Profile

Name of the Faculty	Dr. B. Mamatha	
Designation	Associate Professor	
Department	Freshman Engineering	
Area of Interest	Material Science	
Subjects Taught	Applied Physics, Engineering Physics, Solid State Physics, Semiconductor Devices	
JNTUH Registration Id	9895-150426-153551	
College Staff Code	SC01122	
Official Mail	bmamatha.fe@gcet.edu.in	

Educational Qualifications:

S. No.	Degree	Specialization	University/College	Year
1	Ph.D.	Material Science	JNTUH	2015
2	M. Sc.	Physics	OU	2008
3	B. Ed.	Physical Science	OU	2016
4	B. Sc.	MPCs	KU	2006

Paper Publications:

S. No.	Publication details
1	Dielectric and Piezoelectric properties of $SrBi_{(4-x)}Ho_xTi_4O_{15}$ (x = 0.0 to 0.06) ceramics. **B. Mamatha**, A. R. James and P. Sarah, Physica B: Condensed matter 405(2010), 4772.

2	Electromechanical properties of A-site (LiHo) modified strontium bismuth titanate ($SrBi_4Ti_4O_{15}$) piezoelectric ceramics. **B. Mamatha**, A.R.James, P.Sarah (2010), Ferroelectrics, 413:115–122, 2011.
3	Electrical and piezoelectric study of $SrBi_{3.98}Dy_{0.02}Ti_4O_{15}$. P. Sarah and **B. Mamatha**, Advanced Materials Research Vol. 214 (2011) pp 641-645.
4	Synthesis and electrical properties of SrBi4Ti4O15 piezoelectric ceramics. **B. Mamatha**, M. B. Suresh, A. R. James, M. Vithal and P. Sarah, Phys. Scr. 84 (2011) 055704 (6pp)
5	Dielectric, ferroelectric, piezoelectric and impedance study of lead-free ceramic: $SrBi_4Ti_{3:975}Zr_{0:025}O_{15}$. **B. Mamatha** and P. Sarah, Journal of Advanced Dielectrics, Vol. 2, No. 4 (2012) 1250023.
6	Effect of dysprosium substitution on the electrical properties of $SrBi_4Ti_4O_{15}$ ceramics. **B Mamatha**, K Ashok, A R James and P Sarah, Phys. Scr. 85 (2012) 065705 (5pp).
7	Effect of neodymium and zirconium substitution on ferroelectric, dielectric and piezoelectric properties of $SrBi_4Ti_4O_{15}$. **B. Mamatha** and P. Sarah. Ferroelectrics (2013).
8	Frequency and Temperature Dependence of Electrical Properties of Zirconium and Neodymium Substituted $SrBi_4Ti_4O_{15}$ Ceramics, **B Mamatha,** MB Suresh, P Sarah, Ferroelectrics 445 (1), 51-66 (2013).
9	Electrical properties of Li and Nd doped strontium bismuth titanate ($SrBi_4Ti_4O_{15}$) ceramics, K Ashok, **B Mamatha,** P Sarah, Proceedings of the two-day national conference on nanomaterials and technologies (2013).
10	Effect of dysprosium substitution on electrical properties of SrBi4Ti4O15 **B. Mamatha** and P. Sarah, Journal title: Materials Chemistry and Physics. 147 (2014) 375-381
11	Synthesis, characterization and electrical properties of La modified SrBi4Ti3.975Zr0.025O15. **B. Mamatha** and P. Sarah, Accepted for publication in Journal of Ferroelectrics Volume 482 (2015).
12	Electrical Properties of Lead Free $Sr_{0.8}Na_{0.1}Sm_{0.1}Bi_4Ti_4O_{15}$ Ceramics. **B. Mamatha**, Procedia Materials Science 10 (2015) 542 – 547.
13	Synthesis and characterization of PbTiO3 based glass ceramics. J. Shankar, G. Neeraja Rani, **B. Mamatha**, and V. K. Deshpande, American Institute of Physics, 1832, 070016 (2017).
14	Enhanced electrical properties of $SrBi_4Ti_4O_{15}$ ceramic with addition of ZrO_2, **B Mamatha**, GN Rani, J Shankar, AIP Conference Proceedings 1942 (1), 120007 (2018).
15	Preparation and characterization of red emitting Yttrium Vanadate phosphor doped with Eu(III): $Y_{1-X}VO_4$: Eu_x, GN Rani, J Shankar, J Anjaiah, **B Mamatha**, NH Ayachit, AIP Conference Proceedings 2162 (1), 020117 (2019).

16	Quenching effect of co-dopant Pr^{3+} on red emitting yttrium vanadate phosphor doped with Eu(III), GN Rani, J Shankar, P Raju, J Anjaiah, **B Mamatha**, NH Ayachit, AIP Conference Proceedings 2269 (1), 030063, 2020.
17	Enhanced electrical properties of $Sr(Bi_{3.9}La_{0.1})(Ti_{3.975}Zr_{0.025})O_{15}$ ceramic with the doping of Nd, **B Mamatha**, K Ashok, GN Rani, AR James, AIP Conference Proceedings 2269 (1), 030069, 2020.
18	Effect of neodymium and zirconium substitution on electrical properties of $SrBi_4Ti_4O_{15}$ **B Mamatha**, K Ashok, AR James, P Sarah, Ferroelectrics 582 (1), 192-203
19	Dielectric and Piezoelectric Properties of $Sr_{1-2x}Na_xSm_xBi_4Ti_4O_{15}$ ($x = 0–0.4$) Ceramics **B Mamatha**, K Ashok, Integrated Ferroelectrics 221 (1), 239-244

Books/Book Chapters Published:

S. No.	Publication details

Experience:

Teaching	13
Industry	-
Research	5
Total Experience	13