

BIO-DATA

1. PERSONAL INFORMATION

Name : Dr. Rajiv Shankar Kher

Fathers name : Late Shri S. V. Kher

Date of birth : 29-08-1961

Present Post : Principal, PG (from 10-2-2022 to till date)

Government Madanlal Shukla Postgraduate College,

Seepat 495 555, CG.

Permanent Address : 202, Shanti Apartment, Tikrapara, Bilaspur 495001

(C.G.)

Contact No : 9300311524

Email : <u>kherrs000@gmail.com</u>, <u>kherrs@hotmail.com</u>

2. ACADEMIC QUALIFICATION

EXAM	YEAR	UNIVERSITY/ BOARD	SUBJECT/ SPECIALIZATION
Higher Secondary	1977	Board of Secondary	Physics, Chemistry, Maths, Spl.
		Education, Bhopal	English, Gen Hindi
B. Sc.	1981	Ravishankar	Physics, Chemistry, Maths, Gen
		University, Raipur	English,
M. Sc.	1983	Ravishankar	Physics, Specialization Electronics
		University, Raipur	
Ph. D.	1992	Guru Ghasidas	Physics
		University, Bilaspur	
Intensive course on	1994	Indian Statistical	Ten weeks full time course
programming &		Institute, Kolkata	successfully completed as sponsored
Applications of			candidate of MPCOST, Bhopal
Electronic Computers			

Electronic Computers

3. TEACHING EXPERIENCE

UG : 41Yrs PG : 30Yrs

22-8-1983 to 21-9-1983 Lecturer (Physics) Govt. College Korba (MP)

26-9-1983 to 22-2-1986	Lecturer	Govt. NES College, Jashpurnagar, (MP).
24-2-1986 to 5-9-1986	Asstt. Professor	K.G. Arts & Science College, Raigarh(MP)
6-9-1986 to 18-8-2006	Asstt. Professor	Govt. ERR PG Science College,
		Bilaspur(CG)
19-9-2006 to 5-4-2017	Professor	Govt. ERR PG Science College,
		Bilaspur(CG)
6-4-2017 to 09-2-2022	Principal	Govt. Mahamaya College, Ratanpur (CG)
10-2-2022 to till date	Principal	Govt. MLS College, Seepat (CG)

4. FELLOWSHIP / AWARDS

- 4.1 Awarded Fellowship for the Training of Inservice Young Scientists of M.P. by Madhya Predesh Council of Science & Technology, Bhopal 1990-91 under this scheme grown LiF single crystals at BARC, Mumbai and studied luminescence properties of these at R. D. University, Jabalpur
- 4.2 Awarded Certificate of Merit for best research paper presentation at 7th M.P. Young scientist Congress held at Devi Ahilya Bai University, Indore, 1992 by M. P. Council of Science & Technology, Bhopal
- 4.3 Awarded Research Associateship by Physical Research Laboratory Ahemadabad, India 2000.
- 4.4 Prof. B. P. Chandra Research Award by Pt. R. S. Shukla University & Luminescence Society of India, 2017.

5. GUIDANCE OF RESEARCH SCHOLARS & SCIENTIFIC PROJECTS

5. 1 Guidance of Research Scholars

18 (Annexure – 1)

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5. 2 Scientific Project Completed

- 1. Principal Investigator of UGC Minor research project entitled **Synthesis & Luminescence characterization of Sulphate based phosphors** (Rs.80,000=00) Completed.
- 2. Co-investigator of a research project entitled Measurement of radon/Thoron level at different sites of M.P. and nearby region sanctioned by BRNS, Department of Atomic Energy, India (Rs. 6,75,000/-) Completed.
- 3. Co-Investigator of a research project entitled **Development of suitable materia for mechanoluminescence dosimetry** sanctioned by MAPCOST Bhopal (Rs.1,00,000/-) Completed.
- 4. Principal investigator of a minor research project entitled **Studies on the pressure dependence of the Thermoluminescence of doped alkali halides**, Sanctioned by UGC Bhopal (Rs,22,000/-) Completed.

5. Principal investigator of a minor research project **Design and development of mechanoluminescence dosimeter using shaking technique for deforming the samples**, Sanctioned by UGC Bhopal (Rs,33,000/-) Completed.

