

## Curriculum vitae

Dr. Narendra Kumar Singh  
Assistant Professor  
Department of Mathematics

M B Government Post Graduate College HALDWANI (NAINITAL)

### **Personal profile:-**

1. Name:- Dr Narendra Kumar Singh
2. Date of Birth:- 15/06/1978
3. Mother's Name:- Ms. Radha Sijwali
4. Father's Name:- Late (Shri) Shiv Singh Sijwali
5. Marital Status:- Married
6. Permanent Address:- Village – Kalikhan, Post Office- Bhanoli, District – Almora (Uttarakhand)
7. Category:- Unreserved
8. E-Mail ID:- [nsijwali@gmail.com](mailto:nsijwali@gmail.com)
9. Contact number:- 7536881605, 7579205107

### **Academic profile:-**

#### **1. Academic Qualification:-**

Sr. No.	Class	Year of passing	Subjects	Board/ university	Percentage(%)
1	Higher Secondary	1993	Mathematics, English, Hindi, Science, Social Science, Biology	UP Board	75
2	Senior Secondary	1995	Mathematics, Physics, Chemistry, Hindi, English	UP Board	68
3	B.Sc.	1998	Mathematics, Physics, Chemistry	Kumaun University Nainital	64
4	M.Sc.	2001	Mathematics	Kumaun University Nainital	70
5	CSIR- NET (JRF)	June 2003 & December 2012	Mathematics Science	CSIR	JRF & AIR 22

### **Ph.D.:-**

**Title:- A study of fixed point theorems in different settings of metric spaces  
(2020)**

**Supervisor :-** Prof. M. C. Joshi (Kumaun University Nainital)

## Area of Specialization :- Non-Linear Analysis

### Salient Features of Research :-

1. We searched some contraction principles which are extremely useful in the study of nonlinear analysis. Generally, there is no universal method to solve non-linear problems. We tried to solve a particular type of non-linear problems via contraction principle.
2. We made useful contribution towards expansion of knowledge boundary of modern analysis. By finding applications in various branches of mathematics, viz game theory, operation research, differential equations, integral equations, metric spaces and so on, we tried to expand the horizons of existing knowledge sphere.
3. Single valued & multivalued contraction principles are generalized. It helped us to generalize many important results in this branch, especially in metric space context.

### Research papers:-

Sr. No.	Name of paper	Journal	Additional information
6	On discontinuity at fixed point via power quasi-contraction	De L'institut mathematique	DOI 10.2298/PIM 2022005B (2020), page 5-11
5	Weighted goal programming approach in the bakery production planning problems	International journal of management, IT and engg.	Vol-9 issue -01, 2019, page 548-556
4	On asymptotic regularity and common fixed points	Journal of analysis springer – 2019	DOI 10.1007/S41478-019-00213-0
3	Fixed point theorems for generalized non- expansive mappings	Jnanabha	Vol 49 (2) -2019 page 1-5
2	Common fixed points for faintly compatible mappings	Mathematics moravica	Vol 21 (2)-2017 page 51-59
1	Fixed point theorems for generalized multivalued contraction	Journal of analysis (springer) – 2017	DOI 10.1007/s 41478-017-0067-0 (2017)

### Chapters in edited books

Sr. no.	Name of chapter	Name of edited book	Publisher	Additional information
5	बात पर बात	प्रबोधिनी (College Magazine)	Principal, MBGPG College	संयुक्तांक (2017-22)
4	Concept of Entrepreneurship & Its Role in Women Empowerment	Women Empowerment in Uttarakhand	Kunal Books, Delhi	2023, ISBN 978-93-95651-99-6
3	Contribution of Indian Women in Environmental Sustainability : A Historical Study	Gendre Roles and Green Concepts : Pathways Towards Environmental Sustainability		
2	Coincidence Point Theorem For Non-Expansive Type Mapping & An Application To Dynamic Programming	Fixed point theory and its applications to real world problems	Nova Science Publisher (USA)	2021 ISBN-978-1-53612-085-1
1	Scope Of Sustainable Development Through Environmental Education	Environmental education for social sustainability: a blueprint for survival	Adhyayan Publisher New Delhi	ISBN-978-81-8435-468-3 (2017) Chapter 7, Pages 76-91

