

# Aryabhatta College

## Department of Mathematics

### (Annual Report for the Academic session 2020 to 2021)

1) Name of Teacher in Charge: Dr. Chandrashekhar Nishad

2) Brief details of Faculty members:

Name	Qualification	Designation	Specialization	Teaching Experience (Years)	Permanent/ Temporary/ Ad-hoc /Guest
Dr. Narender Kumar	Ph.D.	Associate Professor	Mathematical Programming and Optimization	26 Year 9 month	Permanent
Dr. Naveen Kumar Jain	Ph.D.	Assistant Professor	Complex Analysis and Functional Analysis	9	Permanent
Dr. Yogender Singh	Ph.D.	Assistant Professor	Optimal Control Theory	9	Permanent
Mrs. Aakanksha Singh	M.Sc.	Assistant Professor	Optimization Theory	9	Permanent
Mr. Gufran malik	M.Tech.	Assistant Professor	Approximation Theory	9	Permanent
Dr. Chandrashekhar Nishad	Ph.D.	Assistant Professor	Fluid Dynamics	6	Permanent
Mr. Dheeraj Singh	M.Phil.	Assistant Professor	Valuation Theory (Algebra)	2	Ad-hoc

3) Student Strength

First Year	Second Year	Third Year
50	39	53

4) Details of publication work by the faculty members

Serial No.	Author	Title	Journal	Volume, Year, Page No.	Publisher/ISSN No. / Int. Database	Refereed
1.	Naveen Kumar Jain	Sharp Bohr Radius Constants for Certain Classes of Analytic Functions	Bulletin of the Malaysian Mathematical Sciences Society (2)	44(3) 2021 1771-1785	2180-4206	Yes
2.	Yogender Singh	On an Attempt to Study the Possible Mix of Hierarchical Relationships amongst the Problems Faced by Asian Street Food Vendors	<i>International Journal of Management and Applied Science</i>	Volume-6, Issue-9, pp. 32-38, Sep- 2020	ISSN: 2394- 7926	Yes
3.	Yogender Singh	On Exploration of Various Factors Affecting the Appropriate Selection of Movies for Teaching of School and Undergrads Students and Studying the Mix of Relationships amongst Them	<i>International Journal of Management and Applied Science</i>	Volume-6, Issue-9, pp. 44-49, Sep- 2020	ISSN: 2394- 7926	Yes
4.	Yogender Singh	On Studying the Hierarchy of Interrelationships amongst the Essential Skills for Successful Implementation of Inclusion in K Curriculum of Schools	<i>International Journal of Computer Applications</i>	Volume 175 – No. 39, pp. 1-6, December 2020	ISSN: 0975 – 8887	Yes
5.	Yogender Singh	On studying the inter-relationship amongst the facilitating factors for clinical reasoning of occupational therapy	<b>Edited Book:</b> <i>Digitalisation and Innovations in Business</i>	pp. 228-235	ISBN: 978819448131 7	
6.	Yogender Singh	On an attempt to study the inter-relationship amongst various challenges faced by	<b>Edited Book:</b> <i>Digitalisation and</i>	pp. 236-244	ISBN: 978819448131 7	

		Sports Scientists and Sports Analytics in developing countries	<i>Innovations in Business</i>			

- Dr Naveen Kumar Jain presented paper ‘Bohr’s radius for certain classes of analytic functions’ in a national conference on Mathematical Analysis and Computing (NCMAC-2018) held during 13-14 December 2018 organized by the Department of Mathematics, SSN College of Engineering, Chennai, Tamil Nadu, India.
- Supervised M.Phil dissertation titled ‘Bohr’s Radius For Classes of Analytic Functions’.

