**Name of the Faculty**: DR. SUMIT NAGPAL

**Designation and Department**

ASSISTANT PROFESSOR, DEPARTMENT OF MATHEMATICS

**Education and Training**

- **Ph. D.** (Mathematics) (2014), Department of Mathematics, University of Delhi. **Title of Thesis**: Close-to-convex planar harmonic univalent mappings.
- **M. Phil.** (Mathematics) (2011), Department of Mathematics, University of Delhi
- **M. Sc.** (Mathematics) (2009), Hindu College, University of Delhi
- **B. Sc.** (Mathematics) (2007) Hindu College, University of Delhi

**Contact info**

**Mob**: +91-9650143725
**Email**: sumitnagpal.du@gmail.com

**Areas of Interest**

**Teaching**: Real and Complex Analysis, Abstract Algebra
**Research**: Geometric Function Theory

**Subjects Taught**

**At Undergraduate Level**:
Real Analysis, Calculus, Theory of Real Functions, Reimann Integration and Series of functions, Metric Spaces, Complex Analysis

**At Postgraduate Level**:
Topology

**Experience**

- Assistant Professor, Department of Mathematics, Ramanujan College, March 7, 2014 – to date.
- Assistant Professor (ad hoc), Department of Mathematics, University of Delhi, January 7, 2014 – March 6, 2014.
- Senior Research Fellow (CSIR) (January 2012 – December 2013), Department of Mathematics, University of Delhi, Delhi, India.
- Junior Research Fellow (CSIR) (January 2010 – December 2011), Department of Mathematics, University of Delhi, Delhi, India

**Research Publications**

**2017**

(1) O.P. Ahuja, Sumit Nagpal and V. Ravichandran, A technique of constructing planar harmonic mappings and their properties, Kodai Mathematical Journal, **40** (2017), no. 2, 592-605.

SCIE Journal, 2016 Impact Factor: 0.460, ISSN: 0386-5991 (print), 1881-5472 (electronic).

**2016**
(2) Sushil Kumar, **Sumit Nagpal**, and V. Ravichandran, Coefficient inequalities for Janowski starlikeness, Proceedings of the Jangjeon Mathematical Society, **19** (2016), no. 1, 83-10.

Scopus Journal, ISSN: 1598-7264.

**2015**
(3) **Sumit Nagpal** and V. Ravichandran, Convolution Properties of harmonic Koebe function and its connection with 2-starlike mappings, Complex Variables and Elliptic Equations: An International Journal, **60** (2015), no. 2, 191–210.

SCIE Journal, 2016 Impact Factor: 0.616, ISSN: 1747-6933 (Print), 1747-6941 (Online).

(4) R. Mendiratta, **Sumit Nagpal** and V. Ravichandran, On a subclass of strongly starlike functions associated with exponential function, Bulletin of the Malaysian Mathematical Sciences Society, **38** (2015), no. 1, 365–386.

SCIE Journal, 2016 Impact Factor: 0.720, pISSN : 0126-6705 (Print), eISSN :2180-4206 (Online).

(5) R. Mendiratta, **Sumit Nagpal** and V. Ravichandran, Radii of starlikeness and convexity for analytic functions with fixed second coefficient satisfying certain coefficient inequalities, Kyungpook Mathematical Journal, **55** (2015), no. 2, 395–410.

Scopus Journal, pISSN : 1225-6951 (Print), eISSN : 0454-8124 (Online).

(6) Rajni Mendiratta, **Sumit Nagpal** and V. Ravichandran, Second-order differential superordination for analytic functions with fixed initial coefficient, Southeast Asian Bulletin of Mathematics, **39** (2015), no. 6, 851–864.

ISSN: 0129-2021.

**2014**
(7) **Sumit Nagpal** and V. Ravichandran, A subclass of close-to-convex harmonic mappings, Complex Variables and Elliptic Equations: An International Journal **59** (2014), no. 2, 204–216.

SCIE Journal, 2016 Impact Factor: 0.616, ISSN: 1747-6933 (Print), 1747-6941 (Online).