### Subject Related Courses:

Sr. No.	Course name	Organizing institute/university	Duration	Participated as
14	National Workshop On Abstract Algebra (Sponsored By USERC)	LSM PG College Pithoragarh (S.S.J. University, Almora)	March 17-18, 2023	Resource Person
13	17 <sup>th</sup> Uttarakhand State Science & Technology Congress 2023	UCOST Dehradun	Feb 10-12, 2023	Resource Person
12	Instructional School for Teachers (TIFR)	USERC Dehradun	June 13-25, 2022	Resource Person
11	National Workshop On Real Analysis (Sponsored By USERC)	S.S.J. University, Almora	March 28-02, 2022	Resource Person
10	Annual Foundation School	IISER, Bhopal	Dec 03-29,	Participant

	(Afs-I)		2018	
09	Instructional School For Teachers On Functional Analysis	Bhaskaracharya Pratishthan, Pune	Oct 23- Nov 04, 2017	Participant
08	International Workshop-Cum-Conference On Complex Analysis: Geometric & Dynamical Aspects	CEMS, SSJ Campus Almora	Nov 14-19, 2016	Participant
07	SERC School On Non-Linear Dynamics	Manipur University Imphal	Nov 18- Dec 08, 2015	Participant
06	Two Week Summer Workshop For UG Students On Analysis & Algebra	CEMS, SSJ Campus Almora	June 22-July 04, 2015 CEMS	Resource Person
05	Refresher Course In Statistics, Mathematics, Computer Science & Information Technology	HRDC Nainital	Sept 25-oct 15, 2014	Participant
04	Orientation Course	JNU, New Delhi	Jan 13-Feb 7, 2014	Participant
03	Postgraduate Summer Workshop On "Analysis: With A Special Focus On Measure Theory"	CEMS, SSJ Campus Almora	May 17-june 07, 2013	Course Associate
02	One Week Instructional Workshop On "Scientific Computing: Theory & Practices"	Department Of Math, Stat. & Computer Science GB PUAT, Pantnagar	Oct 30-Nov 06, 2006	Participant
01	Faculty Development Programme (On Pedagogy, Soft Skills & Evolution)	Department Of Higher Education, Uttarakhand And ICFAI University Dehradun	April 02-April 16, 2006	Participant

**Other Courses:-**

Sr. No.	Course	Organized by	Duration	Participated as
07	Regional Workshop On Government E-Marketplace (Gem)	RUSA,Uttarakhand At MBPG, Haldwani	Jan 10-11, 2020	Participant
06	Workshop On Awareness Generation For RTI	Dr. R.S. Tolia, Uttarakhand Academy Of Administration Nainital	July 01-03, 2019	Participant

05	Fire & Forest Fire: Mitigation Strategies	Dr. R.S. Tolia, Uttarakhand Academy Of Administration Nainital	Aug 08-10, 2018	Participant
04	PRCN – Course	Officers’ Training Academy Kampty (Nagpur)	Dec 22, 2014- March, 2015	Participant
03	NPTEL Workshop	Nptel And Amrapali Int. Of Tech. & Mgmt. Nainital	Aug 21-23, 2014	Participant
02	Refresher Course On Updates Of IPRs	Haryana State Council For Science & Technology, Chandigarh	June 10-11, 2014	Participant
01	Workshop On Red Ribbon Clubs (Campaign Against Sex Selection & Pre Birth Elimination Of Females)	NSS Cell, KU, Nainital At GPGC Dwarahat	Oct 18-20, 2011	Resource Person

