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CURRICULUM VIAE
(BRIEF)

1. **Name** : PROF. SURENDRA PRATAP SINGH
2. **Date of Birth** : 1st June, 1945
3. **Nationality** : Indian
4. **Marital Status**: Married with three children
5. **Address** : (a) Permanent: M3/6 Gandhi Nagar
Sigra Varansi-221010,
U.P., India.
(b) Communication: Department of Mathematics,
Kenyatta University,
P. O. Box 43844-00100
Nairobi, Kenya.
- E-mail : profspskenya551@gmail.com
Cell.No : 0733-840217 OR 020-3553532
6. **Academic Qualifications:**
 - (i) M.Sc. (Applied Maths) – 1st Div., B.H.U., 1966
 - (ii) Ph.D. (Differential Geometry) – B.H.U., 1970
Thesis : A contribution to differential geometry of Finsler spaces.
 - (iii) D.Sc. (Differential Geometry) – B.H.U., 1988
Thesis : Differential Geometry of Finsler and Kawaguchu manifolds.
7. **Teaching and Research Experience:**

Thirty seven years research and teaching experience of undergraduate and postgraduate classes.

 - (i) 1967-69 : Temporary Lecturer, B.H.U., India
 - (ii) 1970-71 : Junior Research Fellow (UGC), B.H.U., India
 - (iii) 1972-75 : Senior Research Fellow (UGC), B.H.U., India
 - (iv) 1976-78 : Pool Scientist (CSIR), B.H.U., India
 - (v) 1979-82 : Lecturer, Kenyatta University, Kenya
 - (vi) 1983-88 : Senior Lecturer, Kenyatta University, Kenya
 - (vii) 1989-90 Aug. : Associate Professor, Egerton University, Kenya
 - (viii) 1990-September –

- 14th August, 2007 : Professor, Egerton University, Kenya
 (ix) 15th August, 2007-date: Professor, Kenyatta University, Kenya

8. **Academic Publications:**

- (a) Published research papers - 60 (List attached)
 (b) Accepted research papers - 04
 (c) Communicated research papers - 03
 (d) Books:- (i) Differential Geometry (Three Dimensional), Nairobi
 University Press, 2000.
 (e) (ii) A Test Book on Analytical Mechanics – Egerton University
 Press (accepted for publication).
 (iii) Methods of Applied Mathematics II (1988)
 External Degree, University of Nairobi.
 (iv) Geometry and Vectors (2007)
 Open Learning., Egerton University.

10. **Academic Awards:**

- (a) At ICTP (Italy)
 (i) College on representation theory of Lie groups – 4th November -
 8th December, 1985.
 (ii) Workshop on Graded Differential Geometry –
 9th December – 13th December, 1985.
 (b) At Nairobi (Kenya)
 (i) Audio-Visual Workshop, 1986, 1988
 (ii) Audio-Graphic Teleconferencing, 1994.
 (c) Fudan University (China)
 Symposium on “Differentiable Manifold”, 3rd August – 18th August, 2006.

11. **Courses Taught:**

- (a) Undergraduate : Calculus, Basic Maths, Vector Analysis, Classical
 Mechanics, Analytical Mechanics, Fluid Mechanics,
 Complex Analysis, Differential Equation, Partial
 Differential Equation, Numerical Analysis, Methods,
 Differential Geometry.
 Ordinary Differential Equations.
 (b) Post-Graduate : Relatively, Riemannian Geometry, Differential
 Geometry, Methods of Applied Maths.
 Ordinary Differential Equations.

12. **Conference Attended:**

- (i) Indian Science Congress – Bangalore, 1969; Calcuta, 1970; Delhi, 1971; Punjab, 1972; Banaras, 1976; Ahemdabab, 1978, India.
- (ii) First East Africa Mathematical Seminar – Nairobi, 1981, Kenya.
- (iii) International Congress of Maths – Warsaw, 1988, Poland.
- (iv) Workshop on teaching Maths and Physics – Nairobi, 1986, Kenya.
- (v) Seminar on Maths and its application in National Dev. – Nairobi 1988, Kenya.
- (vi) Indian Science Congress – Baroda 1992, India.
- (vii) First Kenya Mathematical Society Conference Nairobi, 1992, Kenya.
- (viii) Indian Science Congress – Goa, 1993, India.
- (ix) Indian Science Congress – Patiala 1996, India.
- (x) South African Mathematical Society Congress – UWC (S.A.), 1996.

