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GREEN COMMUNICATION

What is Green Communication?

Green communication is the practice of selecting energy-efficient communication and networking technologies and products, and minimizing resource use whenever possible in all branches of communications. **Green computing**, also called green technology, is the environmentally responsible use of computers and related resources. Such practices include the implementation of energy-efficient central processing units (CPUs), servers and peripherals as well as reduced resource consumption and proper disposal of electronic waste (e-waste).

Fundamentals of Green Communication

Global warming and climate change are dominated by excessive energy consumption and greenhouse gas emissions. This forces us to change our lifestyles and adapt more environmentally friendly methods. Green communication is envisioned to mitigate this problem with the emergence of new nature friendly communication technologies. Green communication principles not only help lessen global warming and climate change problems, but also help reduce operational costs of communication infrastructures and service providers.

Our Green Communication Technology research explores the challenges related to the efficient energy utilisation by future communication networks.

Coming Soon!!!

PULSE 2018

MACHINE LEARNING

You can send your articles for PULSE on our E-mail id-
etapulse17@gmail.com

Green Networking:

Green Networking practices include:
- Implementing virtualization.
- Practicing server consolidation.
- Upgrading older equipment for newer, more energy-efficient products.
- Employing systems management to increase efficiency.
- Substituting telecommuting, remote administration and video-conferencing for travel.

Although investing in green networking may require an initial cash outlay, the products and practices involved typically save money once put in place.

The main lines of investigation currently being explored are:

⇨ Energy efficient radio resource management (RRM)

⇨ Base station sleep modes of operation

⇨ Game theory – coordinated interference management

Green Wireless communication:

The term Green Wireless Communication can be defined as the technology which uses convergence of energy efficient methodologies at different stages to minimize the adverse effects of technology on environment. Growing telecommunication infrastructure requires increasing amount of electricity to power it. India currently has more than 310000 cell phone towers, which consume about 2 billion liters of diesel per year. The move from diesel to solar and other alternate sources of energy will result in a reduction of 5 million tons of CO_2 emissions as well as a savings of $1.4 billion in operating expenses for telecommunication tower companies. Green wireless communication has many facets.

The main research topics in this domain include:

⇨ **Network architectures**

⇨ **Radio resource management**

⇨ **Interference management**

Ref: www.omicsonline.org

ACADEMIC BRILLIANCE

ETA congratulates the following students for achieving great heights in their classes in the university exam held in year 2017-18.

Hearty Congratulations

Prof. Ashish Vanmali for completing Ph.D from IIT Bombay.

BE (2016-2017)

| TOPPERS NAME	CGPI	RANK
Someshwar Nimaje	9.05	1st
Bhakti Surve	8.86	2nd
Neelam Yadav	8.86	3rd

TE (2017-2018)

TOPPERS NAME	CGPI	RANK
Anurag Baurai	8.94	1st
Bhavesh Naik	8.93	2nd
Uzmanaz Shaikh	8.83	3rd

Placed Students in the academic year 2017-18 till 16th February, 2018

KPIT (1) 5%
Infosys(8) 40%
Feedspot (8) 40%
Verdantis (2) 10%
Johnson Controls Pvt. Ltd. (1) 5%

SE (2017-2018)

TOPPERS NAME	CGPI	RANK
Pratik Negi	9.88	1st
Shubham Tiwari	9.58	2nd
Vrutika Patelia	9.35	3rd
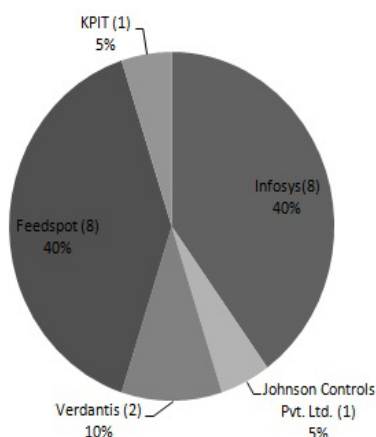
CONGRATULATIONS !!!!

APPLICATIONS OF GREEN COMMUNICATION

Green Networking

Green networking is a broad term referring to processes used to optimize networking or make it more efficient.Green networking involve consolidating devices or otherwise optimizing a hardware setup. Software virtualization and efficient server use can contribute to this general goal. Green networking could also include such diverse ideas as remote work locations, energy use in buildings housing hardware, or other peripheral aspects of a network infrastructure.

