

ACADEMIC YEAR 2019-2020

DKM COLLEGE FOR
WOMEN

DEPARTMENT OF PHYSICS

Autonomous Funded Seminar (14-02-2020)

DKM COLLEGE FOR WOMEN, VELLORE



DEPARTMENT OF PHYSICS

AUTONOMOUS FUNDED

One day seminar on “**RECENT APPLICATIONS IN PHYSICS**”

Invited Speakers

Dr. B. Umamaheswari,
Principal,
Dr. M.G.R. Govt. Arts and Science
College,
Madhanur,
Vellore.

Dr. S. Munawar Basha,
Assistant Professor,
Department of Physics,
C. Abdul Hakeem College,
Melvisharm.



D.K.M.COLLEGE FOR WOMEN

(AUTONOMOUS)

Sainathapuram, Vellore - 632 001.

One Day Seminar on "RECENT APPLICATIONS IN PHYSICS"

Invited Speakers

Dr.B.UMA MAHESWARI,

Principal,

Dr.M.G.R. Govt. Arts and
Science College,
Madhanur, Vellore.

Dr.S.MUNAWAR BASHA,

Assistant Professor,

Department of Physics,
C. Abdul Hakeem College,
Melvisharam.

Organized by

DEPARTMENT OF PHYSICS

DKM College for Women (Autonomous), Vellore - 632 001.

All are Welcome!!!

Date : **14.02.2020 Friday (9.30 am)**

Venue : **KAUVERI HALL,**

DKM College for Women, Vellore.

Program Schedule

- Prayer Song
- Welcome address
- Felicitation
- Lectures by Resource Persons
- Vote of Thanks
- National Anthem

Report on One day Seminar

One day seminar on “Recent Applications in Physics” was organized by Department of Physics, DKM College for Women (Autonomous), Vellore on 14th February 2020. The Department requested Dr. B. Umamaheswari, Principal, Dr. M.G.R. Govt. Arts and Science College, Madhanur, Vellore,, and Dr.S.Munawar Basha, Assistant Professor, Department of Physics, C Abdul Hakeem College, Melvisharm, to be the Resource Persons for the one day Seminar.

On day seminar (14/02/20), was inaugurated at 9.30 A.M in the Kaveri Hall with Prayer Song. **Miss. Kamali**, first year B.Sc., Mathematics student, DKMC, delivered the welcome address to the gathering and the members on the dice.



After the inauguration, first lecture was started at 9.45 A.M by **Dr. B. Umamaheswari**, who had delivered the lecture on “**Basic Principles and its practical Applications**”. She gave the lecture regarding the various fundamental concepts in physics and its day today applications. She explained the basics of physics branch that studies matter and its motion through space and time, along with related concepts such as energy and force. She

elucidated that Physics is one of the "fundamental sciences" because the other natural sciences (like biology, geology etc.) deal with systems that seem to obey the laws of physics. According to physics, the physical laws of matter, energy and the fundamental forces of nature govern the interactions between particles and physical entities (such as planets, molecules, atoms or the subatomic particles). She also explained the some of the basic pursuits of physics, which include some of the most prominent developments in modern science in the last millennium, include:

- Newton's laws of motion
- Mass, force and weight (Mass versus weight)
- Momentum and conservation of energy
- Gravity, theories of gravity
- Energy, work, and their relationship
- Motion, position, and energy
- Different forms of Energy, their inter-conversion and the inevitable loss of energy in the form of heat (Thermodynamics)
- Energy conservation, conversion, and transfer.
- Energy source the transfer of energy from one source to work in another.

For each topic she asked certain question which can be asked in Competitive Exams to create awareness among the students. At the end of the session, the participants actively took part in the discussion with the speaker and cleared their clarifications. The first session was followed by refreshment. The second session was started by 11.30 am.

In second session, the lecture was delivered by Dr.S.Munawar Basha entitled “Semiconductor Devices and its applications ”. He explained Semiconductors are materials that have electrical conductivity between conductors and nonconductors or insulators like ceramics. He reported that

How much electricity a semiconductor can conduct depends on the material and its mixture content and as they are used in the fabrication of electronic devices, semiconductors play an important role in our day to day lives.

He also briefed about the semiconducting materials such as silicon, germanium, GaAs and GaN etc., which are the foundation of modern day electronics devices such as radio, computers and smart phones. They also used in the manufacturing of electrical components such as transistors and diodes, in high power electronic devices, optical sensors, and light emitters, including solid-state lasers. More importantly, he highlighted semiconductor devices lend themselves to integration (ICs) into complex but readily manufacturable microelectronic circuits. They are, and will be in the foreseeable future, the key elements for the majority of electronic devices include communications, consumer, data-processing, and industrial-control equipment.

He introduced another area of semiconductor includes spintronics, which aims at using both the charge and spin of an electron to realize devices that have capabilities far more advanced than that of the present semiconductor and magnetic technologies alone. Semiconductor electronic devices used in digital electronics, analog circuits and optoelectronics always utilize nearly perfect single crystal.



During question session, lots of questions were raised by faculty and participants and satisfactory explanations were given by Dr.S.Munawar Basha.

Valedictory function was started at 1.00 P.M. Student were gave their feedback regarding both the sessions. The valedictory function came to an end with the vote of thanks given by **Miss. Kotteswari**, first year B.Sc., Chemistry student, DKMC, who thanked all the members actively involved for successful completion of the seminar.

FINAL STATEMENT OF EXPENDITURE

1	Total amount sanctioned	Rs. 10,000 (Ten Thousand only)
2	Date of Seminar	14 February, 2020

Statement of Expenditure

S. No	Sanctioned Head	Details of Expenditure	Total Amount (One time Expenditure in Rs.)
1	Publicity	Invitation cards and Banners and certificates	1600
2	Stationery	Pen, A4 papers, Pad and Xerox of materials	1710
3	Food	Tea and Snacks for resource persons	90
4	Honorarium & Travel expenses for resource persons	Honorarium for Resource persons	4000
		TA for resource persons	2000
5	Miscellaneous	a.) Photographs	600
Total Expenditure			10,000
Alloted :Rs 10,000 Spent: Rs 10,000			

HOD
PRINCIPAL

FEEDBACK FORM

RESOURCE PERSONS & STUDENTS

REGISTRATION FORM