**Science Outreach Programmes:-**

<b>Sr. No.</b>	<b>Programme</b>	<b>Organized by</b>	<b>Duration</b>	<b>Participated as</b>
08	Science Outreach Programme For Class XI & XII	C N Rao Foundation & HGVS, Gangolihat (Pithoragarh)	May 7-9, 2024	Resource Person
07	Dr A P J Kalam State Science, Mathematics & Environment Conclave 2022	SCERT Dehradun	Nov 23-26, 2022	Resource Person
06	First State Level Border Districts Children Science Conclave-2022	UCOST Dehradun	Nov 19-20, 2022	Resource Person
05	Science Outreach Programme For Class XI & XII	C N Rao Foundation & HGVS, Gangolihat (Pithoragarh)	April 25-26, 2022	Resource Person
04	Science Outreach Programme For Class XI & XII	C N Rao Foundation & HGVS, Gangolihat (Pithoragarh)	May 04-06, 2019	Resource Person
03	Summer School On Basics Of Mathematics For Class XI & XII	Kumaun Public School Dwarahat (Almora)	June 13-20, 2015	Resource Person
02	Evening Enrichment School For Class X,XI,XII (Mathematics) Students	Jawahar Navodaya Vidyalaya, Champawat	Dec -15-24, 2013	Resource Person
01	Winter Enrichment Programme For Class XI & XII (Maths) Students	SS Public School Gadarpur (US Nagar)	Jan 16-30, 2012	Resource Person

**Organizing member of –**

Sr. No.	Programme	Organized by	Duration	Participated as
12	One week lecture series on “Core Topics of Algebra & Analysis”	GPGC Dwarahat (Almora)	Aug – 02-07, 2021	Organizing Secretary
11	National workshop on Basics of Linear Algebra	GPGC Dwarahat (Almora)	Jan 03-10 , 2021	Organizing Secretary
10	National webinar on “f{k{k & ijh{k{k ,oa Nk= euksn'kk: ,d ifjppkZ”	GPGC Dwarahat & GDC someshwar	July 21, 2020	Organizing Secretary
09	One Week FDP on Traditional & Modern Optimization Techniques	BTKIT, Dwarahat (Almora)	Sept 16-20, 2019	Organizing Secretary
08	Two days Workshop on “igkM+ & ikuh & ijaijk ”	GPGC Dwarahat (Almora) with ukSyk Qkm.Ms'ku	Aug 11-12, 2019	Organizing Secretary
07	National Seminar On Socio-Economic Impact Of Ecological Ignorance In Development: Raising Disastrous Possibilities	GPGC Dwarahat (Almora)	May 06-07, 2017	Co-Organizing Secretary
06	8 <sup>th</sup> Conference of the Indian Science Congress Association (Haridwar Chapter)	Department of Mathematics, DSB campus Nainital	Oct 17-19, 2016	Member of Organizing Team
05	19th International Conference Of International Academy Of Physics Science & Symposium On Fixed Point Theory & Dynamical System	Department of Mathematics DSB Campus Nainital	Oct 17-19, 2016	Member of Organizing Team
04	Nano Technology: Future Scenario” with INST, Mohali	GPGC Dwarahat (Almora)	April 28, 2015	Organizing Secretary
03	Madhav Mathematics Competition(MMC)	GPGC Dwarahat (Almora)	Jan 2015 Onwards	Organizing Secretary
02	National Conference on Environmental Economic & Social Sustainability	GPGC Dwarhat ( Almora)	Dec 04-05, 2014	Co-Organizing secretaries
01	Centre for Excellence in Mathematical Sciences (CEMS)	GPGC Dwarahat (Almora)	July 2014 Onwards	Organizing Secretary

**Talk delivered at:-**

Sr. No.	Talk	Institute/University	Date
17	Metric Completeness Through A Generalized Best Proximity Theorem	International Conference On “Non-Linear Analysis & Applications” Sri Dev Suman Univ, Rishikesh	May 10-12, 2024

