

## **CURRICULUM VITAE**

### **Dr. Karunesh Kumar Singh**

Assistant Professor

Department of Applied Science & Humanities

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### **OBJECTIVE**

To excel in the academic and research field of Pure and applied Mathematics.

### **EDUCATIONAL QUALIFICATION:**

<b>Qualification</b>	<b>Subject</b>	<b>Board/University</b>	<b>Year</b>	<b>Percentage/ CGPA</b>	<b>Grade/ Division</b>
<b>Ph. D.</b>	Mathematics	I.I.T. Roorkee	2014	A	A
<b>M.Phil.</b>	Mathematics	C.S.J. M. University, Kanpur	2008	73.5%	<b>I<sup>st</sup></b>
<b>M. Sc.</b>	Mathematics	Banaras Hindu University, Varanasi	2006	80 %	<b>I<sup>st</sup></b>
<b>B. Sc.</b>	Maths, Physics,	M.J.P. Rohilkhand University, Bareilly	2004	74.2 %	<b>I<sup>st</sup></b>
<b>Intermediate</b>	PCM	U.P. Board	2000	64.6 %	<b>I<sup>st</sup></b>
<b>High School</b>	English, Hindi, Maths, Social Science, Science	U.P. Board	1998	69 %	<b>I<sup>st</sup></b>

### **MEMBERSHIPS:**

- Indian Science Congress Association, Kolkata (life time)

## AWARDS AND HONOURS:

- CSIR-UGC National Eligibility Test (NET), Dec. 2007

## FELLOWSHIPS:

- CSIR Junior Research Fellowship from Aug. 2008-2010
- CSIR Senior Research Fellowship Sept. 2010-2012

## TEACHING EXPERIENCE:

S. No.	Designation	Institution	Period
1.	Teaching Assistant	I. I. T. Roorkee	Aug. 2008– July, 2012
2.	Assistant Professor	ICFAI University, Dehradun	From Aug 18., 2012 to April 10, 2014
3.	Lecturer	Govt. Polytechnic Rampur	From April 11, 2014 to July 10, 2016
4.	Lecturer	Govt. Polytechnic Hardoi	From July 11, 2016 to Sept 4, 2017
5.	Assistant Professor	IET Lucknow	From Sept 5, 2017 to till date

## FIELD OF RESEARCH:

- Approximation Theory

## RESEARCH WORK:

- **Title of Ph. D. Thesis:** Approximation of Functions by certain positive linear Operators
- **Supervisor:** Prof. P.N. Agrawal

## LIST OF PUBLICATIONS:

### *(a) Papers in International Journals*

1. Agrawal, P. N., Singh, Karunesh Kumar and Gairola, Asha Ram, On  $L_p$ -approximation by iterative combination of Bernstein-Durrmeyer type polynomials, International Journal Mathematical Analysis, 4 (10) (2010), 469-479. (ISSN No. 1312-8876) Scopus.