13. **Member of Professional Bodies:**

- (i) Indian Science Congress, India.
- (ii) Academy of Progress of Maths, India.
- (iii) National Academy of Science, India.
- (iv) Tensor Society, Japan.
- (v) ICTP Society of African Physicist and Mathematician Italy.
- (vi) Kenya Journal of Science and Technology, Kenya.
- (vii) Kenya Mathematical Society, Kenya.

14. **Reviewer of Journals:**

- (i) National Academy of Science, India.
- (ii) Academic of Progress of Maths, India.
- (iii) Ann. Fac. Sc. De Kinshasa, Congo.
- (iv) Journal of Agriculture Science and Technology, Kenya.
- (v) Egerton University Journal, Kenya.
- (vi) East African Journal of Physical Sciences, Kenya.

15. **Responsibilities:**

- (a) Examination Officer, Dept., of Maths, Kenyatta University, 1983-85.
- (b) Academic Advisor of Postgraduate Students, Kenyatta University, 1984 – 1988.
- (c) Science Faculty Representative and Compiler of University Time-table, Kenyatta University, 1982-88.
- (d) Science Faculty Representative of Time-table, Egerton University, 1989-93.
- (e) Member of 8-4-4 Curriculum Dev. Committee, Egerton University, 1990-92.
- (f) Mathematics Representative to Post-Graduate Committee, Egerton University, 1989 - 93.
- (g) Timetable Co-ordinator, Egerton University, 1989-1992

- (h) Member of Board of Undergraduate Studies, Egerton University, 1994 - date.
- (i) Senate Representative of Post-Graduate School, Egerton University, 1996-date.
- (j) Director of Exams and Timetabling, Egerton University, 1992-2007.
- (k) Chairperson and member of many senate sub-committees (between 1992-2007).
- (l) Chairman of Deans subcommittee for Industrial Linkages and University Exhibition Egerton University -(2003-2007).
- (m) Director-Teachong Programme, Timetabling & Academic- Kenyatta University (2007 to 2013)
- (n) Chairman of Vice-Chancellor's Committee on petition by Open Learning Students January-May 2008, Kenyatta University.
- (o) A member of committee to assist KNEC update and strengthen its system and operation, April to July 2008, Ministry of Education, Kenya.
- (p) Member of Vice-Chancellor's Ad-Hoc Committee on serious omissions 2nd January-6th January, 2009. Kenyatta University.
- (q) Director Timetabling and Scheduling of Units- Kenyatta University (2013 to Date).

16. **M.Sc. Training:**

- (a) B.H.U., India - 20 students
- (b) Kenyatta University, Kenya - 13 students
- (c) Egerton University, Kenya - 10 students
- (d) Kenyatta University, Kenya - 09 students

17. **Ph.D. Guidance:**

- (a) Produced:
 - (i) Mr. S. M. Uppal, Kenyatta University, 1992
Thesis: "A study of some differential manifolds".
(First Ph.D. of the Dept. of Maths., Kenyatta University)
 - (ii) Mr. J. K. Gatoto; Egerton University, 1996
Thesis: "A contribution to Finsler and conformal Finsler spaces".
(First Ph.D. of Egerton University.)
 - (iii) Ms. Mary Opondo (On-Going Ph.D) Student

18. **Academic Honour:**

- (a) External Examiner of under-graduate and post-graduate programmes.
 - (i) Kenyatta University, Kenya – 1990 to 1992.
 - (ii) Jomo Kenyatta University of Agriculture and Technology, Kenya-1992-1996 and 2002-2006.
 - (iii) Maseno University, Kenya – 2006 up to date.
 - (iv) Bondo University College – 2011- to
 - (v) Jaramogi Oginga Odinga Technical University 2013 up to date.

