

### BIO-DATA OF B.K.SHARMA

1. Name -Birendra Kumar Sharma,
2. Designation - Retired PROFESSOR
3. Institution - Pt. Ravishankar Shukla University,Raipur
4. Address a).Institution - School of Studies in Mathematics,  
Pt. Ravishankar Shukla University,  
- Raipur.492010 (Chhattisgarh).India.
- b).Residence - 520, Behind Football House, Sunder  
Nagar, Raipur.492013.
5. Email address- - sharmabk07@gmail.com
6. Phone- - 91 0771 2262649 (O)  
- 91 0771 2242691 (R)  
- 91 9406030873 (M)
7. Date of Birth & Place - April 2, 1951, Kanker (Bastar) CG.
8. Whether belongs to SC/ST - No
9. Academic Qualifications:

| Degree        | Year | Institution                   | Subject                            |
|---------------|------|-------------------------------|------------------------------------|
| Hy. Sc.       | 1967 | Bd. Sec. Ed.<br>Bhopal (M.P.) | Phy, Chem, Math.<br>Hindi, English |
| Inter/B.Sc. I | 1969 | Sagar Univ.                   | Phy, Chem, Math.                   |
| B.Sc.         | 1972 | Sagar Univ.                   | Phy, Chem, Math.                   |
| M.Sc.         | 1974 | Sagar Univ.                   | Mathematics                        |
| Ph.D.         | 1978 | Sagar Univ.                   | Mathematics                        |

10. Teaching Experience- - 32 Yrs

11.a). Research Field: Nonlinear Analysis & Discrete structures

b). No. of Ph. D. obtained under supervision - 15

c). Total No research papers published in  
Nat / Inter. Journals - 83

12. Other experience-

a) Member Editorial Committee- University Souvenir - 1994

b). Member, Editorial Committee- Souvenir of  
Young Scientist Meet -1992

13. Award-

a). Research award - UGCJRF- 1975-1978

b). Research Projects awarded and completed -

|       | Agency-         | Year | Period    |
|-------|-----------------|------|-----------|
| (I).  | DST, New Delhi- | 1997 | two yrs   |
| (ii). | CSIR, New Delhi | 1997 | three yrs |
| (iii) | UGC MRP, Raipur | 2002 | two yrs   |

14. Employment :

|     | Position  | from   | Institution                                 | Scale           |
|-----|-----------|--------|---------------------------------------------|-----------------|
| a). | Lecturer  | - 1978 | - Pt. Ravishankar Shukla University, Raipur | -00700- 01600   |
| b). | Reader    | 1986   | - Pt. Ravishankar Shukla University, Raipur | -14000 - 18000  |
| c). | Professor | 1998   | - Pt. Ravishankar Shukla University, Raipur | - 37000 - 67000 |

15. Academic position held:

a). Chairman- Board of Studies - Pt. Ravishankar Shukla - 1995, 2012

- in Mathematics, University, Raipur
- b). Member- Board of Studies - Pt. Ravishankar Shukla - 1995 till today  
in Mathematics, University, Raipur
- c). Member- Research Degree - Pt. Ravishankar Shukla - 1991- till today  
Committee (Math) University, Raipur
- d). Member - Science faculty - Pt. Ravishankar Shukla - 1991- till today  
University, Raipur
- e). Member - Academic Council- Pt. Ravishankar Shukla - 1995- till today  
University, Raipur
- f). Life Member- Indian Mathematical Society, India
- g). Member - American Mathematical Society, U.S.A.  
1994-98.
- h). Dean, Faculty of Science- 2012 till today.
- j). Member- Academic Planning Evolution Board
16. Administrative position held:
- a). Head- S.O.S .Statistics - Pt. Ravishankar Shukla - 1978- 1979  
University, Raipur
- b). Head - S.O.S .Mathematics- Pt. Ravishankar Shukla - 1991- 2010  
University, Raipur
- c). Coordinator, Univ. Exam. Control- Pt. Ravishankar Shukla - 2006, 07 & 08  
University, Raipur
- d). Member expert- Faculty Selection - SVTU, Sambalpur  
Committee Bhopal, RSU,  
GGU
- e). Director, I/C ASC, RSU - 2010 till today
- e). Univ. Executive Council Member - 2011
17. National Conference organised / participated-

