

## PROFORMA FOR FILLING OF INFORMATION REGARDING PUBLICATIONS

List of publications of faculty members with Central University of Jammu as affiliations.

Name of Department: Department of Physics and Astronomical Sciences

Dr. Suram Singh

S.No	Name of Head/Faculty	Designation	No. of publications (Papers/Books/Others)	Title of Publication	Year of publication	Published In	Remarks, if any
1.	Dr. Suram Singh	Associate Professor & HOD	23	Linking space-time correlations for a class of self-organized critical systems	December 2021	PHYSICAL REVIEW E	SCI
2	Dr. Suram Singh	Associate Professor & HOD		Quasiparticle structure of low-lying yrast energy levels and $\gamma$ -bands in $^{164-174}\text{Hf}$ nuclei.	September 2021	European Physical Journal A	SCI
3	Dr. Suram Singh	Associate Professor & HOD		Microscopic insight into the structure of negative parity yrast bands in $^{99-117}\text{Pd}$ isotopes.	June 2021	Nuclear Physics A	SCI
4	Dr. Suram Singh	Associate Professor & HOD		Systematic investigation of $\gamma$ -band structure of triaxial even-even neutron-deficient Os nuclei.	May 2021	Chinese Journal of Physics	SCI

5	Dr. Suram Singh	Associate Professor & HOD		Structural evolution of yrast and near-yrast bands in even–even Pd isotopes using a self-consistent approach	January 2021	European Physical Journal Plus	SCI
6	Dr. Suram Singh	Associate Professor & HOD		A detailed study of nuclear structure of odd-mass Pm isotopes near N = 82 shell closure	January 2021	European Physical Journal Plus	SCI
7	Dr. Suram Singh	Associate Professor & HOD		Systematic Study of odd-mass $^{151-161}\text{Pm}$ and $^{154,156}\text{Pm}$ Isotopes Using Projected Shell Model	August 2020	Chinese Physics C	SCI
8	Dr. Suram Singh	Associate Professor & HOD		Evolution of intrinsic nuclear structure in medium mass even-even Xenon isotopes from a microscopic perspective	July 2020	Chinese Physics C	SCI
9	Dr. Suram Singh	Associate Professor & HOD		Quasi-particle structure of even-even cerium isotopes in a self consistent approach	May 2020	AIP Conference Proceedings 2220(1):130 020	Scopus Index
10	Dr. Suram Singh	Associate Professor & HOD		Study of yrast structure of odd-odd $^{94}\text{Nb}$ nucleus	May 2020	AIP Conference Proceedings 2220(1):130 035	Scopus Index

11	Dr. Suram Singh	Associate Professor & HOD		Phenomenological description of non-axial shapes of some doubly even neutron deficient Barium isotopes	March 2020	Journal of Physics G Nuclear and Particle Physics	SCI
12	Dr. Suram Singh	Associate Professor & HOD		Microscopic study of ground state bands in N=45 and 46 isotones in mass region A~70-80	January 2020	Journal of Physics G Nuclear and Particle Physics	SCI
13	Dr. Suram Singh	Associate Professor & HOD		Microscopic insight into low level systematics and negative-parity yrast bands in odd-mass $^{111-127}\text{Cd}$	October 2019	European Physical Journal Plus	SCI
14	Dr. Suram Singh	Associate Professor & HOD		Microscopic insight into the quasi-particle structure of odd-mass terbium isotopes	August 2019	Chinese Journal of Physics	SCI
15	Dr. Suram Singh	Associate Professor & HOD		Microscopic Insight into the Nuclear Structure Properties of Odd-mass $^{101-109}\text{Cd}$ Isotopes	April 2019	Nuclear Physics A	SCI
16	Dr. Suram Singh	Associate Professor & HOD		Systematic study of two-quasiparticle structure of the neutron-rich odd-odd Rubidium nuclei	November 2018	Chinese Journal of Physics	SCI

