

GOVT. POLYTECHNIC MALKANGIRI, ODISHA

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ANNUAL MAGAZINE

ASPIRE -2023



GOVT POLYTECHNIC MALKANGIRI, ODISHA

➤ Vision

To produce best quality of Engineering professionals by imparting hands on experience and value based education such that they should function effectively in the multicultural and multidisciplinary groups with strong ethical values from the aspirational Districts of Odisha.

➤ Mission

M1: To provide state of the art infrastructure and vibrant environment for the students of Engineering conducive to qualitative learning and problem solving skills through excellent teaching and guidance of dedicated faculty

M2: To provide exposure to industry through suitable Institution-Industry-Interaction programs to adapt the challenges with professionalism and strong ethical values.

DEPT.OF CIVIL ENGINEERING

➤ Vision of the Department

To Produce best quality of Civil Engineering professionals by imparting hands on experience and value based education to meet the aspirations of Construction Industry and make the world a better place to live in from the aspirational Districts of Odisha.

➤ Mission of the Department

- To Prepare the students of Civil Engineering with strong fundamental concepts, analytical capability and problem solving skills.
- Prepare the students to adapt to the challenges in the construction industry
- To Instill professionalism and strong ethical values and to be leaders driving innovation in Civil engineering.



VISHAL SINGH, IAS
Collector & District Magistrate,
Malkangiri

Message

It is a matter of immense pleasure for me to learn that Government Polytechnic, Malkangiri situated on the lap of the enticing nature, an institution of aspiration and Inspiration for the youth of Malkangiri district is going to bring out the 1st edition of its Annual magazine “ASPIRE”. A magazine of the institution is of immense value as it provides a coveted platform to the students to unfold their creative thoughts and talent and to the inquisitive readers in myriad directions.

For this noble Endeavour of the institution, I wish all success from the core of my heart.


Collector & District Magistrate,
Malkangiri



SRI TARUN KANTA MOHANTY, OIS-I
GENERAL MANAGER, MSME DEPARTMENT
DISTRICT INDUSTRIES CENTRE, MALKANGIRI

Message

Prime Minister Employment Generation Program (PMEGP) is the flagship scheme of Government for generation of employment opportunities by promoting Micro enterprises by vast generation of entrepreneurs in the district. This year 2022-23, we have set up more than 104 Micro enterprises in sectors like Food processing, Electrical repairing, Mechanical workshop, Welding, Readymade garment manufacturing , Beauty parlor, Saloon, Musical band party, Computer centre and manufacturing of products required by humanity in terms of their uses in shelter, food and clothes.

The recently launched Prime Minister Formalization of Micro Food Processing Enterprises(PMFME) scheme invites 18 years and above individuals and SHGs for setting up of new food processing enterprises or upgrading existing food processing enterprises. Malkangiri district is inching towards success in this scheme by launching awareness program in every Gram Panchayats of Malkangiri district. The SHGs and individuals have been sentised in thousands to apply for the program online.

I would urge the passing out students of Govt. Polytechnic , Malkangiri to take benefits of this scheme in receiving credit cum subsidy ranging from Rs 50 Lakhs to Rs 3.00 Crores with 35% Capital Expenditure subsidy as per the customized projectreport prepared by DIC, Malkangiri.

I wish the students of Govt. Polytechnic, Malkangiri come out with all laurels by taking benefits of DIC, Malkangiri and become successful entrepreneurs in times to come.



Manaswee Sethi, OES
District Employment Officer
Malkangiri

Message

In the very heart of Malkangiri, these shine and the Govt. Polytechnic, Malkangiri offering diploma in Electrical, Mechanical and Civil Engineering. The experienced dynamic faculties under the guidance of the Principal, deliver qualitative and practiced teaching to the students and make them ready for placements in all over India in reputed companies.

I request all the eligible students of Malkangiri district for career in Technical field to take admission in the Govt. Polytechnic, Malkangiri.



Principal's Message

Good habits are hard to come by and easy to live with. Conversely, bad habits develop easily and are hard to live with. Given the fact that bad habits harm us, we need to be more aware of the repeated choices we make. Very often, people unconsciously make choices in their lives. It is like the horse rider, who, when asked where he was going, replied, 'I don't know, ask the horse'. The horse rider's response was comical because he should have set the direction, not the horse. Similarly, our unconscious choices create bad habits we later live to regret.

***Sow a thought, reap an action;
Sow an action, reap a habit;
Sow a habit, reap a character;
Sow a character, reap a destiny.***

“This Institute is providing ample scope for service & entrepreneurship.

