

ACADEMIC PROFILE



Dr.M.SUREKHA
(M.Sc, NET, PhD.,)
LECTURER IN PHYSICS

PERSONAL PROFILE:

Name: M.Surekha

Fathers Name: M. Sundara Siva Rao

Date of Birth: 09-05-1987

Sex: Female

Nationality: Indian

Permanent Address: 1-33, Cheediga debbalu, Cheediga, Kakinada-6.

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Institutional Address:

Pithapur Rajah's Government College(A), Kakinada.

Educational Qualifications:-

Ph.D. in Physics (27-09-2023) at JNTUK, Kakinada, India

Thesis entitled with "DESIGN, SYNTHESIS, CHARACTERISATION AND LOW FREQUENCY RELAXATION INVESTIGATIONS IN SERIES OF HYDROGEN BONDED CHIRAL LIQUID CRYSTAL DIMERS", under the supervision of Prof. P. Dakshina Murthy.

NET: NET qualified on 25-08-2009 for Lecturer ship in PHYSICAL SCIENCE conducted by joint CSIR- UGC test for JRF and Lecturer ship held on 21-12-2008.

Post Graduation:

M.,Sc., Physics in April 2009 from Andhra University, Visakhapatnam, achieved Distinction with 9.33 CGPA

Graduation:

B.Sc., Mathematics, Physics with Chemistry in 2007 from V.S.Lakshmi college, Kakinada, Andhra University with 88%

Intermediate:

Mathematics, Physics with Chemistry in March 2004, from Gayathri Junior College Kakinada, Board of Intermediate Education, Hyderabad, Andhra University with 88%

SSC: Secondary School Certificate in March 2002 from ZP (Women) High School Gollaprolu, Andhra Pradesh with 82%.

Languages: MS Office

Teaching experience:

1. Worked as a Lecturer in physics at S.V.D Government degree college, Nidadavole from 04-02-2012 to 02-09-2015.
2. Worked as a Lecturer in physics at Government degree college, Pithapuram from 03-09-2015 to 23-09-2021.
3. Worked as a Lecturer in physics at P.R Government college (A), Kakinada from 24-09-2021 to till now.

No.of Research international papers/ Book published: 11

1. **M. Surekha**, A.V.N. Ashok Kumar, P.V. Chalapathy, M. Muniprasad & D.M.Potukuchi, "Synthesis and phase transition characterization by polarized optical microscopy and differential scanning calorimetry in hydrogen bonded chiral liquid crystal series:M*SA:nOBAs", Molecular Crystals and Liquid Crystals, 668:1, 1-28, DOI: 10.1080/15421406.2018.1555350, (2018).
2. W.M. Zoghaib, A.K. George, C. Carboni, **M. Surekha**, A.V.N. Ashok Kumar, P.V. Chalapathy, and D.M. Potukuchi, "Relaxation, de Vries behavior, and layer contraction in chiral liquid crystal by dielectric spectroscopy", Soft Materials, 16:3, 166-185, DOI: <https://doi.org/10.1080/1539445X.2018.1461652>, (2018).
3. **Mosalikanti Surekha**, Attaluri Venkata Naga Ashok Kumar, Pallavajhula Venkata Chalapathy, and Dakshina Murthy Potukuchi, "Spontaneous polarization, tilt angle, hysteresis and low frequency relaxations in hydrogen bonded chiral liquid crystal dimer: M*SA:9OBA", <https://doi.org/10.1080/00150193.2019.1658045>, (2019).
4. **M. Surekha** and D. M. Potukuchi, "Collective excitations and field induced anti-ferroelectric modes in chiral liquid crystal dimer", AIP Advances **10**, 065235, <https://doi.org/10.1063/5.0003469>, (2020).

