**Dr. B. Vijaya Kumar Naidu** M.Sc (Tech), Ph.D.  
**Associate Professor**

Department of Material Science and Nanotechnology  
Yogi Vemana University  
Kadapa-516005, Andhra Pradesh, India

**Qualification**

Ph.D. (2002) - Polymer Science & Technology, Sri Krishnadevaraya University, Anantapur-515 003, India.

**PDF/Teaching Experience**

* Associate Professor, Department of Materials Science & Nanotechnology, Yogi Vemana University, Kadapa from 21st July 2021 to till date
* Assistant Professor, Department of Materials Science & Nanotechnology, Yogi Vemana University, Kadpa: from 21st July 2009 to 20th July 2021
* Postdoctoral Fellow, Dalhousie University, Canada: Aug 2007 to July 2009.
* Postdoctoral Fellow, Pusan National University, South Korea: May 2005 to Apr 2007.
* Research Associate, Karntak University, Dharwad, India: Mar 2003 to Apr 2005.

**Administrative Experience**

* + Worked as Coordinator, Department of Materials Science and Nanotechnology, Yogi Vemana University, Kadapa
  + Worked as Member, Central Purchase Committee, Yogi Vemana University, Kadapa.
  + Worked as Core committee for SSR preparation of NAAC 1 cycle
  + Worked as Associate Director, Directorate of Admissions, Yogi Vemana University.
  + Worked as Coordinator, Transport Section, Yogi Vemana University, Kadapa.
  + Working as Coordinator, RUSA, Yogi Vemana University, Kadapa from Oct 2017 to till date
  + Working as Coordinator, College Development Council, Yogi Vemana University, Kadapa from Sep 2020 to till date
  + Working as Chairman, Board of Studies, Dept of Materials Science and Nanotechnology Yogi Vemana University, Kadapa from Mar 2022 to till date.

**Research Projects**

* + Hydrophilic-hydrophobic based polymeric membranes for pervaporation separation applications | Department of Science and Technology (D.S.T), Govt. of India, New Delhi | Rs. 17.63 Lakhs | 2011 to 2014.
  + Nanostructured TiO2 Incorporated Polymer Nanocomposite Membranes for Pervaporation Separation Applications | University Grants Commission (U.G.C.), Govt. of India, New Delhi | Rs. 9.63 lakhs | 2013 to 2016.

**Research Students**

***Ph.D Awarded***

* + S. Siva Sankar | Development of different polymer system for drug delivery and separation applications | Dec 2016.
  + B. Venkataramana | Development of metal/metal oxide nanoparticles for biomedical applications | Jan 2019.
  + Sai Kumar | Development of Carbon based nanostructures/TiO2 based DSSCs for Improved Efficiency | Aug 2020.

***Ph.D Pursuing : 03***

**Achievements / Awards: 02**

* Awarded UGC-Raman Postdoctoral Fellowship (Apr 2014) to worked at USA for 1 year.
* DST Young Scientist Award (March 2011).

Patents: 01 (Korean)

Research Publications in National & International SCI Journals: 65

(In reputed journals such as Pharmaceutics, Journal of Drug delivery Science and Technology, Cancers, J of Nanomaterials, Solar energy and solar cells, Jof membrane science, J of Polymer Science Part A, Materials Letters, J. Physical Chemistry etc)

Google Scholar Citations: <https://scholar.google.com/citations?user=CQNT8p0AAAAJ>

Number of Book Chapters (National / International): 1

Number of Books Published (National / International): Nil

Number of Conference / Symposia Organized: 01

Number of Conference / Symposia Attended: 50

Membership in Prestigious Academic Bodies

**• Life member, Polymer Society of India, Madras Chapter.**

**Reviewed Research Papers of Various Scientific Journals**

• Journal of Applied Polymer Science, Materials Letters, Inorganic and Nano metal Chemistry, Journal of Chemical and Pharmaceutical Research.

**Ph.D. Thesis Adjudication**

Ph.D thesis submitted to Andhra University, Vishakhapatnam and Mysore University were adjudicated.

**Research Areas**

*Polymer based carrier for separation and bio medical applications:*

In this area, my lab is focused on the development of various natural polymer matrices and their composites with metal and metal oxide especially in the form of films, micro and nanoparticles. These developed film shape matrices were tested for their ability in separating aqueous azeotropic mixtures using membrane based pervaporation technique. Polymer and composite fabricated in the form of beads, gels, and particles were used as carrier in delivering various drugs and bio molecules. In addition, composite materials were also tested for their catalytic and anti microbial activity.

*CNT based dye sensitized solar cells:*

We are focused on developing CNT based photoanode materials for use in the dye sensitized solar cells using ruthenium based dyes. Further, we are working on using various polymeric materials as contiguous phase in bring the developed semiconductor photoanode compiste together in the form of film using doctor blade method.

**Contact**

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