



DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE

(Autonomous)

Arumbakkam, Chennai - 600106, Tamil Nadu, India

College with Potential for Excellence

(Linguistic Minority Institution)

Affiliated to the University of Madras

Under the Management of Shri Vallabhacharya Vidya Sabha

PROSPECTUS 2021-2022

Department of Physics (Unaided)



ABOUT THE DEPARTMENT

The Department of Physics is dedicated to excellence in teaching and is committed to serve the students' community. The Department offers a Degree in Bachelor of Science in Physics with Computer Applications (B.Sc. PCA) since 2011 and Masters of Science in Physics since 2000. The Department aims to provide students with a strong foothold in the fundamental concepts of Physics as well as to enhance their experimental, theoretical, programming and professional skills.

VISION

- To provide in-depth understanding of principles and concepts of Physics.
- Proficiency in theoretical and experimental Physics.
- To enhance the students' knowledge in basic and Applied Physics.
- To inculcate an aptitude for a research career in academia or industry.

MISSION

- To impart quality education in Physics.
- Motivate them to realize their dreams
- Pursue a career in Physics
- Confidence to effectively disseminate their knowledge in Physics to coming generations.
- To develop the capacity and know-how to apply principles/laws of Physics to solve problems.
- The ability to do and interpret the data obtained in experiments.
- To apply the Physics knowledge for sustainable development useful for society.
- To assume responsibility and always practice ethical principles.
- To function effectively as an individual as well as in a team.

Programmes Offered

B.Sc. Physics with Computer Applications

Eligibility:

Pass in the Higher Secondary Examinations (Academic or Vocational Stream) conducted by the Government of Tamil Nadu (or) an Examination accepted as equivalent there of by the Syndicate of the University of Madras with Mathematics/Physics as a subject of study.

M.Sc. Physics

Eligibility:

B.Sc. Physics with Mathematics as ancillary subject
(or)

B.Sc. Triple major with Physics, Chemistry and Mathematics
(or)

B.Sc. (Applied Science/Applied Physics) with Mathematics as an ancillary subject and Physics as major.

Candidates should have a B.Sc. Degree with Physics and Mathematics with a minimum of 60% marks.

B.Sc. Physics with Computer Applications

B.Sc.(PCA) a 3-year programme, is a bridging block for the graduates to understand and orient themselves into two major courses namely Physics and Computer Science. The Degree is two pronged allowing them to pursue a career either in Physics or Computer Science. The curriculum is designed to become a competent professional.

Students will be taking up the following courses

First Year:

- Mechanics & Properties of Matter
- Basic Electronics
- Core Practicals - I

Second Year:

- Mathematical Physics
- Electricity and Electromagnetism
- Optics
- Quantum Mechanics
- Core Practicals - II

Third Year:

- Thermal Physics & Acoustics
- Solid State Physics
- Nuclear and Particle Physics
- Atomic Physics
- Electives - I and II
- Core Practicals III, IV and V

For more details about the syllabus, please visit

<https://www.dgvaishnavcollege.edu.in/programs/science/department-of-physics-self-financing/>

M.Sc. Physics

M.Sc. (Physics) is a 2-year course with 4 semesters. The Postgraduate programme involves in-depth study of concepts in both theoretical and experimental physics. This programme gives students a scope of developing their problem solving, mathematical, communication skills and critical thinking, which further broadens into interpreting scientific data that is essential for scientific research.

The programme comprises the following courses

First Semester:

- Mathematical Physics I
- Classical Mechanics
- Electromagnetic Theory
- Advanced Electronic Circuits

Third Semester:

- Statistical Mechanics
- Quantum Mechanics II
- Materials Synthesis and Characterization
- Elective - II

Second Semester:

- Mathematical Physics II
- Quantum Mechanics I
- Introduction to Microprocessor 8085 and Microcontroller 8051
- Elective - I
- Practicals I & II

Fourth Semester:

- Condensed Matter Physics
- Nuclear & Particle Physics
- Computational Methods and C programming
- Practicals III & IV

For more details about the syllabus, please visit

<https://www.dgvaishnavcollege.edu.in/programs/science/departments/physics-self-financing/>

SALIENT FEATURES OF THE DEPARTMENT

- Highly trained staffs
- State of the Art Infrastructure Facilities
- Department Library
- Computing facility (26 computers, 100 Mbps internet and WiFi connectivity)
- Scholarships to Students
- Career Guidance & Counselling
- Soft Skill Development to enhance Employability
- Industrial Visits / Scientific organisations for the PG students
- Summer Internship Program for PG students
- An exhibition/competition of Working models carried out by UG Students
- A field trip for UG students to understand the environmental issues of the society.
- Placement and Training Cell
- Physics association 'RADIATE" provides a platform for inter-collegiate activities ever year.
- A Magazine named 'ILLUMINATE' put-up by the students.
- A Physics Club "STARSTRUCK" under the Department of Physics encourages students of the Department to carry out academic and non-academic extra-curricular activities.
- Cultural Secretary and General secretary are elected from B.Sc (PCA) and M.Sc. (Physics) to manage departmental activities.
- The Department organizes workshops, webinars, academic seminars, to keep the students updated with the latest developments in the field of Physics.

