

ONGOING RESEARCH



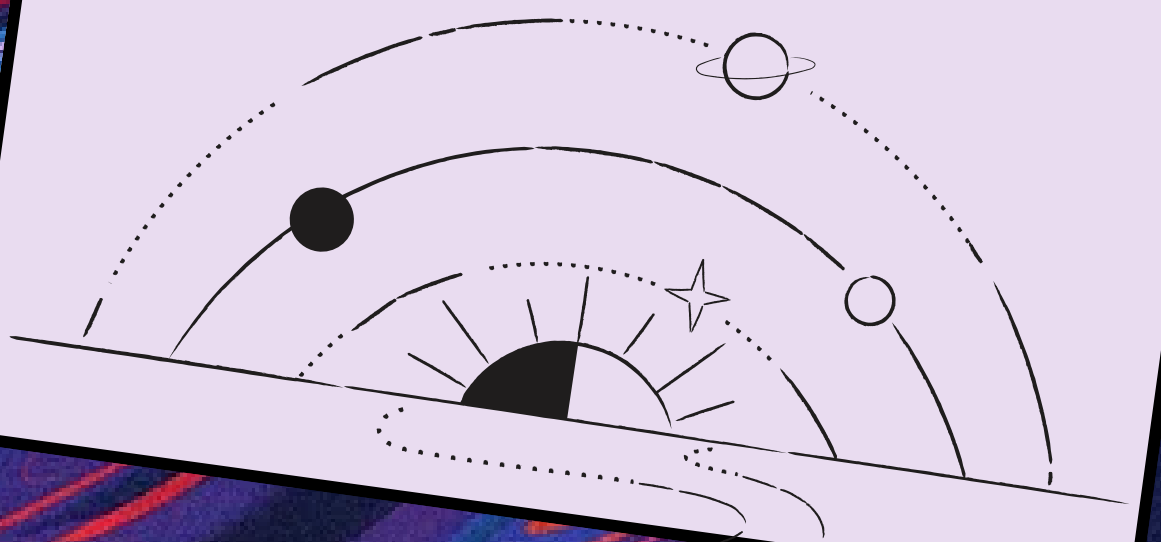
CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

1. Energy harvesting and storage.
2. Synthesis and modification of different nanomaterials like carbon dots, carbonized polymer dots and polymer composite for biomedical applications.
3. Sensing (Fluorescent/Electrochemical)-
Working on different nanomaterials centred on wide range of applications like heavy metal ions sensing, and anticounterfeiting.
4. Developing of low-cost nano-catalyst for energy and environmental applications.
5. Synthesis of carbon based nanomaterials and their applications in fuel cells and supercapacitors.
6. Hybrid perovskite nanocrystals.
7. Synthesis of ZnO-ZnS semiconductor nanoparticles



Astrophysics

1. Theoretical astrophysics and cosmology, including studies on dark matter, dark energy, possible alternate models of gravity, and gravitational wave physics.
2. Determination of emission-line stars in open clusters.
3. Unveiling the globular cluster systems of early-type galaxies using wide-field imaging.
4. X-ray Astronomy.
5. Broadband Spectral and temporal studies of X-ray binaries.
6. Multi-wavelength studies of active galactic nuclei and blazars.
7. Spectral variability of ultra-luminous X-ray sources.



Material Science