2. Gairola, Asha Ram, Dobhal, Girish and Singh, Karunesh Kumar, On certain  $q$ -Baskakov-Beta operators, *Le Matematiche*, 66 (2011), 61-76. (ISSN No. 0373-3505), UGC notified.
3. Gairola, Asha Ram and Singh, Karunesh Kumar, Simultaneous approximation by modified Beta operators, *Global Journal of Mathematical Sciences (GJMS):Theory and Practical*, 3(2) (2011), 133-144 (ISSN No. 0974-3200).
4. Singh, Karunesh Kumar and Agrawal, P. N., Simultaneous approximation by a linear combination of Bernstein-Durrmeyer type polynomials, *Bulletin of Mathematical Analysis and Applications*, 3(2) (2011), 70-82 (ISSN No. 1821-1291).
5. Singh, Karunesh Kumar and Agrawal, P. N.,  $L_p$ - approximation by a linear combination of summation-integral type operators, *The Journal of Nonlinear Science and Applications*, 4(4) (2011), 218-235 (ISSN No. 2008-1898) , SCIE indexed, IF 1.176
6. Agrawal, P.N., Singh, Karunesh Kumar and Mishra, Vikas Kumar, Approximation by iterates of Beta Operators, *Turkish Journal of Mathematics*, 37 (2012), 50-59. (ISSN No. 1300-0098) IF 0.378, UGC notified.
7. Agrawal, P.N., Singh, Karunesh Kumar, Higher order approximation by iterates of modified Beta operators, *Thai Journal of Mathematics*,10(3) (2012), 643-650. (ISSN No. 1686-0209) Scopus, UGC notified.
8. Agrawal, P.N. and Singh , K.K., On the rate of convergence by iterates of Beta operators, *East-West J. of Mathematics*, a special volume 2012 (2012), 79 -89. (ISSN No. 0125-2526) UGC notified.
9. Gairola, Asha Ram, Agrawal, P. N., Dobhal, G. and Singh, K. K., Moments of a  $q$ -Baskakov-Beta operators in case  $0 < q < 1$ , *Journal of Classical Analysis.*, 2(1) (2013), 9-22 (ISSN No. 1848-5979).
10. Agrawal, P.N., Sinha, T.A.K. and Singh K. K.,  $L_p$ -Saturation Theorem for an Iterative Combination of Bernstein-Durrmeyer Type Polynomials, *Journal of Applied Functional Analysis*, 8(1) (2013), 77-91 (ISSN No. 1559-1948).
11. Singh, K.K., Agrawal, P.N., An inverse theorem in simultaneous approximation for a linear combination of Bernstein-Durrmeyer type polynomials, *Acta Universitatis Apulensis*, 33 (2013), 231-245 (ISSN No. 1582-5329).
12. Sinha, T.A.K., Agrawal, P.N. and Singh K.K., Inverse theorem for the iterates of modified Bernstein type polynomials, *Studia Universitatis Babeş-Bolyai Mathematica*, 59(3) (2014), 331-350 (ISSN No. 0252-1938 ) Scopus.
13. Asha Ram Gairola, Girish Dobhal and Karunesh Kumar Singh, *Adv. Inequal. Appl.*, Volume 2014(2014), Article ID 15.
14. Agrawal P.N., Singh, K.K., Degree of Approximation by Iterates of Post-Widder Operators, *Southeast Asian Bulletin of Mathematics*, 39(3) (2015), 291–302 (ISSN No. 0129-2021), UGC notified.
15. Singh, Karunesh Kumar, Gairola , A.R. and Deepmala, Approximation theorems for  $q$ -analogue of a linear positive operator by A. Lupas, *International Journal of*

- Analysis and Applications, 12(1) (2016), 30-37. (ISSN No. 2291-8639) , UGC notified.
16. Singh, Karunesh Kumar and Agrawal, P. N., Lp- Approximation by iterates of certain summation-integral type operators, Survey in Mathematics and Applications, 11(2016), 143-155 (ISSN No. 1843-7265).
  17. Gairola Asha Ram, Singh Karunesh Kumar and Mishra Vishnu Narayan, Rate of approximation by q-Durrmeyer operators in  $L_p([0,1])$  ,  $1 \leq p \leq \infty$  , Annals of functional analysis, 8(3)(2017), 303-313, SCIE indexed, I.F. 0.492.
  18. Asha Ram Gairola, Vishnu Narayan Mishra, Karunesh Kumar Singh, A Kantorovich Type Integral Modification of q- Bernstein-Schurer Operators, Filomat, 32(4) (2018), 1335–1348.
  19. Arun Kajla, Sayed Abdul Mohiuddine, Abdullah Alotaibi, Meenu Goyal and Karunesh Kumar Singh, Approximation by Alpha Baskakov–Durrmeyer-Type Hybrid Operators, Iran J Sci Technol Trans Sci, <https://doi.org/10.1007/s40995-020-00914-3>

**(b) Papers in National Journals**

1. Agrawal, P. N. and Singh, Karunesh Kumar, Higher order approximation by an iterative combination of Lupas Operators, Bulletin of Calcutta Mathematical Society, 104(2) (2012), 103-112, UGC notified.

**(c) Papers in International Conferences proceedings**

1. Agrawal, P. N. and Singh, Karunesh Kumar, 2010, Approximation by iterates of modified beta operators, Proc. of the First Int. Conf. on Math. and Stat., American University of Sharjah (Sharjah, U.A.E.), March 18-21, Art. ID 100169, 6 pp.
2. Agrawal, P. N. and Singh, Karunesh Kumar, 2011, On the rate of convergence by iterates of Beta operators, Proc. of the Int. Conf. in Math. and Appl., Mahidol University (Bangkok, Thailand), Dec. 17-19, 83-90.