6. **PUBLICATIONS** : 87 (Annexure-2)

- 6.1 Research Papers in International/National Journals 63
- 6.2 Research Papers in International/ National Proceedings 24

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6.3 Books - **07**

7. RESEARCH PAPER PRESENTATION IN SEMINAR, CONFERENCES, etc.

7.1 International events held abroad

- (i) Research Paper presented in 16th International Solid State Dosimetry Conference September 19-24, 2010 Sydney, **Australia**
- (ii) Research Paper presented in 23rd International Conference on Nuclear Tracks in Solids September 11-15, 2006 Beijing, **China.**
- (iii) Research papers presented in 14th International SSD conference, Yale University, New Haven, CT, **USA** from June 27-July 2, 2004
- (iv) Research papers presented in 13th International Conference on Solid State Dosimetry July 9-13, 2001, Athens, **Greece**

7.2 International/ National Events in India : 20 (Annexure-3)

7.3 **Resource person, Plenary lecture etc.**

- (i) Delivered invited talk in National conference on Luminescence & its applications, Imphal, Dec. 15-17, 1998
- (ii) Delivered invited talk on Computer literacy in Refresher course held at GGU Bilaspur 2000.
- (iii) Delivered invited talk in National seminar on Emerging issues and challenges in Physics & Electronics, Bhilai, Sept. 9-10, 2005
- (iv) Delivered invited talk in National conference on Luminescence & its applications, Raipur, Feb. 7-9, 2011
- (v) Delivered invited talk on Power point presentation in the workshop for college teachers, Bilasa Girls College, 2013.
- (vi) Delivered invited talk on Luminescence & its applications in Orientation course held at Academic staff college, GGU Bilaspur 2014.
- (vii) Delivered invited talk on Autonomy to colleges: Some facts and our experiences at National seminar of Vice- Chancellors 10-11, December 2014,
- (viii) Delivered talk on Luminescence at DLS college, Bilaspur, January 2015
- (ix) Delivered lectures on **Examination Reforms through Semester system**, **Role of educational institutions in Skill development** and **Preparation for**

NAAC accreditation at colleges of various places; Korba, Jashpurnagar, Raigarh, Janjgir, Akaltara, Mungeli, Pandariya, Bilaspur, Lailunga, Bhatapara, etc.

7.3 ORGANIZING NATIONAL EVENTS

- (i) Secretary of National conference on Luminescence & Its application, held at Govt. Science College, Bilaspur, Jan 23-25, 1994
- (ii) Treasurer of National convention of Indian Association of Physics Teachers, held at GGU Bilaspur. Oct. 10-12, 1998.
- (iii) Convener, National workshop on Computer applications in science teaching, learning and research, held at Govt. ERR PG Science College, Bilaspur Feb. 1-2, 2013
- (iv) Co-ordinator of Physics in 14th CG Young Scientists Congress held at Bilaspur University, Feb.28-29, 2016.

8. **MEMBERSHIP/HONOURS**

- 8.1 Life member of Indian Association of Physics Teachers
- 8.2 Life member of Luminescence society of India, Baroda
- 8.3 Life member of Indian Association for crystal growth, Anna Univ. Chennai
- 8.4 Life member of Hindi Vigyan Sahitya Parishad, BARC, Mumbai
- 8.5 Life member of Nuclear track society of India, BARC, Mumbai
- 8.6 Member of Interview board (Raipur) for National Talent Search Examination 2008-2011.
- 8.7 Evaluated Ph.D. thesis of various universities
- 8.8 Refree of International journals
- 8.9 Observer of CBSE, New Delhi for various National level entrance test

9. TRAINING/ COURSES ATTENDED

12 (Annexure-4)

- 10 **ADMINISTRATIVE EXPERIENCE**
- 10.1 Principal, Government Mahamaya College, Ratanpur 495442 since April 2017
- 10.2 Head of the Physics & Computer Science Department of Govt. Science P.G. College. Bilaspur since 1998.
- 10.3 Controller of Autonomous Examination Cell 2007 till date.
 Assistant controller in Autonomous Exam cell from 1995 to 2002.
- 10.4 Member Board of studies of various autonomous colleges and Universities.
- 10.5 Principal in charge time to time when Regular principal is out of HQ or on leave, since 2010.
- 10.6 Coordinated visits of NAAC peer team in 2015 and Autonomy extension expert committee in 2012
- 10.7 Conducted different examinations of UPSC, PSC, UGC, SSC and VYAPAM as Assistant Coordinator, Observer, Superintendent and Assistant Superintendent

Declaration:

I hereby declare that all the information furnished above are true and correct to the best of my knowledge and belief.

