

**DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE (SHIFT – II)  
(AUTONOMOUS)**



**Re-accredited with A++ Grade by NAAC**

**College with Potential for Excellence, Linguistic Minority Institution  
Affiliated to University of Madras, Arumbakkam, Chennai – 600106**

**POSTGRADUATE DEPARTMENT OF PHYSICS  
(UNAIDED)**



**2023-2024**

**Email ID: [hod-physics-eve@dgvaishnavcollege.edu.in](mailto:hod-physics-eve@dgvaishnavcollege.edu.in)**

# ABOUT THE DEPARTMENT

- The Department of Physics is dedicated to excellence in teaching and is committed to serve the students community.
- *Degree in Bachelor of Science in Physics with Computer Applications (B.Sc. PCA)*
- *Masters of Science in Physics*
- The Department aims to provide students with a strong foothold in fundamental concepts of physics as well as to enhance their experimental, theoretical and programming and professional skills



# VISION

- *To impart value based quality academia, to empower students with wisdom and to charge them with rich Indian tradition and culture.*
- *To invoke the self, to broaden the same towards Nation building, harmony and Universal brotherhood*



# MISSION

- *To impart knowledge, enable the students acquire skills and imbibe values, develop their personality, mold their character.*
- *To evoke a sense of empathy and social concern and thereby help them evolve into humane and responsible citizens.*

# Salient Features of the Department

- *Highly qualified faculty*
- *Infrastructure facilities*
- *Value added courses*
- *Career guidance and counseling*
- *Placements*
- *Industrial visits, Environmental field trips*
- *Summer Internship for PG students*
- *An Intercollegiate event RADIATE provides a platform for inter-collegiate events every year*
- *Meetings with Alumni is a regular program of the department.*
- *The department organizes Workshops, Seminars, guest Lecturers to keep the students updated about the latest developments in the field of Physics*
- *Soft skill Development to enhance Employability*
- *Exhibition and Competitions of working models carried out by students*
- *Magazine named “ILLUMINATE” put up by the students*

# B.Sc. PHYSICS WITH COMPUTER APPLICATIONS

## Physics Core Papers

### I year

#### I Semester

- *Physics Core Paper I Mechanics & Properties of Matter*
- *Physics Core Practical – I*

#### II Semester

- *Physics Core Paper II Basic Electronics*
- *Physics Core Practical - II*

### II Year

#### III Semester

- *Physics Core paper III - Mathematical Physics*
- *Physics Core Paper IV - Electricity and Electromagnetism*
- *Physics Core Practical –III*

#### IV Semester

- *Physics Core Paper V Optics*
- *Physics Core Paper VI Quantum Mechanics*
- *Physics Core Practical –IV*

### III Year

#### V Semester

- *Physics Core Paper VI I Thermal Physics and Acoustics*
- *Physics Core Paper VI I I Solid state Physics*
- *Discipline Specific Elective I Integrated Electronics*
- *Physics Core Practical V General*
- *Physics Core Practical VI Basic Electronics*
- *Physics Core Practical VII Applied Electronics*

#### VI Semester

- *Physics Core Paper IX Nuclear and Particle Physics*
- *Physics Core Paper X Atomic Physics*
- *Discipline Specific Elective II - Microprocessor Fundamentals*
- *Physics Core Practical VIII General*
- *Physics Core Practical IX Basic Electronics*
- *Physics Core Practical X Applied Electronics*

## Computer Core Papers

#### III Semester

- *Computer Core paper I Web design*
- *Computer Core practical I : Web design Lab*
- *Computer Core Paper II Object oriented Programming using C++*
- *Computer Core practical II Object oriented Programming using C++*

#### IV Semester

- *Computer Core paper III Operating System*
- *Computer Core Paper IV Database Management System using Visual Basic*
- *Computer Core Practical III RDBMS using VB*

#### V Semester

- *Computer Core Paper V Programming in Java*
- *Computer Core practical IV - Java Programming*

#### VI Semester

- *Digital Electronics*

# M.Sc. PHYSICS

## *I year*

### *First Semester*

- *Mathematical Physics I*
- *Classical Mechanics*
- *Electromagnetic Theory*
- *Advance Electronic Circuits*
- *Core Practical I General*
- *Core Practical II Electronics*

### *Second Semester*

- *Mathematical Physics II*
- *Quantum Mechanics I*
- *Elective I –General theory of relativity, group theory, Spectroscopy*
- *Advanced Course I -Introduction to Microprocessor 8085 and Microcontroller 8051*
- *Core Practical III General*
- *Core Practical IV Electronics*

## *II Year*

### *Third Semester*

- *Statistical Mechanics*
- *Quantum Mechanics II*
- *Elective II – Medical Physics, Relativistic quantum Mechanics, Laser & Non-Linear Optics*
- *Elective III – Computational methods and C Programming*
- *Core Practical V Microprocessor 8085*
- *Core Practical VI Computational Methods and C Programming*

### *Fourth Semester*

- *Condensed Matter Physics*
- *Nuclear and Particle Physics*
- *Advanced Course II -Material Synthesis and Characterization*
- *Core Practical VII Microcontroller 8051*
- *Core Practical VIII Computational Methods and C Programming*

# Industrial Visit and EVS trip





# MEMORANDUM OF UNDERSTANDING (MoU)

Dwaraka Doss Goverdhan Doss Vaishnav College,  
Arumbakkam, Chennai  
AND

Aptitude Buster, Erode, India  
Astrone Solutions and Services, Chennai, India  
Sindhuja Academy for Science and Maths, Chennai, India  
Ingu's Knowledge Academy Pvt. Ltd.  
SkillsDA, Chennai, India, Floranix, Chennai, India



