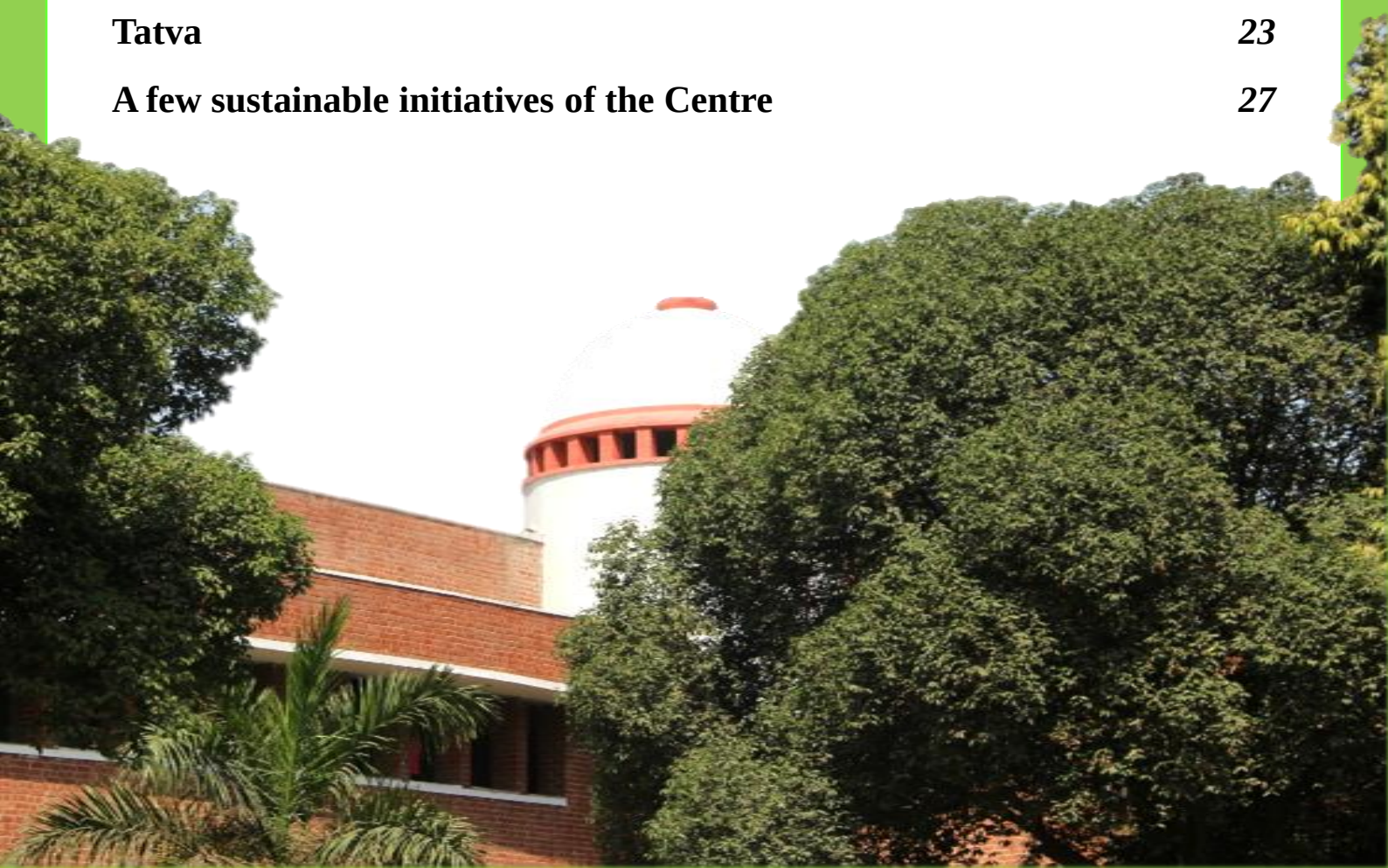
SHRI RAM COLLEGE OF COMMERCE

Centre for Green Initiatives

अवनी

2016-17

Index



About the Magazine

अवनी

/av' nee/

(noun)

"The earth; The planet on which we live in"

***Avni** - is the name tribute to the always nourishing, caring and loving Mother Earth. In the words of Khalil Gibran, '**The trees are the poems written by Earth upon sky**' which beautifully commemorate the role of Earth. With the first edition of magazine, we are marking a new chapter in the ways of environmental awareness in the College. Very first in the series of upcoming measures, Avni reflects the treasures of nature in Shri Ram College of Commerce. The magazine is divided into three sections providing detailed account of various activities and literary activities. The main attraction is the introduction of **Flower Section**, where the diversity of flowers are celebrated in the college. The **Article section** brings the ideas, trends and measures in the field of environmental protection. The section specifically provides the articles written by the students - a practice started by the Center for Green Initiatives to imbibe environmental values in the younger generations. The **last section** sheds the light on few noteworthy events and initiatives taken by CGI in the college. In the plethora of the activities conducted, a few are presented in the magazine establishing the commitment of the college towards healthy and clean nature. These activities are instrumental to develop a sense of responsibility in the students towards mother nature.*

The Principal's Message

It is a matter of great pride that the Centre for Green Initiatives has launched its first magazine ***'Avani'***. This magazine represents a positive step in this direction in facilitating the spread of awareness of our environmental initiatives as well as concerns pertinent to us as a community. I appreciate the hard work of the Centre for Green Initiatives in their commendable effort and congratulate them on the publication of this magazine.