(Dr. Rajiv Shankar Kher)

Annexure -1

Dr. Rajiv Shankar Kher GUIDANCE OF RESEARCH SCHOLARS

•	rs have been awarded I Name of Scholar	Ph.D. by Guru Ghasidas University, Bilaspur (C.G.) Title	Year
1	Mr.P.K. Sharma	Studies on the mechanoluminescence produced during	
		application and release of uniaxial pressure in γ -irradiated	2000
		divalent impurity doped KCl crystals.	
2	Mr. R.K.Pandey.	Studies on the mechanoluminescence, Electroluminescence	2000
		and Thermoluminescence of γ -irradiated rare earth doped	
		CaSO ₄ phosphors.	
3	Mr.V.M. Ambalkar.	Studies on the Lyoluminescence of divalent impurity doped	2001
		NaCl.	
4	Mr.Mithilesh Mishra	Design and development of Mechanoluminescence	2001
		dosimeter using shaking technique for deforming the	
		samples.	
5	Mr.A.K.Panigrahi.	Studies on the Mechanoluminescence of gamma irradiated	2002
		Dy activated potassium magnesium mixed sulphate.	
6	Mrs.Namita Brahme	Studies on the deformation induced luminescence and	2002
	(Co- supervisor)	thermally stimulated luminescence in gamma irradiated rare	
		earth doped CaF ₂ crystals.	
7	Madhuri Nayak.	Studies of the kinetics of Chemiluminescence of some iron	2004
		and copper compounds	

8	N. Gopakumar	Effect of plastic deformation on the optical absorption and	2004
	(Co-supervisor)	thermoluminescence of KCl:KI mixed crystals.	
9	M. Banerjee	Studies on the particle size dependence of lyoluminescence	2006
	(Co-supervisor)	and thermoluminescence of gamma irradiated soldium	
		chloride and sodium bromide crystals.	
10	Mr. V. B. Rathore	Anaysis of indoor radon and thoron track density using solid	2006
	(Co-supervisor)	state nuclear track detector technique in Madhya Pradesh and	
		Chhattisgarh region.	
11	Mr. A. L. S. Chandel	Chemiluminescence of some organic and inorganic	2010
	(Co-supervisor)	peroxides	
12	Mr Awanish Kumar	Synthesis and luminescence characterization of sulphate	2010
	Upadhyay	based phosphors	
13	Mr. Vikash Gulhare	Synthesis and characterization of vanadates based phosphors	2011
14	Mrs. Saroj Chandresh	Studies on chemiluminescence response of alcohols and	2012
		aldyhydes with alkaline earth metal hydroxides and rare	
1.5	Mar Consulator Dental (Co	earth metal ions.	2012
15.	Mrs. Sameeksha Pandey (Co- upervisor)	Chemiluminescenec method for the determination of some common antibiotics	2012
16	Mr. Girish Chandra Mishra	Development of borate based phosphors for	2014
		mechanoluminescence & lyoluminescence radiation	
		dosimetry	
17	Mr. Rakesh Kumar Rai	Development of new techniques for deforming the samples	2014
		and mechanoluminescence studies of some novel materials	
18	Mr. Manish Kalda	Luminescence characterization of rare earth impurity alkali	2015
		halides	

Annexure-2

Dr. Rajiv Shankar Kher Research Papers in International/ National Journals

	Title	Journal	Year	Volume& Page/Remarks
1	Synthesis, characterization and mechanoluminescence of europium doped(1-x)MgOphosphors	Optik	2018	156,2018
2	Urea Assisted self combustionsynthesis of CaAl2O4:Eu phosphors & its mechanoluminescence characterization	New Journal of Chem	2017	DOI: 10.1039/C6NJO2514E
3	Synthesis, luminescence and optical properties of polymer-based ZnS nanocomposites	Luminescence: Jr. of bio. and chem. luminescence	2016	Vol.31(2), 428-432. IF – 1.452
4	Mechanoluminescence & thermoluminescence characterization of Tb3+ doped Al2O4: A theoretical and experimental study	RSC Adv.	2015	Vol.5, 79391-79396, DOI: 10.1039/C5RA13713F IF-3.289
5	Thermoluminescence Investigation of Sol-gel Derived and g- irradiated Rare Earth (Eu and Nd) doped YAG	Journal of Luminescence	2015	Vol. 164, 94-98 IF- 2.144

