Name: **Dr. (Ms.) GVN Rathna**

Division: Polymer Science and Engineering

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Education and experience

- Ph. D in Chemistry.
- Post graduate diploma in Patent Law.
- Postdoctoral Fellow, University of Wisconsin, Madison USA.
- Postdoctoral Fellow, National Tsing Hua University, Taiwan.
- Research experience more than 15 years.

Achievements

- **Postdoctoral fellowships (3 No.), USA**
- **Best student award (honorable mention), USA**
- **National Scientific Council Award, Taiwan**
- **Second best poster award (International Conference, SAMPADA 2008, Pune).**
- **~ 16 publications in reputed international journals.**

Research subjects:

- Polymer Science and Engineering
- Materials Science (biomaterials)
- Physical Chemistry/Organic Chemistry/Inorganic Chemistry
- Biotechnology

Research Areas

- Polymer synthesis, functional modifications of polymers, synthesis of polydrugs.
- Stimuli responsive hydrogels, blends, and nanocomposites.
- Nanogels, nanofibers, micro/nanomaterials, gels, nano-scaffolds, for solar cell applications, Patterns for tissue engineering by lithography.
- Biomedical applications, (tissue engineering, drug release, super absorbents, wound dressing).
- Molecular imprints and Ligand immobilized polymers for metal extraction.

Recent publications

- GVN Rathna "Gelatin hydrogels: enhanced biocompatibility, drug release and cell viability", **Journal of material Science: Materials in Medicine** 19, 2351–2358, (2008) .
- Rathna Gundloori and et al , "Bifunctional-modified hydrogels", **US patent No**. 7615593, (2010).
- GVN Rathna and et al "Development of Non-woven Nanofibers of Egg Albumen – Poly (Vinyl Alcohol) Blends: Influence of Solution Properties on Morphology of Nanofibers", **Polymer Journal** (**Nature publishing group**) 43, 654- 661 (2011).
- GVN Rathna and et al "Studies on Fabrication, Characterization and Copper Extraction using Metal Chelating Non-woven Nanofiber Mats of Poly (vinyl alcohol) and Sodium Alginate Blends", Polymer Engineering and Science**, 52, 321-333, 2013**.