5. **M. Surekha**, D. M. Potukuchi, “ Exploration of Goldstone mode and field-induced SmA-SmC*-SmC Lifshitz point in chiral liquid crystal dimers for multiple polarization switching”, Eur. Phys. J. Plus (2022) 137:656, <https://doi.org/10.1140/epjp/s13360-022-02728-1>.
6. **Dr.M. Surekha** , Dr.K. Jayadev , G. Sridevi , A. Padmavathi , Dr.P. Himakar , Dr.K.Durga Rao and Dr.Somarouthu V.G.V.A.Prasad, “The Heartbeat Science: Unravelling the Mechanics of Cardiac Pumping in Humans and Animals”, ALOCHANA JOURNAL VOLUME 13, 2231-6329, ISSUE 6 2024.
7. Dr.S.V.G.V.A.Prasad, **Dr.M.Surekha**, Dr.K.Jayadev, A.Padmavathi, K.Durga Rao & D.Sravani, “Ethical Considerations in Research”, ISBN: 978-81-967563-1-4,. SL.NO:18, Pg.No: 39-4, April 2024.
8. B.Chakravarthi, M.Vasanthalakshmi, **M.Surekha**, A.Padmavathi, K.Durga Rao, Somarouthu VG V A Prasad,” Powering the Future: Renewable Energy Applications in Aquaculture Systems”, OEIL RESEARCH JOURNAL (ISSN:0029-862X) VOLUME 22 ISSUE November 2024.
9. **Dr.M.Surekha**, Dr.K.Jayadev, G.Sridevi, Dr.P.Himakar, Dr.K.Durgarao & A.Padmavathi*,” Sustainable Materials Design: Novel Methodologies for Eco-Friendly Innovation”, Presentation at RESEARCH METHODOLOGY IN MATERIAL SCIENCE-2025,Kaikaluru, ISBN: 978-93- 90028-56-6, Chapter 22, Jan-2025.
10. **Dr.M.Surekha**, B.Durga Lakshmi, A.Pushpalatha, Dr. Lakshmi Dwarampudi, Dr S.V.G.V.A Prasad, “ Health for Women: Integrating Mind, Body, and Lifestyle”, Presentation at Two Day International Women Conclave-2025,Kakinada, ISBN: 978-93-92760-21-1,Pg.No:63-67., January 2025.
11. **M. Surekha**, D. Sravani, P.Veerendra, N. Kalpana, N.S.R.Murthy, Dr. Somarouthu V. G. V. A. Prasad, “Nanomaterials as Environmental Guardians: Integrating Remediation and Sensing for Pollution Management”, Two day National Seminar Ideal College, KKD, ISBN: 978-93-92760-68-6, SL.NO: 16, Pg.No: 134-14, March 2025.

Extension Activity:

1. Acts as Jury member in Evaluation of INSPIRE MANAK 2021-22 District level Exhibition Projects competition Erstwhile East Godavari held at SSA HALL O/o District Educational Officer, KKD from 09-03-2023 to 12-03-2023.
2. Acts as Jury member for District Level Science Fair 2023 of KKD district held at Mahatma Gandhi Municipal High School, KKD on 26-12-2023.

3. Acts as Academic Advisor to conduct Academic Audit of 2023-24 and 2024-25 at GDC, Kovvur on 13-03-2025.

No.of Orientation courses attended: 01

Orientation course at UGC-ASC, University of Hyderabad from 26-04-2012 to 23-05-2012.

Refresher courses attended: 02

1. Refresher course at UGC-ASC, Sri venkateswara University, Tirupathi from 20-01-2014 to 08-02-2014.
2. Online Two-week Refresher course in Physics at Teaching Learning Centre, Ramanujan College, University of Delhi from 10-04-2022 to 24-04-2022.

No.of Short term courses attended: 02

1. 2 weeks on Research Methodologies from 01-05-2016 to 15-05-2016
2. 2 weeks on Intellectual property rights and patents from 16-05-2016

No.of Faculty development courses attended: 15

1. A Five-day APCCE-US FDP on “New Knowledge in physics and energy materials: Advanced Research Techniques” from 06-07-2020 to 10-07-2020 organised by CCE, A.P, Vijayawada.
2. A Five- day in “LMS video and pedagogy” from 03-08-2020 to 07-08-2020 organised by CCE, A.P, Vijayawada.
3. A Five- day online international FDP on “ Online teaching tools for video lecturing and Digital e-learning from 19-05-2020 to 23-05-2020 organised by S.R C.R Reddy college, Eluru-A.P.
4. National level 5 day FDP on “Tools and Techniques for teacher in post Covid-19 scenario” organized by young researchers forum, Mumbai, Maharashtra, India in association with Department of social work, Dr.B.R.Ambedkar University, Srikakulam from 01-06-2020 to 05-06-2020.
5. FDP on NAAC’s (National Assessment and Accreditation Council) Revised Accreditation Framework conducted from 17-06-2022 to 22-06-2022 by IQAC of P.R. Govt. College (A), Kakinada.
6. Five Day Residential Training Programme for Teachers” on Content Delivery and Assessment methods pertaining to Skill Courses for I-Semester TOT on “Electrical Appliances” at AU HRDC, Visakhapatnam organized by Commissionerate of Collegiate Education, A.P., Mangalagiri FROM 07-12-2022 to 11-12-2022.