6	Nanophosphors Journal of Luminescence Mechanoluminescence and thermoluminescence Studies of Gamma Irradiated Sodium Chloride Single	Ind. J. of Pure & Appl. Phys	2014	Vol . 52(9), 597-603 IF-0.84
7	Crystals and Microcrystalline Powder Doped with Dysprosium Mechanoluminescence Studies of Gamma Irradiated Sodium Chloride Single Crystals and Microcrystalline Powder Doped with Terbium	J. Pure Appl. & Ind. Phys.	2014	Vol.4 (1), 43-50 IF- 0.84
8	Thermoluminescence investigation of sol–gel derived and γ-irradiated SnO ₂ :Eu ³⁺ nanoparticles	Journal of Luminescence	2014	145, 940-943 IF- 2.144
9	Synthesis, characterization and optical studies of highly luminescent ZnS nanoparticles associated with hypromellose matrix as agreen and novel stabilizer	Luminescence: The journal of biological & chemical science	2013	DOI 10.1002/bio.2597 IF – 1.273
10	Effects of rare earth ions (Tb, Ce, Eu, Dy) on thethermoluminescence characteristics of solgelderived and γ-irradiated SiO2 nanoparticles	Luminescence: The journal of biological & chemical science	2013	DOI 10.1002/bio.2604 IF – 1.273
11	Enhancing effect of hydrazine on the chemiluminescence of Luminol-H2O2 system	JOURNAL OF APPLIED SPECTROSCOPY	2013	80, 2, 305-308 IF-0.686
12	Effect of temperature on the Chemiluminescence of alcohols and aldehydes	International Journal of Pharmacy & Life Sciences	2012	3(4), 1617-1619 IF-2.978
13	Device for mechanoluminescence excitation by applying gradually varying pressure on the sample	Ind. J. of Pure & Appl. Phys.	2012	50, 534-537 IF- 0.84
14	Mechanoluminescence characterisation of g- irradiated (KNa)Br:Ce3b phosphor	Journal of Luminescence	2012	132 , 1468–1471 IF- 2.144
15	Study of size dependent photoluminescence	Journal of Luminescence	2012	132, 1564-1567 IF- 2.144

	properties of copper doped sodium hexametaphosphate capped ZnS nanoparticles			
16	Synthesis, structural and optical characterization of nanocrystalline ZnS:Cu embedded in silica matrix	Current Applied Physics	2012	12, 632-636 IF – 1.814
17	Synthesis, surface characterization and optical properties of 3-thiopropionic acid capped ZnS: Cu nanocrystals	Bull. Mater. Sci.	2011	34,(5)1077 IF – 0.584
18	Investigation on the chemiluminescence reaction of the phenylhydrazine-luminol–peroxide system	Luminescence: The journal of biological & chemical science	2011	wileyonlinelibrary.com) DOI 10.1002/bio.1374 IF – 1.273
19	Thermoluminescence and mechanoluminescence of gamma-ray-irradiated SrB4O7:Dy phosphors	Micro & Nano Letters, ,	2011	Vol. 6, Iss. 12, pp. 978–981 IF – 0.845
20	Thermoluminescence characteristics of inorganically and organically capped ZnS: Cu nanophosphors	Journal of Luminescence	2011	131 (1), 2202–2206, 2011 IF- 2.144
21	Synthesis and luminescence properties of rare earth doped gamma-ray-irradiated GdCa ₄ O(BO ₃) ₃ phosphors	J. Material Science	2011	DOI 10.1007/s10853-011-5870- IF - 2.163
22	Thermoluminescence and lyoluminescence in c-ray irradiated and Ce ³⁺ -doped YCa ₄ O(BO ₃) ₃ phosphors	J. Material Science	2011	46:7275–7278 IF – 2.163
23	Mechanoluminescence, thermoluminescence and photoluminescence studies on Al ₂ O ₃ :Tb phosphors	Journal of Luminescence	2011	doi:10.1016/j.jlumin.2011.08.003 IF- 2.144
24	BaAl ₂ O ₄ :Eu A Phosphor for mechanoluminescence dosimetry	Radiation Measurements	2011	doi:10.1016/j.radmeas.2011.08.016
25	Lyoluminescence and mechanoluminescence of Cu+ activated LiKSO4 phosphors for radiation dosimetry	Radiation Measurements	2011	Doi:10.1016/j.rameas.2011.04.020. 46 (2011) 1890-1893 IF – 1.177
26	Luminescence characterization of gamma-ray-irradiated rare-earth doped BaSO ₄ and MgSO ₄ phosphors	Radiation Measurements	2011	<u>doi:10.1016/j.radmeas.2011.07.012</u> 46 (2011) 1372-1375 IF – 1.177