Dr. R.P. Rustagi

Principal

From the desk of The Convenor

The launch of this magazine ***'Avani'*** marks a new step in our vision to channelize the efforts of the Institution towards environmental awareness. In the past year, the Centre has been instrumental in taking steps and initiatives towards the conservation of environment and channelizing concerns for the ecological issues pertinent to the society. As a part of its mandate of spreading awareness on important environmental issues, the magazine will serve as an important conduit to channelize the creative energies of students towards the larger goal of sharing environmental responsibility. The integration of writing abilities along with environmental research will provide our coming generations the much needed say in the development process of environment sustenance. We hope your feedback and suggestions will help the magazine to develop further in its future endeavours.

Dr. Rachna Jawa
Convenor

About the Centre for Green Initiatives

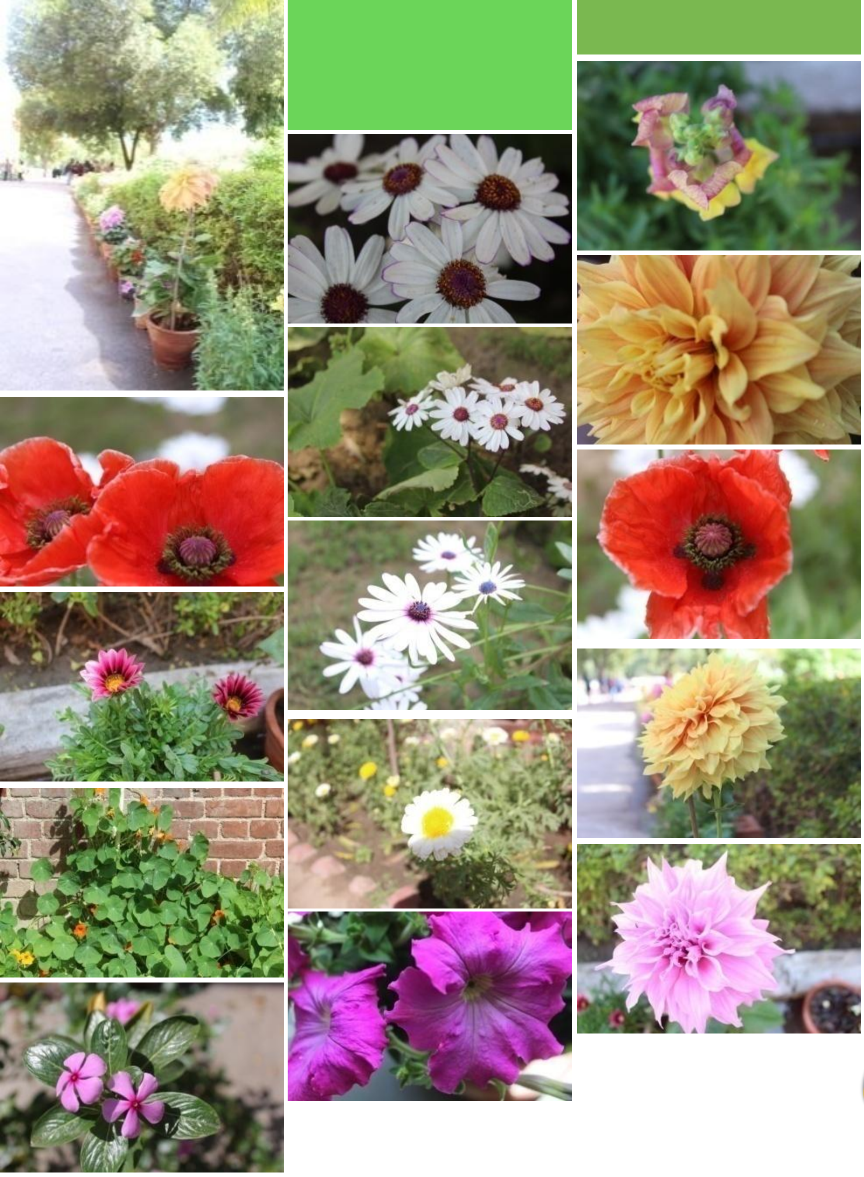
As a proactive institution concerned with the conservation of the environment, the Centre for Green Initiatives was established in the College with the objective of generating awareness and promoting environmental care at individual and community level. The Centre aims to create a pervasive atmosphere facilitating conversation, action and feedback on environmental issues engaging faculty, students and the general public.

Our Objectives

- Understanding various environmental issues and the need to address them
- Sensitizing people about the need for protection of environment for a sustainable and healthy future
- Undertaking technological setup aimed at an environmentally and economically strong impact.

