



# Sree Narayana College Chempazhanthy

**NAAC Accreditation - (Cycle: 3) with Grade A**  
**Ranked 36 in KIRF Ranking by KSHEC**



## Department of Physics FYUGP 2025



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# **BSc Physics**

## **(Space Physics as Elective)**

- **BSc Physics : 3 years**
- **BSc Physics Honours : 4 years**
- **BSc Physics Honours with Research\*:  
4 years**
- **Fast track pathway: n-1 Semesters**

### **Department Highlights**

- **Well Qualified and Experienced Faculty**
- **Excellent Library and Laboratory Facilities**
- **ICT enabled classrooms**
- **Add-on Courses**
- **Research Guidance**



**\*subject to the final decision of authorities**

## *Courses offered\*:*

### **Semester : 1**

#### **Discipline Specific Core Courses**

**Major : Foundation Course in Physics 1**

**Minor: Principles of Dynamics**

**Properties of Solids**

**Introduction to Mechanics and Energy resources**

**Multi Disciplinary Course: Elementary Data Analysis**

### **Semester : 2**

#### **Discipline Specific Core Courses**

**Major : Foundation Course in Physics II**

**Minor: Electricity, Magnetism and Acoustics**

**Optics and Thermodynamics**

**Modern Physics**

**Multi Disciplinary Course:**

**Basics of Artificial Intelligence**

**Beyond the Sky**

### **Semester : 3**

#### **Discipline Specific Core Courses**

**Major : Basic Electronics**

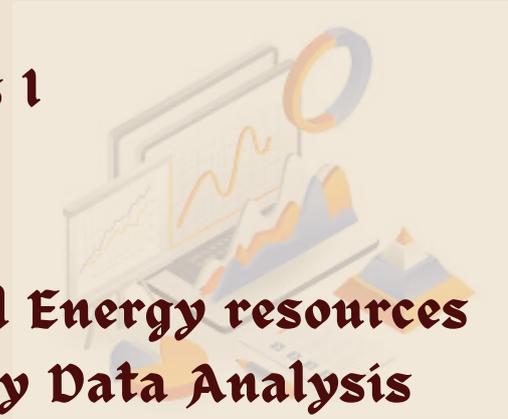
**Minor: Digital Electronics and Data Science.**