Students should take advantage of it with best wishes.”

**J.R.Das
Principal
Government Polytechnic, Malkangiri**

Editor's message

It is an occasion of pleasure to present to our esteemed readers a fresh issue of our Annual College Magazine ASPIRE-2022. This issue of the college magazine consists of the contributions of both the faculty as well as the students. The write-ups of the contributors in the form of poems, essays and articles exhibit the literary flair and creative adroitness of the contributors.

In spite of the fact that a college magazine has to be primarily and wholly a student affair, faculty contributions have been deliberately included so as to encourage and inspire the student contributors. It is pretty worthwhile to place on record words of appreciation for the worthy principal **J.R.Das** for his assiduous endeavors to maintain high academic standards and congenial educational environment of the institution. With a vast experience and expertise at hand, he has endeavoured and dedicated himself to the betterment of this institution. Publication of college magazine is a team effort involving all the players for better results. Valuable suggestions of all the faculty members especially senior most, therefore, deserve a word of appreciation. Suggestions, if any, for further improvement in the subsequent editions are always welcome.

CONTENTS

1. Design Philosophies To Prevent Twisting Of Buildings	Pritiranjana Priyadarshi Patro
2. Green Engine	Sharmila Sabar
3. Robot Welding	Saurav Ranjan
Pradhan	
4. Vision For Indian Technical Education In Contemporary Global Scenario	J Binod Kumar
5. Lessons from Bhagavad Gita	Bipin Bihari Mohanty
6. Pyrometer	Pallabi Mohanta
7. Electrical Engineering and Machine Learning Applications for Neural Networks	Laxman Majhi
8. Don't Get Tied Up With False Beliefs	Mangal Sing
9. Invest some Time And Get Unexpected Opportunity	Binod Jena
10. Never Give Up	P. Sankar Rao
11. Innovation and Creativity Enhancement Between Students	Balla Pawani
12. Jet Engines	Bibekananda Rout
13. Quantum computing	Rajiv Gain
14. Dragon Flies	Ashish Mirgan, Civil Engg
15. 10 Habbits of Successful students	Girija Sankar Behera, EE Engg
16. Yourself	Ashish Biswas, ME Engg
17. What Does Your Life Mean To You?	Pinki Biswas EE Engg
18. Decline In Global Wildlife Population	Aswini ku Charchi, Civil Engg
19. Save Environment	Urmila Nayak , ME Engg
20. If Science Matters Then Evolution Does Matters	Pius Patro , EE Engg
21. Female Education In India	Debi Prasad Das, EE Engg
22. My Vision For India In 2047	Archana Duria, EE Engg
23. The Butterfly	Kishore Mondal, ME Engg
24. Mother's Love	Sumitra Challan, EE Engg

25.Nature

Chandrabati malat,ME Engg

26.Your Best

Biranchi Narayan Gomango,EE Engg

27.Internet:Good and Bad Effect of Internet

Asish Moharana,ME Engg

28.College Life

Lipun Kumar Mohanty,ME Engg

29.To my Friend

Hariprasad Samal,ME Engg

30. Life without Internet

Molleti Vijaya,ME Engg

Design Philosophies To Prevent Twisting Of Buildings

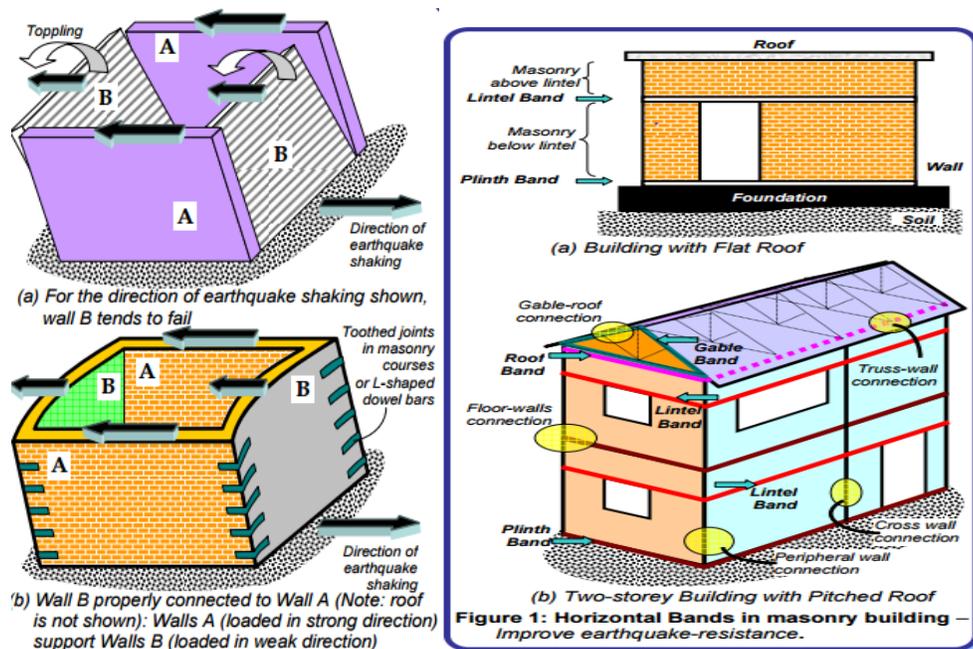
Pritirajan Priyadarshi Patro
Senior Lecturer
Civil Engineering Dept.

