



Bits And Bytes

THE NEWSLETTER | ISSUE I

AUGUST 2019

SPECIAL POINTS OF INTEREST:

- Know what's happening in Information Technology Department
- Technology trends in and around the industries
- Talent Display of our IT Department students.

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2019-2020

OUR VISION

"Impart high quality knowledge & skills to students in the field of Information Technology, motivate research, encourage industry consultancy projects & nurture human values and life skills."

INFORMATION TECHNOLOGY ENGINEERING STUDENTS ASSOCIATION (INTENSA)

2019-2020



We, the students of INTENSA are glad to announce the first edition of our newsletter 'Bits And Bytes' of Information Technology Department.

Information Technology Department



OUR VISION

“Impart high quality knowledge & skills to students in the field of Information Technology, motivate research, encourage industry consultancy projects & nurture human values and life skills.”

OUR MISSION

“Impart knowledge and skill based training Information Technology and allied fields.”

“Promote research and industrial consultancy projects and establish a linkage with Industry and Alumni.”

“Inculcate leadership qualities, human values, concern for environment and society.”

“Nurture innovation, entrepreneurship and resource management skills.”

Spotlight

WREATHING THE DEPARTMENT CAMPUS WITH GREENERY :

Tree Plantation Drive held At IT Department



In pic:
The faculties and the students of IT department celebrating 'Go Goa Green' drive.

“Reversing deforestation is complicated; planting a tree is simple”

With great enthusiasm and joy, INTENSA held a tree plantation drive in collaboration with Pro Active Goans 'Go Goa Green Initiative' on 14th August 2019 .

Imagine if trees gave us free Wi-Fi, we'd all be planting like crazy people. It's a pity that they only give us the oxygen that we breathe. The care of our earth is our utmost responsibility. The idea behind 'Vruskhabandhan' is to make a promise to our mother earth that we'll try our best to protect it forever by planting more and more trees.

Special thanks to our HOD Dr. Nilesh Fal Dessai, faculties, staff and students of IT Department for making this event a huge success . Also thanks to Mr. Narayan for helping in planting the trees !!



In pic: Students of IT Department planting trees.

Steganography



@cybercrime today.net

**“Steganography
is the art of
concealing secret
data within a
cover medium”**

Steganography- is the art of concealing secret data (a file, message, image, or video)within a cover medium (file, message, image, or video). The word *steganography* combines the **Greek** words *steganos* , meaning "covered, concealed, or protected", and *graphein* ,meaning "writing". The advantage of steganography over cryptography is that the intended secret message does not attract attention to itself as an object of scrutiny.

Applications :

- Confidential communication and secret data storing
- Used in modern printers allowing identification of the device with which a document was printed
- Used by intelligence agencies/terrorists for certain communications with "illegal agents"
- Access control system for digital content distribution

...Dr. Aisha Fernandes
Associate Professor, IT dept.



“Life is like a loop”

Picture Credit - Nisha Costa
TE, IT

Cyborgs

In this ever-changing field of Information Technology there are so many technologies whose development, practical applications or both are still largely unrealised, such that they are figuratively emerging into prominence from a background of non-existence. Also, there are fields where IT is combined with medical science.

“Cybernetics” is a theory of communication and control of regulatory feedback. Study connecting the fields of control systems, electrical network theory, mechanical engineering, logical model, evolutionary biology, neuroscience, etc.

Cyborgs are considered as the next step of human evolution. A cyborg is a being with both organic and bio mechatronic body parts. Its an organism that has restored function or enhanced abilities due to the integration of technology that relies on some sort of feedback. A seed sized evolution can do many functions which reduce a lot of human effort, such an implant can reduce credit cards, passport, visa and can make big changes in current style. It has various applications in the medical field, the military, sports and art.

There is an amazing progress made lately in turning insects into cyborgs. Soon enough when someone plants an eavesdropping device in your house, it will literally be a “bug”.

Cyborg prolongs life, it enables one to lead a normal life, gives a part of the body back and improves the quality of life.

...Noorjahan Mohammed
TE, IT

*“Cybernetics is
a theory of
communication
and control of
regulatory
feedback.”*

Art Hub



“We need a day of the dead. That’s a perfect celebration.”

Art By – Pratik Manjrekar
FE, IT

Chandrayaan 2



Source: @ISRO

“The lander has been named 'Vikram' after Vikram Sarabhai, the father of the Indian space program.”

Chandrayaan-2 (चन्द्रयान-२) is India's second lunar exploration mission, developed by the Indian Space Research Organization (ISRO)- India's state-owned space agency. The mission was launched from the second launch pad at Satish Dhawan Space Centre on 22 July, 2019 at 2:43 PM IST, to the Moon by a Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk III). It consists of a lunar orbiter, a lander, and a lunar rover named *Pragyan*.

The Lunar orbit has a perigee of 170 km and an apogee of 45475 km. The main objective is to map the location and abundance of lunar water. The Chandrayaan 2 orbiter will perform its mission for one year in a circularized lunar polar orbit at an altitude of 100 kms.

The lander has been named 'Vikram' after Vikram Sarabhai, the father of the Indian space program. The landing process will be driven by Vikram's propulsion system consisting of eight thrusters for attitude control and five liquid main engines. The lander will land on the near side of the Moon, in the south polar region on 7 September, 2019(expected).

Upon landing, Vikram will deploy a rover named 'Pragyan'. It will be operated on solar power. The artificial intelligence (AI)-powered rover has six wheels and can traverse 500 meters at the rate of one centimeter per second. The rover will move on the lunar surface and will perform on-site chemical analysis for 14 days (one lunar day). It can relay data to Earth through the Chandrayaan-2 orbiter.

A successful landing would make India the fourth country to achieve a soft landing on the Moon, after the space agencies of the USSR, the USA and China. If successful, Chandrayaan 2 will also become the second mission to land close to the Moon's South Pole.

...Divyashri Pednekar
TE, IT

INTENSA Council 2019-2020

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Newsletter Advisor : Megha Nayak
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 Team : INTENSA

Information Technology Department,
 Goa College Of Engineering
 Farmagudi, Goa.

*For publishing your article in this newsletter
 drop a mail to us at ;*

Email: gec.intensa.2019@gmail.com

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