

CURRICULUM VITAE



- 1. Name** : Dr. SUNIL DUTT PUROHIT
- 2. Date of Birth** : March 5, 1979
- 3. Nationality** : Indian
- 4. Present position** : Assistant Professor of Mathematics,
Incharge, Dept. Basic-Sciences
CTAE, Maharana Pratap University of
Agriculture and Technology,
Udaipur-313001, India

5. Academic Qualifications

- Ph. D. (2005) : J.N. Vyas University, Jodhpur
- NET-JRF (2002-June) : Joint CSIR-UGC
- M. Sc. (2001) (80.80%) : J.N. Vyas University, Jodhpur

6. Fields of research work

- (a) Fractional calculus
- (b) Special functions
- (c) Integral transforms
- (d) Basic Hypergeometric functions
- (e) Geometric Function Theory
- (f) Mathematical Physics

7. Membership of learned societies

- (1) Life Member, Indian Mathematical Society (IMS)
- (2) Life Member, Indian Science Congress Association, (ISCA)
- (3) Life Member, Indian Academy of Mathematics, (IAM)
- (4) Life Member, Society for Special Functions and their Applications (SSFA)
- (5) Member, American Mathematical Society (AMS)
- (6) Member, International Association of Engineers (IAENG)

8. Editorial Board Member in International Journals

- (1) Associate Editor, International Journal of Mathematical Research
- (2) Member, Editorial Board, Walailak Journal of Science and Technology
- (3) Member, Editorial Board, International Journal of Special Functions and Applications
- (4) Member, Editorial Board, International Journal of Pure Mathematics
- (5) Member, Editorial Board, International Journal of Advanced Analysis
- (6) Member, Editorial Board, International Journal of Advanced Calculus
- (7) Member, Editorial Board, International Journal of Analytic Geometry
- (8) Member, Editorial Board, International Journal of Advanced Mechanics
- (9) Member, Editorial Board, International Journal of Statistics and Mathematics
- (10) Member, Editorial Board, Open Journal of Mathematics and Physical Science
- (11) Member, Editorial Board, International Journal of Advanced Mathematics and Physics
- (12) Member, Editorial Board, International Journal of Advance in Applied Mathematics and Mechanics
- (13) Member, Editorial Board, International Journal of Advanced Mathematics

9. Experience as a Reviewer and Referee

- (a) Since October 2008, Reviewer for Mathematical Reviews, USA (American Mathematical Society)
- (b) Since August 2010, Reviewer for Zentralblatt MATH, Berlin
- (c) Acting as a referee for some of the reputed Indian and foreign journals

10. Award of Fellowships and Gold Medals

- (a) Awarded University Gold Medal for being topper in M.Sc. Mathematics (2001)
- (b) Awarded Junior Research Fellowship of Council of Scientific and Industrial Research for two years during Jan. 2003 to Dec. 2004
- (c) Awarded Senior Research Fellowship of Council of Scientific and Industrial Research from Jan. 2005 to March 2006

11. Publications

- (a) Total number of research papers published/accepted in reputed and referred Journals: **49**
- (b) Total number of books published: **2**

12. Teaching Experience : **10 years**

13. List of Books : **2 books**

1. **“BASIC MATHEMATICS”** (with Mr. Vimal Kr. Sarshwat) published by **Himanshu Publication**, Udaipur-Delhi.
2. **“ENGINEERING MATHEMATICS-III (CS/IT)”** (with Prof. Babu Ram) published by **Pearson Education**, India.