Design :

Buildings should be designed like the ductile chain. For example, consider the common urban residential apartment construction - the multi-storey building made of reinforced concrete. It consists of horizontal and vertical members, namely beams and columns. The seismic inertia forces generated at its floor levels are transferred through the various beams and columns to the ground. The correct building components need to be made ductile. The failure of a column can affect the stability of the whole building, but the failure of a beam causes localized effect. Therefore, it is better to make beams to be the ductile weak links than columns. This method of designing RC buildings is called the strong-column weak-beam design method (Figure 4). This will make the buildings better resistant to twist.

Brick Masonry Structures :

In case of brick masonry , the walls lying perpendicular to the direction of ground shake will fail first. Their joints will give away and the walls collapse. Hence it is important that we eliminate this kind of seismic behavior of buildings.

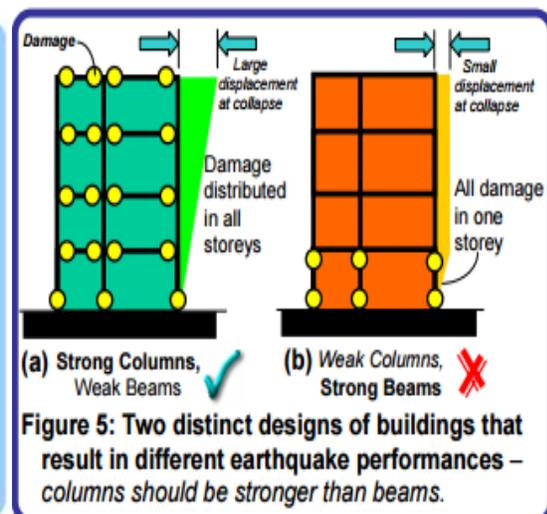
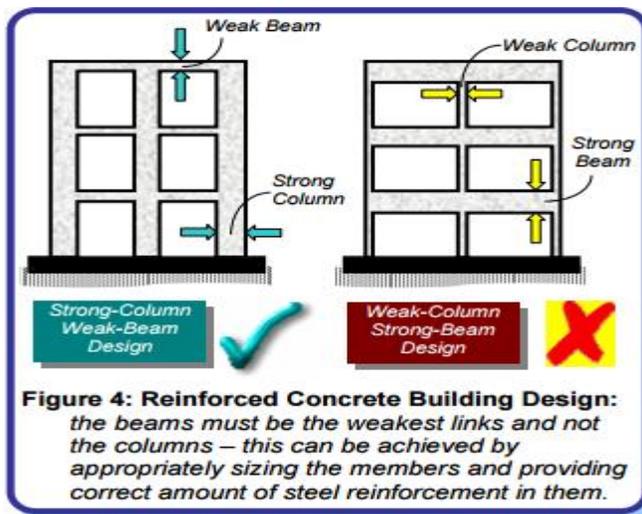


This can be achieved by (a) ensuring good interlocking of the masonry courses at the junctions, and (b) employing horizontal bands at various levels, particularly at the lintel level.

Framed Structures

For a building to remain safe during earthquake shaking, columns (which receive forces from beams) should be stronger than beams, and foundations which receive forces from columns) should be stronger than columns. Further, connections between beams & columns and columns & foundations should not fail so that beams can safely transfer forces to columns and columns to foundations.

When the strategy of Strong Column and Weak Beam is adopted in design, damage is likely to occur first in beams. When beams are detailed properly to have large ductility, the building as a whole can deform by large amounts despite progressive damage caused due to consequent yielding of beams. In contrast, if columns are made weaker, they suffer severe local damage, at the top and bottom of a particular storey. This localized damage can lead to collapse of a building, although columns at storeys above remain almost undamaged.