Our Functions

- As a proactive body dedicated to the objective of environmental welfare, we undertake the following functions:
- Undertaking extensive research and surveys on various environmental related issues prevalent in the society, understanding their causes, possible impact and remedial measures.
- Conducting seminars, workshops and campaigns to sensitize people about environmental issues pertaining the society.
- Tapping the CSR initiatives of corporate, social venture funds and other potential platforms for funding.
- Initiating and facilitating collaboration with various organizations working extensively in various fields such as waste management, water conservation, energy practices etc.
- Setting up the latest technology (example: Solar panels, water harvesting plants, composting pits etc) meant for maximizing environmental impact



Flowers of SRCC

Dahlia

Common Name: *Decorative Dahlia*

Scientific Name: *Dahlia pinnata*

Dahlias are natives of central Mexico in the region of Mexico City. Dahlias require well-drained soils, fairly sunny locations.These flowers bloom into the early autumn season. Dahlias are grown with the help of tubers and seeds.

Petunia

Common Name: *Grandiflora Single Petunia*

Scientific Name: *Petunia x hybrid*

Petunias are one of the most popular flowers, often grown as annuals. Grandiflora petunias have very large flowers and are best grown in containers or hanging baskets. They're bright and lively, bloom from spring until frost, and scent the air with lovely fragrance.

Petunia like warm weather and thrives in full sun.

Bougainvillea

Common Names: Bougainvillea, Paper flower.

Scientific Name: *Bougainvillea glabra*

It is a semi-climber and can be grown as a hedge, a shrub, a climber over a sunny wall and also in pots

Bougainvilleas need a bright sunny position, but protection from direct sunlight. The flowering season is from Summer to autumn.

Bougainvillea is ideal for bonsai.

Chamomile

Common Names: Babuna, Roman Chamomile.

Scientific Name: *Anthemis nobilis*

Chamomile flowers consist of prominent yellow disk flowers and silver-white ray flowers. The national flower of Russia, Chamomile flowers bloom during the months of June and July.

The flowers and leaves of chamomiles can be made into a soothing tea which has relaxing properties.

Dogflower

Common Names: *Dog flower, Snapdragon.*

Scientific Name: *Antirrhinum majus*

Originally native to North Africa, Spain and along the Mediterranean, snapdragons are now naturalized in India. The opening and closing of the mouth of the flower when squeezed resembles to that of a dragon or dog.

An excellent flowering plant which turns out to be the best in beds, edgings, and containers. Generally, its flowers blossom in June

Cineraria

Common Names: Cineraria

Scientific Name: *Cineraria cruenta*

Herbaceous in nature, Cinerarias can be widely cultivated as garden plants in the different regions. A native to Southern regions of Africa, especially Canary Islands, the bright colors might range from white, pink, purple, red or blue and usually a white ring in the middle of the flower adds to the vivacity of this flower.

The adorable and perfumed aroma of the flowers make them an experimental flower for perfumists as well.

Daisy

Common Names: *African daisy, Rain Daisy.*

Scientific Name: *Dimorphotheca pluvialis*

White African daisy is always one of the first spring annuals to flower in Delhi. These are sun loving daisies that open only to the warmth of the sun. As the sun moves across the sky their flowers follow, always facing the sun.

The flowering season is from July to October, depending on the rain.

Gazania

Common Name: *Trailing Gazania, Treasure flower*

Scientific Name: *Gazania rigens*

The Gazania is an annual plant found in tropical regions. It is Drought-tolerant, suitable for xeriscaping with average water demand. However, the plant require high light for the flowers to open and leaves turn upwards at night.

The plant is a seasonal bloomer and flowers repeatedly.

Poppy

Common Names-: Corn poppy, Khas-Khas plant.

Scientific Name: *Papaver rhoeas.*

Indian Poppy is a herb, flowers in Winter season, sown when the night temp is 20-25° C. Corn poppy is the source of the familiar poppy seeds used in baking.

The flower is beneficial in the treatment of asthma and other respiratory disorders, including whooping cough and bronchitis, according to The U.S. Library of Medicine.

The basics of being ‘Cool’

Ishita Kumar

B.A (Hons) Eco, II Year

Have you ever realized that the refrigerators that you open a lot for snacks throughout the day consumes a lot of electricity? Ever realized to what extent they are causing problems being the major reason for Ozone depletion? Well, there is a person who did, meet -Mansukhbhai Raghavjibhai Prajapati.

A famous rural innovator, M.R. Prajapati is known for his earthen clay based functional products, the most popular invention being **Mitticool**- an environmental friendly refrigerator. This zero waste emission refrigerator doesn't use electricity and still keeps your favourite snacks at a 8 degree temperature.This project has a turnover of 45 Lakhs till date selling around 9000 units of Mitticool all over the country. The Mitticool project has also crossed the boundaries with exports to countries like Africa, Dubai, etc. Mitticool was featured recently at a conference organized by the Centre for India and Global Business and University of Cambridge.

