



DEPARTMENT OF PHYSICS

Faculty Name	Dr. MADHUSUDHANA H.C	
Designation	Assistant Professor	
Educational Qualification	M.Sc, MPhil, B.Ed ,Ph.D	
Experience in Years	13 Years	
Area of Interest	<ul style="list-style-type: none">• Synthesis of metal oxide Nano materials• Gas sensors• Humidity sensor	
Email ID	madhusudhanahc@dsatm.edu.in	

Educational Details

- Ph.D – Nanomaterials, Conductivity studies, Tumkur University
- MPhil - Material Science, Vinayaka Mission University
- M.Sc - Astrophysics, Bangalore University
- B.Ed - PM method, Tumkur University

Personal Details

- Date of Birth :19-08-1984
- Hobbies : Playing chess, writing poets, Internet browsing, Reading
- Languages Known :Kannada, English and Hindi.

Professional Experience

1. **Assistant Professor** : From August 2011 to till date, DSATM, Bangalore
2. **Lecturer**: From July 2008 to June 2011, HMSIT, Tumkur

Publications:

Citation Indices of the Research Publications:

Citations - 31; h-index- 02; i-10index- 01

International Journals:

1. Effect of fuels on conductivity, dielectric and humidity sensing properties of ZrO₂ nano crystals prepared by low temperature solution combustion method, H.C.Madhusudhana, S.N.Shobhadevi, B.M.Nagabhushana, B.V.Chaluvaraju, M.V.Murugendrappa, R.Harikrishna, H.Nagabhushana, N.R.Radeep, *Journal of Asian Ceramic Society (Elsevier)* 4, (2016) 309-318.
2. A comparable study of structural, dielectric and humidity sensing properties of solution combustion synthesized ZrO₂ and ZrTiO₄ nano powders, H. C. Madhusudhana, S. N.

Shobhadevi, B. M. Nagabhushana, R. Hari Krishna, M. V. Murugendrappa, H. Nagabhushana, *J. Nanosci. Tech*, 4 (2018)314-316.

3. Structural Characterization and Dielectric studies of Gd doped ZrO₂ nano crystals Synthesized by Solution combustion method, H. C. Madhusudhana, S. N. Shobhadevi, B. M. Nagabhushana, R. Hari Krishna, M. V. Murugendrappa, H. Nagabhushana, *Materials Today(Elsevier): Proceedings*, 5 (2018) 21195–21204.
4. Structural and Dielectric Investigations of Cerium Stabilized Zirconia (Zr_{1-x}Ce_xO₂(x=0-0.05)) Nanocrystals Blended by Wet Chemical Method, H. C. Madhusudhana, S. N. Shobhadevi, B. M. Nagabhushana, R. Hari Krishna, M. V. Murugendrappa, H. Nagabhushana, *J. Nanosci. Tech*. 5 (2019) 649–654.

Conferences:

1. Structural Characterization and Dielectric studies of Gd doped ZrO₂ nano crystals Synthesized by Solution combustion method, International conference on smart engineering materials -2016 (ICSEM-2016), RV College of Engineering, Bangalore, 20th to 22nd October 2016.
2. Synthesis and Structural characterization of pure cubic ZrO₂ nano powder, oral presentation at Vijaya College, Bangalore, organized by Department of Physics, National Conference on Atomic physics molecular physics and X-ray crystallography, 8th -10th January 2015, Bangalore.
3. Characterization and Dielectric properties of nano crystalline ZrTiO₄ synthesized by combustion method, National Conference on Advanced Functional Materials-2015 ISBN:978-93-85682-04-9, held at Dayananda Sagar College of Engineering, Bangalore, 4th – 5th December 2015, 145-149
4. Structural Characterization and Dielectric studies of CeO₂ nano crystals synthesized by Solution Combustion method, National Conference on Recent Advances in Applied Sciences -2016, AMC College of Engineering, Bangalore, 25th April 2016
5. Structural Characterization and Dielectric studies of Zn²⁺ doped ZrO₂ nano crystals Synthesized by Solution combustion method, National conference on convergence of science, technology and management (NCCSTM-2017) (ISBN 978-93-85682-48-3) (Got Best paper award) at Dayananda sagar academy of technology and mgmt., Bangalore, on 19th may 2017.
6. Structural and Dielectric studies of Ce³⁺ doped ZrO₂ nano crystals synthesized by Solution combustion method, International conference on innovations and challenges in science and technology(ICICST-2018), At Don Bosco Institute of Technogy, Bangalore, On 24th and 25th May 2018.
7. Comparative dielectric studies of pure and Rare earth doped ZrO₂ ceramics of synthesized by by simple low cost, ecofriendly, fast, efficient, low temperature solution combustion method, International Conference (Online) (IC RTEETIMP-2020), December 2020, Recent Trends in Electrical, Electronics, Telecommunications, Instrumentation, Medical Electronics Engg. & Physics, at DSCE, 7 – 9 December 2020.