Faculty Members



Advisor & Head

Dr.D.Shyamala, M.Sc., M.Phil., M.E., Ph.D

Faculty Members

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

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

Lt. Dr. P. Arularasan, M.Sc., Ph.D.

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

Dr. M. Amudha, M.Sc., M.Phil., Ph.D., SET

Ms. K. Gomathi, M.Sc., B.Ed., M.Phil., SET

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

Mr. K. Saikumar, M.Sc., M.Phil., SET

Mr. J. Pragadeesh, M.Sc., M.Phil., SET

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

Photo Gallery

Invited Talks



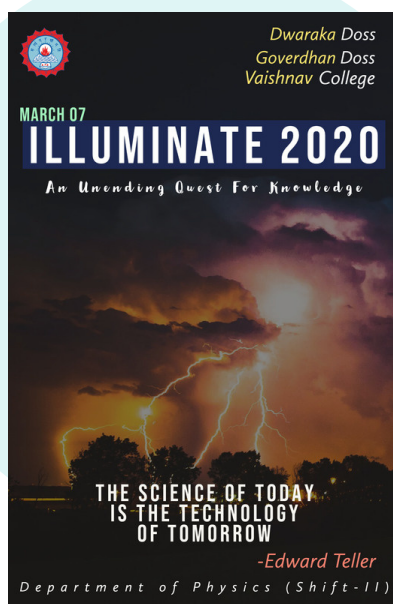
Seminar by Dr.Senthilvelan



Seminar by Dr.M.V.Sathyanarayana

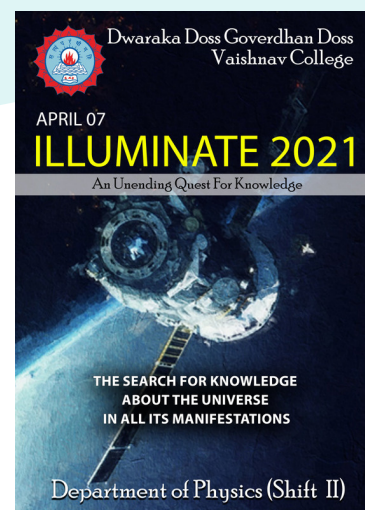


Lecture Series on “Unravelling Quantum Mechanics”



Magazine

Student's Magazine



Workshops



State Level Workshop on Molecular Docking

Annular Solar Eclipse, a Celestial Approach



Industrial Visit



Industrial Visit to Kaynes Technology, Mysore

Field Visit

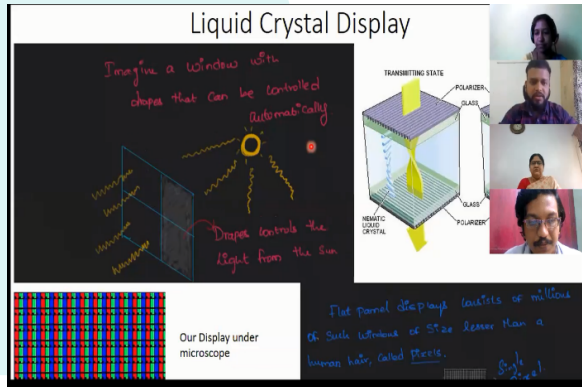


Field Visit to Micro Composting Centre and Bio Mining work at Pallikaranai old dump site for the EVS field visit

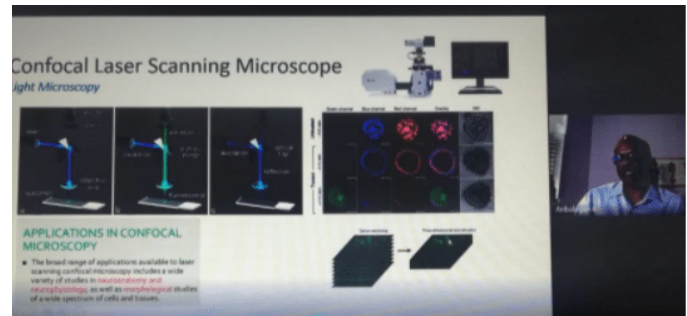
Intercollegiate Competition “Radiate 2020”



