- **Course Syllabus**

B.Sc (Physics)-1st Year	Semester - I	Mechanics
	Semester - II	Thermal Physics
B.Sc (Physics)-2nd Year	Semester - III	Electromagnetic Theory
	Semester - IV	Waves and Optics
B.Sc (Physics)-3rd Year	Semester - V	Modern Physics
	Semester - VI	Electronics
B.Sc (Electronics)-1st Year	Semester - I	Circuit Analysis
	Semester - II	Electronic Devices
B.Sc (Electronics)-2nd Year	Semester - III	Analog Circuits
	Semester - IV	Linear Integrated Circuits and Basics of Communication
B.Sc (Electronics)-3rd Year	Semester - V	Digital Electronics and Microprocessor
	Semester - VI	Microcontroller and Applications
M.Sc (Physics)-1st Year	Semester - I	Mathematical Physics Classical Mechanics Solid State Physics Analog and Digital Electronics
	Semester - II	Statistical Mechanics Quantum Mechanics-I Integrated Circuits & Analog Modulation MATLAB and Applications
M.Sc (Physics)-2nd Year	Semester - III	Quantum Mechanics- II Nuclear Physics Microprocessor –8086 Electronic Communication Systems

Semester - IV	Electromagnetic theory and Optics Molecular and Resonance Spectroscopy Microcontrollers and Applications Satellite and Mobile Communications

- **Publications**

Publications of Dr G. RajaPrasad

Dr. G. Raja Prasad, Head of the Department, has made significant contributions to research by publishing several research articles in prestigious international and national publications. In addition, he has taken an active role in scholarly conferences and symposiums.

In the of a Solid State Symposium proceedings, he delivered a research article.

Additionally, in 2024, he participated in the Kakatiya University-hosted National Conference on Advanced Materials in Nanoscience and submitted a research paper.

He also delivered a paper at a national conference “Advances in solid state materials-December-2004” hosted by Andhra University at its Nuzivid PG Centre in Krishna District.

He also gave a talk at the Osmania University Hyd-organized national conference "Advances in thermo nuclear materials and utilities-sept-2002"

He published a paper at the University of Mysore's International Conference on Advances in Radiation and Materials in October 1999.

Publications of Dr M. Narasimha Murthy

1. Self-protective Antibacterial and Hydrophobic ZnO Thin Film Coatings [*Indian Journal of Pure & Applied Physics, SCIE Indexed journal*]. https://doi.org/10.56042/ijpap.v63i1.14282

2. Sol–gel auto combustion synthesis of ZnO nanoparticles fabricated with Eucalyptus honey and Longan honey as combustion fuels for water treatment [*Chemical Papers, SCI indexed journal, Impact factor =2.2*] https://doi.org/10.1007/s11696-024-03721-x

3. Impact of blending of solvents on structural and surface morphological properties of Sol-Gel Synthesized ZnOnano-thin films [*Rasayan Journal of Chemistry, Scopus Indexed*]http://doi.org/10.31788/RJC.2023.1628291

4. Sol-Gel synthesized ZnO thin films doped with Rb and Al for self-cleaning antibacterial applications [*Journal of Sol-Gel Science and Technology(JSST), SCI indexed journal, Impact factor =2.6*] https://doi.org/10.1007/s10971-023-06044-7

5. Fabrication and the impact of Fe and Al substitution on structural, morphological, vibrational and optical properties of Fe: Al co-doping zinc oxide nanostructured thin films developed by Arduino-based spin coating device. [*Materials Today Proceedings, Scopus Indexed*]https://doi.org/10.1016/j.matpr.2021.12.215

6. The effect of solution pH on the structural, surface morphological, and optical characteristics of ZnO thin films synthesized by the chemical bath deposition technique. [*Materials Today Proceedings, Scopus Indexed*]https://doi.org/10.1016/j.matpr.2021.10.093
7. Designing Low-Cost Arduino Powered Spin Coater for Thin Film Deposition [*Advanced Materials Research, UGC Care list Group-I*]https://doi.org/10.4028/p-g184d4
8. Study of structural, morphological, optical, and luminescence properties of nickel oxide thin-film synthesized by dip-coating technique. [*Materials Today Proceedings, Scopus Indexed*]https://doi.org/10.1016/j.matpr.2021.11.378
9. Effect of Annealing Temperature Variation on Al-Doped Nickel Oxide Thin-Film Synthesized by Dip-Coating Technique [*Solid State Phenomena – Scopus Indexed*]https://doi.org/10.4028/p-mns91s
10. Sol-gel synthesized copper oxide (CuO) Nanoparticles and their photocatalysts and antibacterial applications [*Rasayan Journal of Chemistry – Scopus Indexed*]http://doi.org/10.31788/RJC.2023.1618663

Publications of M. Gopi Krishna

1. Sol-gel synthesized copper oxide (CuO) Nanoparticles and their photocatalysts and antibacterial applications [*Rasayan Journal of Chemistry – Scopus Indexed*]http://doi.org/10.31788/RJC.2023.1618663
2. Self-protective Antibacterial and Hydrophobic ZnO Thin Film Coatings [*Indian Journal of Pure & Applied Physics, SCIE Indexed journal*]. https://doi.org/10.56042/ijpap.v63i1.14282
3. Sol–gel auto combustion synthesis of ZnO nanoparticles fabricated with Eucalyptus honey and Longan honey as combustion fuels for water treatment [*Chemical Papers, SCI indexed journal, Impact factor =2.2*] https://doi.org/10.1007/s11696-024-03721-x