14. Mailing address

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16. List of Publication

1. D. Baleanu, Praveen Agarwal and **S.D. Purohit**, Certain fractional integral formulas involving the product of generalized Bessel functions, *The Scientific World Journal* (Accepted).
2. D. Albayrak, F. Ucar and **S.D. Purohit**: Certain Inversion and Representation formulas for q -Sumudu Transforms, *Hacet. J. Math. Stat.* (Accepted).
3. D. Kumar, Praveen Agarwal and **S.D. Purohit**, Generalized fractional integration of the H-function involving general class of polynomials, *Walailak J. Sci. & Tech.* (Accepted).
4. R.K. Yadav, **S. D. Purohit** and V.K. Vyas: On fractional calculus of a basic analogue of the I -function, *Proc. 10th Int. Conf. SSFA*, (Accepted).
5. Amit Chouhan, **S.D. Purohit** and Satish Srivastava, An alternative method for solving generalized differential equations of fractional order, *Kragujevac J. Math.* **37(2)**, (2013). (To appear)
6. **S.D. Purohit**: Solutions of fractional partial differential equations of quantum mechanics, *Adv. Appl. Math. Mech.* **5(5)**, (2013), 639-651.
7. D. Albayrak, **S.D. Purohit** and F. Ucar: On q -analogues of Sumudu transform, *An. Stiint. Univ. "Ovidius" Constanța, Ser. Mat.* **21(1)**, (2013), 239-260.
8. D. Albayrak, **S.D. Purohit** and F. Ucar: On q -Sumudu Transforms of Certain q -Polynomials, *Filomat* **27(2)**, (2013), 413-429.
9. **S.D. Purohit** and R.K. Raina: Chebyshev type inequalities for the Saigo fractional integrals and their q -analogues, *J. Math. Inequal.* **7(2)** (2013), 239-249.
10. Praveen Agarwal and **S.D. Purohit**, The unified pathway fractional integral formulae, *J. Fract. Calc. Appl.* **4** (2013), No. 9, pp. 1-8.
11. **S. D. Purohit**, V.K. Vyas and R.K. Yadav, Bilinear generating relations for a family of q -polynomials and generalized basic hypergeometric functions, *Acta Comment. Univ. Tartu. Math.* **16(2)** (2012), 191-199.
12. **S.D. Purohit**: A new class of multivalently analytic functions associated with fractional q -calculus operators, *Fractional Differ. Calc.* **2(2)** (2012), 129-138.
13. **S.D. Purohit**, D.L. Suthar and S.L. Kalla: Marichev-Saigo-Maeda fractional integration operators of the Bessel function, *Le Matematiche* **67 (1)** (2012), 21-32.
14. D. Albayrak, **S.D. Purohit** and F. Ucar: On q -integral transforms and their applications, *Bull. Math. Anal. Appl.* **4(2)** (2012), 103-115.
15. **S.D. Purohit** and S.L. Kalla: A generalization of q -Mittag- Leffler function, *Mat. Bilt.* **35** (2011), 15-26.
16. **S.D. Purohit** and R.K. Raina: Certain subclasses of analytic functions associated with fractional q -calculus operators, *Math. Scand.* **109 (1)** (2011), 55-70.
17. **S.D. Purohit**, S.L. Kalla and D.L. Suthar: Fractional integral operators and the multiindex Mittag-Leffler function, *SCIENTIA Series A: Mathematical Sciences*, **21** (2011), 87-96.
18. **S.D. Purohit** and S.L. Kalla: On fractional partial differential equations related to quantum mechanics, *J. Phys. A: Math. Theor.* **44(4)** (2011) **045202** (8 pp).
19. **S.D. Purohit**: On a q -Extension of the Leibniz rule via Weyl type of q -derivative operator, *Kyungpook Math. J.* **50 (4)** (2010), 473-482.
20. **S.D. Purohit**, S.L. Kalla and D.L. Suthar: Some results on fractional calculus operators associated with the M-function, *Hadronic J.* **33** (2010), 225-236.
21. R.K. Yadav, S.L. Kalla, **S.D. Purohit** and V.K. Vyas: Certain fractional q -integral formulas for the generalized basic hypergeometric functions of two variables, *Journal of Inequalities Special Functions*, **1 (1)** (2010), 30-38.
22. **S.D. Purohit** and R.K. Yadav: A note on certain classes of multivariable q -series transformations, *Le Matematiche* **65 (1)** (2010), 101-108.