Bosch and Siemens Hausgeräte (BSH), Germany, one of the world’s largest home appliance companies has shown interest in the product. Regarded as a "true scientist" by the former President of India Late APJ Abdul Kalam, M.R. Prajapati has reached astounding heights with his projects. He has also been presented with a National award in 2009 by former President Pratibha Patel, when she herself asked for a Mitticool from him.

The simple and unassuming Mansukhbhai is not keen on money. His ambition is to make more low-cost and eco-friendly products for the masses. He has surely achieved a feat that many in the world envy today. He earns all our respect!

E-waste management

Sanjay

B.Com (Hons), I year

Electronic wastes are discarded electrical or electronic items. Used electronics which are destined for reuse, resale, salvage, recycling, or disposal are also considered e-waste. Electronic devices such as CPU contains components such as lead, Cadmium, Beryllium, Mercury etc. Informal processing of e-waste in developing countries can lead to adverse human health effects and environmental pollution. 20 to 50 million metric tons of e-waste are disposed worldwide every year.

The manner in which the electronic waste are managed and discharged is called the management of e- waste. They are either recycled or are processed into a whole new thing. At times precious metals are also extracted from the wastes.

Audiovisual components, televisions, mobile phones, other handheld devices contain valuable elements and substances suitable for reclamation, including lead, copper, and gold. But this approach is not so prevalent when it comes to implementation part. Improper disposal of e-waste leads to land and underground water contamination.

The improper management of e-waste is there due to lack of awareness among the masses. One consolidated step in this direction is **Basel Convention**, an international treaty to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). The Convention is also intended to minimize the amount and toxicity of wastes generated, to ensure their environmentally sound management as closely as possible to the source of generation, and to assist LDCs in environmentally sound management of the hazardous and other wastes they generate. India has emerged as fifth largest e-waste producer in world. Computer devices account for nearly 70% of e-waste, with the contribution of telecom sector being 12%, medical equipment being 8%, and electrical equipment being 7% of the annual e-waste production. The Government, public sector companies, and private sector companies generate nearly 75% of electronic waste; with the contribution of individual household being only 16%.

Different global countries adopted different measures to manage the menace of e-waste. European countries implemented laws prohibiting the disposal of electronic waste in landfills in the 1990s eventually creating an "e-waste processing industry in Europe". These laws and strategies can set benchmarks for e-waste disposal in country like India. In Switzerland, the first electronic waste recycling system was implemented in 1991, beginning with collection of old refrigerators. Over the years, all other electric and electronic devices were gradually been included in the system. Legislation followed in 1998, and since January 2005 it has been possible to return all electronic waste to the sales points and other collection points free of charge.

There are two established producer responsibility organizations: SWICO, mainly handling information, communication, and organization technology, and SENS, responsible for electrical appliances. The total amount of recycled electronic waste exceeds 10 kg per capita per year.

Electronic waste has been on the agenda of the Australian Federal Government since the mid-1990s. The Australian and New Zealand Environment and Conservation Council (now replaced by the Environment Protection and Heritage Council (EPHC)) was the first body to identify electrical and electronic waste as a concern. In 2002, the EPHC again declared that e-waste needed action. The Electrical Equipment Product Stewardship Sub-Group examined the issue and decided that computer and television waste were 'wastes of concern'. Since that time the television and computer industry has been working with the EPHC to identify a suitable way to manage end-of-life televisions and computers.

A large number of what is labeled as "e-waste" is actually not waste at all, but rather whole electronic equipment or parts that are readily marketable for reuse or can be recycled for materials recovery. In India e-waste is regulated under the E-Waste Rules 2016. These rules are based largely on the principle of Extended Producer Responsibility, which assigns the producer with the responsibility of ‘end-of-life’ management of the electrical and electronic equipment. Several guidelines ensure the proper disposal in Treatment, Storage and Disposal Facility with a pre-treatment is necessary to immobilize the mercury and reduce the volume of waste to be disposed off.

Proper awareness measures along with strict law enforcement can ensure the proper management of e-waste in the country. Various organizations such as CPCB(Center Pollution Control Board), SPCB(State Pollution Control Board) along with product manufacturers are working in the direction of e-waste management.

With the increase in the consumerism the generation of e-waste is unprecedented but with the proper recycling and reuse methodologies this waste can be brought back into the usage. Life Cycle Assessment of electronic products along with information about collection centers should be passed on to the consumers. “In the terms of resources this e waste is a great loss” and effective reuse strategies should be carried to prevent such wastages.

Of Forest and Men

Shivani Agarwal

B.Com (Hons), II year

Kokilamikh village, situated in Jorhat dustrict of Assam is nestled on the banks of mighty Brahmputra River. Recently the village got a lot of publicity and attention in the global media because of Mulai Kathoni or Mulai's Forest. The village is home to the first and only human grown forest of world popular Mulai Kathoni. A half an hour bhut-bhuti (or crude steamer) ride from the banks of Kokilamukh village leads to one of the biggest sandbars called Aruna sapori where this forest, rich with flora and fauna has been grown. The locals say that Jadav Payeng, nicknamed Mulai, single handendly planted more than 1500 Saplings since 1980 on Aruna sapori riverine, covering an area of 1000 hectares. He used various indigenous methods to create the forest, including releasing red ants into the soil, which he transported from his village to the forest. Ants, along with earthworms and termites, work on the soil, and increase its fertility.

