

Name: Dr. SREENU GOMASU

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Date of Birth: 09-09-1992

Educational Qualifications:

SL. No	EXAMS PASSED	UNIVERSITY / BOARD	YEAR OF PASS	MAIN DOMAIN	SPECIALISATION	CLASS & %
1	Ph.D.	University of Hyderabad, India	2024	Engineering	Materials Engineering	✓
2	M. Tech.	ECET-JNTUH (Jawaharlal Nehru Technological University Hyderabad), India	2017	Mechanical Engineering	Thermal Engineering	Distinction (8.68/10)
3	Dual degree B. Tech. + Management studies (minor)	Rajiv Gandhi University of Knowledge Technologies Basar, India	2014	Engineering	Mechanical Engineering	First (7.98/10)
4	Pre-University Course		2010	M.Bi.P.C	M.Bi.P.C	Distinction (8.57/10)
5	SSC	Board of Secondary Education, India	2008	Physics Chemistry Mathematics	Physics Chemistry Mathematics	First (87.16/100)

Professional Training:

Ph.D. research work (06/08/2018) – (17-01-2024):

Title of the thesis: *Investigation of Novel Lead-Free BiFeO₃ - CaTiO₃ Piezoelectric Ceramics for High-Temperature Energy Storage Applications.*

During my doctoral research, I focused on lead-free materials designed for applications in high-temperature energy storage. Notably, substantial energy storage capabilities were attained, extending up to a temperature of 190 °C, utilizing samples with a thickness of 0.3 mm. The important parameter facilitating these achievements is the relaxation time, ~44 μs, enabling the material to be suitable for pulsed power applications. The alignment of dipoles within the investigated piezoelectric material was achieved through the application of an external electric field.

SL. No	Organization/Institute	Period		Details of Training/ Project Undertaken
		From	To	
1	ECET-JNTUH (Jawaharlal Nehru Technological University, Hyderabad), India.	September 2016	December 2017	M. Tech. – Project: Title: Heat transfer analysis from a concave surface using multiple circular jet impingement with the influence of turbulence model
2	RGUKT-Basar, Telangana, India	Aug 2013	July 2014	B. Tech. – Project: Title: Concentrating Solar Power Energy from Mirrors
3	HMT Limited Hyderabad, India.	16-04-2013	31-05-2013	Industrial Training and mini-project Title: “Manufacturing of milling head by using CNC part programming

4	Central Institute of Tool Design (CITD-MSME) Hyderabad, India	08-05-2013	11-06-2013	Inplant Training
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List of Publications:

1. **Gomasu Sreenu**, Mahfooz Alam, Didier Fasquelle, Dibakar Das “*High-frequency dielectric characterization of novel lead-free ferroelectrics*” J Mater Sci: Mater Electron, 31, 18477–18486 (2020). <https://doi.org/10.1007/s10854-020-04391-7>
2. **Gomasu Sreenu**, Subhadeep Saha, R. N. Bhowmik, J. P. Praveen, Dibakar Das “*Investigation of structural, electrical, and dielectric properties of lead-free $(\text{BiFeO}_3)_{(1-x)} - (\text{CaTiO}_3)_x$ ceramics*” J Mater Sci: Mater Electron 33, 24959–24971 (2022). <https://doi.org/10.1007/s10854-022-09205-6>
3. **Gomasu Sreenu**, Subhadeep Saha, Dibakar Das, et.al., “*High Energy Density Achieved in Novel Lead-Free $\text{BiFeO}_3\text{-CaTiO}_3$ Ferroelectric Ceramics for High-Temperature Energy Storage Applications*” **ACS Applied Materials & Interfaces** (2024). <https://doi.org/10.1021/acsami.3c13860>
4. **Gomasu Sreenu**, Subhadeep Saha, and Dibakar Das, “*Synthesis of Novel Lead-free $(\text{BiFeO}_3)_{(x)} - (\text{CaTiO}_3)_{(1-x)}$ Ceramics and Thermal, Structural, Microstructural and Ferroelectric Characterizations for Energy Storage Applications*” AIP Conf. Proc. 2995, 020120 (2024). <https://doi.org/10.1063/5.0178240>
5. Subhadeep Saha, **Gomasu Sreenu**, J Paul Praveen, Dibakar Das “*Effect of Nd^{3+} substitution on structural, morphological, and electrical properties of Bismuth Ferrite ceramics*” J Mater Sci: Mater Electron 34, 559 (2023). <https://doi.org/10.1007/s10854-023-09947-x>
6. Subhadeep Saha, **Gomasu Sreenu**, and Dibakar Das et al., “*Investigation of the dielectric and optoelectronic properties of Nd^{3+} -substituted bismuth ferrite ceramics in THz/far-infrared region*” 35, 76 (2024) <https://doi.org/10.1007/s10854-023-11896-4>