27	Study of effect of mechanical deformation on thermoluminescence of gamma-ray irradiated Dy doped MgSO4 phosphors	Radiation Measurements	2011	doi:10.1016/j.radmeas.2011.05.041 46 (2011) 1397-1401 IF – 1.177
28	Effect of deformation on the thermoluminescence of BaSO ₄ :Tb phosphors.	Indian journal of Pure and Applied Physics	2011	49, 382-384 IF – 1.177
29	Effect of capping on the mechanoluminescence of γ-irradiated ZnS:Cu nano phosphors	Journal of Luminescence	2011	131, 1172-1176 IF- 2.144
30	One pot synthesis of ZnS:Cu nano particles using biocompatible L-Systein as stabliser and their optical studies	Nano Trends: Jr. of nanotechnology and its applications	2011	10(3), 1-4
31	Mechanoluminescence by impulsive deformation of γ-ray irradiated Er doped CaF ₂ crystals	Journal of Luminescence	2011	131, 965-969 IF- 2.144
32	Surface characterization and optical properties of polyphosphate capped ZnS nano phosphors	Advances in Applied Science Research	2011	2(1), 105-110
33	Elementary approach to calculate quantum efficiency of polymer light emitting diode	Ind. J. of Pure & Appl. Phys.	2011	49, 142-145
34	Mechanoluminescence properties of gamma ray irradiated BaSO ₄ :Eu phosphors	Luminescence: The journal of biological & chemical science	2010	(wileyonlinelibrary.com) DOI:10.1002/bio.1254
35	Impulsive excitation of mechanoluminescence in gamma irradiated CaSO4:Eu phosphors	Radiation Effects & Defects in Solids	2010 Online 2011 Hard copy	DOI:10.1080/10420150.2010.507674 pp 1-4 166, 63-66 (2011)
36	Chemiluminescence from acetonitrile with Na2O2 in presence and absence of luminol	Int. J. Chem. Sci.	2009	7(4), 2495-2500
37	Photoluminescence characterization of Zn ₁ . _x Cd _x Al ₂ O ₄ :Eu nano phosphors for solid state lighting	Int. Journal of Nanoparticles	2009	2(1/6), 74-80
38	Mechanoluminescence and thermoluminescence in γ-irradiated rare earth doped CaF ₂ crystals	Physics Procedia	2009	2, 431-440
39	Chemiluminescent studies of t-butylhydroperoxide with phenyl hydrazine hydrochloride in the presence and absence of luminol.	Orient. J. of Chemistry	2009	25(3), 593-598

