## **Curriculum Vitae**

#### **PERSONAL DETAILS**

Name : Mandeep singhDate of Birth : 19/10/1991

➤ Marital Status : Single➤ Sex : Male➤ Nationality : Indian

#### **EDUCATIONAL QUALIFICATION**

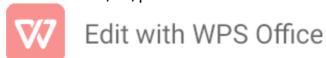
Sr.	Class	Board/University	Year	%age
No.				
1.	10 <sup>th</sup>	CBSE, Delhi	2007	83.20%
2.	10+2	CBSE, Delhi	2009	81.20%
3.	B.Sc.(Non Medical)	Punjabi University, Patiala	2012	62.38%
4.	M.Sc. (Applied Physics)	Punjabi University, Patiala	2014	66.50%
5.	Ph.D. (Physics) Topic: "Study of Structural, Morphological, Electrical and Magnetic Properties of Multiferroic Composites"	Punjabi University, Patiala	2016- 2023	NA
6.	CSIR-NET (JRF)		June 2017	AIR-112

# **Working Experience**

CSIR-Junior Research Fellow
 CSIR-Senior Research Fellow
 2018-2020
 2020-2023

## **List of Publications**

- Mandeep Singh, Jaspal Singh, Manoj Kumar and Sanjeev Kumar, 2020.
   Investigations on multiferroic properties of lead free (1-x)BCZT-xCZFMO based particulate ceramic composites. Solid State Sciences, 108, p.106380.
- Mandeep Singh, Jaspal Singh, Manoj Kumar and Sanjeev Kumar, 2022. Strain mediated magnetoelectric coupling response in Ba<sub>0.85</sub>Ca<sub>0.15</sub>Ti<sub>0.9</sub>Zr<sub>0.1</sub>O<sub>3</sub>-CoFe<sub>1.95</sub>Mg<sub>0.05</sub>O<sub>4</sub> particulate multiferroic composites. *Journal of Materials Science: Materials in Electronics*, 33, p.14264.



- Kulwinder Kaur, **Mandeep Singh**, Jaspal Singh and Sanjeev Kumar 2020. Multiferroic and magnetodielectric properties of (1-x)KNN-xCMgFO ceramic-based composites. *Journal of Asian Ceramic Societies*, 8(4), pp.1027.
- Kulwinder Kaur, Mandeep Singh, Jaspal Singh and Sanjeev Kumar 2020. The modified magnetodielectric response in KNN-CZFMO based particulate multiferroic composite system. *Journal of Advanced Dielectrics*, 10(05), p.2050024.

### Workshops and conferences attended

- One Day Workshop on "Advanced Functional Materials" organized by Department of Applied Sciences, Punjab Engineering College (Deemed to be University) on 17<sup>th</sup> March, 2018.
- Short Term Course on "Characterization of Advanced Functional Materials" organized by Department of Applied Sciences, Punjab Engineering College (Deemed to be University) from 18-24 June, 2018.
- Three day national workshop on "LaTex and Technical Writing" held at Department of Basic and Applied Sciences Punjabi University, Patiala from 23-25 November, 2018.
- Short Term Course on "Smart Materials and Nanotechnology" organized by Department of Basic and Applied Sciences, Punjabi University, Patiala from 2-6 December, 2019.
- Workshop on "Advanced functional materials" on 25-26 July, 2020 organized by Department of Applied Sciences, Punjab Engineering college (Deemed to be University), Chandigarh.
- Online workshop on "Rietveld Refinement Method" on 22-24 September, 2020 organized by UGC-DAE Consortium for Scientific Research, Mumbai center in association with Indore center.
- 6<sup>th</sup> International Conference on "Nanoscience and Nanotechnology" organized by SRM Institute of Science and Technology, Kattakulanthur, India during 1<sup>st</sup> to 3<sup>rd</sup> Feburary, 2021.

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### **Technical Skills**

- Expertise in handling instruments like P-E loop tracer, Impedence analyzer, high temperature programmable furnaces, hydraulic press pelletizer, Lock-in amplifier based magnetoelectric measurement setup.
- Expertise in handling data from by using softwares like MS-excel, Origin, Image J,
   Reitveld refinement using FullProf, Xpert Highscore, Z-View.

# **Areas of Interest**

 Ferroelectrics, Ferromagnetics, Multiferroic Composites, Crystallography, Energy Harvesting Devices, Sensors, Acuators

(Mandeep Singh)