17	Dr. Suram Singh	Associate Professor & HOD		Investigation of quasi-particle structure of proton-hole indium nuclei	November 2018	European Physical Journal Plus	SCI
18	Dr. Suram Singh	Associate Professor & HOD		Theoretical investigation of nuclear structure properties of $^{144}\text{Gd}$ , $^{146}\text{Dy}$ and $^{148}\text{Er}$ isotones	August 2018	AIP Conference Proceedings	Scopus Index
19	Dr. Suram Singh	Associate Professor & HOD		Rotational structure of the odd-odd nuclide $^{86}\text{Rb}$	August 2018	AIP Conference Proceedings	Scopus Index
20	Dr. Suram Singh	Associate Professor & HOD		Band structure of neutron-deficient iodine nucleus	August 2018	AIP Conference Proceedings	Scopus Index
21	Dr. Suram Singh	Associate Professor & HOD		Analysis of band structure of $^{85,87}\text{Zr}$	August 2018	AIP Conference Proceedings	Scopus Index
22	Dr. Suram Singh	Associate Professor & HOD		Microscopic study of band structure of $^{102}\text{Nb}$	August 2018	AIP Conference Proceedings	Scopus Index

23	Dr. Suram Singh	Associate Professor & HOD		National Conference on Recent Advances in Experimental and Theoretical Physics(RAETP2018)	2018	American Center for Physics, College Park, USA	International

**Dr. Vinay Kumar**

1.	Dr. Vinay Kumar	Associate Prof.	(32)	Surface and luminescent properties of $Mg_3(PO_4)_2:Dy^{3+}$ phosphors	2021	OPTIK	SCI
2	Dr. Vinay Kumar	Associate Prof.		Spectral, surface and thermometric investigations of upconverting $Er^{3+}/Yb^{3+}$ co-doped $Na_3Y(PO_4)_2$ phosphor	2021	Journal of Alloys and Compounds	SCI
3	Dr. Vinay Kumar	Associate Prof.		Investigation of thermoluminescence response and kinetic parameters of $CaMgB_2O_5:Tb^{3+}$ phosphor against UV-C radiation for dosimetric application	2021	J Mater Sci: Mater Electron	SCI
4	Dr. Vinay Kumar	Associate Prof.		Structural and spectral studies of highly pure red-emitting $Ca_3B_2O_6:Eu^{3+}$ phosphors for white light emitting diodes	2021	Journal of Alloys and Compounds	SCI

5	Dr. Vinay Kumar	Associate Prof.		Study of luminescence from terbium doped strontium borate nanophosphors in PMMA	2021	Applied Physics A	SCI
6	Dr. Vinay Kumar	Associate Prof.		Influence of an adjoining cation on the luminescence performance of the Dy <sup>3+</sup> doped A <sub>3</sub> Gd(PO <sub>4</sub> ) <sub>2</sub> ; (A <sup>1/4</sup> Na,K) phosphors	2020	Journal of Alloys and Compounds	SCI
7	Dr. Vinay Kumar	Associate Prof.		Sr <sub>4</sub> Al <sub>14</sub> O <sub>25</sub> : Eu <sup>2+</sup> , Dy <sup>3+</sup> @ZnO nanocomposites as highly efficient visible light photocatalysts for the degradation of aqueous methyl orange	2020	Journal of Alloys and Compounds	SCI
8	Dr. Vinay Kumar	Associate Prof.		Red emitting non-rare earth doped LiMgBO <sub>3</sub> phosphor for light emitting diodes	2020	Journal of Alloys and Compounds	SCI
9	Dr. Vinay Kumar	Associate Prof.		The structural and spectral study of LiSrVO <sub>4</sub> :Tb <sup>3+</sup> phosphor for UV-shift-dimaging devices	2020	Materials Today :Proceedings	Scopus Index
10	Dr. Vinay Kumar	Associate Prof.		Effects of cationic substitution on the luminescence behaviour of Dy <sup>3+</sup> doped orthophosphate phosphor	2019	Journal of Alloys and Compounds	SCI
11	Dr. Vinay Kumar	Associate Prof.		Excitation wavelength and Eu <sup>3+</sup> /Tb <sup>3+</sup> content ratio dependent tunable photoluminescence from NaSrBO <sub>3</sub> :Eu <sup>3+</sup> /Tb <sup>3+</sup> phosphor	2019	Journal of Materials Science: Materials in Electronics	SCI