40	Comparison of indoor radon and thoron concentration in the urban and rural dwellings of Chhattisgarh state of India	Radiation Measurement	2008	43, S405-S409
41	Measurement of indoor radon and thoron levels in dwellings and estimation of uranium, thorium and potassium in soil samples from central part of India	Radiation Measurement	2008	43, S414-S417
42	Kinetics of transient electroluminescence in organic light emitting diode	J. Phys. D: Appl. Phys.	2008	41, 165101 Doi:10.1088/0022- 3727/41/16/165101
43	Synthesis of KNaSO ₄ :Tb ³⁺ and MgSO ₄ :Dy ³⁺ phosphors for lyoluminescence dosimetry	Nuclear Instrument and Methods in Physics Research B	2008	266, 2594-2598
44	Luminescence studies of MgSO ₄ :Dy phosphors	Ind. J. of Pure & Appl. Phys.	2008	46, 607-610
45	Luminescence studies on γ -irradiated Dy activated KNaSO ₄ phosphors	Ind. J. of Phys.	2008	82(11), 939-944
46	Lyoluminescence characterstics in γ - irradiated saccharides suited to radiation dosimetry	Acta Cinecia Indica	2007	XXXIII (3), 403-409
47	KNaSO ₄ :Tb ³⁺ : A phosphor for lyoluminescence dosimetry	Engineering and Environmental Science	2006	2 (2), 23-26
48	Deformation luminescence Produced during application and release of pressure on to-irradiated CaF ₂ :RE crystals	Radiation Protection Dosimetry	2006	119(1-4), 62-65
49	Correlation between thermo and mechanoluminescence of irradiated Dy activated potassium magnesium mixed sulphate.	Radiation Protection Dosimetry	2006	119(1-4), 66-70
50	Indoor radon concentrations in the rural dwellings of Chhattisgarh State (India)	Radiation Protection Dosimetry	2006	119(1-4), 434-437
51	Mechanoluminescence of	Ind. J. of Pure &	2006	44, 227-229
52	gamma-irradiated salt TL and OSL dating of pottery from Chhattisgarh	Appl. Phys Chh. J. Sci. Tech.	2004	1, 143-155
53	Thermo and mechanoluminescence of	Phys. Stat. Sol(a)	2003	198,2,322-328

	Dy ³⁺ activated K ₂ Mg ₂ (SO ₄) ₃ phosphor			
54	Development of computer software physics lab Bulletin instructor and	Bull. Of IAPT	Jan,2003	10-12
55	evaluator Mechano and Thermoluminescence of gamma-irradiated CaSO ₄ :Dy Phosphor	Rad.Protec.Dosim	2002	100,1-4, 281-284
56	Lunminescence in divalent impurity activated LiF single crystals	Indian Journal of Pure & Applied Physics	2002	140,867-872
57	Preparation and Characterization of K ₂ Mg ₂ (SO ₄) ₃ Eu phosphor	Indian J.of Phys	2002	76A(5) 449-452
58	Effect of Lyoluminescence decay in KCI microcrystalline powder in Lyluminescence dosimetry of ionization radiations	Indian J. of Phys	2002	76A(6) 851-853
59	Stereotyped question in Examination	Bulletin of IAPT	2002	19(9)323
60	Computer literacy is it essential for teachers?	Bulletin of IAPT	1999	Vol.6 No.8, Aug 99,229
61	Status of X-ray clinics in Bilaspur	Journal of Medical Physics	1997	Vol,22,3,126
62	Mechano- and Thermoluminescence of Ca doped LiF crystals	Indian Journal of Pure and Applied Physics	1996	34,149-152
63	Luminescence & its Applications	Aavishkar	1996	6,280-286,(In Hindi)
64	Impulsive excitation of Mechanoluminescence in LiF:Ba crystals	Vigyan Awam Anusandhan Patrika	1996	39,1,69-74, (In Hindi)
65	Effect of divalent impurities on the Mechanoluminescence of irradiated NaCl and LiF single crystal	Ind. J. of Pure & Appl. Physics	1993	31,952

Research Papers in Proceedings

1	Thermoluminescence In Mg SO ₄ : Dy Phosphors	Luminescence & Its Applications	2007	394-396 Proceedings published by Macmillan press
2	Impulsive excitation of mechanolumin. In Mg(VO ₃) ₂ :Ce phosphors	Luminescence & Its Applications	2007	394-396 Proceedings published by Macmillan press
3	Studies on Lyoluminescence and chemiluminescence of gamma irradiated calcium orthosilicate phosphors doped with gadolinium and terbium.	Proceedings of NCLA 2006	2006	143-145
4	Effect of temperature on the deformation luminescence of	Proceedings of NCLA 2006	2006	152-154