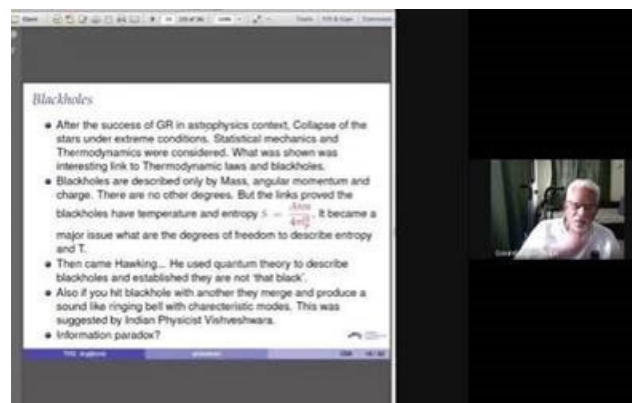
Webinars



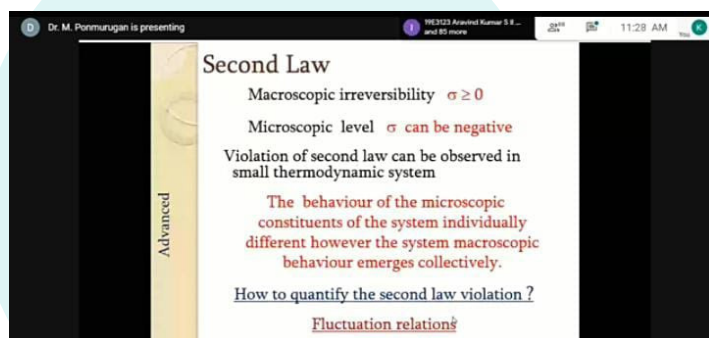
Liquid Crystals – Technology and Current Trends



Windows to the Micro World – Microscope Overview



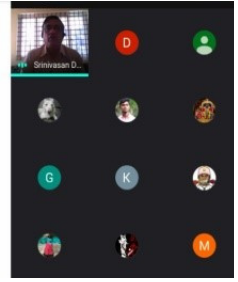
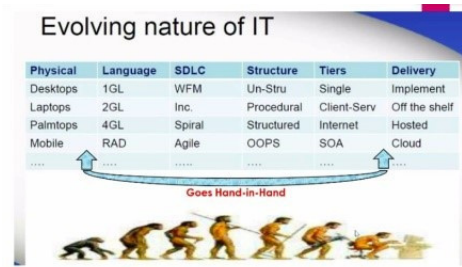
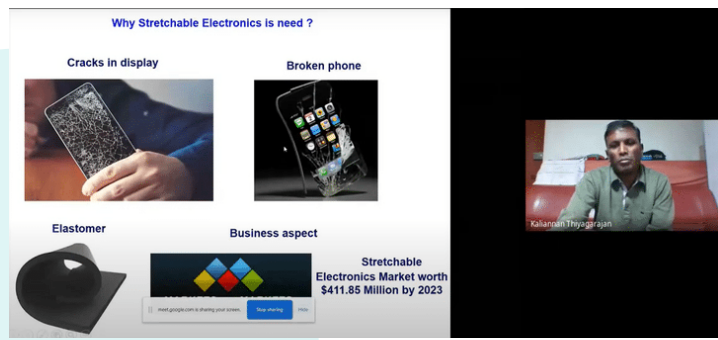
Twentieth Century Physics



Views on Laws of Thermodynamics

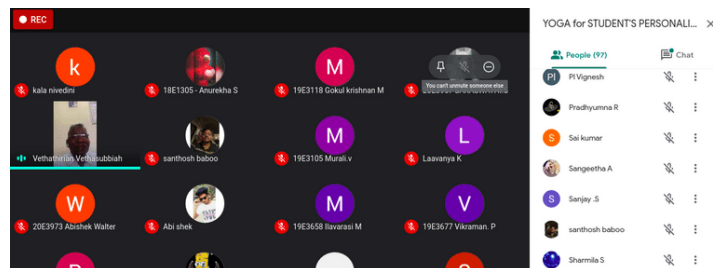


Well-being: Physical and Mental



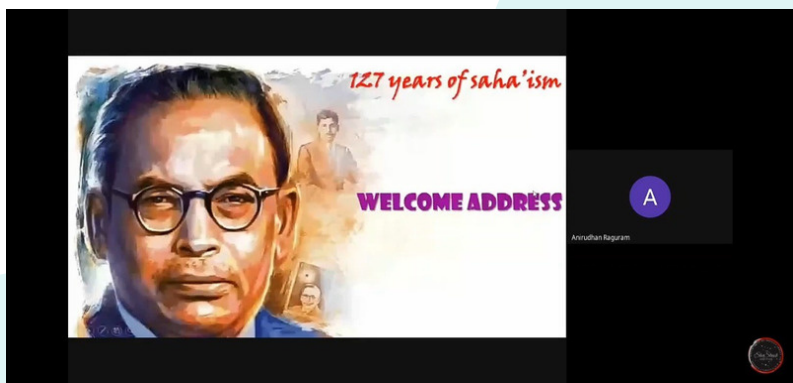
Two Dimensional Nanosheets for Flexible and Stretchable Electronics

Past, Present and Future trends in IT Applications

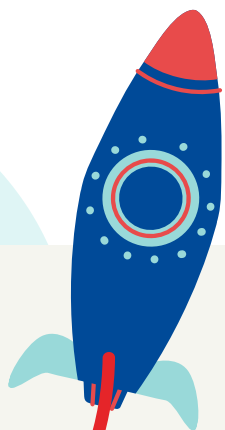


Yoga for Students' Personality and Skill Development

Club



There is a student Club called "StarStruck Club". Through this club, there will be lots of events, lectures, etc..



Contact Us



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<https://www.dgvaishnavcollege.edu.in>

*Towards a brighter
future for all
students*