- |                                                                  |      |                         |
|------------------------------------------------------------------|------|-------------------------|
| a). National Seminar on Functional Analysis-<br>Raipur as Member | 1997 | Organising<br>Committee |
| b). Orrisa Mathematical Society, Bhubneshwer -                   | 1998 | as participant          |
| c). Vision 2020.RSU -                                            | 2005 | Coordinator             |
18. International Conference participated-
- |                                                                             |      |                           |
|-----------------------------------------------------------------------------|------|---------------------------|
| a) International Congress of Mathematicians<br>at Berlin ( <b>GERMANY</b> ) | 1998 | for paper<br>presentation |
| b) International Congress of Mathematicians<br>at Beijing ( <b>CHINA</b> )  | 2002 | for paper<br>presentation |
19. Other positions held:
- |                                                                      |         |                                                                                                                                                                                          |
|----------------------------------------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a).Secretary, Research Scholar Association,<br>Sagar Univ.Sagar (MP) | 1975-76 |                                                                                                                                                                                          |
| b). Member / Coordinator in RSU Committees for-                      |         | i).Student Grievance,<br>ii).Faculty Seniority,<br>iii).Annual Report,<br>iv).Accommodation,<br>v).Central Purchase<br>vi) five year development<br>plan proposal for the<br>University. |

## List of Publications

01. K.Iseki, P.L.Sharma and B.K.Sharma : Contraction type mapping on 2-metric space, Math. Japonica **(Japan)** 21(1976), 67-70.
02. P.L.Sharma and B.K.Sharma : Contraction type map on 2-metric space, Tamkang J. of Math. **(Taiwan)** Vol.7, No.2 (1976), 219-22.
03. P.L.Sharma and B.K.Sharma : Noncontraction type mappings in 2-Banach space, Natna Mathematics **(Singapore)** 12 (1) (1977) 91-93.
04. B.K.Sharma : Fixed point theorem in a Uniform space, Acta. Ciencia **(India)** Vol.XVI M, (1990), 2-121.
05. P.P.Murthy and B.K.Sharma : Extension of Naimpally and Singh's Theorem under weak compatibility, Math. Sem. Acad. **(India)** 82 (1990), 400-403.
06. P.P.Murthy and B.K.Sharma : A fixed point theorem for three mappings, Bull. Cal. Math. Soc.**(India)** (1991), 371-372.
07. B.K.Sharma and N.K.Sahu : Asymptotic Regularity and Fixed point, Pure and Appl. Math. Sci. **(India)** Vol.XXX, 141(1991), 1-2.
08. B.K.Sharma and N.K.Sahu : Common fixed points of three continuous mappings, The Math. Student **(India)** Vol.59, No.1-4(1991), 77-80.
09. P.P.Murthy and B.K.Sharma : Some unique common fixed point theorems, Pure & Appl. Math. Sience **(India)** Vol.XXXIII 1-2 (1991).
10. P.P.Murthy, S.S.Chang, Y.J.Cho and B.K.Sharma : Compatible mappings of type (A) and common fixed point theorems, kyungpook Math .J. **(Korea)** Vol.32(2) (1992).
11. P.P.Murthy and B.K.Sharma : Some fixed point theorem on Saks space, Bul. Cal. Math. Soc. **(India)** 84(1992), 289-293.
12. B.K.Sharma and N.K.Sahu : A generalization of a fixed point theorem of Das and Naik, Bull.Cal.Math.Soc. **(India)** 84, (1992), 1-4.
13. P.P.Murthy and B.K.Sharma : Extension of Naimpally and Singh's, Theorem(II). Math. Student **(India)** Vol.61, No.1-4 (1992), 241-245.
14. D.R.Sahu and B.K.Sharma : Coincidence and fixed point theorems in Menger space, Universilatea Baca-u Studi cercelan Stintifics **(Romania)** Nr.3 (1993) 125-130 .
15. B.K.Sharma and D.R.Sahu : Common fixed points for compatible multivalued and single valued mappings, Universata Baccu Studid SF cercetal Stintifice Seria; Mathematica **(Rumania)** Nr.3(1993), 131-137.

