

Profile

Dr. O. Nirmala

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Academic Qualifications:

Class	Board/University	Year of Passing	Specialization/Area
Ph. D.	SVU, TIRUPATI	2021	MEMS
M.Tech	JNTU, HYDERABAD	2007	CAD/CAM
B.Tech	SVU, TIRUPATI	2004	MECHANICAL
Intermediate	State Board	2000	M.P.C

Ph.D. Thesis Title	DESIGN AND FABRICATION OF MICROMECHANICAL COMPONENTS BASED ON YTTRIUM MANGANESE OXIDE NANOPARTICLES FOR H₂S GAS SENSOR APPLICATIONS
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Total Experience: 9+ years

Organization	Position	From	To	No. of Years
Sri Padmavathi mahila Viswavidyalayam, Tirupati, A.P	Academic Consultant	02-08-2022	Till date	0
S.V.University College of Engineering, Tirupati, A.P	Research scholar	23-01-2014	23-01-2017	3
S.R.E.S, Tirupati, A.P	Assistant Professor	07-09-2011	16-01-2014	2+
Vaishnavi Institute of Tech (VITT), Tirupati, A.P	Assistant Professor	08-09-2009	01-09-2011	2
S.I.T.S (W), Tirupati, A.P	Assistant Professor	12-09-2008	07-09-2009	1
A.I.T.S, Tirupati, A.P	Assistant Professor	16-10-2007	11-09-2008	1

List of Subjects Taught:

1.Engineering Mechanics (EM), 2. Kinematics Of Machinery (KOM), 3. Dynamics Of Machinery (DOM), 4. Design of Machine Elements-II (DME-II), 5. Mechanics Of Solids (MOS), 6. Fluid Mechanics & Hydraulic Machinery (FM&HM), 7. Engineering Drawing (ED), 8. Machine Drawing (MD), 9. Industrial Robotics (IR), 10. Advanced Engineering Graphics (AEG), 11. CAD/CAM, 12. Stress Analysis (SA for M.Tech), 13. Metrology & Computer Aided Inspection (M & CAI for M.Tech)

Labs Installed:

1. FM & HM Lab, 2. MOS Lab, 3. MS Lab

Design Software Known:

CATIA V5 R11, Auto CAD 2004, Pro/E 2001, ANSYS 9.0

Achievements:

- Qualified in **GATE-2014**.
- Through **I.N.U.P.**, the **research project proposal was selected** for execution at **CeNSE, IISc., Bangalore in 2019**.

Areas of Research Interest: Nano Technology, MEMS, Smart materials.

Number of PG Projects Guided : 1(As a Research scholar)

Number of UG Projects Guided : 1 (ongoing)

JOURNAL PUBLICATIONS:

1. Rakesh Kumar. N, Nirmala. O, Diwakar Reddy. V, and Bhanodaya Reddy. G
"Design and fabrication of asymmetric multi-electrodes for fabrication of corrugated steel panels" MTT, vol-15, Issue-1, ISSN: 0972-7396, (Indexed in i-scholar & J-Gate, UGC Approved Journal- No. 3830) January 2016.
2. T. Sreehari, O. Nirmala, V.Diwakar Reddy and G.Bhanodaya Reddy **"Image processing based visual inspection for specifying barrel drum quality"** NAIRJC, Vol-2, Issue-1, ISSN 2454-7514, January 2016.

3. Nirmala O, Bhargavi Y, Sreedhara Reddy P and Diwakar Reddy V “**Synthesis of hexagonal YMnO₃ nanoparticles by sol-gel route and their characterization**” MTT, Vol-17, Issue- 09, pp. 34-37, ISSN: 0972-7396, (Indexed in i-scholar & J-Gate, UGC Approved Journal- No. 3830) September 2018.
4. **Nirmala Onteru**, Ajith Kumar S, Sreedhara Reddy P, Diwakar Reddy V, “Structural, Morphological and Electrical Properties of YMnO₃/Si and YMnO₃/Y₂O₃/Si Bilayer Thin Films by Pulsed Laser Deposition”, AIP Conference Proceedings 2327, pp. 020015-1-7, 2021.
5. Nirmala Onteru, Sreedhara Reddy P and Diwakar Reddy V “**Synthesis of hexagonal YMnO₃ nanocrystals, characterization, and study of their dielectric properties**”, Elsevier, MATERIALS TODAY: PROCEEDINGS, Vol. 23, pp. 490-494, 2020.

CONFERENCES ATTENDED:

1. O.Nirmala, P.Sreedhara Reddy and V.Diwakar Reddy “**Growth and Structural characterization of electron beam evaporated YMnO₃ thin films on glass and silica substrates**”, National Conference on NOVEL MATERIALS AND TECHNOLOGIES, 16-17, September 2017.

PATENTS

1. Patent published with **Indian Patent Application No. 202141057520** on **December 17, 2021**, with Title: “**HEXAGONAL YMnO₃ NANOPARTICLES HAVING NEGATIVE DIELECTRIC PROPERTIES AND METHOD OF SYNTHESIS THEREOF**”. The patent was applied on December 10, 2021.

List of Events (Workshops/FDPs/Training Programs/...) attended:

S.No.	Name of the Event	Organized by	Date	No. of Days
1.	GIAN-Nanostructure based wideband gap materials for sensor applications	Mangalore University	11-17, Oct 2018	6
2.	Basic Training Program in Nano Science and Technology	CeNSE, IISc, Bangalore.	14-16, May 2019	3
3.	“NANOTECHNOLOGY, A MAKER'S COURSE”	COURSERA	1-11, June 2019	11
4.	Advanced Training Program on Nanofabrication and Characterization Techniques	CeNSE, IISc, Bangalore.	16-26, July 2019	10

5.	“How to Write and Publish a Scientific Paper (Project-Centered Course)”	COURSERA	20-27, March 2020	17
6.	e-Yantra LAB SETUP INITIATIVE	IIT, Tirupati	24-25, Nov 2022	2

Administrative Experience

- Worked as Examination cell In-charge.
- Worked as Head of the Department.
- Working as an Internal Quality Assurance Cell Member from the department.

I hereby declare that the above information is true to the best of my knowledge.

Date: 22-12-2022

Place: Tirupati

(O. Nirmala)