5) Participation of faculty members in seminars/workshops ,etc : NONE

- **Dr. Naveen Kumar Jain** participated in A one week International Faculty Development Programme on 'Advanced Linear Algebra' September 27– October 1, 2021 organised by Miranda House, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi.
- **Dr. Naveen Kumar Jain** participated in Two Week (Online) Interdisciplinary Faculty Development Programme on ‘MOOC's, E-Content Development, Research Methodology and Statistical Tools in Open Education World’ (3rd August – 17th August 2021) organised by Kalindi College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi.
- **Dr. Naveen Kumar Jain** participated in TWO-WEEK REFRESHER COURSE IN “MATHEMATICS" organized by "Department of Mathematics, Ramanujan College” from 16-30 March 2021.
- **Ms. Aakanksha Singh** participated in a 2-Weeks FDP on "ICT BASED NEW PARADIGMS OF E-TEACHING AND E-LEARNING : DIGITAL PEDAGOGY” organized by TLC,Ramanujan College, Delhi University from 15.9.20 - 30.9.20.
- **Ms. Aakanksha Singh** completed a 2-Weeks REFRESHER COURSE in Mathematics organised by TLC, Ramanujan College from 16.3.21-30.3.21
- **Mr. Gufran Malik** completed a One week Faculty Development Program on "Academic Writing" organized by TLC Ramanujan College from 18 Feb 2021 to 24 Feb 2021.
- **Mr. Gufran Malik** completed a Two week Refresher Course in "Mathematics" organized by TLC Ramanujan College from 16 Mar 2021 to 30 Mar 2021.
- **Mr. Gufran Malik** completed a One week Faculty Development Program on "Artificial Intelligence & Machine Learning" organized by The ICFAI University Jaipur from 28 June 2021 to 02 July 2021.
- **Dr. Yogender Singh** participated in Two weeks' Faculty Development Program on “ICT Based New Paradigms of E-Teaching and E-Learning : Digital Pedagogy" organized

by Department of Computer Science, Mata Sundri College for Women University of Delhi In Collaboration with Pandit Madan Mohan Malviya National Mission on Teachers and Teaching Learning Centre, Ramanujan College, Sept 15, 2020 - Sept 30, 2020.

- **Dr. Yogender Singh** participated in Two-Week Online Subject Refresher Course on “Mathematics & Statistics” conducted by UGC-HRDC, GJUS&T, Hisar, Jan 14, 2021 to Jan 27, 2021.
- **Dr. Chandrashekhar Nishad** participated in the 2-Week Faculty Development Programme on "RESEARCH METHODOLOGY" organized by Teaching Learning Centre, Ramanujan College University of Delhi; from October 01- October 15, 2020.
- **Dr. Chandrashekhar Nishad** participated in the ONE WEEK FACULTY DEVELOPMENT PROGRAMME on “ACADEMIC WRITING” organized by Teaching Learning Centre, Ramanujan College University of Delhi, from 18 February, 2021 - 24 February, 2021.
- **Dr. Chandrashekhar Nishad** participated in the TWO-WEEK REFRESHER COURSE IN “MATHEMATICS" organized by Teaching Learning Centre, Ramanujan College University of Delhi, from 16-30 March 2021.

6) Achievement of Students including their participation in various societies

7) Co-curricular Programmes conducted by the Department: N.A.

8) Library Budget sanctioned for the Department: Rs 125000/-

9) (Strength, Weakness, Opportunities, Challenges) SWOC Analysis of the Department

- **Strength:** Dedicated educators who are ready to help and mentor the students beyond the classrooms. Facilities include a well-maintained computer lab and good resourceful books in college library.
- **Weakness:** The department does not offer any add-on / certificate course
- **Opportunities:** Teachers feel that they can better utilize technology in the classroom to create an improved learning environment for their students.
- **Challenges:** Student initially finds it difficult to handle abstract nature of the subject and sometimes don't push themselves to work hard or ask doubts from the teachers. Lack of peer-learning and unwillingness to study is another challenge faced by the teachers.

10) Future Plans of the Department

- To invite eminent speakers and alumnus to motivate students.
- To attend seminars and workshops to upgrade skills.
- To conduct training classes for students to take competitive examinations with confidence.
- To conduct workshops for students to enhance their skills in application of mathematics.