(8) **Sumit Nagpal** and V. Ravichandran, Univalence and convexity in one direction of the convolution of harmonic mappings, Complex Variables and Elliptic Equations: An International Journal **59** (2014), no. 9, 1328–1341.

SCIE Journal, 2016 Impact Factor: 0.616, ISSN: 1747-6933 (Print), 1747-6941 (Online).

(9) R. Mendiratta, **Sumit Nagpal** and V. Ravichandran, A subclass of starlike functions associated with left-half of the lemniscate of Bernoulli, International Journal of Mathematics **25** (2014), no. 9, 1450090, 17 pp.

SCI Journal, 2016 Impact Factor: 0.542, ISSN: 0129-167X.

(10) **Sumit Nagpal** and V. Ravichandran, Construction of subclasses of univalent harmonic mappings, Journal of the Korean Mathematical Society **51** (2014), no. 3, 567–592.

SCIE Journal, 2014 Impact Factor: 0.441, ISSN: 0304-9914 (Print), 2234-3008 (Online).

(11) O. P. Ahuja, **Sumit Nagpal** and V. Ravichandran, Radius constants for functions with the prescribed coefficient bounds, Abstract and Applied Analysis **2014**, Art. ID 454152, 12 pp.

Scopus Journal, ISSN: 1085-3375.

(12) **Sumit Nagpal** and V. Ravichandran, A comprehensive class of harmonic functions defined by convolution and its connection with integral transforms and hypergeometric functions, Studia Universitatis Babes-Bolyai Mathematica **59** (2014), no. 1, 41–55.

Scopus Journal, ISSN: 0252-1938.

(13) **Sumit Nagpal** and V. Ravichandran, Starlikeness, convexity and close-to-convexity of harmonic mappings, Current Topics in Pure and Computational Complex Analysis (M. Dorff, S. B. Joshi, I. Lahiri, editors), Trends in Mathematics, 2014, pp. 201-214 (Publisher: Springer).

Print ISBN: 978-81-322-2112-8, Online ISBN: 978-81-322-2113-5.

**2013**

(14) **Sumit Nagpal** and V. Ravichandran, Fully starlike and fully convex harmonic mappings of order alpha, Annales Polonici Mathematici **108** (2013), no. 1, 85-107.

SCIE Journal, 2016 Impact Factor: 0.387, ISSN: 0066-2216.

**2012**

(15) **Sumit Nagpal** and V. Ravichandran, Applications of the theory of differential subordination for functions with fixed initial coefficient to univalent functions, Annales Polonici Mathematici **105** (2012), no. 3, 225-238.

SCIE Journal, 2016 Impact Factor: 0.387, ISSN: 0066-2216.

**2011**

(16) Rosihan M. Ali, **Sumit Nagpal** and V. Ravichandran, Second-order differential subordination for analytic functions with fixed initial coefficient, Bulletin of the Malaysian Mathematical Sciences Society (2) **34** (2011), no. 3, 611-629.

SCIE Journal, 2016 Impact Factor: 0.720, pISSN : 0126-6705 (Print), eISSN :2180-4206 (Online).

**Conferences-Seminars Presentations and Participations**

1. Presented a paper titled “Convolution Properties of harmonic Koebe Function and its connection with 2-starlike mappings” in the National Conference on “Algebra, Analysis, Coding and Cryptography” (Sponsored by DRDO) organized by Department of Mathematics, University of Delhi, Delhi during 14-15 October 2016.

2. Participated in the “Capacity Building Workshop” on e-content creation in Mathematics organized by Institute of LifeLong Learning (ILLL), University of Delhi on 28th October 2016.

3. Participated in Faculty Development Program in “Research Project Management: Proposal to publication and beyond” organized by CIC-Centre for Science Education and Communication, University of Delhi on 19th July 2016.

4. Participated in the National Faculty Development Programme on “Reflections on Emerging Pedagogy in Higher Education and Qualitative Research” organized by Department of Commerce, Ramanujan College from November 18th to 24th, 2015.