Green Data Centre

A green data center is a repository for the storage, management, and dissemination of data in which the mechanical, lighting, electrical and computer systems are designed for maximum energy efficiency and minimum environmental impact.Building and certifying a green data center or other facility can be expensive up front, but long-term cost savings can be realized on operations and maintenance. Another advantage is the fact that green facilities offer employees a healthy, comfortable work environment. In addition, green facilities enhance relations with local communities.

Going Green

The need to develop green wireless communication systems turns out to be more and more vital as wireless networks are becoming ubiquitous. Green Wireless Communication will provide energy efficient communication. It will result into less radiation from devices as well as more economic solutions for service providers and subscribers. Green wireless communication is the part of Corporate Social Responsibility which strives to reduce carbon footprint and Green house gases to provide Green ICT services to customers. Government should also form rules and regulations to certify a service provider as Green service provider. The integration of different energy efficient technologies like Green BTS, Green manufacturing, Green Handover, Green antennas, Green electronics and Smart Grid solution will create accord between human being and nature.

Green telecommunication has many facets. It can be classified broadly in terms of greening of telecommunication networks, green telecommunication equipment manufacture, atmosphere friendly design of telecommunication buildings and safe telecommunication waste disposal. As network equipments have become more IP-based, the energy consumption required has progressively increased.

Riddle

I'm complex inside, but easy on the outside.

I'm loud for one, but quiet for others.

I'm used to getting hit, but there's no alternative.

I die as fast as I rise again.

What am I?

Ans: Mind

HIgh-speed Shooters

The rapatronic cameras are capable of recording a still image with an exposure time as brief as 10 nanoseconds (that would give 100 million frames per second if the camera was capable to do multiple pictures). The camera uses two polarizing filters mounted with their polarization angles at 90° to each other and a Faraday cell which briefly changes the polarization plane of light passing through it, acting as a shutter.

Word Scramble

1. OIDED -

2. LREMAPIFI-

3. BATALM-

4.ASNRTREDCU-

5. OPLIFLPF-

Answers -
1. Diode
2. Amplifier
3. Matlab
4. Transducer
5. FlipFlop

The IETE committee of EXTC Department presents

EMBEDDED C
Workshop

⇨ Students from SE, TE and BE can attend this workshop.

⇨ Duration of the workshop: 42 hrs

⇨ For further queries contact -
  Viraj Jadhav: 9004526020
  Varun Pillai: 9503711665

Embedded C is the widely used language to program the micro-controllers for latest applications. Keeping in mind its great scope and importance, the IETE committee of EXTC organises a workshop on the same starting from 17 march onwards. It is our privilege to have our Alumini Mr. Maneesh Singh and Mr. Ankur Tiwari. Maneesh Singh and Ankur Tiwari started their own startup named "Intuitive Embedded System" in the same field.

Mr. Maneesh has completed Advance Diploma Course in embedded system (C,Linux & RTOS) from CDAC, Banglore. Currently, he is working as a Sr. Software Engineer in Acclivis Technologies, Pune.

Mr. Ankit is the co-founder of Thoughtlytics Internet Pvt. Ltd. Also he was a part of Embecon Systems and L & T Finance.

Who Am I?

Memorizing capacity Amplified,

Hobbies Attenuated,

Knowledge to Creativity ratio Increased,
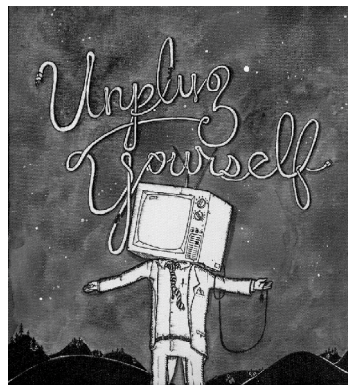
Imagination to Information ratio Deceased,

Assignments Submitted,

Blogs Archived,

They call me(us) an EXTC Engineer....   - Pratik Jadhav,
                                                                        TE EXTC

Unplug Yourself

People plugged in everywhere
To ipods, games and phones
Like non-existent robots
The world is full of drones
We're now made up of circuit boards
We've lost all of our bones
Be different, and unplug yourself
Grow apair of stones

Your life is electronic
On a tablet or a chip
You run your life remotely
You give people email lip
You wouldn't dare go jogging
You might fall and break a hip
Be different , and unplug yourself
And give technology the slip