**(d) Papers presented in International/National Conferences**

1. International Congress of Mathematicians, Hyderabad, India, August 19-27, 2010.
2. International Conference in Mathematics and Applications, Mahidol University, Bangkok, Thailand, Dec. 17-19, 2011.
3. 99th Indian Science Congress, KIIT University, Bhubaneswar, Jan. 3-7, 2012.
4. National Conference on Mathematical Analysis and Modelling, SRM University, NCR Campus, Modinagar, Ghaziabad, March, 30-31, 2012.
5. International Conference on Applied Mathematics and Approximation Theory (AMAT-2012), Ankara, Turkey, May, 17-20, 2012.
6. International Conference on analysis and its applications, IIT Roorkee, Roorkee, Dec 3-7, 2016.

7. International Conference on recent Advances in Pure and Applied Mathematics, Delhi Technological University Delhi, October 23-25, 2018.
8. International Conference on Mathematical Analysis and Its Applications (ICMAA-2019), South Asian University, New Delhi, December 14-16, 2019.
9. National Seminar on Mathematical Prospective for Engineers, BBDNIIT, Lucknow, February 13, 2020.

**(e) Faculty Development Programme /Conference/Workshops organized**

1. Online FDP on mathematical Modeling and its applications in Engineering, from July 6-10, 2020 as a Co-coordinator.

**(f) International/ National Conferences/Workshops attended**

1. Workshop on "Study Group Meeting on Industrial Problems" in the Department of Mathematics, I.I.T. Roorkee, Roorkee, India, March 16--21, 2009.
2. International Congress of Mathematicians, Hyderabad, India, August 19-27, 2010.
3. International Conference in Mathematics and Applications, Mahidol University, Bangkok, Thailand, Dec. 17-19, 2011.
4. 99th Indian Science Congress, KIIT University, Bhubaneswar, Jan. 3-7, 2012.
5. National Conference on Mathematical Analysis and Modelling, SRM University, NCR Campus, Modinagar, Ghaziabad, March, 30-31, 2012.
6. International Conference on Applied Mathematics and Approximation Theory (AMAT-2012), Ankara, Turkey, May, 17-20, 2012.
7. Workshop on "Web of Science (Science Citation Index) & SciFinder Scholar (Chemical Abstracts), Mahatma Gandhi Central Library, IIT Roorkee, Roorkee. June 23, 2011.
8. International conference on Legacy of Ramanujam Department of mathematics, University of Delhi, Dec 17-22, 2012.
9. Summer Workshop on Active Learning, Autonomy, Academic Governance and R&D, at IIT Roorkee, from July 2-6, 2018.

**(g) Faculty Development Programme attended**

1. Universal Human Values and Professional Ethics, IET Lucknow, from Dec.10-17, 2018.
2. Advances in renewable and Bioenergy, IET Lucknow, from Oct. 19-23, 2019.
3. Online FDP on Next Generation of Chemical Manufacturing & Waste management, IET Lucknow, July 29 to August 2, 2020.

**COMPUTER SKILLS:**

- **Packages:** Microsoft Office, LaTeX
- **Operating System:** Window XP, Vista

## PERSONAL PROFILE:

**Father's Name** : Sh. Chandra Pal Singh  
**Date of Birth** : 30<sup>th</sup> June, 1984  
**Permanent Address** : H.No. 405, Indira Nagar Colony  
District - Shahjahanpur  
Pin -242001, U.P.  
**Phone Number** : +91-9451255779  
**Nationality** : Indian  
**Gender** : Male  
**Marital Status** : Married  
**Language known** : Hindi, English

## REFERENCES:

- **Dr. P. N. Agrawal**  
Professor, Department of Mathematics  
Indian Institute of Technology Roorkee  
Roorkee-242001  
Uttarakhand, India  
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- **Dr. Uaday Singh**  
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## DECLARATION:

I hereby declare that the information given above is true to the best of my knowledge.

**Date:**24.08.2020

**(Karunesh Kumar Singh)**

**Place:** Lucknow