**Aptitude Buster**



**Astrone Solutions and Services**



**Sindhuja academy for science and maths**



**Skillsda**

# Activities of the Department

## Seminar

## Guest lecture



# Student Welfare Activity – Yoga For Youth Empowerment



# Activities of the Department

## Parents Teacher Meeting      Alumni Meet



## State Level Science Exhibition To Commemorate National Science Day “Atoms in the service of Mankind”

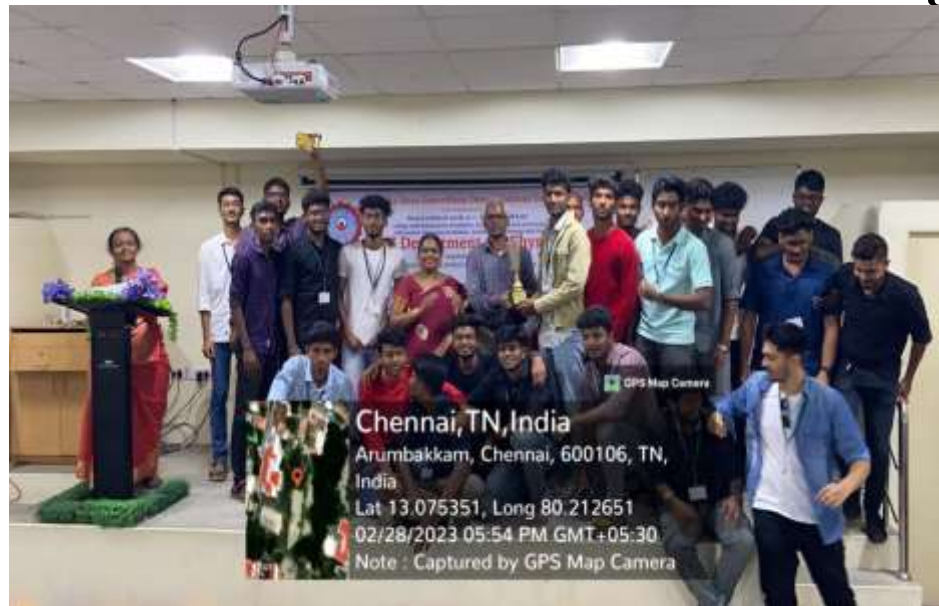


# Activities of the Department

## National Level Workshop on DFT Calculation and Nanomaterial Characterization Techniques



## Radiate 2023 - Intercollegiate Event



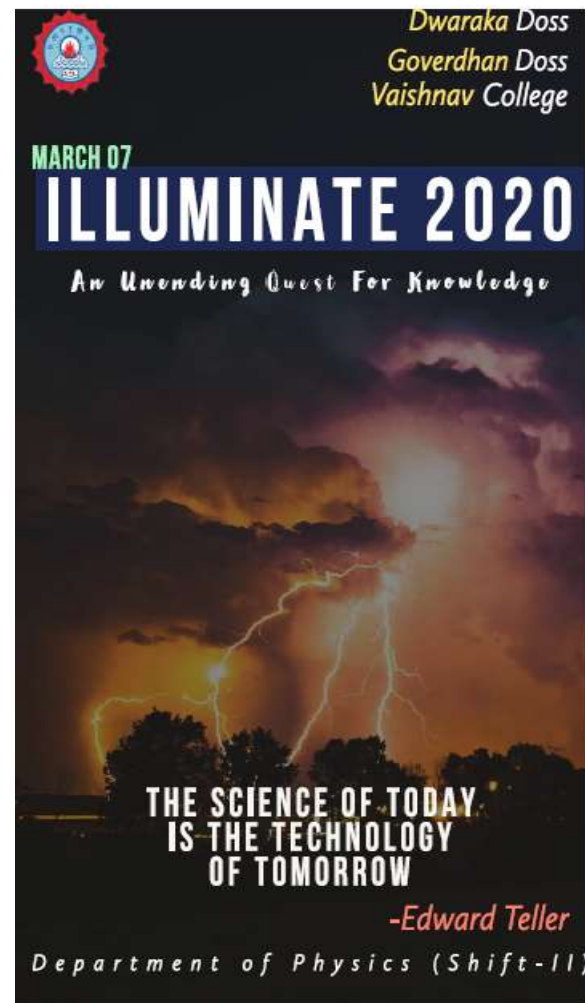
# Infrastructural Facilities

Computer  
Lab with  
Internet

Classrooms-  
ICT



# Department Magazine



# Head i/c

*Dr. B. Sylaja, M.Sc., M.Phil., Ph.D.*

## Faculty Members

*Dr. Z. Delci, M.Sc., M.Phil., Ph.D.*

*Lt. Dr. P. Arularsan, M.Sc., Ph.D.*

*Dr. C. Ramathilagam, M.Sc., M.Phil., Ph.D.*

*Dr. Chinnammal Janaki, M.Sc., M.Phil., Ph.D., PGDCA*

*Ms. Gomathy, M.Sc.*

*Dr. B. Santhosh Kumar, M.Sc., Ph.D., SET*

*Dr. K. Annaporani, M.Sc., Ph.D.*

*Dr. S. Muniyappan, M.Sc., M.Phil., Ph.D.*

*Ms. K. Laavanya, M.Sc., M.Phil.*

# Contact Us

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*Towards a brighter  
future for all  
students*

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