- (b) External Examiner of Ph.D thesis.
- (i) “Investigation of the effects of Hall current-----”
By Mr. M. N. Kinyanjui, J.K.U.A.T., (1998).
 - (ii) “Heat and mass transfer in convection fluid flow -----,” by
Mr. J. K. Kwanza, J.K.U.A.T. (2001).
 - (iii) “Lie symmetry solutions of the generalized Burgers Equation” by
Mr. Oduor Okoya, E.D., Maseno University (2005).
 - (iv) “Conflict modeling and resolution in a dynamic state” by Vincent Oteke
Omwega, University of Nairobi (2010).
 - (v) On the logistic non-linear Black Scholes Metron Partial differential
equation: European Option, by Nyakinda Joseph Otula, Maseno University
(2010).
 - (vi) A study on differentiable manifolds with certain structures, by Shalini
Singh, Banaras Hindu University, India, (2011).
 - (vii) MHD flow in porous media over a stretching surface with heat and mass
transfer, by Kangethe Giterere, J.K.U.A.T. (2011) .
 - (viii) Analytic solution of a non-linear black-schole partial differential
equation., Joseph E. Esekun, Maseno University . (2011).
 - (ix) Mathematical Models..... infections in Kenya., Levi George Owuor,
Maseno University. (2012)

19. **Present Positions:**

- (i) Professor of Applied Maths., Kenyatta University, Kenya.
- (ii) Director of Timetabling and Scheduling of Units. Kenyatta University, Kenya.

20. **Panel Member of Selection Committee for Associate and Full Professors:**

- (i) Egerton University – 1988, 1999, 2000, 2001, 2003, 2005, 2006.
- (ii) Kabarak University – 2005.
- (iii) Chuka University College, 2008, 2009, 2010, 2011, 2012
- (iv) Chuka University - 2013

21. **Academic Consultant:**

Strathmore University - Prepared Academic Year 2007 Teaching Timetable.

SCIENTIFIC PUBLICATIONS

(A) PUBLISHED PAPERS

1. **B.B. Sinha and S. P. Singh:** “On the recurrent tensor fields of Finsler spaces”, **Revue de la Fac. Des. Sc. De I ‘Univ’, d’Instanbul, (Turkey)** Vol.33, (1968). pp. 117-124.
2. **B.B. Sinha and S. P. Singh:** “Generalised Finsler spaces of recurrent curvature”, **Acad. Prog. of Maths., (India)** Vol. 3, (1969), pp. 85-92.
3. **B. B. Sinha and S. P. Singh:** “On decomposition of recurrent curvature tensor field’, **Nat. Acad. Sc.(India)** Vol.XL, (1970), pp. 105-110.
4. **B. B. Sinha and S. P. Singh:** “On decomposition of recurrent curvature tensor fields in “Finsler spaces”, **Bull, Cal, Math. Soc. India)** Vol. 2, (1970) pp. 91-96.
5. **B.B. Sinha and S. P. Singh:** “K*-Curves of a subspace of a Finsler space”, **Nat., Acad. Sc., (India)** Vol.XL (1970) pp. 157-162.
6. **B.B. Sinha and S. P. Singh:** “On recurrent spaces of second order in Finsler space”, **Yokohama Math J. (Japan)**, Vol.XIII, No.1, (1970) pp 27-32.
7. **B.B. Sinha and S. P. Singh:** “A Generalization of Gauss and Codazz equations for Berwald’s curvature tensor”, **Tensor N.S. (Japan)** Vol.22, (1971) pp. 112-116.
8. **B.B. Sinha and S. P. Singh:** “On Pseudo-Projective tensor fields”, **Tensor N.S. (Japan)**, (1971) Vol. 22, pp. 317-320.
9. **B.B. Sinha and S. P. Singh:** “On recurrent Finsler spaces”, **Revenue Roumaine de math. Pures at App (Roumania)** Tome XVI, (1971), pp. 977-99 8.
10. **B.B. Sinha and S. P. Singh:** “Recurrent Finsler space of second order”, **Yokohama Math. J., (Japan)** Vol. XIX, No.3, (1971), pp. 79-85.
11. **B.B. Singh and S. P. Singh:** “A Generalization of Gauss and Codazzi equations for the first curvature of Cartan”, **Acad. Prog. of Math., (India)** Vol.6, No. 1 (1972), pp 1-6.
12. **B.B. Singh and S. P. Singh:** “A special Kawaguchi space of recurrent curvature tensor field of second order”, **Tensor N.S., (Japan)** Vol. 23, No. 2 (1972), pp 174-178.
13. **B. B. Singh and S. P. Singh:** “Recurrent Finsler space of second order II, **Ind. J. of Pure and App. Math. (India)** Vol.4, No.1, (1973), pp. 45-50.