The forest now houses five Royal Bengal tigers, from the neighbouring Kaziranga Wildlife Sanctuary who have made Mulai Kathoni their home, over a hundred deer, wild boar, more than a hundred vultures, several species of birds, including pelicans, three or four greater one-horned rhinoceroses, besides of course, the snakes, who were at the genesis of this extraordinary story. Also a large number of rare migratory birds including pelicans, Himalayan Griffon vulture along with Brown roofed turtle, sambar deer, wild pig, pythons and cobras could be found in this forest. Payeng also created a 50-m riverine canal. The canal, which is about 2.13 m deep, serves as a water source for wild animals and cattle.

The forest that Payeng created is now a thriving ecosystem. There are around 600 Mishing families living on the island. This tribe belong to Indo- Mongoloid family which is the second largest group of Scheduled Tribes in Assam. They are also nomadic, setting up their habitations wherever feasible. This search brought the current inhabitants to Aruna sapori in 1970s.

The Mishings have built their lives around the new forest. So much so, that they live in elevated bamboo huts called saang ghors, which have been adapted to suit the topography of the land and also to protect themselves from floods. Payeng's rich bio- diverse ecological legacy has been carried forward by this community, despite having little access to basic amenities. There is no access to electricity in Mulai Kathoni, not even a primary healthcare centre. In case of a health emergency, the nearest hospital is in Jorhat, which is half-an-hour by boat and another half-an-hour by road.

The Mishing's faced a lot of hardships in their new home. In 2008, elephants attacked the villages and destroyed the houses. This prompted many residents, including Payeng, to move to the mainland. Poaching is another threat. In 2013, a rhino was poached at Mulai Kathoni. “There is a threat to rhinos in this forest. Lack of electricity works to our disadvantage and to the advantage of the poachers,” rues Swapan Saikia, divisional forest officer, Jorhat. “If Mulai Kathoni is categorised as a reserved forest, it would help in protecting the forest and the community around it too,” he adds.

After this incident, the residents have become more aware of the need to conserve the ecology of the forest. Also the local NGOs and Wildlife Trust Of India has been consistently helping the locals to fight against the threats. In 2014, 10 eco-conservation units were formed and 33 search lights were distributed by a local NGO. In June 2015, the Wildlife Trust of India (WTI) in association with Europäeische Tierschutzstiftung (ETS), Seven Look and the Forest Department of Assam distributed 25 solar lanterns to help villagers. WTI is also planning to install solar street lights later this year after the monsoon. But no one is sure as to how long the Mishing community will continue to stay on Aruna sapori.

The ethical dilemma of automated cars

Pranav Jawa

B.Com (Hons), II year

Ethics and Artificial Intelligence----

According to the Webster, ethics refers to the discipline dealing with what is good and bad and with moral duty and obligation. A human concept, it attempts to justify the rules behind their actions and reactions. Artificial intelligence is an area of computer science that deals with giving machines the ability to seem like they have human intelligence. It is the main component which is used to power self driven cars. It acts as a "brain" of the car and helps to avoid accidents and obstacles on the road.This unique problem of automated cars requires philosophers and engineers to come together and solve the ethical problem of Artificial Intelligence taking split second decisions, potentially affecting various lives.

The Ethical Dilemma

Fully self-driving vehicles are still at the research stage, but automated driving technology is rapidly creeping into vehicles. Over the next couple of years, a number of carmakers plan to release vehicles capable of steering, accelerating, and braking for themselves on highways for extended periods. Some cars already feature sensors that can detect pedestrians or cyclists, and warn drivers if it seems they might hit someone.

So far, self-driving cars have been involved in very few accidents. Google's automated cars have covered nearly a million miles of road with 16 accidents, none of which were the fault of the driverless car. These vehicles typically deal with uncertain situations by simply stopping. As the technology advances, however, and cars become capable of interpreting more complex scenes, automated driving systems may need to make split-second decisions that raise real ethical questions. Researchers, automotive engineers, and automotive executives have to consider the ethical implications of the technology they are developing. Given the number of fatal traffic accidents that involve human error today, it could be considered unethical to introduce self-driving technology too slowly.

Researchers and psychologists are trying to discover the public's opinion using the new science of experimental ethics. This involves posing ethical dilemmas to a large number of people to see how they respond. And the results make for interesting, if somewhat predictable, reading. The results provide a foray into the thorny issues raised by moral algorithms for autonomous vehicles.