12	Dr. Vinay Kumar	Associate Prof.		Analysis of writing/ printing paper via Thermogravimetric Analysis: Application in forensic science	2019	Australian Journal of Forensic Sciences	SCI
13	Dr. Vinay Kumar	Associate Prof.		X-ray photoemission and spectral investigations of Dy <sup>3+</sup> activated magnesium pyrophosphate phosphors	2019	Journal of Alloys and Compounds	SCI
14	Dr. Vinay Kumar	Associate Prof.		Synthesis and optical studies of KCaVO <sub>4</sub> :Sm <sup>3+</sup> /PMMA nanocomposites	2019	Vacuum	SCI
15	Dr. Vinay Kumar	Associate Prof.		Synthesis and tribological investigation of Al-SiC based nano hybrid composite	2019	Alexandria Engineering Journal	SCI
16	Dr. Vinay Kumar	Associate Prof.		A potential green emitting citrate gel synthesized NaSrBO <sub>3</sub> :Tb <sup>3+</sup> phosphor for display application	2018	Physica B: Condensed Matter	SCI
17	Dr. Vinay Kumar	Associate Prof.		Potential of Sm <sup>3+</sup> doped LiSrVO <sub>4</sub> nanophosphor to fill amber gap in LEDs	2018	Physica B: Condensed Matter	SCI
18	Dr. Vinay Kumar	Associate Prof.		Optical properties of Sr <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Dy <sup>3+</sup> /PMMA polymer nanocomposites	2018	Physica B: Condensed Matter	SCI
19	Dr. Vinay Kumar	Associate Prof.		Combustion synthesis and characterization of blue long lasting phosphor CaAl <sub>2</sub> O <sub>4</sub> :Eu <sup>2+</sup> , Dy <sup>3+</sup> and its novel application in latent finger print and lip mark detection	2018	Physica B: Condensed Matter	SCI
20	Dr. Vinay Kumar	Associate Prof.		Surface and spectral studies of Sm <sup>3+</sup> doped	2018	Journal of Alloys and Compounds	SCI

				Li <sub>4</sub> Ca(BO <sub>3</sub> ) <sub>2</sub> phosphors for white light emitting diodes			
21	Dr. Vinay Kumar	Associate Prof.		Synthesis and thermoluminescence studies of UV-C exposed Li <sub>4</sub> Ca(BO <sub>3</sub> ) <sub>2</sub> :Dy <sup>3+</sup> phosphors	2018	Vaccum	SCI
22	Dr. Vinay Kumar	Associate Prof.		Blue photons excited highly chromatic red light emitting K <sub>3</sub> La(PO <sub>4</sub> ) <sub>2</sub> :Pr <sup>3+</sup> white light emitting diodes	2018	Materials Research Bulletin	SCI
23	Dr. Vinay Kumar	Associate Prof.		Multivariate analysis for forensic characterization, discrimination, and classification of marker pen inks	2018	Spectroscopy Letters	SCI
24	Dr. Vinay Kumar	Associate Prof.		A potential amber-emitting KCaVO <sub>4</sub> :Sm <sup>3+</sup> nanophosphor for near-UV LEDs	2018	AIP Conference Proceedings	Scopus Index
25	Dr. Vinay Kumar	Associate Prof.		Synthesis and luminescent properties of Sm <sup>3+</sup> doped zinc aluminate phosphor	2018	AIP Conference Proceedings	Scopus Index
26	Dr. Vinay Kumar	Associate Prof.		Spectral properties of Dy <sup>3+</sup> doped ZnAl <sub>2</sub> O <sub>4</sub> phosphor	2018	AIP Conference Proceedings	Scopus Index
27	Dr. Vinay Kumar	Associate Prof.		Microscopic elemental and molecular spectroscopic investigations of root-knot nematode okra plant roots	2018	Vaccum	SCI