14. **S. P. Singh:** “Generalization of Gauss – Codazzi equations in a Generalized Finsler space”, **Yokohama Math. J. (Japan)**, Vol. XXI, No.2, (1973), pp. 103-114.
15. S. P. Singh: “Decompositions of recurrent curvature tensor field in a special Kawaguchi space”, **Tensor N. S. (Japan)**, Vol. 23, no.1, (1973), pp. 1-6.
16. **S. P. Singh:** “On decomposition of curvature tensor field in a recurrent special Kawaguchi space of second order”, **Gyambha Sec. A. (India)** Vol.5, (1975), pp 17-26.
17. S.P. Singh: “On decomposition of recurrent curvature tensor fields in Generalized Finsler space” **Kyungpook Math. J. (Korea)**, Vol. 15, No. 2, (1975), pp. 201-212.
18. **S.P. Singh:** “Veblen identity and some tensors in a Finsler space, **Ann. Dela Fac. Des Sec. Math Sc., Phy., (Cango)**, Vol.II, No. 2 (1976), pp. 285-294.
19. **S.P. Singh:** “Decomposition in an Areal space of the submetric class”, **Ann. De la Fac. Des Sc. Math-Phy (Cango)**, Vol. IV, No. 1, (1978) pp 141-153.
20. **S.P. Singh:** “Some tensors in Finsler space”, **Ann. La Fac. Des Sc., Sec. Math-Phy., (Cango)** Vol. (IV) No.2, (1978), pp. 205-216.
21. **S. P. Singh:** “Finsler space of generalized recurrent curvature tensor field of second order”, **Ann. De la Fac. Des Sc., Sec. Math Phy., (Cango)**, Vol. 1 No.1-2, (1980).
22. **S.P. Singh:** “Areal space of submetric class with generalized birecurrent curvature tensor field”, **Acad. Prog. of Math., (India)** Vol. 15, (1981), pp. 47-54.
23. **S. P. Singh:** “Generalized recurrent Finsler space of second order”, **1st East Africa Symp. Pure & App. Math. (Kenya)** Pro. Sec. B., (1981), pp. 7687.
24. **S. P. Singh:** “Birecurrent Generalised Finsler space”, **Kyungpook Math. J. (Korea)** Vol. 22, No. 2, (1982), pp. 257-264.
25. **S. P. Singh:** “Decomposition of recurrent curvature field in 2-R-Generalized Finsler spaces”, **Kyungpook Math. J. (Korea)** Vol. 22, No. 2, (1982), pp. 265-277.
26. **S. P. Singh:** “A special Kawaguchi space of generalized recurrent curvature tensor field of second order”, **J. of Sc. & Tech. Series, A, (Kenya)**, Vol. 5, (1984), pp. 85-91.
27. **S. P. Singh:** “Generalized 2-RG Fin spaces”, **Acad. Prog. of Math. (India)**, Vol. 18, No.1, (1984), pp. 13-21.

