

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved By AICTE, Affiliated to JNTU, Kakinada)

Ganguru, Vijayawada – 521 139. Phone: 0866-2583842/43.

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Faculty Profile

Name of the Faculty : Dr. P. Jayaprada
Designation : Assistant Professor
Email & Phone No. : jayapradap16@gmail.com & 8688710150
Department : Physics
Educational Background : M.Sc., B.Ed., Ph.D.



Research Areas : Soft Matter Physics, Nanotechnology

Experience : 13 years

Sl. No	Institute	Designation	Period
1	Maris Stella College	Lecturer	2023-24
2	Andhra Loyola College	Lecturer	2021-22
3	Sri Vijayandanda Degree College	Lecturer	2019-20
4	Kendriya Vidyalaya Machilipatanam	PGT	2017-18
5	Sri Vasavi Institute of Engineering & Technology	Lecturer	2013-17
6	Sri Balasai Degree College	Lecturer	2012-13
7	Diviseema Polytechnic College	Lecturer	2010-12

List of Publications (National and International Journals):15

1. Structural and photoluminescence studies of p-n-heptyl benzoic acid liquid crystals dispersed with ZnO Nanoparticles, P. Jayaprada, M.C. Rao, B.T.P Madhav, P. Pardhasaradhi and R.K.N.R. Manepalli, Journal of Applied Spectroscopy, 91(4), 605-2-8, 2024.
2. **P. Jayaprada**, M.C.Rao, B.T.P Madhav., Manepalli RKNR, Structural, and Photoluminescence P(-n-heptyloxy) Benzoic Acid Liquid Crystals With dispersed ZnO nanoparticles, Russian Physics Journal , 67,806-813, 2024.
3. **P. Jayaprada**, M.C. Rao, Vasundhara B., Rao G.M., Mohan N., Manepalli RKNR, Structural, Optical, and Photoluminescence Studies of ZnO Dispersed p(-n-Decyloxy) Benzoic Acid Liquid Crystalline Compounds, Journal of Applied Spectroscopy, 91(2):443-450, 2024.
4. M. Seshu Kumar, **P. Jayaprada** , R.V.S.S.N. Ravikumar and M.C. Rao Structural and optical Studies on TiO₂ doped ZnCdO nanocomposites for optoelectronic devices Journal of Applied Spectroscopy, 90(4),860-866, 2023.