7. **Gomasu Sreenu**, Subhadeep Saha, Dibakar Das, et al., “*Influence of CaTiO₃ on Structural, Microstructural, Electrical and Dielectric Properties of BiFeO₃-based Lead-Free Ceramics Processed Through Microwave Sintering*” Ceramic International (Under transfer option)
8. **Gomasu Sreenu**, Subhadeep Saha, Dibakar Das, et. al., “*Investigation of Structural, Microstructural and Optical Properties of Lead-free (BiFeO₃)_(1-x) - (CaTiO₃)_x Ceramics in Submillimeter Region*” J Mater Sci: Mater Electron ([Submitted](#))
9. Subhadeep Saha, **Gomasu Sreenu** and Dibakar Das, “*Study of Frequency and Temperature-dependent responses of Dielectric permittivity with morphotropic phase boundary in Nd-substituted bismuth ferrite ceramics*” (Ready for the submission)

List of Conference (Oral/Poster/Talk) Presentations:

1. **Gomasu Sreenu**, Dibakar Das, Oral talk on “*Lead-free ferroelectric materials for energy storage applications*” at Science, Technology, and Innovation Talks (**STIN-2021**) as a part of National Science Day celebrations organized by the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), held from 25th- 26th February-2021, Hyderabad, India.
2. **Gomasu Sreenu**, Subhadeep Saha, Dibakar Das, Poster presentation on “*Synthesis and characterization of (x)BiFeO₃ - (1-x) CaTiO₃ solid solution for structural, morphological, thermal and electrical properties*” at Second International e-conference on Physics of Materials & Nanotechnology (ICPN-2021) held from 28th to 30th Oct 2021, Organized by **Department of Physics, Mangalore University, India.**
3. **Gomasu Sreenu**, Subhadeep Saha, Dibakar Das, Flash talk/Oral presentation on “*Structural and electrical characterizations of novel lead-free ferroelectric bulk ceramics (1-x)BiFeO₃ -xCaTiO₃ for energy storage applications*” in the ‘International Virtual Conference on Advanced Ceramics and Technologies: Materials and manufacturing (IvaCCT- 2021) held from 13th-14th Dec 2021 organized by **Indian ceramic society Karnataka chapter.**

4. **Gomasu Sreenu**, Subhadeep Saha, RN Bhowmik, Dibakar Das, Oral presentation on “*A Novel Lead-free Ferroelectric High Energy Density Ceramic System for High-Temperature Energy Storage Applications*” at AEM2022 **Imperial College London, UK** held from 6th – 8th April 2022.
5. **Sreenu Gomasu**, Subhadeep Saha, RN Bhowmik, D Das, Poster presentation “*Dielectric and Ferroelectric Characteristics of (BiFeO₃)_(1-x) – (CaTiO₃)_x Lead-Free Ceramics for High-Temperature Energy Storage Application*” at IIM-ATM, RFC Hyderabad, India held from 14th – 16th November 2022.
6. **Gomasu Sreenu**, Subhadeep Saha, D das Poster presentation “*Dielectric and Electrical Characterizations of Lead-free (BiFeO₃)_(1-x) – (CaTiO₃)_x Ceramics for Energy Storage Applications*” at Global Trends in Traditional to Space Ceramics organized by **Indian ceramic society, IIT-BHU** held from 8th – 9th December 2022.
7. **Gomasu Sreenu**, Subhadeep Saha, Dibakar Das, Poster presentation “*Synthesis of Novel Lead-free (BiFeO₃)_(x) – (CaTiO₃)_(1-x) Ceramics and Thermal, Structural, Microstructural and Ferroelectric Characterizations for Energy Storage Applications*” at **66th DAE Solid State Physics Symposium**, Birla Institute of Technology Jharkhand, India held from 18th to 22nd Dec 2022.
8. **Gomasu Sreenu**, Subhadeep Saha, RN Bhowmik, Dibakar Das Poster presentation on “*Structural and Electrical Characteristics of a novel Lead-free Ferroelectric (1-x)BiFeO₃ – xCaTiO₃ Ceramics for High-Temperature Energy Storage Application*” at **advanced in functional materials (AFM), Kyushu University, Fukuoka, Japan** held from 9th to 12th Jan 2023.
9. Subhadeep Saha, **Gomasu Sreenu**, RN Bhowmik and Dibakar Das, Poster presentation on “*Structural, Morphological and Electrical Characterization of Nd substituted Bismuth Ferrite Ceramics for Energy Storage Applications*” at **advanced in functional materials (AFM), Kyushu University, Fukuoka, Japan**, held from 9th to 12th Jan 2023.
10. Subhadeep Saha, **Gomasu Sreenu**, D Das et.al., “*Investigation of Structural, Morphological and Dielectric Properties of Nd-Substituted Bismuth Ferrite Ceramics*” at International Conference on “Exploring the Emerging World of Ceramics and Glass (ICEECG)” during December 19th -21st, 2023. (**Best Poster Award**)

DECLARATION: -

I certify that the preceding information is correct and complete to the best of my knowledge and belief, and nothing has been concealed/distorted. If I am found to have concealed/distorted any material information, my appointment shall be liable to be summarily terminated without notice/compensation.

Place: Hyderabad, India

Date: 22-01-2024