28. **S. P. Singh:** “On the curvature collineation in finsler space”, **Pub. De. I’nst. Math-Nour. series, (Yugoslavia)**, Tome 36 (500, (1984), pp. 87-91.
29. **S. P. Singh:** “On curvature collineation in finsler space II”, **Tensor N. S. (Japan)**, Vol. 44, (1987), pp. 113-117.
30. **S. P. Singh and S. M. Uppal:** “Decomposition of recurrent projective curvature tensor field”, **Acad. Prog. of Maths. (India)**, Vol. 25(1&2), (1991), pp. 63-77.
31. **S.P. Singh:** “A concurrent vector field on Generalised Finsler spaces”, **Acad. Prog. of Maths (India)**, Vol. 25(1&2) (1991), pp. 113-119.
32. **S. P. Singh:** “On a symmetric curvature tensor field in Generalised Finsler space”, **Proc. of Kenya Maths Soc. (Kenya)** (1993), pp. 46-49.
33. **S. M. Uppal and S. P. Singh:** “Veblen identities and their equivalence in special Kawaguchi space”, **Egerton Univ. Jour., (Kenya)**, Vol. 1, (1996), pp. 284-291.
34. **S. P. Singh and J. K. Gatoto:** “On projective collineation in finsler II, **Istanbul Univ. Fern.Fak. Mat. (Turkey)**, Derg. 55/56, (1996/97), pp. 231-236.
35. **S.M. Uppal and S. P. Singh:** “A generazation of Gauss-Causs-Coddazzi equations for relative curvature tensor”, **Acad. Prof. of Maths, (Inida)**, Vol.31, (1997), pp. 69-82.
36. **S. P. Singh:** “Projective curvature collineation in Finsler space”, **Quaest. Math., (South Africa)**, Vol.22, (1999), No.2, pp 231-239.
37. **S. P. Singh:** “Motion with contra field in Finsler spaces”, **Quaest Math., (South Africa)**, Vol. 22, (1999), No.2, pp. 137-141.
38. **S. P. Singh and J. K. Gatoto:** “Veblen identities in a conformal Finsler space”, **Acad. Prog. of Maths, (India)**, Vol.34, No. 1 & 2, (2000), pp. 13-21.
39. **S. P. Singh and J. K. Gatoto;** “On the decomposition of curvature tensor in conformal Finsler space”, **Istanbul Univ. Fen. Fak. Mat. Der. (Turkey)**, Vol. 60, (2001), pp.73-83.
40. **S.P. Singh and J. K. Gatoto:** “On projective motion in Finsler spaces II”, **Quaest Math, (South Africa)**, Vol. 24 (2001), pp. 175-182.

41. **S. P. Singh:** “Motion with conta field in Finsler spaces II”, **Jour. Istanbul Univ. Fen. Fak. Mat. (Turkey)**, Der. 60 (2001), pp. 85-91.
42. **S. P. Singh:** “Special concircular projective curvature collimation in recurrent Finsler space”, **Istanbul Univ. Fen., Fak. Mat. (Turkey)**, Der. 60 (2001), pp 93-100.
43. **S. P. Singh:** “On projective motion in Finsler spaces, **Acad. of Prof. Maths. (India)** Vol. 36, (2002), pp. 151-158.
44. **S. P. Singh:** “On the curvature inheritance in Finsler space” **Tensor N. S. (Japan)** Vol. 64, No. 3 (2003), pp 211-217.
45. **S. P. Singh:** “Projective curvature inheritance in Finsler spaces” **Tensor N. S. (Japan)** Vol.64, No. 3 (2003) pp 218-226.
46. **S. P. Singh:** “On the curvature inheritance in an Areal space of submetric class” **Tensor N. S. (Japan)** Vol. 65, No.2 (2004), pp 118-127.
47. **S. P. Singh:** “Veblen identities and their equivalence in Areal space of submetric class,” **E. U. Jour. (Kenya)**, Vol.V, No.1 (2004) pp. 74-81.
48. **S. P. Singh:** “On the curvature inheritance in Finsler space II”, **Tensor N. S. (Japan)**, Vol. 65, No. 3 (2004), pp 179-185.
49. **S. P. Singh** “Projective curvature inheritance in Finsler Space II” **Tensor N. S. (Japan)** Vol. 65, No.3 (2004), pp 186-193.
50. **J. K. Gatoto, and S. P. Singh:** “Veblen identities for conformal curvature” **E.U. Jour. (Kenya)** (2004), pp 74-81.
51. **J. K. Gatoto and S. P. Singh:** “On a symmetric Tensor field in Areal space of submetric class”, **Istanbul Univ. Fen. Fak. Mat. Fiz. Astro. (Turkey)**, Derg 1, (2004-2005), pp. 59-68.
52. **S. P. Singh:** “Veblen identities and their equivalence in Generalized Finsler spaces” **Istanbul Univ. Fen. Fak. Mat. Fiz. Astro. (Turkey)** Derg 1. (2004-2005), pp 51-58.
53. **S. P. Singh:** “Affine motion in recurrent Areal space of submetric class” **Istanbul Univ. Fen. Fak. Mat. Fiz. Astro. (Turkey)**, Derg 1 (2004-2005) pp. 43-50.
54. **S. P. Singh:** “Affine motion in bi-recurrent Finsler space”, **Tensor N. S. (Japan)**, Vol. 68 (2007), pp. 183-189.
55. **J. K. Gatoto and S. P. Singh:** K – curvature inheritance in Finsler spaces”, **Tensor N. S. (Japan)**, Vol. 70 (2008), pp. 8-15.