5. **P. Jayaprada**, RKNR Manepalli, B.T.P. Madhav, P. Pardhasaradhi, M.C. Rao, Spectral, optical and birefringence studies of ZnO dispersed 100.0nm LC compounds for display device application, Journal of Applied Spectroscopy, 90(4), 847-859, 2023.
6. K. Sajini, **P. Jayaprada**, P. Pardhasaradhi, B.T.P. Madhav, M.C. Rao, Optical and Spectral Properties of dispersed ZnO p-n Octyloxy Benzoic acid Liquid crystalline compounds Journal of applied Spectroscopy, 89(6), 1177-1184, 2023.
7. **P. Jayaprada**, P. Pardhasaradhi, B. T. P. Madhav, K. Krishna Redy, D. Ramasekhara Reddy, G. Giridhar, M.C. Rao, R.K.N.R. Manepalli, Studies on birefringence, order parameter and image analysis of liquid crystalline p-n-butyloxy/ butyl benzoic acid with dispersed ZnO nanoparticles, Z. Naturforsch, Doi: 10.1515/Zna-2020-0198, 2021.
8. M. Tejaswi, P. Pardhasaradhi, B.T.P. Madhav, K. Pandian, **P. Jayaprada**, R.K.N.R. Manepalli and V.G.K.M. Pisipati, Optical Properties of Liquid Crystalline Alkoxy Benzoic Acids with Dispersed Citrate-Capped Gold Nanoparticles, Z. Naturforsch, Doi: [10.1515/zna-2019-01002020](https://doi.org/10.1515/zna-2019-01002020)
9. **P. Jayaprada**, P. Pardhasaradhi, B. T. P. Madhav, G. Giridhar, M. C. Rao, R.K.N.R. Manepalli, V.G. K. M. Pisipati, Effect of ZnO nanoparticles dispersed in liquid crystalline p-n-Propoxy/Propyl benzoic acids and mixtures – optical studies, Molecular Crystals and Liquid Crystals 689(1):10-33 689, 2019.
10. **P. Jayaprada**, M.C. Rao, P. Pardhasaradhi, P.V. Datta Prasad, R.K.N.R. Manepalli, V.G.K.M. Pisipati, Optical studies of n-octyloxy-cyanobiphenyl (8ocb) with dispersed ZnO nanoparticles for Display device application, Optik, 185, 1226-1237, 2019.
11. R.K.N.R. Manepalli, G. Giridhar, P. Pardhasaradhi, **P. Jayaprada**, M. Tejaswi, K. Sivaram, Ch. Mohana Kumar, V. G. K. M. Pisipati, Influence of ZnO of nanoparticles dispersion in Liquid Crystalline compounds- Experimental Studies, Materials Today: Proceedings, 5, 2666–2676, 2018.
12. RKNR Manepalli, **P. Jayaprada**, MC Rao, BTP Madhav, and K. Pandian. Effect of ZnO Nanoparticles Dispersed in Liquid Crystalline Alkoxy Benzoic Acids and Periodic Noise Reduction Using Frequency Domain Filtering RJPBCS, 8(1), 2335-2345, 2017.
13. R. K. N. R. Manepalli, B. T. P. Madhav, G. Giridhar, M. Srinivasulu, M. Tejaswi, K. Sivaram, **P. Jayaprada**, V. G. K. M. Pisipati Characterisation and mesomorphic behaviour of liquid crystals With dispersed PdCl₂ Nanoparticle, Liquid Crystals Today, 26(2), 32-38, 2017.
14. **P. Jayaprada**, M. Tejaswi, G. Giridhar, MC Rao, VGKM Pisipati, RKNR Manepalli,

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Synthesis and Characterization of Schiff base Liquid Crystals with dispersed ZnO

Nanoparticles - Optical Studies, Rasayan Journal of Chemistry, 9(4), 588-596, 2016.

15. Manepalli, R. K. N.R, Pardhasaradhi, P. Madhav, B.T. P, **P. Jayaprada**, Pisipati, V.G. K.M, Synthesis, characterization and textural analysis to reduce the Multiplicative noise in nano dispersed liquid crystalline compounds using HF technique, International Journal of earth science and Engineering, 9(1), 25-28 (2016).

National/International Conferences ((National and International):16

1. Presented a Paper in three day National conference on Recent Research Advancements in Computational Sciences Organized by department of Computer Science, Maris Stella College in Collaboration with Krishna University, 27th -29th February, 2024.
2. Presented a paper in DST sponsored national conference on Liquid crystals organized by Department of physics, Andhra University Visakhapatnam 2nd -4th November, 2023.
3. Presented a paper in UGC sponsored two day national seminar on Recent Trends in Nanoscience and Nanotechnology organized by the department of nanotechnology, Acharya Nagarjuna University, January 30th -31st, 2020.
4. Presented a paper in International conference on Nanoscience and Nanotechnology organized By the department of physics & Nanotechnology, SRM University, Chennai, 28th -30th January, 2019.
5. Presented a paper in International conference on Applied Science and Technology organized by SRKR Engineering College, Bhimavaram, 24th -25th January, 2018.
6. Presented a the paper in UGC sponsored two day national seminar on Renewable and Non Renewable energy sources organized by the Dept. of Physics, A.N.R College, Gudivada, 22nd – 23rd January 2018.
7. Presented a paper in UGC sponsored two day national seminar on Recent Trends in Chemical Speciation Kinetics and Nanomaterial's conducted by the Department of inorganic and analytical Chemistry, Vishakhapatnam, Andhra University, March 3rd -4th, 2017.
8. Presented the poster on in 2nd A.P Science Congress on "*Science and Technology for Health*" held at P.B Siddhartha College of Arts and Science, Vijayawada, organized by Andhra Pradesh Academy of Sciences, Amravati Association with Dr. N.T.R University of Health, Acharya Nagarjuna University, Krishna University, 14th -15th September, 2016.

