



## DR. SADASHIV ANNAPPA KANADE

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### Research Interests

Thick Film Sensors, Microwave absorbing materials, Characterization of Materials at Microwave Frequencies, Synthesis of hydrophobic Silica aerogels and carbo gels, Nano Materials.

### Research Projects

Completed Minor Research Project Funded by UGC,  
'Synthesis, Characterization and microwave applications of High Q  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  Thick Films.

### Experience

- J. S. M. College, Alibag, since 13-6-2006. Present Designation Associate professor and Head, Department of Physics.
- Rajaram College, Kolhapur, 3 Academic Years  
(20-8-2003 to 30-4-2004)  
(30-6-2004 to 30-4-2005)  
(20-6-2005 to 30-4-2006)
- Lecturer, Department of Physics, Shivaji University, Kolhapur. 7-8-2002 to 30-4-2003
- JRF in BARC-MoU Project entitled 'Scientific collaborations... shapes and sizes', in the Department of Physics, Shivaji University, Kolhapur for 2001-02.

### Administrative Responsibilities

- IQAC coordinator, J. S. M. College, Alibag, from 26-8-2018 to 14<sup>th</sup> June, 2022.
- NSS PO, for academic year 2007-08.

### Education

- Ph. D. (Physics) Shivaji University, Kolhapur, 10-9-2010 *Study of Thick Film Mn-Co-Ni-Fe-O NTC Ceramics and Its Microwave Characteristics using overlay technique*
- M.Sc (Physics) Department of Physics, Shivaji University, Kolhapur, May 1999
- B.Sc (Physics) Rajaram College, Kolhapur, affiliated to Shivaji University, Kolhapur, 1997

### Skills

- Liaised with colleagues and students as IQAC coordinator in reaching institutional objectives and goals to ensure that standards were met.
- ICT enabled teaching.

### Publications

Research Papers: 14: total citations 276 h-index and i10 index 5

- Book: NTC Thick Film Thermistors: Lulu Publishers, USA, ISBN: 9781716379338, DEC 2020

## List of Publications:

1. Composition dependent resistivity of thick film  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ : ( $0 \leq x \leq 1$ ) NTC thermistors: S.A. Kanade, Vijaya Puri: *Materials Letters* Volume 60, Issue 11, 2006, Pages 1428-1431
2. Composition dependent resistivity of thick film  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ : ( $0 \leq x \leq 1$ ) NTC thermistors: S.A. Kanade, Vijaya Puri, *Materials Letters* Volume 60, Issue 11, 2006, Pages 1428-1431.
3. Electrical properties of thick-film NTC thermistor composed of  $\text{Ni}_{0.8}\text{Co}_{0.2}\text{Mn}_2\text{O}_4$  ceramic: Effect of inorganic oxide binder: *Materials Research Bulletin*, S.A. Kanade, VijayaPuri, Volume 43, Issue 4, 1 April 2008, Pages 819-824
4. Study of thick film  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ , ( $0 \leq x \leq 1$ ) using overlay technique on thick film microstrip ring resonator: *Microelectronics Journal*, S.A. Kanade, Vijaya Puri, Volume 37, Issue 11, November 2006, Pages 1302-1305
5. Properties of thick film  $\text{Ni}_{0.6}\text{Co}_{0.4}\text{Fe}_y\text{Mn}_{2-y}\text{O}_4$ : ( $0 \leq y \leq 0.5$ ) NTC ceramic: S.A. Kanade, VijayaPuri: *Journal of Alloys and Compounds*, Volume 475, Issues 1-2, 5 May 2009, Pages 352-355
6. Response of Ag Thick Film Microstrip Straight Resonator to Thick Film  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ :  $0 \leq x \leq 1$  overlay: S.A. Kanade, VijayaPuri: *Journal of Active and Passive Electronic Devices*., Volume 5 , Number 3-4, 2010 Pages 229-238
7. Perturbation of Ag thick film microstrip ring resonator due to superstrate  $\text{Ni}_{0.6}\text{Co}_{0.4}\text{Ag}_y\text{Mn}_{2-y}\text{O}_4$  ceramics. :, Rupali Jadhav, S. P. Patil, S. N. Mathad, S. A. Kanade, and VijayaPuri: *AIP Conf. Proc.* Volume 1536, Pages|: 1193-1194
8. Microwave Dielectric Characterization of  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ :  $0 \leq x \leq 1$  NTC Ceramics by Overlay on Straight Resonator: S.A. Kanade, VijayaPuri: *International Journal of Electronics, Electrical and Computational System*: Volume 3, Issue 5, July 2014 pages: 1 – 7
9. Perturbation of Microstrip Straight Resonator due to  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ :  $0 \leq x \leq 1$  Thick Overlay :S.A. Kanade, VijayaPuri : *International Journal of Electronics, Electrical and Computational System*, Volume 4, Issue 8 August 2015, Pages. 32-36,
10. Effect of  $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$ :  $0 \leq x \leq 1$  Dielectric overlay on the Microstrip Straight Resonator: S.A. Kanade,: *International Journal of Engineering and Techniques*. Volume 3 Issue 6, Nov Dec-2017. Pages: 665-661
11. Effect of  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ :  $0 \leq x \leq 1$  Ceramic Overlay on the Characteristics Ag Thick film Microstripline: S.A. Kanade : *Solid Stat Technology*, Volume: 62 Issue: 4 Dec 2019 Pages: 26 -34
12. Structural, morphological, and magnetic study of low temperature synthesized  $\text{Co}_{0.75}\text{Ni}_{0.25}\text{Fe}_{1.95}\text{Dy}_{0.05}\text{O}_4$  nano ferrite: Ravindra N Chikhale\*, S A Kanad eand Pushpinder G, : *Physica Scripta*, Volume 96, Number 4, Pages: 1-11
13. Effect of  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$ :  $0 \leq x \leq 1$  NTC Ceramic overlay on Ag Thick film ring resonator. S.A. Kanade, *Solid Stat Technology* : Volume: 64 Issue: 2, , (2021) Pages: 5926 – 5933
14. Low temperature rapid sol–gel auto-combustionsynthesis and structural, morphological andmagnetic study of nickel substituted cobalt nanoferrites: Ravindra N Chikhale\* , SAKanade and Pushpinder G. Bhatia, : *Phase Transitions*, VOL. 94, NOS. 6–8, (2021) Pages, 511–526

