Vidyalankar Polytechnic

VP-Connect

Department of Electronics & Telecommunication Engineering

1st Jan 2016 To 30th Jun 2016

Prof. Anjum Mujawar
Head of Department

From H.O.D's Desk

The Department of Electronics & Telecommunication is committed to offering an interesting program with strong emphasis on high quality, state of the art education and research. We offer an excellent academic program within the vibrant atmosphere of an Institute preparing our students for careers in engineering. We have a commitment to excellence in education with a curriculum to meet the needs of today's students, with more seminars, classes to enable effective faculty-student interaction, a strong focus on building complex systems, and immediate involvement in research.

Institute Vision

To achieve excellence in imparting technical education so as to meet the professional and societal needs.

Institute Mission

- Developing technical skills by imparting knowledge and providing hands on experience.
- Creating an environment that nurtures ethics, leadership and team building.
- Providing industrial exposure for minimizing the gap between academics and industry.

Program Vision

To produce Electronics and Telecommunication engineers capable of effectively using technical knowledge and interpersonal skills to benefit the industry and society.

Program Mission

- Providing state of the art facilities and conducive environment enabling the students to sustain the challenges in the field of Electronics and Telecommunication
- Educating the students to face the competitive world, develop leadership skills and to instill discipline and ethics.
- Promoting industry institute interaction.

Inside this Issue

Industrial visit to Process Precision Instruments

An industrial visit to Process Precision Instruments, PPI (INDIA) Vasai was organized by Industrial Institute Interaction Committee for the students of Vidyalankar Polytechnic students on 3rd March 2016. As per MSBTE norms students are required to undergo field visits under 'Professional Practices'. PPI (INDIA) is a component and instrument manufacturing and calibration unit.

Career Fair

Final Year Project Quality Assurance committee organized 'Project Exhibition' for the students of EJ department on 9th January 2016 to encourage their talents. The exhibition was the symbol of unflagging spirit of students as well as their guides to stand apart in selection of the project and its execution. Students from various schools enthusiastically participated in the exhibition.

Quotes of Excellence

Excellence, then, is not an act but a habit."

Aristotle

Class Toppers

(Sem V - Winter 2015)

Third Year

EJ5G-A

Shreya Tembe

90.78%

EJ5G-B

Payal Devra
90.22%

EJ5G-C

Kumar Amlendu
94.11%

Seminar on IMPORTANCE OF COMMUNICATION SKILLS.

Communication skills are essential for the successful future career of a student. In todays competitive world, communication skills in business are the most sought after quality of an educated person. Reading, writing and listening carefully are the three most important communication skills for students. A seminar on **"Importance of communication skills" was organized** for the students of first year students on 10th March 2016.

The speaker explained the students about the basics of communication, steps in communication, errors in communication and finally suggested them tips for effective communication. The students were assigned with an activity. Each group presented a skit of five minutes based on the given topic. All students actively participated in it.

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Industrial visit to All India Radio

Industrial Institute Interaction Committee of Vidyalankar Polytechnic organized an Industrial visit to All India Radio on 1st March 2016 and 3rd March 2016. As per MSBTE norms students of polytechnic are required to undergo field visits under 'Professional Practices'. Throughout the visit students keenly observed and learned various AIR transmitters.

Class Toppers

(Sem III—Winter 2015)

Second Year

EJ3G-A

Muktai Sawant
89.38%

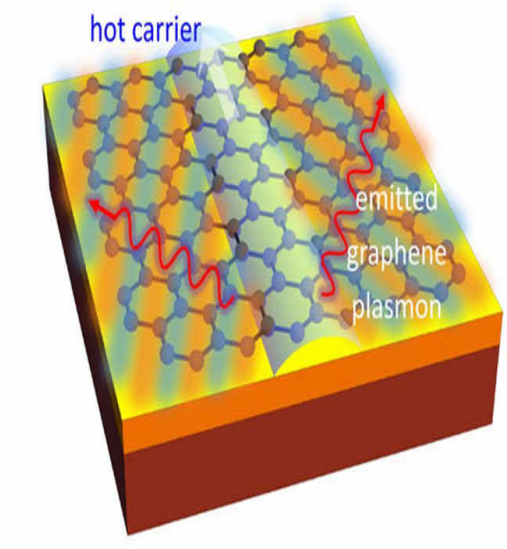
EJ3G-B

Shaurin Karnik
86.88%

EJ3G-C

Sameer Sahu
84.63%

Graphene Provides a New Way to Turn Electricity Into Light



This illustration depicts the process of light emission from a sheet of graphene, which is represented as the blue lattice on the top surface of a carrier material. The light-colored arrow moving upwards at the center depicts a fast-moving electron. Because the electron is moving faster than light itself, it generates a shock wave, which spews out plasmons, shown as red squiggly lines, in two directions.