A very famous ethical dilemma faced by the cars is the problem developed by the students of Massachusetts Institute of Technology. The "Moral Machine" problems ask people to judge which outcome they think is more acceptable. One way to approach this kind of problem is to act in a way that minimizes the loss of life. By this way of thinking, killing one person is better than killing 10. But that approach may have other consequences. If fewer people buy self-driving cars because they are programmed to sacrifice their owners, then more people are likely to die because ordinary cars are involved in so many more accidents. The result is a situation in which a desired outcome is impossible to attain because of a set of inherently contradictory rules and conditions. The main idea is that the public is much more likely to go along with a scenario that aligns with its own views. At the same time, the researchers varied some of the details such as the actual number of pedestrians that could be saved, whether the driver or an on-board computer made the decision to swerve and whether the participants were asked to imagine themselves as the occupant or an anonymous person.

The results are interesting, if predictable. In general, people are comfortable with the idea that self-driving vehicles should be programmed to minimize the death toll. And therein lays the paradox. People are in favor of cars that sacrifice the occupant to save other lives—as long they don't have to drive it themselves. Researchers are quick to point out that their work represents the first few steps into what is likely to be a fiendishly complex moral maze. Other issues that will need to be factored into future thinking are the nature of uncertainty and the assignment of blame

In order to make the innovative technology acceptable in the society, we need to come up with innovative solutions like moral modeling. Through this system, we can teach the AI system how to emulate and act similar to how a human will act in a specific case. On the basis of the research, it can be concluded that this technology will be beneficial and will help in curbing accidents caused by humans. Policy makers need to decide who will be held liable after an accident as at times, no human will be at fault.

Air Pollution and Similar Tales

Shreyansh Aggarwal

B.A (Hons) Eco, II Year

Deveshi: Hey Saumya, what do you suggest we should get before moving to our new flat in Delhi?

Saumya: An air purifier, a water purifier, a couple of face masks and some air purifying plants should be good.

Deveshi: Umm…okay.

Okay, so the above conversation is purely fictional but Delhi's air pollution is not. How do you describe the air that is yellow in colour, toxic enough to make you cough all day and cause a couple of lung-diseases? Many of you probably guessed it right. I am talking about what has come to be known as the 'Great Smog of Delhi" that occurred in November 2016. However, there is nothing so great about living in a place where the air quality ranges from being "Severe" to "Poor" almost all the time. The PM 2.5 (micro-particles that clog people's lungs) in Delhi's already poor air had become over 17 times more than the Indian Government's safe level and 90 times more than that of the World Health Organisation!

This incident managed to attract a huge attention from the popular media but like any 'Breaking news', the debates, speeches, pleas to act in urgency were all short-lived. We have often heard about China's 'extreme' pollution and even many a time blatantly accused China of India's pollution, but what we don't realise is Delhi's air in general is twice as bad as Beijing's! Moreover, the very reason that we even hear about Delhi's pollution is because of its status of being the national capital. There are so many more cities with worse air quality and no one even talks about them.

So, what can be done? We have often accused 'people' of not being environmentally responsible and the government not doing enough to control the rising pollution. But, the change must come at individual level from each one of us. If we carpool every time we go to college, walk instead of bike for short distances, conserve energy and do everything that we have learnt about in EVS textbooks, there won't be a need to worry about the constant rising pollution. And if we don't do our part, we cannot expect others to save the environment for us and what we will be leaving for the future generations would be a barren land with yellow air and brown waters.

Eco-feminism

Deveshi Chawda

B.A (Hons) Eco, II Year

A woman in harmony with her spirit is like a river flowing. She goes where she will without pretense, and arrives at her destination, prepared to be herself and only herself." - Maya Angelou.

They say that it's a new term for ancient wisdom. An ancient wisdom that urges us to recognize and embrace the interdependence and connection all humans share with one another and with Mother Earth and thus to address, eliminate and rise above all forms of domination. The in vogue term for this primal wisdom today is Eco-feminism.The central tenet of ecofeminism is that social and environmental issues are not separate, that the causes for the mistreatment of women, people of color and the environment stem from the same place. Therefore, from an eco-feminist perspective, it is best to view all of these issues collectively.

“We see the devastation of the earth and her beings by the corporate warriors, as feminist concerns. It is the same masculinist mentality which would deny us our right to our own bodies and our own sexuality, and which depends on multiple systems of dominance and state power to have its way” say Vandana Shiva and Maria Mies, some of the leading propagators of eco-feminism in our times.

Women are often thought of as closer to nature than men. Women's physiological connection with birth and child care have partly led to this close association with nature. The menstrual cycle, which is linked to Lunar cycles, is also seen as evidence of women's closeness to the body and natural rhythms The primary aims of ecofeminism are not the same as those typically associated with liberal feminism. Ecofeminists do not seek equality with men as such, but aim for a liberation of women as women. Central to this liberation is a recognition of the value of the activities traditionally associated with women; childbirth, nurturing and the whole domestic arena. To celebrate, revere and uphold the 'Mother' and the 'Earth' of Mother Earth as different manifestations of the same force is thus eco-feminism's message, dream, purpose.

"He says that woman speaks with nature.

That she hears voices from under the earth.