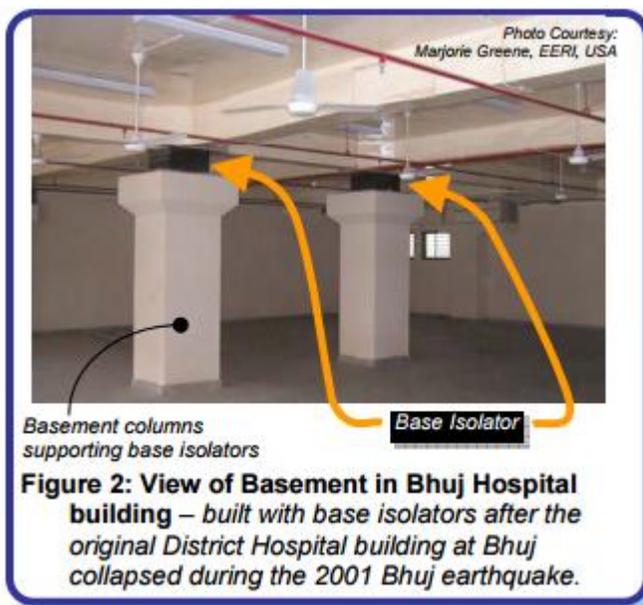
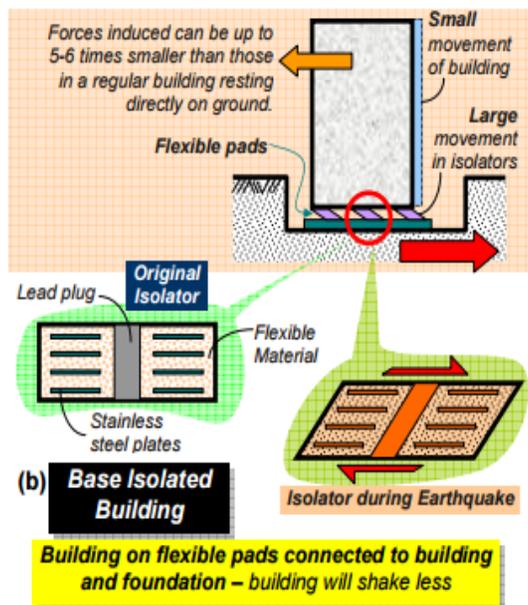
How to Reduce the effect on Buildings :

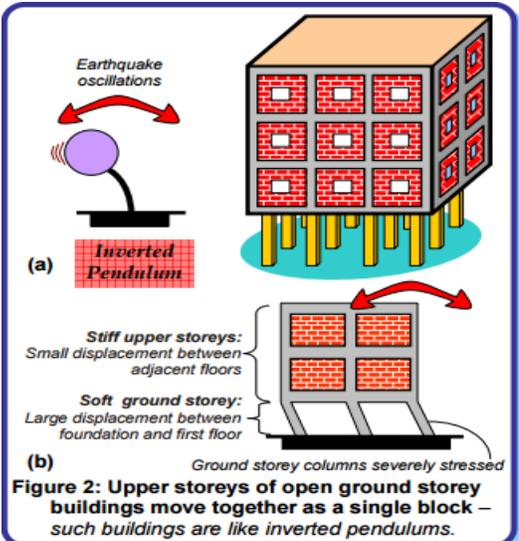
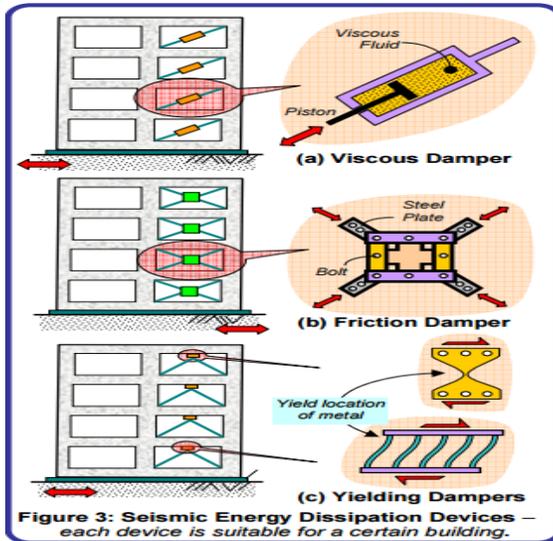
Conventional seismic design attempts to make buildings that do not collapse under strong earthquake shaking, but may sustain damage to non-structural elements (like glass facades) and to some structural members in the building. This may render the building non-functional after the earthquake, which may be problematic in some structures, like hospitals, which need to remain functional in the aftermath of the earthquake. Special techniques are required to design buildings such that they remain practically undamaged even in a severe earthquake. Buildings with such improved seismic performance usually cost more than normal buildings do. However, this cost is justified through improved earthquake performance.