56. **J. K. Gatoto and S. P. Singh:** Projective K – curvature inheritance in Finsler spaces”, **Tensor (N.S.) (Japan)**, Vol. 70 (2008), pp. 1-7.
57. **S. P. Singh:** “Curvature inheritance in bi-recurrent Finsler space”, **Acad. of Prog. Math. (India)**. Vol. 44, (2009) pp. 1-7.
58. **S. P. Singh:** “Projective motion in bi-recurrent Finsler space”, **Differential Geometry-Dynamics Systems, (Romania)** Vol.12, (2010), pp.221-227.
59. **S.P. Singh:** “Affine motion in bi-recurrent Finsler space II”, **Tensor N.S. (Japan)**, Vol.73, No.1, (2011), pp.62-68
60. **S.P.Singh:** “Projective motion in bi-recurrent Finsler space II”, **Tensor N.S. (Japan)**, Vol.73 No. 1, (2011), pp.69-74

B. ACCEPTED PAPERS

61. **S. P. Singh:** “Curvature inheritance in bi-recurrent Finsler space II”, **Tensor,NS . (Japan)** .
62. S. P. Singh: “Affine motion in bi-recurrent Finsler space III”, **Acad. of Prog. Math.**
63. S. P. Singh: “Projective motion in bi-recurrent Finsler space III”, **Journ. Istanbul Univ. Fen. Fak. Mat. (Turkey)**.
64. J. K. Gatoto and S. P. Singh: “The decomposition of recurrent tensor in conformal Finsler space”, **Journ. Istanbul Univ. Fen. Fak. Mat. (Turkey)**.

C. COMMUNICATED PAPERS

65. **S. P. Singh:** “Motion with contra field in an Arcal space of submetric class”, **Novi Sad Jour. of Maths. (Serbia and Montenegro)**.
66. S.P. Singh: W-curvature collineation in Finsler spaces, **Differential Geometry-Dynamic Systems, (Romania)**
67. S. P. Singh: W-curvature inheritance in Finsler spaces, **Differential Geometry – Dynamical Systems, (Romania)**.

PROF. SURENDRA PRATAP SINGH

SUMMARY

SCIENTIFIC PUBLICATIONS

(I) ASIA	NUMBER
INDIA	17
JAPAN	18
KOREA	03

(II) EUROPE	NUMBER
TURKEY	10
ROUMANIA	02
YUGOSLAVIA	01

(III) AFRICA	NUMBER
KENYA	06
CONGO	04
SOUTHAFRICA	03

(IV) AMERICA

Out of 64 published papers, 58 papers were reviewed after publication by American Mathematical Society (AMS) and comments of these were published in Mathematical Reviews Publication (A division of the American Mathematical Society).