That wind blows in her ears and trees whisper to her.

That the dead sing through her mouth and the cries of infants are clear to her.“

- Susan Griffin, Woman and Nature

The Roaring Inside Her.

Waste Entrepreneurship

Pranav Jawa

B Com (Hons), II Year

Waste management is the generation, prevention, characterization, monitoring, treatment, handling, reuse and residual disposition of solid wastes. There are various types of solid wastes including municipal, agricultural, hazardous and household waste. Entrepreneurship is the activity of setting up a business or businesses, taking on financial risks in the hope of profit.

A new niche has been created in the economy recently which has sought to combine waste management and entrepreneurship, leading to the term "waste entrepreneurship". The term was first made popular by Waste Management Inc. in 1971. Based in North America, the major services they provided included waste, recyclables, yard debris, and hazardous materials collection. Since the inception of this novel idea, India has also come up with several start-ups for waste management.

Firms in India

Vermigold is an on-site organic waste recycling systems Company which combines advanced vermiculture ,biotechnology with cutting edge engineering to enable end users to recycle organic waste in a trouble free and eco friendly manner. It is India's first and only Internationally certified waste management system that certifies their system as best in class and kindest to the environment.

Timarpur-Okhla Municipal Solid waste management project is the first commercial waste-to-energy facility in India that aims to convert one-third of the Delhi garbage into the much needed electricity, enough to serving 6 lakh homes. The project is registered with United Nations Framework Convention on Climate Change for earning Carbon Credits.

Attero is India's largest integrated end-to-end electronics asset management company. Attero aims to increase value for all electronic inventories, right from end of life electronics to surplus and seconds electronics, while ensuring a safer and more secure future for the planet. It is mainly concerned with E-waste mining.

Antony waste handling cell, an offshoot of Antony group of companies, Mumbai is one of the leading players in the field of Solid waste management services in the country, since the past 8 years. It has features as Engineered Sanitary land filling., Refuse Transfer stations, etc.

Greentooth Technologies Private Limited is an innovative organisation working towards an agenda of providing a sustainable tomorrow and creating green jobs along the way. Extracarbon is a brand of Greentooth Technologies Private Limited which collects recyclable waste from homes & other commercial places & sends the material to respective recyclers. Their business model is based on rewarding individuals for making the effort in becoming a force for good. By working with kabadiwalas, they are inspiring the core people to choose the right kind of waste disposal methods. Community members can use Extracarbon to schedule their recyclable waste pick-up service and also buy & sell second hand items. It also provides information about the scrap which they send to landfills through municipal solid waste e.g. PET bottles

Challenges of waste management in developing societies

Due to the increasing population, waste management in cities with developing economies and economies in transition experience exhausted waste collection services, inadequately managed and uncontrolled dumpsites. Lack of proper governance is also a major factor. Waste management is an ongoing challenge in these countries and many struggle due to weak institutions, chronic under-resourcing and rapid urbanization. All of these challenges along with the lack of understanding of different factors that contribute to the hierarchy of waste management, affect the treatment of waste.

Benefits of waste entrepreneurs in society

Waste can be a valuable resource if collected and utilized correctly, through policy and practice. With rational and consistent waste management practices there is an opportunity to reap a range of benefits. Those benefits include:

Economic – A new sector is opening up due to the increased awareness in consumers, leading to demand of recycled products. Improving economic efficiency through the means of resource use, treatment and disposal and creating markets for these products can lead to efficient practices in the production and consumption of products and materials resulting in valuable materials being recovered for reuse and the potential for new jobs and new business opportunities.

Social – Waste management would create better environments for the people living in cities and would also lead to the development of poorer countries and cities.

Environmental – Minimizing resource extraction will provide improved air and water quality and help in the reduction of greenhouse gas emissions.

Inter-generational Equity – Following effective waste management practices can provide subsequent generations a more robust economy, a fairer and more inclusive society and a cleaner environment

Tatva

The Annual Green Festival

The Centre for Green Initiatives (CGI) recently celebrated its annual green festival- **TATVA.** The event held at college premises on April 6th, attracted and gathered large support from the teacher's fraternity as well as active participation from students. The event provided a great opportunity to the students to demonstrate and present new ideas regarding environment in the form of informal games and activities. Different activities were conducted spreading the awareness and concern over the deteriorating quality of the environment in the capital . Major highlights of the event were:

Informal games - Games organized to make students about various environmental issues in a fun –learning way.

Pottery making- Pottery making activity saw enthusiastic involvement from faculty as well as students. Participants enjoyed this activity of rural background, with an experience of transformation of nature's element into human's goods.

Paper Recycling Workshop - A team of young and enthusiastic students from Basta, an intitative of Lady Shri Ram College demonstrated the techniques of paper recycling. The team also produced various items made from recycled paper. The zealous attitude from the team draw a lot of attention and participation in the activity.