16. B.K.Sharma and B.S.Thakur : A note on a paper of Singh & Chatterjee, Jr.R.S.U.(Science) **(India)** Vol.7No.B(Sience), (1994), 37-48.
17. B.K.Sharma, N.K.Sahu and B.S.Thakur:Common fixed point of compatible mappings, Pure & Appl. Math. Sci., **(India)** 40 (1994) 1-2.
18. Y.J.Cho, B.K.Sharma and D.R.Sahu : Semi-compatibility and fixed points, Math.Japonica, **(Japan)** 42, No.1 (1995), 91-98.
19. B.K.Sharma and C.L.Dewangan : Fixed point theorem in convex metric space, Univ.u.Novom Sadu 26 Rad. Prirod Mat.Fat.Ser.Mat. (Review of Research) **(Yugoslavia)** 25(1995), 9-18.
20. B.K.Sharma and D.R.Sahu: Uniform compatibility & nonlinear contraction in Saks space, Bull. Cal. Math.Soc. **(India)** 87 (1995), 97-102.
21. B.K.Sharma and D.R.Sahu : Nonlinear g-contraction in a product of Menger space, Bull.Cal. Math. Soc. **(India)** 81 (1995), 345-350.
22. B.K.Sharma and B.S.Thakur : A common fixed point for compatible pair on Menger space, Acta Cie. Ind., **(India)** Vol.XX, No.3, (1995), 288.
23. B.K.Sharma and B.S.Thakur : Iterative approximation of fixed points in Banach space of type  $(U, \square, m+1, m)$  for local strictly hemicontractive maps, Bull. Cal. Math. Soc. **(India)** 87, (1995), 557-562.
24. P.P.Murthy, B.K.Sharma and Y.J.Cho : Coincidence points and common fixed points for compatible maps of type (A) on Saks spaces, J.Math.Res. & Exposition **(China)** Vol.15, No.3, (1995).353-361.
25. Y.J.Cho, B.K.Sharma and B.S.Thakur : Weak convergence theorems for non-lipschitzian asymptotically nonexpansive mappings in uniformly convex Banach spaces, Com. Korean Math. Soc. **(Korea)** 11(1996), No.1, 131-137.
26. B.K.Sharma and B.S.Thakur : Fixed points and discontinuous operators, Bull. Pure Appl. Sci. **(India)** Vol.15, No.1 (1996), 61-65.
27. B.K.Sharma and B.S.Thakur : Fixed point with orbital diametral function. Jr.Appl. Math. & Mech. **(China)** Vol.17, No.2, (1996), 145- 148.
28. B.K.Sharma, B.S.Thakur and A.Banerjee : Fixed point of firmly Non- expansive mappings in nonconvex sets, U. Scientist Phy. **(India)** 8, No.1, (1996) 85-88.
29. B.K.Sharma and D.R.Sahu : On DSP-Contraction Operator, Bull. Cal. Math. Soc. **(India)** 88 (1996),1-10 .
30. B.K. Sharma and D. R. Sahu : 2-Compatibility and its Applications, Kyung-pook Mathematical Journal **(Korea)** Vol.36, No.1 (1996), 171-181.