7. Three Days ToT on Internship/Apprenticeship Management and LMS held at Nodal Resource Centre, PRGC(A), Kakinada from 23 January 2023 to 25 January 2023.
8. 6 Day Training of the Trainers programme on English Medium of Instruction, Proficiency in English from 12-06-2023 to 17-06-2023 at Nodal Resource Centre (NRC), P.R Govt. College (A), Kakinada organized by Commissionerate of Collegiate Education, A.P., Mangalagiri.
9. One Week International Online Faculty Development Programme (FDP) on “Multidisciplinary Approach in Research Methodology” from 11-09-2023 to 17-09-2023 Organised by Departments of Biotechnology, History, Physics, Electronics & Chemistry of Sri Y.N.College (A), Narsapur, W.G.Dt., Andhra Pradesh, India.
10. SEEK, self directed emotional learning for empathy and kindness conducted by UNESCO on Jan. 2024.
11. SEL, social emotional learning conducted by UNESCO on Jan. 2024.
12. Five day National webinar on Pathways to Discovery & Innovation Nurturing Researchers for Tomorrow conducted by P.R GOVT. COLLEGE (A), KAKINADA, from 25-04-2024 to 30-04-2024.
13. International FDP on Innovations in High-performance materials for sustainable Energy & Environmental Impacts conducted by BVRIT HYD College of Engineering (W), HYD, from 29-04-2024 to 04-05-2024.
14. edX Physics Fundamentals: Oscillations and Waves, UPValenciaX on 01-06-2024.
15. One week FDP on Advances in Material characterisation & Data processing (AMCDP-2024) conducted by Anurag University, HYD from 15-07-2024 to 20-07-2024.

No.of Webinars attended: 07

No.of seminars attended: 06

1. One day State Level Seminar on “Recent Trends in Materials Science” organized by the Department of Physics of ideal college of Arts and Science (A), Kakinada on 22-02-2014.
2. U.G.C. Sponsored Two day National seminar in Physics on “Recent Developments in Nano Technology and Nano Science” organized by V.K.V.Government Degree College, Kothapeta on 31-8-2015 and 01-09-2015.
3. Two day National Seminar on “Advanced Materials in Science and Technology” organized by Department of Physics and Electronics of P.R.Government College (A), Kakinada on 23-09-2016 and 24-09-2016.
4. Two-day International Conference on “Environmental Challenges and Remedies for sustainable Future “ (ICECRSF-23) in Hybrid mode (virtual and physical) On 15-09-2023,

16-09-2023 organised by Department of Chemistry, Government College (A), Rajamahendravaram.

5. IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY awareness mission on February 07, 2025 organized by Intellectual Property Office, India.
6. National Workshop on “MATLAB/OCTAVE FOR PHYSICISTS” organized by Government College(A),Rajahmundry from 21-11-2024 to 22-11-2024.

Webinars Organized and Participated: 03

1. National webinar “Collaboration of Physics with Technology and Environment”, conducted on 12-09-2020 at Government Degree College, Pithapuram.
2. Two day International Webinar on Environmental Sustainability and Development conducted by Y.V.N.R GOVT. DEGREE COLLEGE, KAIKALURU on 9-11-2022,10-11-2022.
3. One-day National E-Awareness workshop on NPTEL-SWAYAM Online course on 15-02-2025 Organized by SWAYAM-NPTEL Local Chapter & Y.V.N.R GDC, Kikaluru.

One day International Conference Organized and Participated: 03

1. Luminescent Advanced materials & Phosphors in multi disciplinary technologies (LAMP-2022) conducted on 7th January 2022, at P.R. Government College (A), Kakinada.
2. National Seminar on Novel Materials, nanotechnology and Biomedical Applications Conducted by Department of Physics & Chemistry at P.R Govt. College (A), Kakinada in Collaboration with AKNU, Tadepalligudem on 15-07-2023.
3. Two-Day International Women Leadership Conclave conducted on 23 and 24 January 2025 by WEC at P.R Govt. College (A), Kakinada.