16	A Study Of Proximity Points In Different Settings Of Contraction	First International Conference On “Emerging Trends In STEM & Health-Agri Sciences For Sustainable Development” MIET, Haldwani	March 11-12, 2024
15	(i) Cantor Set & Its Properties (ii) Discontinuous Functions	Four Day Seminar on “Mathematics : Vision & Development” Central Univ Of South Bihar, Gaya	Feb 12-15, 2024
14	Gender Gap In Mathematics : Whether Truth Or Myth	International Conference on “Gender Roles & Green Concepts : Pathways Towards Environmental Sustainability” MBGPGC Haldwani	Jan 8-9, 2024
13	Applications of Real Analysis in Life	Two Day Workshop on “Mathematics in Day To Day Life” National Academy of Sciences In India, Prayagraj	Dec 21-22, 2023
12	A Journey of Non-Linear Analysis Through The Window Of Fixed Point Theory	National Conference on “Recent Advances In Theoretical & Experimental Sciences” GPGC Jaiharikhal, Pauri	Sept 29-30, 2023
11	Geometrical Interpretation of Fixed Points in Various Spaces	International Conference on “Differential Geometry & Relativity” SSJ Univ. Almora	May 18-20, 2023
10	Some Applications Of Fixed Point Theory	National Conference Of Mathematics & Its Applications In Sciences, UOU Haldwani	Dec 22-23, 2022
09	Five Different Yet Equivalent Condition To Show Completeness Of $\mathbb{R}$	Maitreyi College (University Of Delhi)	April 09, 2022
08	Mathematics: An Intuitive Approach	Gpgc Ramnagar (Nainital)	Dec 09, 2021
05	Metrics Spaces & Evolution Of Fixed Point Theorem	68 <sup>th</sup> Annual Conference Of Bharat Ganit Parishad Srmu, Barabanki (Up)	Nov 17-18, 2021
04	“Some Basic Statistical Tools”	Government Degree College Sitarganj (U.S. Nagar)	Sept 11, 2021
	“How To Think Mathematically In A Physical World”	Swami Vivekanand Govt. College Nagela, Uj Jain (Mp)	Aug 28, 2020
	Schroeder- Bernstein Theorem	Userc, Dehradun	Aug 02, 2021
03	Brief Survey Of Fixed Point Theory	National Conference On Integrity Of Mathematics In Advancement Of Science, Technology & Management At Mbgpg Haldwani	March 20-21, 2021

01	A Detailed Study Of Ancient Indian Mathematics And Their Works For Sustainable Development	Gdc Karnprayag (Chamoli)	Oct 17-18, 2014
	"Intellectual Property Rights"	Gdc Champawat	Feb 18, 2014
	"Intellectual Property Rights"	Gpgc Lansdowne Pauri Garhwal	Aug 31, 2013

**Writing Works:-**

Sr. No.	Name of Work	For	Publisher	Year
	'3 Units' Of 'Dynamical System'	Uttarakhand Open University, Haldwani	UOU, Haldwani	2022
1 (i)	'4 Units' Of 'Real Analysis'	Uttarakhand Open University, Haldwani	UOU, Haldwani	2021
(ii)	'3 Units' Of 'Linear Algebra'	Uttarakhand Open University, Haldwani	UOU, Haldwani	2020
(iii)	'5 Units' Of 'Calculus Of One Variable'	Uttarakhand Open University, Haldwani	UOU, Haldwani	2019
(iv)				
(v)	'4 Units' Of 'Bio-Statistics'	Uttarakhand Open University, Haldwani	UOU, Haldwani	2018
2	A Text Book Of Numerical Methods (For UG Students)		S.J. Publication Merrut	ISBN-978-93-87007-71-0

**Membership of Academic Societies:-**

1. Indian Society of History of Mathematics.
2. Indian Mathematical Society

**Other Administrative Responsibilities:-**

14. Member of RDC (Research & Development cell), MBGPG College (2024-)

13. Member of Entrepreneurship Development Cell (2024-)
12. Nodal of Study Centre of IIRS, Dehradun\_(2024-)
11. Member of IQAC\_(2024-)
10. Coordinator of Admission for B.Sc.(PCM) First Semester (2022-)
9. Member of Students Union Election Committee (2022-)
8. Assistant Coordinator of UOU Study Centre at MBGPG COLLEGE (2022-)
7. RUSA NODAL (2019- July, 2022)
6. Exam In-charge (2019-2022)
5. IQAC In-charge (2018-2021)
4. AISHE In-charge (2018-2021)
3. Admission Coordinator (2013-2016)
2. Sports In-charge (2013-2016)
1. NCC – ANO (2014-2021)

Number of Ph.D Candidates successfully completed = 0

Number of Ph.D candidates currently working =04

### **Teaching Endeavour:-**

1. My Emphasis on a better teacher – student relationship & healthy classroom environment can be confirmed from my present institution.
2. At Undergraduate level, I always start with 15 day foundation course in basics of mathematics. It helps all students to improve their fundamentals & many of them decide at an early stage to make a career in higher mathematics.
3. Being a hindi medium student upto class 12, I can understand the challenge, which our rural background students face. So I have made about 12 pages vocabulary {especially useful our B.Sc. first sem/year students} for hindi medium students. This improves not only their vocabulary but also diminishes inferiority complexes.
4. I run a youtube channel “N SIJWALI MATHEMATICS” to expand the knowledge boundary beyond by classroom. I always welcome all learners in this online mode.

