Charter Presentation Ceremony

Host. A part from charter certificates, there were appreciation certificates given to the members for volunteering on Sundays for projects. Recognition certificates to the President, Secretary and Treasurer were   also given. Captain Siva Subramanium, Chairman of Lion School graced the occasion and motivated all the members present with his speech.

2ND May, 2018 was an important date for the Leo Clubs of Neozonite Tempus and Neozonite Locus as they successfully completed a year. On this occasion, Charter Certificates of the clubs were presented to both the clubs at the hands of Chairman Dr. Mohan Manghnani, Principal Dr. R.Bodisatvan and the team of Lions Club of Bangalore

Report on MOU with IIM-Bangalore @ NHCE

New Horizon College of Engineering (NHCE) signed an agreement with Indian Institute of Management Bangalore (IIMB) to launch its IIMBx B-School Partnership programme on 30th May 2018. The partnership includes Certificate in Strategy and the Sustainable Enterprise and Certificate in Organization Design: Creating a Competitive Advantage for MBA Program. The Partnership Agreement was signed by Dr. Prashanth C.S.R, Dean Academics, NHCE and Ms. Usha, Program Manager, IIMB in the presence of Dr. Manjunatha, Principal, NHCE, Dr. Sheelan Misra, HoD-MBA and Mr Girish, Program Coordinator from IIMB. Directors, Deans, Heads of Depts, MBA Faculty members and Students representatives were also present on the occasion.

Techorizon'18 @ NHCE

TECHORIZON '18 is National level project exhibition and conference. The aim of the conference was to provide a platform for researchers, academicians, UG students and PG students to meet and share cutting-edge development in the field. The event brought all variety of charming young analysts, engineers and researchers under a single roof and brought to light the hidden innovative technical ideas in engineering into reality. The conference focused on significant contributions in all major fields of the computer science. It helped in boosting up high level researches and to spread quality research in general thus making discussions, presentations more internationally competitive and focusing attention on the recent outstanding achievements.

Nano Robotics

Nano-robotics is an emerging field that deals with the controlled manipulation of objects with nanometer scale dimensions.

Typically, an atom has a diameter of a few Angstroms' (1 Å = 0.1 nm = 10-10 m), a molecule's size is a few nm, and clusters or nano-particles formed by hundreds or thousands of atoms have sizes of tens of nm. It can be defined as a robot that allows precise interactions with nano-scale objects, or can manipulate with nano-scale resolution.

Nano-robots Applications-

1. Nano-robotics in Surgery

Surgical nano-robots are introduced into the human body through vascular systems and other cavities. Surgical nano-robots act as semi-autonomous on-site surgeon inside the human body and are programmed or directed by a human surgeon.

2. Diagnosis and Testing

Medical nano-robots are used for the purpose of diagnosis, testing and monitoring of microorganisms, tissues and cells in the blood stream.

3. Nano-robotics in Gene Therapy

Nano-robots are also applicable in treating genetic diseases, by relating the molecular structures of DNA and proteins in the cell.

4. Nano-robots in Cancer Detection and Treatment

The current stages of medical technologies and therapy tools are used for the successful treatment of cancer. The important aspect to achieve a successful treatment is based on the improvement of efficient drug delivery to decrease the side-effects from the chemotherapy.

5. Nano-dentistry

Nano-dentistry is one of the top most applications as nano-robots help in different processes involved in dentistry. These nano-robots are helpful in desensitizing tooth, oral anesthesia, straightening of irregular set of teeth and improvement of the teeth durability, the major tooth repairs and improvement of appearance of teeth, etc.

6. Anti Hiv Using Nano-Technology

The immune system is comprised of two important cell types: the B-cell and the   T-cell. The B-cell is responsible for the production of antibodies, and the T-cell is responsible for helping them out.
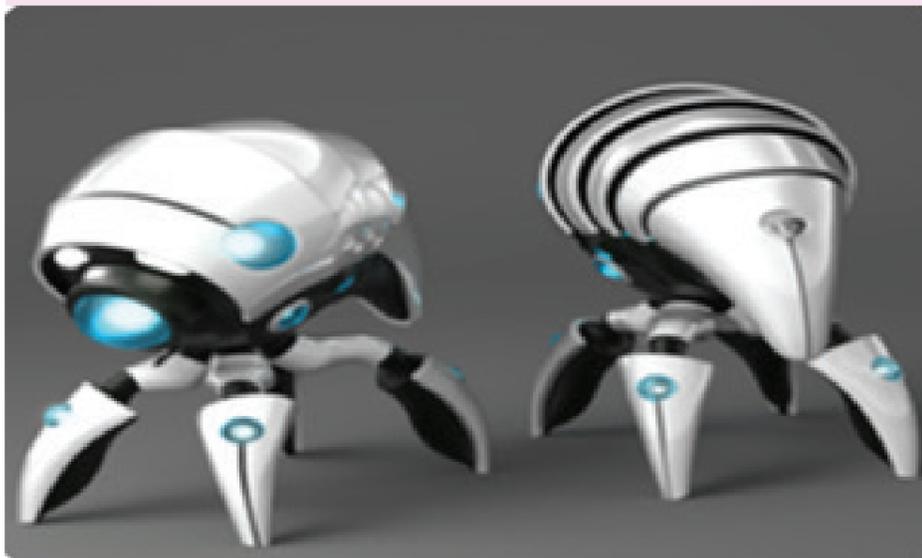
Nano Robots For Military Applications

Sachin R
ECE 8Th Sem

Autonomous Vehicles

NURO Autonomous Delivery car

An Autonomous Vehicle(self-driving vehicle) is a vehicle that is capable of sensing the environment, processing it and navigating all by itself, without any human input.

