

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

KNOWLEDGE ASSET 2022-23

Name: Dr. Venkata Sai Dasari  
Designation: Asst Professor  
Department: H&S Physics  
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Experience (in years): 12.6 Teaching: 6.1 years Research: 6.5 years, Others (if any, specify):

**1. Educational / Technical qualifications:**

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	BSc Physics, Mathematics, Chemistry	1999-2002	PCM
2	MSc Physics	2002-2004	Physics
3	PhD Physics, University of Hyderabad	2011-2017	Liquid Crystal
4	Postdoc Researcher, Pusan National University, South Korea	2018-2019	

**2. Teaching and Learning:**

- 2.1. Teaching Interests: Engineering Physics, Applied Physics, Electromagnetic Theory, Photonics, Concepts of Modern Physics, Introduction to Liquid Crystals, Probes of Condensed Matter Physics  
2.2. Novel Teaching & Learning Techniques adopted: WIT & WIL  
2.3. Involvement in curriculum updating / Design:

**3. Co-curricular and Extra-Curricular Activities**

- 3.1. Interests and Hobbies:  
Teaching  
Attending new courses and understanding research findings  
3.2. CCA/ECA Organized:  
3.3. CCA/ECA participated:  
3.4. Counseling and Mentoring Activity:  
3.5. Committees involved in:  
Department level:  
Institute Level:

**4. Conference / Workshop / Seminar / Guest Lectures:**

- 4.1 Conducted:  
4.2 Attended:

**Refresher Course:**

- 1) Attended 10 days of FDP on **Python Programming for Beginners for Learning** organized by the National Institute of Technology Warangal, 25-10-2021 to 03-11-2021.

- 2) Attended 12 days of FDP on **Digital Tools for Writing, Authoring, and Reviewing Manuscripts** organized by Electronics & ICT Academies, July 12 - 23, 2021.
- 3) Attended 5 days of FDP on **Materials for Photonic Applications** organized by Mahatma Gandhi Institute of Technology, 9<sup>th</sup>-13<sup>th</sup> Aug 2021.
- 4) **Two weeks** national level Science **Academies Refresher Course** in QM organized by St. Philomena's College, Mysore association of **three Science Academies** of India 17-31 Dec 2017.

#### International:

- 1) Attended **International Conference on Advanced Materials for Innovation and Sustainability ICAMIS-2022**, and gave an oral presentation entitled "*Optical, dielectric and elastic studies of high birefringent ambient temperature nematic liquid crystal mixtures having similar molecular cores*" held at **MLRIT** during 18<sup>th</sup> to 19<sup>th</sup> Feb 2022.
- 2) Attended **13<sup>th</sup> European Conference on Liquid Crystals**, and presented a **poster** entitled "*Orientalional order and visco-elastic properties of a room temperature discotic nematic liquid crystal*" held at **The University of Manchester** during 7<sup>th</sup>-11<sup>th</sup> Sept 2015.
- 3) Attended **International Complex Fluids Conference (CompFlu-2016)**, and presented a **poster** entitled "*Unusual temperature dependence of elastic constants of an ambient temperature discotic nematic liquid crystal*" held at **IISER Pune**, January 2-4, 2016.

#### National and other conferences:

- Attended **2nd Soft Matter Young Investigators Meeting**, and presented a **poster** entitled "*Effect of smectic short-range order on the discontinuous anchoring transition in nematic liquid crystals*", held at Pondicherry **during January 5 - January 7, 2014**.
- Attended **22<sup>nd</sup> National conference on Liquid Crystals (NCLC-22)**, and given **oral presentation** entitled "*Unusual temperature dependence of splay and bend elastic constants of a discotic nematic liquid crystal*" 21<sup>st</sup> -23<sup>rd</sup> Dec 2015 Dehradun, India.
- Attended **20<sup>th</sup> National conference on Liquid Crystals (NCLC-20)**, and presented a **poster** entitled "*Birefringence, permittivity, elasticity, and rotational viscosity of ambient temperature high birefringent nematic liquid crystal mixtures*" 16<sup>th</sup> -18<sup>th</sup> Dec 2013 Manipal, India.
- Attended **19<sup>th</sup> National conference on Liquid Crystals (NCLC-19)**, 21<sup>st</sup> -23<sup>rd</sup> Nov 2012 Patiala, India.
- Attended and presented posters in annual conferences, **Frontiers in Physics (FIP)**, conducted by School of Physics, University of Hyderabad, and Hyderabad.