Two basic technologies are used to protect buildings from damaging earthquake effects. These are Base Isolation Devices and Seismic Dampers.

The idea behind **base isolation** is to detach (isolate) the building from the ground in such a way that earthquake motions are not transmitted up through the building, or at least greatly reduced.

Seismic dampers are special devices introduced in the building to absorb the energy provided by the ground motion to the building (much like the way shock absorbers in motor vehicles absorb the impacts due to undulations of the road).





Why are Open-Ground Storey Buildings are a very bad idea in case of Earthquakes?

The presence of walls in upper storeys makes them much stiffer than the open ground storey. Thus, the upper storeys move almost together as a single block, and most of the horizontal displacement of the building occurs in the soft ground storey itself. Hence the ground floor will collapse easily.

Hence it is ideal to have walls in the ground floors .These are some design philosophies to prevent twisting of building structures .

GREEN ENGINE

Sharmila Sabar
Senior Lecturer

Mechanical Engineering Dept.

The green engine is one of the most interesting discoveries of the new millennium. It has got some unique features that were used for the first time in the making of engines. This engine is a piston less one with features like sequential variable compression ratio, direct air intake, direct fuel injection, multi-fuel usage etc. The efficiency of this engine is high when compared to the contemporary engines and also the exhaust emissions are near zero. The significance of the engine lies in the efficiency when the present world conditions of limited resources of energy are considered. Prototypes of the engine have been developed. Generators have been produced with the green engine.

The United Nations Energy Organization names all of them "elementary energies", as well as "conventional energies". Electricity is merely a "second energy" derived from these sources. At present, the energy consumed all over the world almost completely relies on the supply of the five main energy sources. The consumption of petroleum constitutes approximately 60 percent of energy used from all sources, so it is the major consumer of energy.

The Green engine's prototypes have been recently developed, and also because of the unique design, limitations have not been determined to any extent. But even in the face of limitations if any, the Green engine is sure to serve the purpose to a large extent.

ROBOT WELDING

Saurav Ranjan Pradhan
Senior Lecturer
Mechanical Engineering Dept

Robot welding is the use of mechanized programmable tools (robots), which completely automate a welding process by both performing the weld and handling the part. Processes such as gas metal arc welding, while often automated, are not necessarily equivalent to robot welding, since a human operator sometimes prepares the materials to be welded. Robot welding is commonly used for resistance spot welding and arc welding in high production applications. The main advantage is that it will ease life of human in every way. Introduction of robot in coming years will change the way of work, whether, it is house hold , office work or for the use of military personals as it is time-saving. A machine can do any work in half of the time than men can do. It works with 100 percent efficiently and with fewer error . For example, medical fields are taking benefit with it, few manpower and efficient work in just half of the time as compared to earlier days where it was time consuming. Robotic gas metal arc welding (GMAW) has high potential in the field of automation of welding especially in automobile industry and construction field, where redundancy in work occurs with conventional techniques. This dissertation presents the experimental investigations carried out on butt jointed BR steel using robotic GMAW. Experiments were conducted under various combinations of arc-current, stick-out, arc voltage and travelling-speed at three levels of four responses, namely, bead geometry (bead-width, bead-penetration and bead-height) and mechanical properties (tensile strength, impact energy and micro-hardness). The optimization of these parameters was carried out using design of experiments. The parameters were optimized individually using Taguchi techniques, and also simultaneously using multi-objective optimization using genetic algorithm (MOOGA).



VISION FOR INDIAN TECHNICAL EDUCATION IN CONTEMPORARY GLOBAL SCENARIO

J Binod Kumar
Lect. Electrical Engg.

