

A-Research projects

Sr. No	Title of project	Principal investigator/Co-PI	Agency	Sanctioned Grant	Status (Completed / Ongoing)
1.	Fiber Optics Temperature and Pressure Sensor and Its Applications	Prof. R.R. Kothawale	UGC	80,000/-	Completed
2.	Influence of Tb ³⁺ substitution on structural and electromagnetic properties of NiCuZn spinel ferrites	Dr. S.M. Kabbur	UGC	1,55,000/-	Completed

B-Research Publications

Sr. No.	Title of Publication	Author	Journal	Year	ISSN
1	Sprayed tungsten-doped and undoped bismuth ferrite nanostructured films for reducing and oxidizing gas sensor applications	Dr. Shivaji Devrao Waghmare	Sensors and Actuators A: Physical	2018	0924-4247
2	Specific capacitance, energy and power density coherence in electrochemically synthesized polyaniline-nickel oxide hybrid electrode	Dr. Yuvraj Hari Navale	Organic Electronics	2018	1566-1199
3	Dysprosium-substitution induced changes in structural and electrical properties of NiCuZn ferrites	Dr S M Kabbur	Advanced Science Letters	2018	1936-6612
4	Effect of Dy ³⁺ substitution on structural and magnetic properties of nanocrystalline Ni-Cu-Zn ferrites	Dr S M Kabbur	Journal of Magnetism and Magnetic Materials	2018	0304-8853
5	Effect of Mn doped on structural and optical behavior of Fe ₂ O ₃ nanoparticle	Dr. Rameshwar Raosaheb Kothawale	Int. Joun, M &M Studies	2018	2394 - 207X
6	Magnetic interactions and electrical properties of Tb ³⁺ substituted NiCuZn ferrites	Dr S M Kabbur	Journal of Magnetism and Magnetic Material	2019	0304-8854

7	Enhanced NO ₂ sensing aptness of ZnO nanowire/CuO nanoparticle heterostructure-based gas sensors, 1513–1522	Dr. Yuvraj Hari Navale	Ceramics International	2019	0272-8842
8	Hybrid Polyaniline-WO ₃ Flexible Sensor: A Room Temperature competence towards NH ₃ gas 279-288	Dr. Yuvraj Hari Navale	Sensors and Actuators B: Chemical	2019	0925-4005
9	Room temperature ammonia gas sensing properties of polyaniline nanofibers	Dr. Yuvraj Hari Navale	J. Materials Science Materials in Electronics	2019	9574-5222
10	Processing temperature dependent chemiresistive performance of spin-coated cerium oxide films	Dr. Yuvraj Hari Navale	Materials Chemistry and Physics	2019	1879-3312
11	Facile synthesis of highly porous CuO nanoplates (NPs) for ultrasensitive and highly selective nitrogen dioxide/nitrite sensing	Dr. Yuvraj Hari Navale	RSC Advances	2019	2046-2069
12	Impact of electrolyte concentration on the supercapacitive properties of spray pyrolyzed CdO thin film electrode	Dr. Yuvraj Hari Navale	Solid State Ionics	2019	0167-2738
13	Fabrication of enhanced sensitive and selective porous indium oxide nanocube sensor for NO ₂ detection	Dr. Yuvraj Hari Navale	Ceramics International	2020	1873-3956
14	Enhanced NO ₂ gas sensing performance of Ni-doped ZnO nanostructures	Dr. Yuvraj Hari Navale	J. Material Science	2020	1573-4838

15	Pristine and palladium-doped perovskite bismuth ferrites and their nitrogen dioxide gas sensor studies	Dr. Shivaji Devrao Waghmare	Journal of King Saud University	2020	1018-3647
16	Microstructure and magnetic interactions of Co ²⁺ substituted NiCuZn ferrites	Dr S M Kabbur	Journal of Magnetism and Magnetic Materials	2021	0304-8853
17	NO ₂ gas sensing properties of heterostructural CuO-nanoparticles/ZnO-nanorods	Dr. Yuvraj Hari Navale	Journal of Materials Science Materials in Electronics	2021	9574-7522
18	Studies on structural, spectral and morphological properties of co-precipitation derived Co-doped ZnO nanocapsules for NO ₂ sensing applications	Dr. Yuvraj Hari Navale	Journal of Materials Science: Materials in Electronics	2021	9574-5224
19	Electrospun flexible 1D-MnO ₂ nanofibres: a versatile material for energy storage application	Dr. Yuvraj Hari Navale	Journal of Materials Science: Materials in Electronics	2021	957-4522
20	Gain and limitation of E-learning and teaching methodology in higher education during Pre and post COVID-19 at rural area	Dr. Rameshwar Raosaheb Kothawale	Emerging Trends in Education	2021	2349-638x
21	Investigation of structural, morphological and elastic properties of Ni-Zn ferrite grown with an oxalate precursor	Dr. S.M. Kabbur	J. Electronic Materials	2022	0361-5235
22	Hydrothermally engineered WO ₃ nanoflowers: A selective detection towards toxic NO ₂ gas	Dr. Yuvraj Hari Navale	Sensors and Actuators B: Chemical	2022	0925-4005

23	Mn incorporated α -Fe ₂ O ₃ nanostructured thin films: facile synthesis and application as high performance supercapacitor	Dr. Yuvraj Hari Navale	J Electronic Materials	2022	0361-5235
24	Hierarchical spinel NiMn ₂ O ₄ nanostructures anchored on 3-D nickel foam as stable and high-performance supercapacitor electrode material	Dr. Shivaji Devrao Waghmare	Journal of Energy Storage	2023	2352-152X
25	Waterproof Protection Envelop for Deep-Sea Lithium-Ion Batteries	Dr. Shivaji Devrao Waghmare	Patent	2023	Design number: 6323147
26	Electric Shock Based Fishing Gear	Dr. Shivaji Devrao Waghmare	Patent	2024	Design number: 6323148
27	Novel Kohl based-sensors for room temperature detection of LPG and NH ₃ : A comprehensive investigation	Dr. Shivaji Devrao Waghmare	J Materials Science: Mater Electron	2024	0957-4522
28	Facile Hydrothermal Synthesis of NiMn ₂ O ₄ /C Nanosheets for Solid-State Asymmetric Supercapacitor and Electrocatalytic Oxygen Evolution Reaction	Dr. Shivaji Devrao Waghmare	ACS Applied Nanomaterials	2024	2574-0970