31. B.K.Sharma and D.R. Sahu : Fixed point approximation for  $\lambda$  - Firmly nonexpansive mappings. Bull. Cal. Math. Soc. **(India)** 88,(1996)285-290.
32. B.K.Sharma and D.R.Sahu, Hybrid D-Compatibility for solution of functional Equations. Jr. Acad. Math. **(India)** Vol.18,No.1(1996), 101-114.
33. B.K.Sharma, V.B. Dhagat and G.Gupta : An extension of Delbosco's results, Bull. Cal. Math. Soc. **(India)** 88 (1996), 367-370..
34. B.K.Sharma and A.Banerjee : A generalization of Kang and Rhoades Result, Bull. Pure & Appl. Science **(India)** Vol.16.E (No.1), (1997), 19-26.
35. B.K.Sharma and B.S.Thakur : Coincidence and fixed point theorems for 2-compatible mappings in Saks space, U.scientific Phy.Sciences **(India)** vol.9, No.1, (1997) 66-74.
36. B.K.Sharma and B.S.Thakur : Fixed points of a pair of Asymptotically regular mappings, Jr. Appl. Math. & Mech. **(China)** Vol.18, No.8, (1997), 771-778.
37. B.K.Sharma and D.R.Sahu : Firmly pseudo-contractive mappings and fixed point, Comment. Math. Univ.Coralinae **(Romania)** 38, 1(1997), 101-108.
38. B.K.Sharma, G.Gupta and V.B.Dhagat : Fixed point result for multivalued mapping. Jr.R.S.U. **(India)**, Vol.10, No.B (Science), (1997), 53-57.
39. B.K.Sharma and V.B.Dhagat : Fixed point result for a Non-commuting family of continuous maps, Vol.1, No.1-2, Journal of Inter. Acad. Phys.Science **(India)** (1997), 105-108.
40. B.S. Thakur, B.K.Sharma and J. S.Jung : Some fixed point theorems for mappings with generalized Lipschitzian iterates, Tamkang J. Math. **(Taiwan)** Vo. 29, No. 3 Autumn (1998),187 - 198.
41. B.K.Sharma, D.R.Sahu and M.Bounias and A.Bonaly: Fixed points for nonsurjective Expansion mapping, Internat. J. Math. & Math. Sci. **(U.S.A.)** Vol.21, No.2 (1998), 277-288.
42. B.S.Thakur, J.S.Jung and B.K.Sharma : Fixed point theorem for generalized uniformly Lipschitzian semigroup, Indian J. Pure Appl. Math. **(India)** 29 (1)(1998), 71-79 .
43. B.K.Sharma: A Strong Convergence Theorem for Multivalued Nonexpansive Mappings, International Congress of Mathematicians (1998) **(Berlin)** **Germany**, pg.155.
44. B.K.Sharma and Dayaram Sahu, Fixed point for a generalized lipschitzian semigroup and demiclosed criteria, Indian J. pure appl. Math. **(India)** 30(9) (1999) 937-944.

45. K.K.Dewangan and B.K.Sharma: A Existence Result for  $G^*$ -Lipschitzian Mappings, Annual Conference of Indian Mathematical Society Dec. (1999), **Rewa**.
46. B.K.Sharma, V.B.Dhagat and G.Gupta, Minimization theorem with fuzzy version under quasi-compatible condition, Indian J. pure appl. Math. **(India)** 30(6) (1999) 629-640.
47. B.K.Sharma, B.S.Thakur, and Y.J.Cho, Weak convergence theorem for passty type asymptotically nonexpansive mappings, Internat. J. Math. & Math. Sci. **(India)** Vol.22, No.1(1999), 217-220.
48. M.Bounias, A.Bonaly, S.Santoli, Anne Magnon, A.H.Ansari, Rima E.Laibow, A.N.Stubblebine, B.K.Sharma and Marie-Jose Mehois, At the least upper bound of accessible knowledge. Aglobal project on whole-scale existence and properties of Universe and its components, Ultra Science Vol.11(3)(1999), 295-311.
49. B.K.Sharma and D.R. Sahu : Existence and approximation results for pseudocontractive mappings, Indian J. Pure Appl. Math. **(India)** 31(2)(2000), 185-196.
50. B.K.Sharma, D.R.Sahu and M.Bounias : Weak-Almost-Convergence Theorem without Opial's Conditions, J. Math. Anal. & Appl. **(USA)** 254 (2001), 636-644.
51. B.K.Sharma , D.R.Sahu and M.Bounias : Common fixed point theorems for a mixed family of fuzzy and Crips mappings, Fuzzy Sets and Systems **(Netherlands)** 125 (2002) 261-268 .
52. B. K. Sharma D.R.Sahu: Convergence of fixed point of asymptotically nonexpansive mappings. Bull. Cal. Math. Soc. **(India)** 94 (4) (2002) 1-13
54. D.R.Sahu. B.K.Sharma., Convergence result for asymptotically demicontractive type mappings without completely continuous condition Varahmihir Jr. Math. Sci. **(India)** (2002)(UGC).
55. B.K. Sharma, D.R. Sahu, Convergence of fixed points of asymptotically nonexpansive mappings. Bull. Cal. Math.Soc. **(India)** 94 (4) (2002) 1-13. (DST).
56. B.K. Sharma, Iterative construction for relatively asymptotically quasinonexpansive mappings ICM,Beijing **(China)** (2002), pg-159.
57. T.B Singh, B.K. Sharma, D.R. Sahu, M.R. Yadav, Certain existence results with Lipschitzian iterates. Bull. Cal. Math. Soc. **(India)** 95 (1) (2003) 5-16 (CSIR).