Speaker's session - On the occasion, various experts from the domain of environmental protection introduced their work and experience. The College saw the presence of various nature enthusiasts and students were benefitted from their knowledge .The list of eminent speakers included:

Dr. Ashok Kumar (Bureau of Energy efficiency, Govt. of India)

Dr. Radhey Shyam Sharma (Professor, CEMDE, University of Delhi)

Mr. Gaurav Joshi (Co founder, Extra Carbon)

The session witnessed the discussion and addresses by the speakers on multi aspect of Environment ranging from waste entrepreneurship, Ecosystem services and Energy conservation in the country. The success of the session was marked by the overwhelming response of the audience

Eco- play-The end part of the event generated euphoric moments when the play enacted by Drama society with the motto of '**Clean environment, Green environment**'. The play delivered the message of individual's role and importance in environment conservation. The society also addressed another social evil 'Child Sex abuse' with the help of another act. Both acts generated the spirit of responsibility as well consciousness towards such happenings in society.

अवनी


Centre for Green Initiatives, Shri Ram College Of Commerce
PRESENTS
TATVA
THE ANNUAL GREEN FESTIVAL
"Celebrating Mother Nature"
APRIL 6, 2017
OUR SPONSORS: Greenobin Recycling Private Limited
The Shahnaz Husain Group
GREENOBIN





THE AN


"Celebrating Mother Nature"
APR 2017
OUR SPO
Limited
GREEN
Reuse Whatev

CGI

A few Sustainable initiatives of the Centre

The efforts for sustainability should not only be present in the words but in thoughts, ideology and actions. The Centre for Green initiatives is imbibing this thinking among the various stakeholders of the College. A few measures taken in the regard are:

Green Audit

With the help of **Green Audit –** an audit methodology to compute the environmental cost-benefit ratio, the sustainable aspects of the College's infrastructure as well as the policies can be appreciated. The Green Audit appreciated the efforts of the Centre taken to improve the environmental effectiveness of the College's environs and the measures in spreading awareness amongst the stakeholders of the College.

Waste Management

All the paper from the College is properly collected and is sold to a waste entrepreneurial NGO named **Greenobin**. For the financial year 2016-17, the College recycled approximately 11,000 kilograms of discarded paper which were recycled into copies, notepads and slip-pads.

Further, the College has installed separate bins for food waste collection (Wet waste collection) along with segregation of waste at the source (Biodegradable and Non Biodegradable categories).

Plantation Activities

The commitment of the college towards green-scaping of the campus is well evident by the lush greenery in the college area. The College area of 15.62 acres is covered with a varieties of trees, flowers, herbs and shrubs. The campus also has a herbal garden which has around 50 species of medicinal and herbal plants like **Ginseng, Cardamom, Bay leaf, Holy Basil** etc . To further increase the green cover in the campus, the Centre is promoting by providing saplings as token of gesture, plantation drive associated with different events and effective awareness among the students.

Water Management & Conservation

Rain water harvesting is already implemented at College site with the rain water being sent to ground water recharge instead of being send to drainage. The initiative recharges over fifteen millions litres per year to the ground water level.

Also, beyond this, the borewell water undergoes RO water cleaning before use in the College. The discarded water is then channelized for use in the washrooms to prevent undue wastage of scarce water resources..

Environmental Best Practices

The College is also a hub of various small yet effective measures of eco- friendly practices to conserve the environment, such as:

- Use of natural lighting to reduce dependence on artificial lighting and prevent needless consumption of electricity.
- Use of architecture passive feature in form of natural ventilating and cross ventilation which reduces the need for air conditioning.
- Use of BEE rated Air conditioners to maximise the energy efficiency of the power consumption.

Centre for Green Initiatives

Team 2016-17

Chairperson
Dr. R.P. Rustagi
Principal

Convenor
Dr. Rachna Jawa
Associate Professor

Faculty Members
Dr. Nawang Gialchhen, Dr. Kanu Jain, Ms. Vartika Khandelwal, Mr. Harish Kumar, Mr. Harvinder Singh

Administrative Members
Mr. Shiv Nandan (Sr. P.A. to the Principal), Mr. Jatin Lamba (Administrative Officer), Mr. P.K. Jain (Accounts Officer), Mr. Satyakam Gupta (Caretaker)

Greenteers
(Our Student Members)

Cabinet
Saumya Bansal (*Head of Operations*), Deveshi Chawda, *(Editorial Head)* , Vaishnavi Paul (*PR Head*) Harshita Yadav (*Creavity Head),* Avni Noor *(Creavity Head),*

Executive Members: Akanksha Manchanda, Naitick , Pranav Jawa, Pratibha Malhotra, Rashim Vaid, Sanjay, Shivangi, Shivani, Shubham Siwach, Shreyansh Aggarwal, Sudarshan, S.Harini

Centre for Green Initiatives

Shri Ram College of Commerce

University of Delhi

Delhi - 110007

Phone: +91-11-27666519, +91-9810580849 Fax: +91-11-2766650

Email us at: Convenor.gic@srcc.du.ac.in

Website: http://www.srcc.edu/centre-green-initiatives

https://www.facebook.com/centreforgreeninitiative/