Seminars /Conferences (National/International) Attended

1. Participated in UGC sponsored two day national seminar on Interface of allied Science

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Technology on Life science conducted by the Dept. of Bio-sciences & Biotechnology, Krishna University, Machilipatnam, 28th -29th February, 2020.

2. Participated in U.G.C sponsored two day National seminar on “Advances in synthesis of Nano materials and their Multidimensional applications in chemical & biosciences” organized by Dept. of Bio-Chemistry and Dept. of Chemistry, Andhra Loyola college, Vijayawada, A.P., India 14th -15th September, 2015 .
3. Participated U.G.C sponsored two day National seminar on “Characterization Techniques of Materials” organized by the Department of Nanotechnology, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur, A.P., India, 28th -29th March, 2016.
4. Participated U.G.C sponsored two day National seminar on “Need and Role of Nano Sciences in the present Era” organized by the Department of Electronics, P.B. Siddhartha College, Vijayawada, A.P., India, 7th -8th October, 2016.
5. Participated in U.G.C sponsored two day National seminar on “Trends and applications of Liquid Crystals”, organized by the Dept. of Physics, A.C. College, Guntur, A.P., India, 10th -11th September, 2015.
6. Participated in U.G.C sponsored two day National seminar on “Emerging Trends in physics” Organized by Dept. of Physics, S.V.R.M. College, Nagaram, 7th -8th August, 2015.
7. Participated in UGC sponsored two day National seminar on Empowerment of Youth –Preparing for future organized jointly by Rajiv Gandhi National Institute of youth Development, P.B. Siddharatha College of Arts and Sciences, 19th -20th March, 2015.
8. Participated in UGC sponsored two day National seminar on “Multifunctional materials Synthesis and Applications” organized by the Dept. of Physics, The Hindu College, Machilipatnam, 24th -25th January, 2015.

WORKSHOPS/FDPS/TRAINING PROGRAMS

1. Participated in One day international webinar on research insights & Publication organized by Research & Ethics Committee in association with IQAC dt. 22-2-2024.
2. Participated in One day international webinar on Promoting IPR Culture in Higher Educational Institutes, Organized by Maris Stella College, Department of Biotechnology and Food Science and Technology in association with IPR CELL & IQAC dt.09.02.2024.
3. Participated in Five Days faculty development Program on Recent Trends and Challenges in Nanomaterials Characterization Techniques organized by Department of Physics, September-2023,

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Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh, India

4. Participated in a Three day Indian national academics lecturer workshop on Physics Behind smart Materials organized by Department of Physics, Andhra Loyola College, 28th -30th March, 2022.
5. Participated in U.G.C sponsored one day National webinar on “Medical Physics in Cancer care and Radiation Protection” organized by Dept. Arts and Science, Krishna University, 18th September, 2021.

Achievements / Awards etc: 05

1. **Patent Title:** Development of zinc oxide nanoparticles induced liquid crystals for display application

Patent No: 202341057484 **Award Date:** 8/9/2023

Agency/Country: Office of the Controller General Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry, Government of India

2. **Patent Title:** Smart Security System with speech recognition

Patent No: 202341087960A **Award Date:** 12/01/2024

Agency/Country: Office of the Controller General Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry, Government of India

3. **Patent Title:** Improving the efficiency with nano-materials based Photo Voltaic Cells

Patent No: 202441027098A **Award Date:** 12/4/2024

Agency/Country: Office of the Controller General Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry, Government of India

4. **Patent Title:** Synthesis, Structural and optical studies of mixture of p-n butyl and butyloxy benzoic acid liquid Crystals dispersed with ZnO nanoparticles

Patent No: 202441033696A **Award Date:** 3/5/2024

Agency/Country: Office of the Controller General Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry, Government of India

5. **Patent Title:** ZnO dispersed 7B and 7OBA Liquid Crystals: Optical and Spectral and optical studies

Patent No: 202441034463A **Award Date:** 10/5/2024

Agency/Country: Office of the Controller General Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry, Government of India

(Name)

P.JAYAPRADA