Indian technical education must aim at overall development of the country by involving the development of all sections of the society including the services sector, industry sector, and agriculture sector. This would only be possible if the goals of technical education in the country are set-up in synchronization with the demographic characteristics of the country. The problem with countries like USA that are gripped with recessionary patterns currently, has been that only the technical know-how has been present in those countries while the other factors such as production, engineering, marketing, management have all been outsourced to other countries like India, China, Russia and Brazil. The Indian demography is strong and versatile enough to manage all these functions in-house leading to a solid competitive advantage. Therefore, there is a strong case for developing the technical education in India in line with the competitive advantage for the country in the global economy. Mere imparting the skills (that are being imparted globally) does not fulfill this requirement. Technology being taught by present technical education system of the country only tells us 'how to do the things' without actually knowing 'what to do', which is far more relevant a question (Gaur et al. 2009). The vision for future of Indian technical education ought to start with knowing and deciding 'what to do with technical education'. This question needs to be addressed keeping in mind the needs and competencies of the Indian citizens. Since agriculture is the core strength of India, the Indian model of technical education shall target at exploring this core strength. All the streams of technical education shall be developed in a way that helps strengthen the agricultural economy of the country. This is the 'what to do' part on the basis of which 'how to do' can be worked out.

There are examples present in the Indian education system itself where the technical programs customized as per the competitive advantage and needs of the country, emerged amazingly successful and served the purpose at all the four levels mentioned before. The post-graduate programs in agri-business management being offered by Institute of Rural Management, Anand (Gujarat) and Indian Institute of Management, Ahmedabad, are two of the significant examples that can be cited wherein the customization of higher education programs according to the competitive advantage of the country have produced great results at all the four levels. One, the equipped manpower produced by these programs has been grabbed by the industry with both hands leading to the happy and prosperous 'self' of these

technocrats. Two, the placements of these graduates have been in their own State/ Country, thereby minimizing the need to migrate overseas unlike the Computers/Electronics/IT engineers, leading to happy and prosperous 'families'. Three, they are also serving the Indian 'society' by guiding the farmers. Four, they are involved in improving the production and quality of food-grains without exploiting the natural resources or the human beings, and this production is in harmony with the 'nature'.

LESSONS FROM BHAGAVAD GITA

Bipin Bihari Mohanty
Lect. In Chemistry
Math & Science Dept.

1. The happiness which comes from long practice, which leads to the end of suffering, which at first like poison, but at last like nectar-this kind of happiness arises from the serenity of one's own mind.
2. Lust, anger and greed are the three doors to hell.
3. It is true that the mind is restless and difficult to control. But it can be conquered through regular practice and detachment. Those who are self-controlled, striving earnestly through right means, will attain the goal.
4. We are born empty-handed and also we have to leave this mother earth empty-handed.
5. If we want 100 % result then we have to first work with 100% devotion and don't worry about the outcome before the actual result has come.
6. Change is the law of the universe. One can be a millionaire or a pauper in due course of time.
7. A gift is pure when it is given from the heart to the right person at the right time and at the right place, and when we expect nothing in return.
8. Good work can never be wasted, always rewarded by the God at right time.
9. Tough times will come and go away. Learn to tolerate them without being affected by them. Nothing is permanent in this world.
10. Reject the thoughts that distract you from your goal. Discard the temptations and desires that stop you from reaching your ultimate goal.

PYROMETER

Pallabi Mohanta
Lecturer in I&C

A **pyrometer** is a type of remote-sensing thermometer used to measure the temperature of distant objects. Various forms of pyrometers have historically existed. In the modern usage, it is a device that from a distance determines the temperature of a surface from the amount of the thermal radiation it emits, a process known as pyrometry and sometimes radiometry. The word pyrometer comes from the Greek word for fire, " $\pi\upsilon\rho$ " (*pyr*), and *meter*, meaning to measure. The word pyrometer was originally coined to denote a device capable of measuring the temperature of an object by its incandescence, visible light emitted by a body which is at least red-hot.^[1] Modern pyrometers or infrared thermometers also measure the temperature of cooler objects, down to room temperature, by detecting their infrared radiation flux.

It is based on the principle that the intensity of light received by the observer depends upon distance of observer from source and temperature of distant source. A modern pyrometer has an optical system and a detector. The optical system focuses the thermal radiation onto the detector. The output signal of the detector (temperature T) is related to the thermal radiation or irradiance of the target object through the Stefan–Boltzmann law, the constant of proportionality σ , called the Stefan–Boltzmann constant and the emissivity ε of the object.

This output is used to infer the object's temperature from a distance, with no need for the pyrometer to be in thermal contact with the object; most other thermometers (e.g. thermocouples and resistance temperature detectors (RTDs)) are placed in thermal contact with the object, and allowed to reach thermal equilibrium. Pyrometry of gases presents difficulties. These are most commonly overcome by using thin filament pyrometry or soot pyrometry. Both techniques involve small solids in contact with hot gases.



Electrical Engineering and Machine Learning Applications for Neural Networks

Laxman Kumar Majhi
Lab.Asst.Electrical Engg.

