



Department of Freshman Engineering

Faculty Profile

Name	Dr. Anil Tumuluri
Designation	Assistant Professor (Physics)
Qualification	M.Sc., Ph.D.
Academic	Ph.D; University of Hyderabad, Hyderabad.
Background	M.Sc. ; Acharya Nagarjuna University, Guntur.
Total Experience	Research Experience: 3 years (Postdoctoral Researcher, IIT Bombay) Teaching Experience: 1 year (Asst. Prof. at Sphoorthy Engineering College)
JNTUH ID	2865-220606-104204
E-Mail	anilphy84@gmail.com, anilhns@sphoorthyengg.ac.in
Linked In	https://www.linkedin.com/in/aniltumuluri/?originalSubdomain=in
Research Interest	Simulation studies on thin film Solar cells, Shape forming techniques of Dielectrics for multifold applications, Thin film Ferroelectrics for sensor applications.



Notable Publications:

- Enhanced performance of ultrathin nip and pin perovskite solar cells via light trapping: a simulation study employing Lambertian back reflector.
A Tumuluri, S Ansari, K Sasihithlu, Materials Research Express 9 (12), 125502, 2022.
DOI: 10.1088/2053-1591/aca870
- Structural, optical and femtosecond third-order nonlinear optical properties of LiNbO₃ thin films.
A Tumuluri, MSS Bharati, SV Rao, KCJ Raju, Materials Research Bulletin 94, 342-351, 2017. **DOI:** <https://doi.org/10.1016/j.materresbull.2017.06.029>

3. Fabrication of $(\text{Zr}_{0.8}\text{Sn}_{0.2})\text{TiO}_4$ dielectric resonators in arbitrary shapes
A Tumuluri, PMS Raju, KCJ Raju, V Seshubai, T Rajasekharan, Materials Letters 154, 128-131, 2015. DOI: <https://doi.org/10.1016/j.matlet.2015.04.062>
4. Cupric oxide decked few-layered graphene: synthesis and dielectric behaviour
RK Jammula, A Tumuluri, NK Rotte, KCJ Raju, V Srikanth, Carbon 78, 374-383, 2014
DOI: <https://doi.org/10.1016/j.carbon.2014.07.014>
5. Luminescence of LiNbO_3 polycrystalline ceramics: Effect of Sc_2O_3 and Lu_2O_3 doping
A Tumuluri, KCJ Raju, Ceramics international 40 (2), 3371-3377, 2013.
DOI: <https://doi.org/10.1016/j.ceramint.2013.09.095>

Patent:

1. Anil Tumuluri, Padala Missak Swarup Raju, Vummethala Seshubai, Thankappan Pillai Rajasekharan, K C James Raju, “A method for the preparation of Dielectric Resonators of arbitrary shapes” University of Hyderabad-DMRL (under evaluation) Filed for an Indian patent application no. 2305/CHE/2014.

Notable Schools attended/ Conferences/ Seminars/ FDPs:

1. DST-SERC school on “Guided wave optics and devices” at Central Glass and Ceramic Research Institute (CGCRI), Kolkata during 7th- 25th February, 2011.
2. International Conference on Nanoscience and Technology (ICONSAT-2012) at Taj Banjara, Hyderabad during 20th -23rd January, 2012.
3. International Conference and workshop on Nanostructured Ceramics and other Nanomaterials (ICWNCN-2012) at University of Delhi, Delhi during 13th -16th March 2012.
4. International Conference IUMRS-ICA-2013 at IISc. Bangalore, Bangalore during 16th – 20th December, 2013.
5. International Conference on Condensed Matter and Applied Physics (ICC-2015) at Govt. Engineering college, Bikaner, Rajasthan during 30th - 31st October, 2015.
6. Internet conference on Theory and computation of Halide Perovskite (Comper) during 08-09th September, 2020.
7. Applied Light-Matter Interactions in Perovskite Semiconductors during 05-07th October 2021.
8. Online Meeting on Perovskite, Organic photovoltaics and Optoelectronics, Spain on 24th January 2022.
9. 5-day online FDP on “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education (AICTE) from 18th July to 22nd July 2022.