CHARUTAR VIDYA MANDAL'S

NATUBHAI. V. PATEL COLLEGE OF PURE AND APPLIED SCIENCES

SPECTRUM

Jully 2018 - March 2019

The measure of progress

INSIDE THIS ISSUE :

From The Chief Editor's Desk
By: Dr. Basudeb Bakshi

"A desire can change nothing, a decision can change something but a determination can change everything".

Dear readers, it really gives me immense joy and satisfaction to be a part of a team which could churn out the flairs of NVites and release the ninth issue of our biannual e-magazine **Spectrum---The Measure Of Progress**. The college magazine has a crucial role in endorsing what an institution offers and to publicize the things hitherto unrevealed. For, a magazine carries the contributions reflecting ethos and objectives of the institution. I am thankful to the dedicated team who has congregated the achievements of NVites in the fields of academics, sports and extra-curricular activities, in a very lucid manner. I wish the magazine a grand success. I am sure that through these pages readers will get a bird's eye view of NVPAS and its wonders. The final publication reflects and encompasses the diversity inherent to the academic and extracurricular events in and around college. Any suggestions or criticism on the magazine would be most welcome. I wish GOOD LUCK to all the students for their forthcoming semester exams.

What is Applied Physics ?

By: Shivang G. Pandit
S.Y. B.Sc
(Applied Physics)

Applied physics is intended for a particular technological or practical use. It is usually considered as a bridge or connection between physics and engineering.

"Applied" is distinguished from "pure" by a subtle combination of factors, such as the motivation and attitude of researchers and the nature of the relationship to the technology or science that may be affected by the work. Applied physics is rooted in the fundamental truths and basic concepts of the physical sciences, but is concerned with the utilization of scientific principles in practical devices and systems, and in the application of physics in other areas of science.

It usually differs from engineering in that an applied physicist may not be designing something in particular, but rather is using physics or conducting physics research with the aim of developing new technologies or solving an engineering problem. This approach is similar to that of applied mathematics.

In other words, applied physics is rooted in the fundamental truths and basic concepts of the physical sciences but is concerned with the utilization of these scientific principles in practical devices and systems.[2]

Applied physicists can also be interested in the use of physics for scientific research. For instance, the field of accelerator physics can contribute to research in theoretical physics by working with engineers enabling design and construction of high-energy colliders

*** Research and Development areas of and the applications of Applied Physics**

- Lasers, such as Vertical-cavity surface-emitting lasers
- Photonic crystals and quantum optics
- Magnetic resonance imaging
- Microscopy
- Semiconductors
- Accelerator physics
- Quantum information science
- Quantum technology
- Astrodynamics
- Electromagnetic propulsion
- Stealth technology
- Nuclear engineering
- Engineering Physics
- Electronics
- Sonar
- Radar
- Lidar
- Biophysics
- Chemical Physics
- Geophysics

*** Future scope of the Applied Physics**

The applied physics career opportunities of higher education and each generally indicates the particular area of physics that is being applied. Universities, private laboratories, and government laboratories do research in the areas where there is the most interest and activity and applied physics jobs are plentiful as a result. Fiber optics, astrophysics, vacuum tunneling, nondestructive testing, acoustics, semiconductors, laser and quantum optics, and condensed matter are booming fields at present. These areas of study are often integrated with allied disciplines such as electrical engineering, engineering material science, inorganic and organic chemistry, and biology.

All of these areas of research represent potential careers in applied physics in a number of smaller fields. Condensed-matter physics, for example, includes the study of crystalline solids, liquids, supercooled liquids like glass, amorphous materials like ceramics, and polymer compounds. The study of such materials has made possible revolutionary breakthroughs in a number of engineering fields, such as transistors, semiconductor-based lasers, and fiber-optic communication devices. To give another example, the study of nondestructive testing of engineering materials has made it possible for engineers to test heavy engineering structures without having to cause any damage or loss. Polymer technology has made possible ultra-light, bullet-proof uniforms for soldiers in action and lightweight aircraft parts.

Two days National Workshop
on Multi-Omics by BT, GT & BNF Department.

One day National Workshop sponsored by GUJCOST
on Patents Concepts and Practice by Micro and BT, GT & BNF Department.

State Level IT Competition TechnoAstrum
by Computer Science Department

Two days skill development program
on Mushroom Cultivation by Micro and BT, GT & BNF Department.

IOS Seminar with TOPS Technologies and
Computer Science Department

R Programming workshop
by Computer Science Department

Guest lecture
by Mr. Hitarth Mehta in IC Department

RedHat Seminar
by RedHat Academy and Computer Science Department

TYB.Sc Chemistry students
attended a Training Program

Industrial Visit by Chemistry Students to CEPT and
NFCL, Nandesari

Industrial Visit to Berger Paints India Ltd.
by Students of S.Y.B.Sc Industrial Chemistry

Industrial Visit to Sterling Biotech, Vadodara
BY TYBSC Microbiology students

Visit of TYBSc students of Environmental Science to BEIL
(Bharuch Enviro Infrastructure Ltd)

Visit to ISRO by TYBSc BT-GT and BNF Students

Industrial Visit to BHEL (Bhopal) by CS Department

Parampara

Swabhiman

Visit to Delhi Parliament

Blood Donation

Thalassemia Screening

'ECO' shop organized
by Carbon Footprint club of the college

Talent Evening

University Football champion

Volleyball Rummer Up

Winners Youth Festival

GOLD MEDALS SECURED BY OUR STUDENTS AT S.P. UNIVERSITY T.Y.B.Sc. EXAMINATION APRIL 2018.

Sr No	Name	Subject	Name of Gold Medal
01	Kishankumar Rajeshbhai Patel	Industrial Chemistry	"Dipee Chemicals Private Limited (Ankleshwar) Gold Plated Medal"
03	Jeshalben Pradipkumar Punamiya	Biotechnology	"Charutar Vidya Mandal Gold Plated Medal"
04	Riya Harshad Shah	Environmental Science	"Charutar Vidya Mandal Gold Plated Medal"
05	Aastha Mehulkumar Shah	Information Technology	"Charutar Vidya Mandal Gold Plated Medal"
06	Nirali Nileshbhai Parkhiya	Genetics	"Dr. B.R. Patel Gold Medal"
07	Ruchi Chitranjanbhai Patel	Bioinformatics	"Dr. B.R. Patel Gold Medal"
08	Kishankumar Rajeshbhai Patel	Industrial Chemistry	"Dr. D.A. Raval Gold Medal"