Sept, 2019 (8 WEEKS)
13	Anish Kumar	Introduction to Abstract Group Theory	NPTEL	July-Sept, 2019 (8 WEEKS)
14	Manish Raj	Introduction to Abstract Group Theory	NPTEL	July-Sept, 2019 (8 WEEKS)
15	Rupendra Yadav	Calculus of Several Real Variables	NPTEL	July-Sept, 2019 (8 WEEKS)
16	Anish Kumar	Calculus of Several Real Variables	NPTEL	July-Sept, 2019 (8 WEEKS)
17	Manish Raj	Calculus of Several Real Variables	NPTEL	July-Sept, 2019 (8 WEEKS)
18	Aman Reddu	Ecology and Environment	NPTEL	July-Sept, 2019 (8 WEEKS)
19	Vanshika	Annual Training Camp [NCC]		
20	Govind	Annual Training Camp [NCC]	NCC	2019-20
21	Vanshika	PRE Republic-Day Parade camp [NCC]	NCC	2019-20
22	Hritik Kumar	PRE Republic-Day Parade camp [NCC]	NCC	2019-20
23	Hritik Kumar	Republic Day Parade [NCC]	NCC	2019-20
24	Govind	Republic Day Parade [NCC]	NCC	2019-20
25	Rahul	NCC Training Camps	NCC	2019-20
26	Hritik Kumar	NCC Training Camps	NCC	2019-20
27	Govind	NCC Training Camps	NCC	2019-20

b. Students Awards in competitions:

S.No.	Name of the student	Name of the event (Intra college/intercollege)	Institution and date	position
1	Abhishek Choubey	Science Quiz: (Inter College)	Moti Lal Nehru College, Nov, 2019	First
2	Peeyush Choudhary	Science Quiz: (Inter College)	Moti Lal Nehru College, Nov, 2019	First
3	Peeyush Choudhary	Mathematical Relay: (Inter College)	Ram Lal Anand College, 28 th Feb, 2020	Second
4	Pranoy Dey	Science Quiz: (Inter College)	Moti Lal Nehru College, Nov, 2019	First
5	Gulson Kumar Jha	Essay writing Competition (Inter College)	7 th BN NCC	Second
6	Peeyush Choudhary	Maths Quiz: (Inter College)	Moti Lal Nehru College, Nov, 2019	First
7	Madan Aggarwal	Maths Quiz: (Inter College)	Moti Lal Nehru College, Nov, 2019	First
8	Rupendra Yadav	Calculus of one Variable	NPTEL	Topper
9	Tinku Kumar	Alphabetic Mathemagic: (Inter College)	Moti Lal Nehru College, Feb, 2020	Third
10	Ankit Anand	Alphabetic Mathemagic: (Inter College)	Moti Lal Nehru College, Feb, 2020	Third
11	Ritik	Alphabetic Mathemagic: (Inter College)	Moti Lal Nehru College, Feb, 2020	Third
12	Priyesh Raj	Mathematical Relay: (Inter College)	Ram Lal Anand College, 28 th Feb, 2020	Third
13	Priyesh Raj	Fellowship Exam: (National)	Institute & Faculty of Actuaries	Cleared

c. Scholarship/fellowships awarded to student

S.N O	NAME OF THE STUDENT	PROGRAM AND YEAR	NAME OF THE Scholarship/AWARD	Amount Received
1.	Pranoy Dey	B.Sc(H) IInd Year	National Scholarship, Dept. of Electronics & Information Technology, Ministry of Communication & IT, Govt. of India	20,000
2.	Kshitij Sharma	B.Sc(H) IIIrd Year	Alumni Merit Scholarship, RLA	3,000
3.	Chirag Sharma	B.Sc(H) Ist Year	Fee Concession, RLA	180

4.	Kriti Garg	B.Sc(H) Ist Year	Fee Concession, RLA	180
5.	Muskan Kumari	B.Sc(H) Ist Year	Fee Concession, RLA	180
6.	Kritika Sinha	B.Sc(H) IIIrd Year	Fee Concession, RLA	180
7.	Sandeep Kumar	B.Sc(H) IIIrd Year	Fee Concession, RLA	180
8.	Atul Kumar	B.Sc(H) IIIrd Year	Fee Concession, RLA	180
9.	Arpit Singh	B.Sc(H) IIIrd Year	Fee Concession, RLA	180
10.	Sohal Yadav	B.Sc(H) IIIrd Year	Fee Concession, RLA	180
11.	Joginder Singh	B.Sc(H) Ist Year	Student Aid, RLA	2800
12.	Muskan Kumari	B.Sc(H) Ist Year	Student Aid, RLA	2500
13.	Harish Kumar	B.Sc(H) Ist Year	Student Aid, RLA	3000
14.	Kritika Sinha	B.Sc(H) IIIrd Year	Student Aid, RLA	2800
15.	Bikram	B.Sc(H) IIIrd Year	Student Aid, RLA	2800
16.	Sandeep Kumar	B.Sc(H) IIIrd Year	Student Aid, RLA	2500
17.	Atul Kumar	B.Sc(H) IIIrd Year	Student Aid, RLA	2800
18.	Arpit Singh	B.Sc(H) IIIrd Year	Student Aid, RLA	2800
19.	Sohal Yadav	B.Sc(H) IIIrd Year	Student Aid, RLA	3000







Basant Kumar Mishra
Teacher-In-Charge
Department of Mathematics
Ram Lal Anand College