23. **S.D. Purohit** and R. K. Raina: Generalized q-Taylor's series and applications, *Gen. Math.* **18(3)** (2010), 19-28.
24. **S.D. Purohit** and R.K. Yadav: On generalized fractional q-integral operators involving the q-Gauss hypergeometric function, *Bull. Math. Anal. Appl.* **2(4)** (2010), 33-42.
25. R.K. Yadav, **S.D. Purohit** and V.K. Vyas: On transformations involving generalized basic hypergeometric functions of two variables, *Rev. Téc. Ing. Univ. Zulia.* **33(2)** (2010), 176-182.
26. R.K. Yadav, **S.D. Purohit** and V.K. Vyas: On applications of q-fractional calculus operators and transformations involving generalized basic hypergeometric functions, *Bull. Pure Appl. Math.* **4(1)** (2010), 125-132.
27. R.K. Yadav, **S.D. Purohit** and V.K. Vyas: On fractional q-calculus operators involving the generalized basic hypergeometric function of two variables, *J. Rajasthan Acad. Phy. Sci.* **9(2)** (2010), 103-112.
28. R.K. Yadav, **S.D. Purohit** and Poonam Nirwan: On q-Laplace transforms of a general class of polynomials and q-hypergeometric functions, *Math. Maced.* **7** (2009), 81-88.
29. **S.D. Purohit**: Summation formulae for basic hypergeometric functions via q-fractional calculus. *Le Matematiche*, **64 (1)** (2009), 67-75.
30. **S.D. Purohit** and R.K. Raina: On certain operational formulae for multivariable basic hypergeometric functions, *Acta Math. Univ. Comen., New Ser.* **79(2)** (2009), 187-195.
31. **S.D. Purohit**: Some recurrence relations for the generalized basic hypergeometric functions, *Bull. Math. Anal. Appl.* **1(1)** (2009), 22-29.
32. **S.D. Purohit** and S.L. Kalla: On the fractional q-calculus of a general class of q-polynomials, *Algebras Groups and Geom.* **26 (1)** (2009), 1-13.
33. **S.D. Purohit**, R.K. Yadav, Gurpreet Kaur and S.L. Kalla: Applications of q-Leibniz rule to transformations involving generalized basic hypergeometric functions, *Algebras Groups and Geom.* **25 (4)** (2008), 463-482.
34. **S.D. Purohit**, R.K. Yadav and S.L. Kalla: Certain expansion formulae involving a basic analogue of Fox's H-function, *Appl. Appl. Math.* **3(1)** (2008), 128-136.
35. R.K. Yadav, **S.D. Purohit** and S.L. Kalla: On generalized Weyl fractional q-integral operator involving generalized basic hypergeometric functions, *Fract. Calc. & Appl. Anal.* **11(2)** (2008), 129-142.
36. **S.D. Purohit** and S.L. Kalla: Certain expansions involving generalized basic hypergeometric functions, *Mat. Bilt.* **31(LVII)** (2007), 21-32.
37. **S.D. Purohit** and R.K. Yadav: Multidimensional fractional q-derivatives of basic multiple hypergeometric functions, *Bull. Pure Appl. Math.* **1(2)** (2007), 166-175.
38. **S.D. Purohit** and S.L. Kalla: On q-Laplace transforms of the q-Bessel functions, *Fract. Calc. Appl. Anal.* **10(2)** (2007), 189-196.
39. R.K. Yadav, **S.D. Purohit** and S.L. Kalla: Kober fractional q-integral of multiple basic hypergeometric functions, *Algebras Groups and Geom.* **24 (1)** (2007), 55-74.
40. R.K. Yadav and **S.D. Purohit**: On applications of Weyl fractional q-integral operator to generalized basic hypergeometric functions. *Kyungpook Math. J.* **46(2)** (2006), 235-245.
41. R.K. Yadav and **S.D. Purohit**: On q-Laplace transforms of certain q-hypergeometric polynomials. *Proc. Nat. Acad. Sci., India* **76(A) III** (2006), 235-242.
42. R.K. Yadav and **S.D. Purohit**: On fractional q-derivatives and transformations of the generalized basic hypergeometric functions. *J. Indian Acad. Math.* **28(2)** (2006), 321-326.
43. R.K. Yadav and **S.D. Purohit**: On applications of Kober fractional q-integral operator to certain basic hypergeometric functions. *J. Rajasthan Acad. Phy. Sci.* **5(4)** (2006), 437-448.
44. R.K. Saxena, R.K. Yadav, **S.D. Purohit** and S.L. Kalla: Kober fractional q-integral operator of the basic analogue of the H-function, *Rev. Téc. Ing. Univ. Zulia.* **28(2)** (2005), 154-158.
45. R.K. Yadav and **S.D. Purohit**: On q-Laplace transforms of certain multiple basic hypergeometric functions. *The Math. Student* **74 (1-4)** (2005), 207-215.

46. S.L. Kalla, R.K. Yadav and **S.D. Purohit**: On the Riemann-Liouville fractional q -integral operator involving a basic analogue of Fox H -function. *Fract. Calc. & Appl. Anal.* **8(3)** (2005), 313-322.
47. R.K. Yadav and **S.D. Purohit**: Fractional q -derivatives and certain basic hypergeometric transformations, *S.E.A.J. Math. And Math. Sc.* **2(2)** (2004), 37-46.
48. R.K. Yadav and **S.D. Purohit**: Applications of Riemann-Liouville fractional q -integral operator to basic hypergeometric functions, *Acta Ciencia Indica* **30(3)** (2004), 593-600.
49. R.K. Yadav and **S.D. Purohit**: On q -Laplace transforms of certain generalized basic hypergeometric functions, *Proc. 5th Int. Conf. SSFA*, **5** (2004), 74-81.