Many such vehicles are being developed, but as of February 2018 automated cars permitted on public roads are not yet fully autonomous. They all require a human driver at the wheel who is ready at a moment's notice to take control of the vehicle.

How it works?

There are a plenty of techniques where an autonomous vehicle can be developed to detect its surroundings. Basically, the Vehicle consists of a variety of Sensors such as Radar, GPS, Lasers, LIDAR, and of course Cameras. One of the most important one being the IMU.

IMU, in short for Inertial Measurement Unit, is a device consisting of accelerometers and gyroscopes. It measures the G-Force and keeps track of the vehicle.

The vehicle has Advanced Control Systems built into itthat interprets all the aforementioned sensory information. This helps the car to identify appropriate path to navigate, as well as detects obstacles and reads and processes Traffic signs such as STOP signs, Speed limits etc.

Why Autonomous Vehicles?

-Eliminates the need for a driver

-Possible reduction in Traffic Congestion

-Smoother and Safer Rides

-Improve fuel efficiency

The Negatives!

-The immediate cause of concern is reliability. Depending completely on a bunch of sensors isn't possible yet. Failure of a small sensor could lead to a catastrophic event.

-Jobs! Adopting Autonomous Vehicles means most drivers will end up Jobless. Hits economy, partially.

-Risks of getting hacked.

-Software Reliability.

The Development

-The first self-sufficient car came from Carnegie Mello University's Navlab and ALV projects in 1984.

-Google has its own Autonomous cars in testing and these cars are tested primarily in suburban neighborhoods at slow speeds and run automatically less than 80% of their time. The test driver takes over 20% of the time.

-Tesla - although capable of fully autonomous travel on highways and also many of the urban situations,   the manufacturer requires the human driver to remain alert and ready to take over at any moment.

Verdict

Autonomous Vehicles are very much in their early stages of development and testing. Auto-Pilot, Lane Assist, Parking Assist which have already been implemented on production cars are a sign that we have come a very long way in Artificial Intelligence. Autonomous Vehicles will definitely be a thing of the future but whether people accept fully autonomous vehicles is something only time will tell.

Nishanth Reddy K
ECE 6Th Sem

LIGHT-FIDILITY [LI-FI]

HISTORY

LI-FI a wireless technology similar to that of WI-FI and is used to transfer data with the help of light.

The word LI-FI was coined by Professor Harald Haas, when he was delivering his TED-talk on the topic "Wireless data from every light"

Though he introduced the concept in the year 2011 the history of using light as a source of communication was visible in the 1800's

DEFINITION

Li-Fi is a bidirectional, high-speed and is a fully networked wireless communication technology similar to Wi-Fi. It is a form of visible light communication and a subset of an Optical Wireless Communications (OWC) and could be a complement to RF communication (Wi-Fi or cellular networks), or even a replacement in context of data broadcasting.


LI-FI: The Future of Internet

Li-Fi uses light from LEDs, instead of radio waves as in the case of Wi-Fi, to sendinformation in the form of binary data. This binary data is received by thereceiver equipped with decoder that decrypts the data and triggersactions in your smart device.
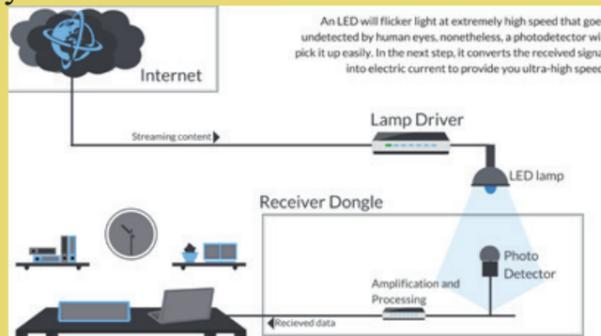
As from the above diagram we can observe that there is a LED lamp which acts as a data emitter source and a photo detector acting as a receiver. The LED will be flickering at a very high speed. Palely ON and OFF states stores the data. Later the photo detector uses its decrypting tool and decrypts the input information.
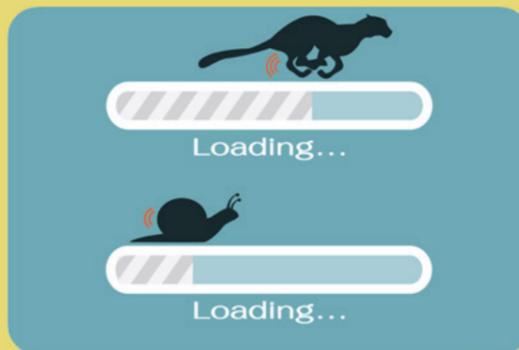
Mohammed Shabaz
Ece 6Th Sem

Rangoli Competition

Rangoli competition was organized for the B.Ed students on 25th may 2018 at 1.30 pm. The entire hall was decked with beautiful, creative designs done by the students. The creative expressions of the art through colours were feast to the eyes. Students participated with lots of enthusiasm as they put together their artistic, imaginative and creative skills to bright and beautiful Rangoli.

Behind the Scene

'New Horizon Bytes' is for you and by you. Write-ups, photographs, illustrations and feedback are welcome from students and faculty of NHC-K, NHPUC, NHC-M, NHCE and NH B.Ed. Please make them brief (maximum 300 words) and e-mail to nhbytes@gmail.com