Awards:

1. Young scientist (yuva vignani) award for the research paper presented at the 11th Kannada Vijnana Sammelana (Karnataka Science Congress), organized by Swadeshi Vijnana Andolona,Karnataka at Raichur on 13-15th September, 2015.
2. Best Paper presentation at National conference on convergence of science, technology and management (NCCSTM-2017) at DSATM, on 19th may 2017 (ISBN 978-93-85682-48-3)
3. Editor in Journal of Advanced Physical Sciences
4. Editor in Journal of Thin Films Research

5. Outstanding teacher award at DSATM in the year 2016.

N.S.S Activities:

Appointed as VTU-Recognised N.S.S.Officer From September 2018

1. Contribution to 'Chief Minister's calamity relief fund', Collected fund for kerala and kodagu flood relief (given DD of Rs 40,000), on 26-09-2018
2. Swatch bharath abhiyan & Unnath bharath abhiyan, Creating awareness about cleanliness and Donating furniture's, utensils, paintings, renovation of the school floor and compounds.(for HIV infected students), From 03-10-2018 to 05-10-2018.
3. Drug awareness programme, Creating awareness on smoking, drug, alcohol consumption, on 19-02-2019.
4. Anti-Terrorism day observance, Creating awareness of terrorism activities, on 21-05-2019.
5. Contribution to Kodagu flood relief, Building leadership qualities and creating potential in students to how to face the situation at the time of floods, From 14-08-2019 to 19-08-2019.
6. Clay modeling workshop, Importance of water pollution, on 30-08-2019.
7. One student one plant-Plantation drive : Phase-I, Importance of Plantation and relationship with nature, on 31-08-2019.
8. One student one plant-Plantation drive : Phase-II, Importance of Plantation and relationship with nature, on 14-09-2019.
9. School Bell Programme at Tindlu Govt.School,Sarjapura, Importance of Govt.Schools, Nation Building activities, From 01-10-2019 &02-10-2019.
10. Kannada Rajyotsava- 2019, Importance of Language, Literature, Culture & Importance of Karnataka, on 12-11-2019.
11. Personality development skills training at Art of living, health awareness on 03/02/2020 to 05/02/2020.
12. Jan Andolan for COVID-19 pledge, Health Awareness programme on 15/10/2020
13. Webinar on Drug awareness, Health Awareness programme by Dr.Nishnath Lakshmikantha on 23/10/2020.
14. Distribution of Immunity Kits by Ayush, Govt.of Inida, Health Awareness, on 03/11/2020
15. Webinar SETBACK to COMEBACK a Motivational Talk to students by Sri Vallabha Chaitanya Dasa, Akshaya Patra Foundation on 27/11/2020.
16. COVID test at the campus of DSATM as per the government of Karnataka, on 19/11/2020
17. Kannada Rajyotsava- 2020, Importance of Language, Literature, Culture & Importance of Karnataka, on 30-11-2020.
18. 5-Days Health awareness campaign conducted by CDSIMER, DSU, at Ramanagara district (participated along with 40 students team for Demographic analysis), between 05/01/2020 and 09/01/2021 at Ramanagara district (Villages comes under Kanakapura taluk) initiated by Deaprtment of community medicine.

Professional Membership

1. Life member for Electrochemical society of India.
2. Life member of Luminescence Society of India Karnataka Chapter.

Contact Details

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