5. Participated in the Two-day Workshop on Innovative Teaching Methodologies on January 15-16, 2015, conducted by CPDHE, University of Delhi.

6. Participated in three day training program for ”Matlab Fundamentals” from 17th to 19th November, 2014 conducted by Mathworks at Delhi University Computer Centre.

7. Presented paper entitled ”A subclass of close-to-convex harmonic mappings” in the National Seminar for Research Scholars held at Department of Mathematics, University of Delhi, during September 20-21, 2013.

8. Participated in the workshop on ”Information Literacy and Competency” organized by Delhi University Library System, University of Delhi on 17 January 2013.

9. Participated in the international conference ”The Legacy of Srinivasa Ramanujan” organized by University of Delhi from 17-22 December 2012.

10. Participated in Instructional School for Lecturers (ISL) in ”Real Analysis and Measure Theory” from March 26 to April 7, 2012.

11. Presented paper entitled ”Second-order differential subordination for analytic functions with fixed initial coefficient” in the National Seminar for Research Scholars held in Department of Mathematics, University of Delhi, during March 24-25, 2012.

12. Participated in Advanced Training in Mathematics for Lecturers (ATML) in ”Geometric Complex Analysis” from March 21, 2011 to April 2, 2011.

13. Participated in Advanced Training in Mathematics for Lecturers (ATML) in ”Real Analysis” from March 22, 2010 to April 3, 2010.

14. Participated in the Research Scholars’ Seminar held at the Department of Mathematics, University of Delhi, During March 18-19, 2010

15. Participated in National Meet on History of Mathematical Sciences, held in University of Delhi, from 7-9 January 2010.

**PhD Supervision**

- One ( Mr. Ankur Raj, Department of Mathematics, University of Delhi) in progress

**Academic Awards**

- Awarded certificate of merit by Central Board of Secondary Education (CBSE) for outstanding academic performance and for being among the top 0.1 percent of successful candidates in AISSCE 2004 in the subjects: Informatics Practices and Chemistry.
- Stood first in the Hindi College in B. Sc (Hons) Mathematics 3rd year Examination held in April, 2007.
- Stood first in the Hindu College in M. Sc (Final) Mathematics Examination held in April, 2009.
- Secured 15th rank in Joint CSIR-UGC Test for JRF and NET held on 21-06-2009.

**Administrative Responsibilities**

1. Convenor, Time-Table and Workload Committee (2017-19);
2. Convenor, Eco Club (2016-18);
3. Convenor, Admission Committee (Mathematical Sciences) for the year 2016 and 2017;
4. Convenor, Annual Day 2017;
5. Convenor, Foundation Day 2016;
6. Member of the IQAC (2015-till date);
7. Member of the Research Committee (2015-till date);
8. Member of Eco Club (2014-16);
9. Member of the Foundation Day Committee for the year 2014 and 2015;
10. Member, NIRF Committee.

**Research Projects**

- Principal investigator of an Innovation Project "Private Coaching verses Classroom Teaching in Schools/ Universities" awarded by University of Delhi. The grant for this project is Rs. 3.5 Lakhs.
- Principal Investigator of a Star Innovation Project "Taking the work of Ramanujan to next level: An Innovation Project in Cryptography" by the University of Delhi. The grant for the same is about Rs. 16 Lakhs.

**Reviewing**

Reviewer for the following international journals:

- Acta Mathematica Scientia;
- Bulletin of the Malaysian Mathematical Sciences Society;
- Abstract and Applied Analysis;
- Journal of Mathematical Analysis and Applications.

**Any Other**

1. Recommended by the School Board of the School of Sciences for writing FOUR units in the course MMT-005 entitled "Complex Analysis" as a part of M. Sc. Programme of IGNOU.

2. According to Google Scholar (https://scholar.google.co.in/citations?user=rnA0dPQAAAAJ&hl=en) Citations: 127; h-index: 7; and i10-index: 5