28	Dr. Vinay Kumar	Associate Prof.		Spectroscopic analysis of rhizomes of black turmeric ( <i>Curcuma caesia</i> )	2018	AIP Conference Proceedings	Scopus Index
29	Dr. Vinay Kumar	Associate Prof.		Synthesis and luminescent properties of Sm <sup>3+</sup> activated lithium zinc borate phosphor	2018	AIP Conference Proceedings	Scopus Index
30	Dr. Vinay Kumar	Associate Prof.		Thermoluminescence response and kinetic parameters of UV irradiated K <sub>3</sub> La(PO <sub>4</sub> ) <sub>2</sub> :Pr <sup>3+</sup> phosphor	2018	AIP Conference Proceedings	Scopus Index
31	Dr. Vinay Kumar	Associate Prof.		National Conference on Recent Advances in Experimental and Theoretical Physics (RAETP2018)	2018	American Center for Physics, College Park, USA	International
32	Dr. Vinay Kumar	Associate Prof.		Recent Developments and Applications of Novel Analytical Techniques for the Analysis of Plant Materials	2017	Technological Advancements in Plant Sciences Nova Publisher	National

### **Dr. Amit Tomar**

1	Dr. Amit Tomar	Assistant Professor	11	Recent progress, fabrication challenges and stability issues of lead-free tin-based perovskite thin films in the field of photovoltaics	2021	Coordination Chemistry Reviews	SCI
2	Dr. Amit Tomar	Assistant Professor		Ultraviolet Quantum Cutting through down Conversion	2020	Integrated Ferroelectrics	SCI

				Luminescence Behaviour of Er <sup>3+</sup> Substituted Sr <sub>0.7</sub> Bi <sub>2.2</sub> Nb <sub>2</sub> O <sub>9</sub> (BLFS) Ceramics			
3	Dr. Amit Tomar	Assistant Professor		Template Based Electrochemical Synthesis of Copper (Cu) Nanowires as CH <sub>2</sub> Cl <sub>2</sub> Sens	2020	Integrated Ferroelectrics	SCI
4	Dr. Amit Tomar	Assistant Professor		Sol-gel synthesis of Zn doped MgO nanoparticles and their applications	2020	Integrated Ferroelectrics	SCI
5	Dr. Amit Tomar	Assistant Professor		Morphological and optical characterization of sol-gel synthesized Ni-doped ZnO nanoparticles	2020	Integrated Ferroelectrics	SCI
6	Dr. Amit Tomar	Assistant Professor		Influence of addition of nanoparticles of magnetic phase on structural, microstructural and dielectric properties of multiferroic composites	2019	Integrated Ferroelectrics	SCI
7	Dr. Amit Tomar	Assistant Professor		Improved properties in Dy <sup>3+</sup> substituted barium titanate	2018	Integrated Ferroelectrics	SCI

8	Dr. Amit Tomar	Assistant Professor		Self-organized nanopatterning of Si (100) surface using ion beam irradiation	2018	AIP Conference Proceedings	Scopus Index
9	Dr. Amit Tomar	Assistant Professor		Synthesis, structural and morphological studies of Er <sup>3+</sup> substituted bismuth layered perovskite Sr <sub>0.7</sub> Bi <sub>2.2</sub> Nb <sub>2</sub> O <sub>9</sub> ceramic	2018	AIP Conference Proceedings	Scopus Index
10	Dr. Amit Tomar	Assistant Professor		National Conference on Recent Advances in Experimental and Theoretical Physics (RAETP-2018)	2018	AIP Conference Proceedings	Scopus Index
11	Dr. Amit Tomar	Assistant Professor		Optical tunability in Er <sup>3+</sup> substituted Sr <sub>0.7</sub> Bi <sub>2.2</sub> Nb <sub>2</sub> O <sub>9</sub> (BLFS) multifunctional ceramics	2018	AIP Conference Proceedings	Scopus Index
12	Dr. Amit Tomar	Assistant Professor		Modification in properties of barium titanate on Sm <sup>3+</sup> substitution	2017	Ferroelectrics	SCI