Deep learning and other forms of artificial intelligence have produced powerful tools and strategies for electrical engineering. For example, fuzzy logic control systems, which are able to account for a continuum of conditions when establishing rules for how machines respond to inputs, have become a common application for AI. Researchers are investigating how neural networks could offer further advantages for controlling grids and improve performance in dynamic systems.

AI and machine learning play a growing role in signal detection and processing, improving quality and accuracy. For example, algorithms have been deployed to model signals, draw inferences about data input and adjust signal output. Studies have suggested the potential for training neural networks that improve multiple-signal detection and modulation. Deep-learning systems could perform statistical signal processing to reduce the noise that would otherwise interfere with image recognition or speech enhancement.

Neural networks may also help in reliably producing renewable energy. One of the greatest disadvantages of relying on sources like solar and wind power is that the sun doesn't always shine and the wind doesn't always blow. That makes power system scheduling vital to maintain a consistent supply. A neural network can inform planning by processing large amounts of data rapidly to develop more accurate wind speed predictions. Implementing a multivariable model, a data monitoring system can measure time intervals down to milliseconds as it notes temperature, wind speed, wind direction and weather pressure.

For engineers, advances in neural networks deliver endless opportunities for experimentation and creative problem-solving. Building expertise in electrical and computer engineering can help professionals discover new ways to achieve results with artificial intelligence and deep learning. The curriculum in Michigan State University's online Master of Science in Electrical and Computer Engineering prepares students to implement deep neural networks and execute deep learning projects. This program helps electrical and computer engineers develop the advanced technical skills to drive the next generation of solutions in fields such as autonomous vehicles, renewable energy and healthcare.

Don't Get Tied Up With False Beliefs

Mangal Sing
Lab.Asst.Civil Engg.

A man was walking nearby to a group of elephants that was halted by a small rope tied to their front leg. He was amazed by the fact that the huge elephants are not even making an attempt to break the rope and set themselves free.

He saw an elephant trainer standing beside them and he expressed his puzzled state of mind. The trainer said “when they are very young and much smaller we use the same size rope to tie them and, at that age, it’s enough to hold them.

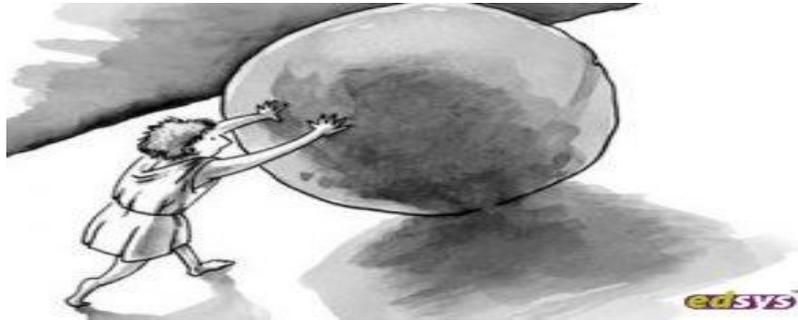
As they grow up, they are conditioned to believe they cannot break away. They believe the rope can still hold them, so they never try to break free.”

***Moral:** It is the false belief of the elephants that denied their freedom for life time. Likewise, many people are not trying to work towards success in their life just because they failed once before. So keep on trying and don't get tied up with some false beliefs of failure.*

INVEST SOME TIME AND GET UNEXPECTED OPPORTUNITY

Binod Jena
Lect.Civil Engineering

Once there was a king who was curious but wealthy. He decided to test his fellow people to know who has a got a good attitude in life and who would spare some time for country's progress.



He placed a huge boulder right at the middle of the road and hid in a nearby place to see if anyone would make an attempt to move it off or not.

He saw some wealthy merchants and courtiers passing by the road. None of them made any attempt to move it off but simply walked away while some others blamed the king for not maintaining roads.

Later, a peasant came the way with a load of vegetables and saw the boulder. He kept his load down and tried to move the boulder away. After strenuous effort, he succeeded in moving it away. He saw a purse lying in the place of the boulder.

It contained many gold coins and a note from the king which read 'this is the reward for the person who moves the boulder away'.

Moral: It is quite common for people to run away from problems and obstacles. But the story clearly shows the importance of seeing an opportunity in every obstacle which might improve our condition. Invest some time to remove obstacles on your way and experience many unseen presences.

NEVER GIVE UP!!