## Papers presented in Seminar / Conference

1. Studies on effect of soil moisture in the propagation of Ku band microwaves: MRSI 14th AGM and Theme Symposium on Novel Polymeric Materials, 11-13 February, 2003, BARC Mumbai.

2. Microwave transmittance and reflectance of polyaniline thin films in the Ku band (12-18 GHz): MRSI 14th AGM and Theme Symposium on Novel Polymeric Materials, 11-13 February, 2003, BARC Mumbai.
3. Ku band studies of NiCo Magnetite overlay on Thick film Patch antenna: National Seminar on Materials processing and Characterization Techniques, 28-29, March, 2005, Department of Physics, Shivaji University, Kolhapur.
4. Radiation Pattern of Thick film Patch antenna due to  $\text{Ni}_{0.8}\text{Co}_{0.2}\text{Mn}_2\text{O}_4$  Ceramic Pellet, National Seminar on Materials For Advanced Technologies, 23-25, January, 2006, Department of Physics, Shivaji University, Kolhapur.
5. Effect of thick film  $\text{Ni}_{(1-x)}\text{Co}_x\text{Mn}_2\text{O}_4$  :  $0 \leq x \leq 1$  Overlay on Thick film Microstrip Straight Resonator, RECENT ADVANCES IN MATERIAL SCIENCE' ASC, College, Panvel, 18/1/2014.
6. Properties of  $\text{Ni}_{0.6}\text{Co}_{0.4}\text{Mn}_{2-y}\text{O}_4$ : ( $0 \leq y \leq 0.5$ ) NTC Thick film thermistor: National conference on Modern Research Trends in Chemistry & allied Sciences, J. S. M. College, Alibag, 25/02/2017.
7. Perturbation of Microstrip ring resonator due to  $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$ :  $0 \leq x \leq 1$  overlay: International Interdisciplinary conference on Recent Trends on Sciences (IICRTS 2019), 19/3/2019, J. S. M. College, Alibag.
8. Synthesis and dielectric Characterization of  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  Ferroelectric, National Seminar on 'Shaping the Future with nanoscience and Technology' KBP College, Vashi, 8th Jan., 2020.
9. Response of Ag thick film Microstrip Ring Resonator due to  $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$ :  $0 \leq x \leq 1$  dielectric Overlay, One Day National Conference on 'ADVANCED MATERIALS' Department of Physics & MRSI MC, B. K. Birla College of Arts, Science and Commerce (Autonomous), Kalyan . Thursday 24th July, 2021

### **RC/OC/STC/Training programs attended:**

1. Orientation Programme: 18-2-2010 to 19-3-2010, UGC, ASC, University of Mumbai .
2. Refresher Course on Experimental Physics, 12-12-2011 to 31-12-2011, UGC, ASC, University of Mumbai
3. Refresher Course Nanoscience (ID): 09-12-2014 to 30-12-2014, UGC, ASC, University of Mumbai
4. Short term Course Applications of Linear Algebra, 7-8-2017 to 12-8-2017, UGC-HRDC, Mumbai University, Mumbai
5. Short term Course Research methodology, 5-3-2018 to 10-3-2018, UGC-HRDC, BAMU, Aurangabad
6. Two week online Faculty Development Program on 'MANAGING ONLINE CLASSES and Co-CREATING MOOCS' Teaching Learning Center, Ramanujan College, University of Delhi, Sponsored by HRDC, PMMMNMTT; 20Th April -6th May, 2020.
7. Two week online Workshop on '**Comprehensive e-Learning to e-Training guide for Administrative Work**' Teaching Learning Center, Ramanujan College, University of Delhi, Sponsored by HRDC, PMMMNMTT; 25<sup>Th</sup> May -5<sup>th</sup> June, 2020.
8. One Week National Online Faculty Development Program '**ICT Tools for Effective Teaching Learning**', Swami Ramanand Teerth Marathwada University, Nanded 11<sup>th</sup> -16<sup>th</sup> May 2020
9. National Workshop on '**Solid State Sensors: Theory and Applications**' Sponsored by DST, GOI, Organized by Department of PHYSICS & Electronics, Shivaji University, Kolhapur, 16<sup>th</sup> -28<sup>th</sup> June, 2003.

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