	gamma irradiated rare earth doped CaF2 crystals			
5	Chemiluminescence studies using some copper compounds	Proceedings of NCLA 2005, Banglore Ed. Murthy & Laxminarasappa	2005	411-414
6	Effect of pH of solvent on the lyoluminescence decay in saccharides	Proceedings of NCLA 2005, Banglore Ed. Murthy & Laxminarasappa	2005	427-429
7	Lyoluminescence of gamma irradiated sodium bromide samples	Proceedings of NCLA 2005, Banglore Ed. Murthy &	2005	430-432
8	Temperature dependance of mechanoluminescence in gamma irradiated Dy activated potassium magnesium mixed sulphate	Laxminarasappa Proceedings of NCLA 2005, Banglore Ed. Murthy & Laxminarasappa	2005	436-437
9	Chemiluminescence of Ferrous Sulphate and Ferrous Ammonium Sulphate	Proceeding of NSLA	2003	254-256
10	Solid State Diffusion Technique for synthesis of K2Mg2(SO4)3: Dy mechanoluminescence Dosimetry Phosphor	Proc.National Seminar on Noval synthesis of materials	2002	29-32
11	Studies on the mass and temperature depandence of Lyoluminescence intensity of microcrystalline powder of potassium chloride	Proc.National Seminar on Noval synthesis of Materials	2002	52-55
12	Thermoluminescence in (K2:Dy) Mg2(SO4)3:and (K2Dy,P)Mg2(SO4)3 Phosphors	Proceedings of NCLA 2001 Hyderabad,Ed.Page et al	2001	251-254
13	Theoretical approach to cleavage mechanoluminescence in alkali halide crystals	Proceedings of NCLA 2001 Hyderabad, Ed Page et al	2001	259-263
14	Impulsive excitation of mechanoluminescence in gamma irradiated CaSO4 Sm phosphors	Proceedings of NCLA 2001 Hydrabed,Ed. Page et al	2001	259-263
15	Seasonal variation of Radon & Thoron concentration in dwelling of Bilaspur (CG) and near by Region	Proceeding of 12 th National symp.SSNTD,Jalandhar Oct.29-31,2001	2001	127-133
16	Measurement of Indoor Radon Concentration in some villages of Chhattisgarh	12 th National sympon SSNTD, Jalandhar Oct.29-31,2001	2001	161-165
17	Effect of Temperature on the Mechanoluminescence of CaSO4:RE phosphors	International symposia on Luminescence & its Applications held at Baroda Feb.7-10,2000	2000	Luminescence & its appl.Vol II LSI,Ed.Murthy et al 195-198
18	Mechanoluminescence of irradiated Sugar and Salt	International symposia on luminescence & its Applications held at	2000	Luminescence &its appl.Vol II LSI,Ed.Murthy et al 199-201

19	Impulsive excitation of mechnoluminescence in Gd and Tb doped CaSO4	Baroda Feb. 7-10,2000 Proceedings of NCLA97 Ed,S.Bhusan &Devngan	1997	403,Allied Publishers
20	Phosphors Effect of temperature on the Mechno, Electro-and Photoluminescence of Tb and Ce doped CaSiO3 Phosphors	Proceedings of NCLA 97 Ed.S. Bhusan & Devngan	1997	408,Allied Publishers
21	Effect of Plastic deformation on the Thermoluminescence of doped NaCl crystal	Proceedings of NCLA 97 Ed.S.Bhusan & Devngan	1997	311, Allied Publishers
22	Effect of rare-earth Impurities on the Mechanoluminescence of CaSiO3 Phosphors	Proceedings of NCLA Combatore Ed Selvasekarapandiana et. al	1996	379-383, Allied Publishers
23	Mechanoluminescence in gamma irradiated LiF:Ca and NaCl:Ca crystal during periodic uniaxial pressure	Proceeding of NCLA Ed. Nagpal et al	1994	126
24	Mechano and thermoluminescence of gamma – irradiated LiF:Sr single crystals	Proceeding of NCLA Ed. Nagpal et al	1994	131

Publication of Books

S.No.	Title	Publisher	Year
1	Luminescence and its applications	Luminescence Society of India.	1994
	Proceeding of NSLA 1994		
2	Yugbodh Bhoutaki text book	Yugbodh Prakashan	2001
	Book for B.Sc.II (In Hindi)	Raipur	
3	Yugbodh Bhoutaki text book	Yugbodh Prakashan	2002
	Book for B.Sc. III (In Hindi)	Raipur	
4	Yugbodh Bhoutaki Text Book	Yugbodh Prakashan	2003
	Book for B.Sc.I (In English)	Raipur	
5	Yugbodh Bhoutaki Text Book	Yugbodh Prakashan	2003
	Book for B.Sc. II (New Syllabus for C.G	Raipur	
	, In Hindi)		
6	Yugbodh Bhoutaki Text Book	Yugbodh Prakashan	2004
	Book for B.Sc. II (New Syllabus for M.P.	Raipur	
	, In Hindi)		
7	Yugbodh Bhoutaki Text Book	Yugbodh Prakashan	2004
	Book for B.Sc. II (New Syllabus for C.G.	Raipur	
	,In Hindi)		