### 5. Academic Contribution and Research & Consultancy:

#### 5.1. Invited Lectures:

#### 5.2. Articles / Chapters published in Books:

#### 5.3. Books published as single author or as editor:

#### 5.4. Projects Guided:

a) UG: 1 b) PG :1+3(UOH)

#### 5.5. Research Interests:

5.6. Ph.D students :

a) Enrolled:

b) Submitted:

c) Awarded:

5.7. Papers published in reviewed journals:

Recently accepted:

S.No	Title of the Paper	Journal Name Vol.No. PP	PP ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Optical, dielectric, and elastic studies of high birefringent ambient temperature nematic liquid crystal mixtures having similar molecular cores	<i>Materials Today: Proceedings (Elsevier) (Accepted June 2022)</i>	ISSN: 2214- 7853		International
2	Nonlinear Optical Studies of Citrus Fruit Synthesized Gold Nanostructures	<i>Materials Today: Proceedings (Elsevier) (Accepted June 2022)</i>	ISSN: 2214- 7853		International

5.8. Papers presented at National / International Journals: 11; H-index:6, Citations :115

S.No	Title of the Paper	Journal Name Vol.No. PP	PP ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
3	Studies on binary mixtures of nematic liquid crystals made of strongly polar molecules with identical cores and antagonistic orientation of permanent dipoles	<i>Journal Of Molecular Liquids, 312, 113410 (2020)</i>	0167-7322	<b>5.065</b>	International
4	Effect of Sm-A short-range order on the activation energies of translational and rotational viscosities of nematic liquid crystals with highly polar molecules	<i>Physical Review E 98, 062701 (2018)</i>	2470-0045	2.296	International
5	Unusual temperature dependence of splay and bend elastic constants of a discotic nematic liquid crystals.	<i>Soft Matter 12, 2960, 2016.</i>	1744-683X (print)	3.399	International

6	Experimental studies on the phase diagram and physical properties of mixture of calamitic and discotic nematic liquid crystals	<i>Liquid Crystals</i> , 43, 1884 (2016)	02678292	3.606	International
7	Effect of smectic short-range order on the discontinuous anchoring transition in nematic liquid crystals	<i>The Journal Of Chemical Physics</i> 141, 044706 (2014)	0021-9606 (print)	2.991	International
8	Structure-property correlation of bicyclohexane nematic liquid crystals	<i>Liquid Crystals</i> 42, 3, 2015.	02678292	3.606	International
9	Birefringence, permittivity, elasticity and rotational viscosity of ambient temperature, high birefringent nematic liquid crystal mixtures	<i>Liquid Crystals</i> 41, 591 (2013)	02678292	3.606	International
10	Possible enhancement of physical properties of nematic liquid crystals doping of conducting polymer nanofibres	<i>Applied Physics Letters</i> 103, 141910 (2013)	0003-6951	3.597	International
11	Novel high birefringent isothiocyanates based on quaterphenyl and phenylethynyltolane molecular cores	<i>Liquid Crystals</i> 40, 1174 (2013)	02678292	3.606	International

#### 5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

#### 5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

#### 6. Awards / Honors received:

- BK21+ International Postdoctoral Fellowship by South Korea
- Department of Science and Technology, India, International Travel Grant.
- UPE-II, University of Hyderabad, India, International Travel Grant.
- Best Poster award in Frontiers in Physics (FIP-2016)

Annual conference conducted by the University of Hyderabad.

- **CSIR/UGC-JRF Qualified**
- **All India GATE-58<sup>th</sup> Rank,**
- **All India Jest-91<sup>st</sup> Rank.**

**7. Motto:**

*A sense of curiosity is nature's original school of education*