By slowing down light to a speed slower than flowing electrons, scientists have developed a new way to turn electricity into light. When an airplane begins to move faster than the speed of sound, it creates a shock-wave that produces a well-known "boom" of sound. Now, researchers at MIT and elsewhere have discovered a similar process in a sheet of graphene, in which a flow of electric current can, under certain circumstances, exceed the speed of slowed-down light and produce a kind of optical "boom": an intense, focused beam of light. This entirely new way of converting electricity into visible radiation is highly controllable, fast, and efficient, the researchers say, and could lead to a wide variety of new applications.

The researchers found that when light strikes a sheet of graphene, which is a two-dimensional form of the element carbon, it can slow down by a factor of a few hundred. That dramatic slowdown, they noticed, presented an interesting coincidence. The reduced speed of photons (particles of light) moving through the sheet of graphene happened to be very close to the speed of electrons as they moved through the same material. Graphene has this ability to trap light in modes we call surface plasmons. Plasmons are a kind of virtual particle that represents the oscillations of electrons on the surface. The speed of these plasmons through the graphene is a few hundred times slower than light in free space.

Perhaps most significantly, this is a way of efficiently and controllably generating plasmons on a scale that is compatible with current microchip technology. Such graphene-based systems could potentially be key on-chip components for the creation of new, light-based circuits, which are considered a major new direction in the evolution of computing technology toward

Class Toppers

(Sem I - Winter 2015)

First Year

EJ1G-A

Sneha Karnik
88.78%

EJ1G-B

Falguni Waghela
86.15%

EJ1G-C

Sarvesh Patil
66%

Who invented the transistor?

Murray Hill, New Jersey, were working to discover a device to replace the present vacuum tube technology. Vacuum tubes were the only technology available at the time to amplify signals or serve as switching devices in electronics. The problem was that they were expensive, consumed a lot of power, gave off too much heat, and were unreliable, causing a great deal of maintenance.

The scientists that were responsible for the 1947 invention of the transistor were: John Bardeen, Walter Brattain, and William Shockley. Bardeen, with a Ph.D. in mathematics and physics from Princeton University, was a specialist in the electron conducting properties of semiconductors. Brattain, Ph.D., was an expert in the nature of the atomic structure of solids at their surface level and solid-state physics. Shockley, Ph.D., was the director of transistor research for Bell Labs.

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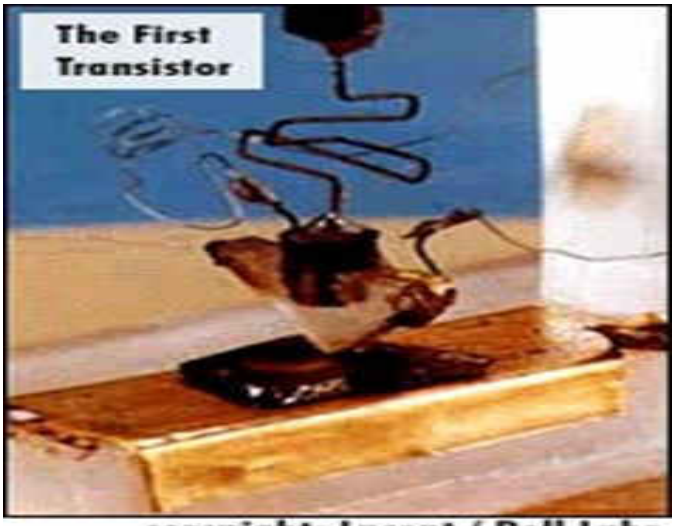

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Their original patent name for the transistor was Semiconductor amplifier; Three-electrode circuit element utilizing semiconductive materials. In 1956, the group was awarded the Noble Prize in Physics for their invention of the transistor. In 1977, John Bardeen was awarded the Presidential Medal of Freedom.

Co-Curricular Activities

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