International/ National Events in India

S.No.	Title	Venue/ Duration	Participation
1.	National Seminar on Luminescence & Its Applications	RTM Nagpur Univ. Nagpur, Feb. 18-20, 2016	Chaired Technical Session
2.	National Seminar on Innovation & Research in Science, Management & Technology	Bilaspur University, Bilaspur, March 29-30, 2015	Chaired Technical Session
3.	Workshop on SSR presentation	BU, Bilaspur 24-25 March 2015	Attended
4.	National seminar of Vice- Chancellors	BU, Bilaspur 10-11 December 2014	Presented paper
5.	National workshop on education reforms in higher education	BU, Bilaspur 27-29 May 2014	Attended
6.	4 th International conference on Luminescence & Its applications	Hyderad, Feb. 7-10, 2012	Presented research paper
7.	National conference on Luminescence & Its applications	Raipur, Feb. 7-9, 2011	Presented Invited paper
8.	National workshop on autonomous colleges: Challenges and Opportunity	New Delhi, Feb. 22-26, 2010	Presented report of the college
9.	National seminar on Emerging issues and challenges in Physics & Electronics	Bhilai, Sept. 9-10, 2005	Presented research paper
10.	Awareness program on solar energy	Raipur, July 23, 2005	Attended
11.	National seminar on Recent Advances in Physics	Bhilai, Oct. 5-6, 2004	Presented research paper
12.	12 th National symposium on SSNTD	Jalandhar, Oct. 29-31, 2001	Presented research paper
13.	International symposium on Luminescence & its applications	Baroda, Feb. 7-10, 2000	Presented research paper
14.	National conference on Luminescence & its applications	Imphal, Dec. 15-17, 1998	Presented Invited paper
15.	National conference on Luminescence & its applications	Raipur, Oct. 13-15, 1997	Presented research paper
16.	National conference on Luminescence & its applications	Coimbatote, Jan. 17-19, 1996	Presented research paper
17.	National conference on High pressure science & technology	Bilaspur, Dec. 9-11, 1995	Presented research paper

18.	National seminar on Luminescence & its applications	Jabalpur, Jan. 30-31, 1995	Presented research paper
19.	7 th M.P. Young Scientist conference	Indore, Feb. 28-29, 1992	Presented research paper
20.	National seminar on thermoluminescence & its applications	Baroda, Feb. 7-9, 1991	Attended
21.	International workshop on Recent trends in electrical and optoelectronic properties of insulating organic solid state	Jabalpur, Feb. 22- March 3, 1989	Attended

Training/ Courses (Attended)

S.No.	Title	Venue, Duration
1	Orientation course	R. D. University, Jabalpur, June 1-30, 1988
2	Workshop on microprocessors for college teachers of M.P.	USIC, R. S. University, Raipur, May 7-16, 1990
3	Training on crystal growth (Under FTIYS scheme of MPCOST, Bhopal)	TP & PE Div., BARC, Mumbai, 20-11-90 to 28-2-91
4	Training on luminescence studies (Under FTIYS scheme of MPCOST, Bhopal)	R. D. University, Jabalpur, 18-3-91 to 18-5-91
5	Refresher course in Physics	IISc., Banglore, March 1-20, 1993
6	Workshop on use of computer for college teachers	DP Vipra college, Bilaspur, May 8-18, 1994
7	Intensive course on programming & applications of electronic computers	ISI, Kolkata, 22-8-94 to 4-1194
8	Refresher course in Physics	BHU, Varanasi, Dec. 4-24, 1997
9	Refresher course in Physics	APS Univ. Rewa, March 9-30, 1999.
10	Dosimeter preparation, etching, counting of tracks and calibration	EAD, BARC, Mumbai, 28-6-99 to 2-7-99
11	Training on Luminescence dating of archaeological objects	PRL, Ahemadabad, 22-5-2000 to 22-7-2000
12	Computer training program	Govt. Sc. College, Bilaspur 2-5-2005 to 9-5-2005.