58. M.R. Yadav, B.K.Sharma, B.S. Thakur. Fixed point theorem on metric space with Cantor intersection property, Jr. Ravishankar University (Science) **(India)** Vol.14 No.B (2001) 22-27.
59. B.K.Sharma, D.R.Sahu and M. Bounias : Common fixed point theorems for a mixed family of fuzzy and Crips mappings, Fuzzy Sets and Systems (Netherlands) 125 (2002) 261-268 .
60. B. K. Sharma D.R.Sahu: Convergence of fixed point of asymptotically nonexpansive mappings. Bull. Cal. Math. Soc. (India) 94 (4) (2002)1-13.
61. D.R.Sahu. B.K.Sharma., Convergence result for asymptotically demicontractive type mappings without completely continuous condition. Varahmihir Jr. Math. Sci. (India) (2002).
62. B.K. Sharma, D.R. Sahu, Convergence of fixed points of asymptotically nonexpansive mappings. Bull. Cal. Math.Soc. (India) 94 (4) (2002) 1-13.
- 64 Thakur, B.S., B.K.Sharma, D.R.Sahu and M.R.Yadav, Certain existence result with Lipschitzian iterates. Bull. Cal. Math. Soc. **(India)** 95 (1) (2003) 5-16.
65. G.S.Saljuja and B.K.Sharama, Convergence of relatively asymptotically quasi-nonexpansive mappings, Bulleting of Pure and Applied Sci. **(India)** Vol.22 E (No.1), 2003, 61-71.
66. Anubha Sharma and B.K.Sharma, Existence results for firmly nonexpansive semigroup, International Journal of Mathematical Sciences **(India)** Vol.2 No.2 (2003), 275-287.
67. B.K.Sharma and G.S.Saluja, Fixed point of partially generalized Lipschitzian mapping. Jr. Ravishankar University (Science) **(India)** Vol.17 2004, (to appear).
68. Krishna Kumar and B.K. Sharma, Bruck formula for a perturbed Lipschitzian iteration of Lipschitz psudo contractive mapping. Journal of Applied Math. Mech. **(China)** (English Edition) 2004 .
69. Sahadeo Padhye and B.K.Sharma, A further comments on Demytko scheme. Transaction on Cryptology **(India)** Vol. 1 No.1 (2004) 3-6.