**Solid State Physics and Spectroscopy**

**Heat, Magnetism and GeoPhysics**

**Discipline Specific Elective Course:**

**Fundamentals of Astrophysics**



## *Courses offered\*:*

**Semester : 4**

**Discipline Specific Core Courses**

**Major : Classical Dynamics**

**Electromagnetics and Transient Currents**

**Discipline Specific Elective Course:**

**Solar Terrestrial Physics**

**Value Addition Courses:**

**Research and Publication Ethics**

**Disaster management**

**Skill Enhancement Courses:**

**Basic Instrumentation Skills**

**Wiring and Electrical Devices**

**Summer Internship**

**Semester : 5**

**Discipline Specific Core Courses**

**Major : Optics**

**Quantum Mechanics 1**

**Thermodynamics & Statistical Mechanics**

**Discipline Specific Elective Course:**

**Solar and Plasma Physics**

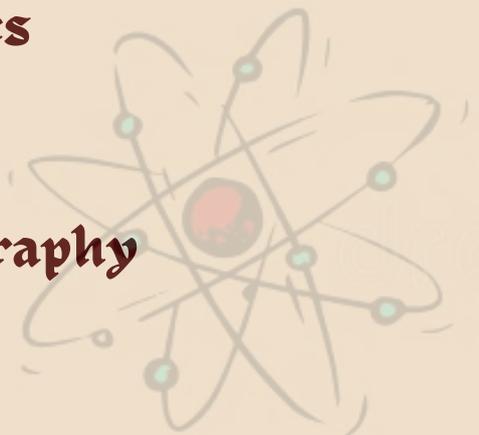
**Research Methodology**

**Skill Enhancement Courses:**

**Optics in Digital Photography**

**Programming in Java**

**Programming in Python**



## *Courses offered\*:*

**Semester : 6**

**Discipline Specific Core Courses**

**Major : Atomic and Molecular Physics**

**Nuclear and Particle Physics**

**Solid State Physics**

**Discipline Specific Elective Course:**

**Ionosphere and Magnetosphere**

**Computational Physics**

**Numerical Methods in Physics**

**Skill Enhancement Courses:**

**Scientific writing**

**Computer Hardware and Assembling**

**Fibre Optic Technology**

**PCB Making and Designing**

**Semester : 7**

**Discipline Specific Core Courses**

**Major : Advanced Mathematical Physics**

**Quantum Mechanics II**

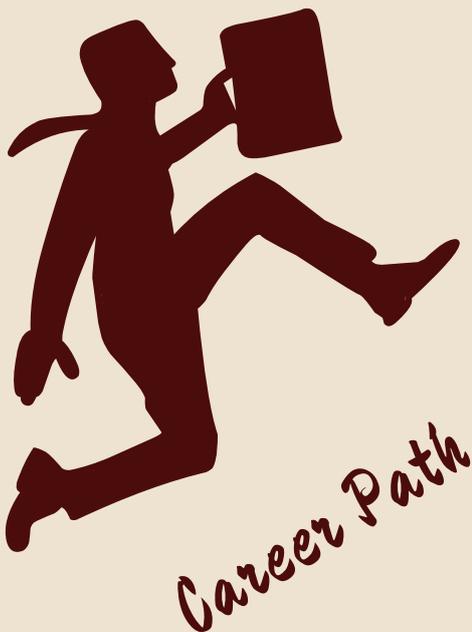
**Discipline Specific Elective Course:**

**Frontiers of Space science Technology and  
Programming**

## *Courses offered\*:*

**Semester : 8**  
**Capstone Internship**  
**Research Project**

**Add-on Courses**  
**Astronomy**  
**Data Analysis with**  
**Microsoft Excel**



- **Researchers**
- **Academicians**
- **Civil Services**
- **Scientific Assistants**
- **Geophysicists**
- **Space Research Organisations**
- **State and Central Government Services**
- **Data Scientist**

## **Our team**



**Dr Aranya S M.Sc., B.Ed., Ph.D.**  
**Assistant Professor & HOD**  
**Former Member, PG Board of Studies,**  
**Research Guide, University of Kerala**



**Jayasree K M.Sc., M.Phil.**  
**Assistant Professor**



**Ramesh Chandran B R M.Sc., B.Ed.**  
**Assistant Professor**  
**Former Member, PG Board of Studies**



**Aiswarya Mol N S M.Sc., B.Ed.**  
**Assistant Professor**

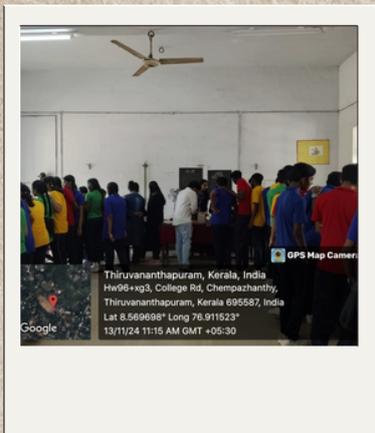
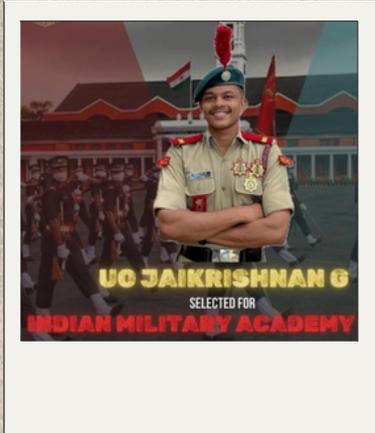
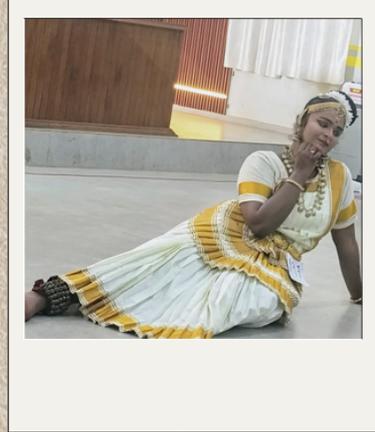


**Dr Vipin C Bose M.Sc., B.Ed., M.Phil., Ph.D.**  
**Assistant Professor**



**Shyama M S**  
**Lab Assistant**

# 2024-2025



*Our students Our pride-  
the heart and soul of all we do.*