5. During covid phase, I taught mathematics to postgraduate students of SSJ Campus and kumaun University Nainital (Almora). I taught Functional Analysis, Measure Theory, Linear Algebra, number Theory and Real Analysis.

**Paper Presentation In conferences/seminars:-**

1. Presented a paper "A Generalized Common Fixed Point Theorem for Contractive Mapping" in International Conference on "Emerging Trends in Engineering, Management & Science" during April 27-28, 2019 at Graphic Era Hill University, Bhimtal.
2. Presented a paper, "A Brief Survey of Frame Theory" in National Conference on "Advances in Mathematics & its Application", during March 17-18, 2018 at MBPG College Haldwani.
3. Presented a paper, "A Brief Survey of Hilbert Frames" in 2<sup>nd</sup> International Conference on "Recent Trends of Computing in Mathematics, Statistics & Information Technology" during March 09-11, 2018 at Bundelkhand University Jhansi.
4. Presented a paper, "A Brief Survey of Frame Theory & its Applications" in 8<sup>th</sup> Conference of the Indian Science Congress Association (Haridwar Chapter) on "Reaching the Unreached through Science & Technology", during Oct 14-15, 2017 at DSB Campus, Nainital.
5. Presented a paper "A Brief Survey of Frame Theory & its Applications" in International Conference on "History of Mathematical Science" during Oct 05-07, 2017 at SGRR (PG) College Dehradun.
6. Presented a paper, "Common Fixed Point(s) under Multivalued Mappings" in International Conference on " Mathematics & Applications" during April 26-28, 2017 at Ramjas College, University Of Delhi.
7. Presented a paper "A Survey on Dynamics of Functions" in 19<sup>th</sup> Annual Conference of Vijnana Parishad of India on "Resent Advances in Mathematics & Mathematical Sciences and their Applications" during Nov 10-12, 2016 at HNB Garhwal (Central) University, Pauri (Garhwal).
8. Presented a paper "Some Fixed Point/Common Fixed Point in Metric Spaces" at National Conference on "Progressive Science and Engineering" during Oct 24-25, 2016 at Institute of Technology, Gopeshwar (Chamoli)
9. Presented a paper "A Survey On the Dynamics of Single Parameter Quadratic & Cubic Polynomials" in 19<sup>th</sup> International Conference of International Academy of Physical Sciences & Symposium on Fixed Point Theory & Dynamical Systems" during oct 17-19, 2016 at DSB Campus, Nainital.

10. Presented a paper "The Numerical Study of Unsteady Free Convective Flow with Radiation & Chemical Reaction Effect" in National Conference on "Recent Advances in Statistical & Mathematical Science & Their Applications" during Oct 04-06, 2014 at SSJ Campus, Almora.
11. Presented a paper "A Mathematical Model for Sustainable Development using Soft-Computation" in 'National Seminar' on "Environmental Economic & Social Sustainability" during Dec 04-05, 2014 at GPGC Dwarhat (Almora).

**Publications (other than research papers):-**

1. An Article '**Be A Leader**' in the college magazine of GPGC Dwarhat Joint issue (2-6) (2015-20 (page- 112-113))
2. An Article '**NksVh lh vk'kk**' in the college magazine of GPGC Dwarhat (2014-15) (page 43)
3. An Article on "**Intellectual Property Rights- An Introduction**" in the magazine of Govt. Degree College Champawat (March 2015); page 21-22.
4. An Article on "**Andhviswas**" in the college magazine of Govt. Degree College Champawat of year 2013-14, 2014-15; page 4-5

**DECLARATION**

I hereby declare that the above mentioned particulars are true according to the best of my knowledge.

(Dr. Narendra Kumar Singh)