70. Krishna Kumar and B.K.Sharma, Convergence of iterative sequence for multivalued demicontractive operators. Ramanujan Symposium on recent Trends in Operators Theory and Banach Algebras, Ramanujan Inst. Adv.Studies, University of Madras, Chennai (**India**) March 3-5, 2004.
71. G.S.Saluja and B.K.Sharma, Convergence of Kirk type iteration process for quasi-nonexpansive mapping. Varahmihir Journal of Mathematical Science (**India**) Vol.5 No.1, (2005).
72. Krishna Kumar & B.K.Sharma Bruck formula for a perturbed Lipschitzian iteration of Lipschitz pseudocontractive maps. Appl. Math Mech. (2005).
73. Krishna Kumar & B.K. Sharma A generalized iterative algorithm for generalized successively pseudocontractions, Appl. Math. E-Notes. 6(2006).202-206.
74. Sunil Kumar Kashyap, B.K. Sharma, A. Banerjee A cryptosystem based on DLP  $Y = \alpha^a \beta^b$  mode. Inter. Jr. Network security. 3(1) (2006) 95-100.
75. Sunil Kumar Kashyap, B.K. Sharma, A. Banerjee On Mega Series of two different types of Discrete logarithms in free groups and Public key cryptosystem. Asian Journal of Information Technology. 6(10) (2007) 1041-1045.
76. Sunil Kumar Kashyap, B.K. Sharma, A. Banerjee A PKC based on Discrete logarithms in meta-cyclic groups. Journal of Modern Mathematics and Statistics.2(1) (2008), 28-29.
77. Niyati Gurudwan, B.K.Sharma, Convergence theorem for the zeros of a finite family of Generalized phi-accretive operators, The Journal of Nonlinear Science and its Appl. (TJNSA), 2 (no.4) (2009), 260-269.
78. Niyati Gurudwan, B.K.Sharma, Iterative solution of a uniformly continuous accretive operator, Int. J. Pure Appl. Math., 56 (no.3) (2009), 383-391.
79. Niyati Gurudwan, B.K.Sharma, Iterative solution of an uniformly continuous accretive operator equation, Nonlinear Functional Analysis and its Applications (NFAA), 15 (no.3),( 2010), 459-466.
80. Niyati Gurudwan, B.K.Sharma, Approximating solutions for the system of phi-strongly accretive operator equation in Reflexive Banach space, Bulletin of Mathematical Analysis and Applications (BMAA), 2 (no.3), (2010), 32-39.

81. Hemlal Sahu and Birendra Kumar Sharma, "An MSS Based on the Elliptic Curve Cryptosystem" International Journal of Network Security(IJNS), 11(no.2), (2010), 118-120.
82. Swati Verma, B.K.Sharma, A New Digital Signature Scheme Based on Two Hard Problems, Int.J.Pure Appl.Sci.Technol (IJPAST), 5(no.2), (2011), 55-59.
83. Niyati Gurudwan, B.K.Sharma, Convergence theorem for the common solution for a finite family of  $\phi$ -strongly accretive operator equations, Applied Mathematics and Computation (AMC), 217 (no.15), (2011), 6748-6754.
84. Niyati Gurudwan and B.K.Sharma, Hybrid steepest descent approximation method for the zeros of generalized accretive operators, PanAmer. Math. J., 22 (no.2), (2012), 55-65.
85. Niyati Gurudwan and B.K.Sharma, Strong convergence theorem for finite family of  $m$ -accretive operators in Banach spaces, Bull. Iran. Math. Soc., Accepted: 31 May 2012.
86. Niyati Gurudwan and B.K.Sharma, Iterative solution of asymptotically accretive operator equations, Non. Func. Anal. Appl., Accepted: 04 July 2012.
87. Swati Verma, B.K.Sharma, A New Digital Signature Scheme Based on Factoring and Discrete Logarithm. Bull. Cal. Math. Soc., Vol. 104, No.3, (2012), pp. 193-196.
88. Swati Verma, B.K.Sharma, Improved Signature Scheme Based on Factoring and Discrete Logarithm Problems. International Journal of Advances in Science and Technology (IJAST), Vol. 3, No.4, (2011), pp.
89. Swati Verma, B.K.Sharma, A New Signature Scheme Based on Factoring and Discrete Logarithm Problems. International Journal of Information & Network Security (IJINS) Vol.1, No.3, August (2012), pp. 158-162.
90. Swati Verma, B.K.Sharma A New Proxy Blind Signature Scheme Based on DLP. International Journal of Information & Network Security (IJINS) Vol.1, No.2, June (2012), pp. 60-66.