P. Sankar Rao
Lect. Civil Engineering

Some frogs were traveling through woods and two of them accidentally fell into a pit. The other frogs which were safe upside understood how deep the pit was and saw no hope for the frogs to escape out of it.

Both of these frogs started trying to get out of the pit but failed many times. The frogs on the safe side shouted at them to give up the pain of trying as it was not possible.

Eventually, one frog heard the other frogs and decided to stop trying and fell down to death. However, the other frog went on trying and at last managed to reach the top.

The other frogs asked him, "Did you not hear us?" He explained that he was deaf and thought other frogs were encouraging him to get out.

Moral: Some people around you may ask you to be on a safer side always and stop trying and taking risks. However, there is no gain without pain. So try hard to achieve success in life despite what life offers you.

JET ENGINE

Bibekananda Rout
Lect. Mechanical Engg.

A jet engine is a machine that converts energy-rich, liquid fuel into a powerful pushing force called thrust. The thrust from one or more engines pushes a plane forward, forcing air past its scientifically shaped wings to create an upward force called lift that powers it into the sky. That, in short, is how planes work—but how do jet engines work?

One way to understand modern jet engines is to compare them with the piston engines used in early airplanes, which are very similar to the ones still used in cars. A piston engine (also called a reciprocating engine, because the pistons move back and forth or "reciprocate") makes its power in strong steel "cooking pots" called cylinders. Fuel is squirted into the cylinders with air from the atmosphere. The piston in each cylinder compresses the mixture, raising its temperature so it either ignites spontaneously (in a diesel engine) or with help

from a sparking plug (in a gas engine). The burning fuel and air explodes and expands, pushing the piston back out and driving the crankshaft that powers the car's wheels (or the plane's propeller), before the whole four-step cycle (intake, compression, combustion, exhaust) repeats itself. The trouble with this is that the piston is driven only during one of the four steps—so it's making power only a fraction of the time. The amount of power a piston engine makes is directly related to how big the cylinder is and how far the piston moves; unless you use hefty cylinders and pistons (or many of them), you're limited to producing relatively modest amounts of power. If your piston engine is powering a plane, that limits how fast it can fly, how much lift it can make, how big it can be, and how much it can carry.



INNOVATION AND CREATIVITY ENHANCEMENT BETWEEN STUDENTS

Balla Pawani
Lect. Mechanical Engg

Innovating and being creative allows us to better understand concepts. By utilizing a creative, experimental method of teaching, colleges develop thinkers who are able to use their own strengths to explore their varied interests. It is essential and helpful for young learners to learn these creative methods in order to become able to think independently, independently, and creatively in the future. If you are interested in knowing what is the **importance of creativity and innovation in academics** so here we provide you with a complete guide. Developing a system of education that fosters and cultivates creativity among students is essential. In order to achieve success outside the classroom, students must be creative and adaptable.

The best **classroom environment** is one that has some elements of creativity that make lessons more engaging and interactive. Students who are given the right mix of creativity and curriculum are more likely to learn new things and be innovative. Through communication skills and social skills development, students can become good communicators. Learning can be transformed in creative classrooms by giving students the opportunity to apply what they've learned in their real lives. The development of a student's emotions depends in part on their ability to express themselves creatively.

Here Knows The Importance of Creativity And Innovation In Academics:

1. Improves Thinking Capability

Students can be stimulated to think imaginatively through creativity. In addition to the classroom curriculum, teachers are promoting activities such as creative team-building activities, open-ended questions, debates, and brainstorming sessions. To make learning fun and easy for students, some teachers tactfully employ these techniques when teaching tough lessons.

2. Reduced Stress and Anxiety

Between all the rigorous study times, students are relieved of a great deal of stress by setting aside some time for creative activities. They feel joy, which helps them stay relaxed and prevents them from becoming anxious, which helps them prepare well for tests and do well in them.

3. Enables freedom of expression

Creative and innovative learning allows students to express themselves freely, in contrast to the traditional method of teaching. Students are given the opportunity to step outside their comfort zone as they take part in competitions and classroom discussions alike.

4. Boosts Problem Solving Skills

Students can use innovative brainstorming activities like quizzes to enhance their problem-solving abilities. By taking a creative and innovative approach to a problem, students from the best colleges really change how they approach a problem. A college that encourages students to be imaginative and creative encourages creative problem-solving as well.

5. Better Communicators

Creative classrooms allow students to explore a world of communication. During their free time, students can engage in better conversations and talk sessions to stimulate innovative thinking. Through shared creative experiences, they learn to work together and communicate better.

DRAGON FLIES

Ashish Mirgan
Civil Engg. (3rd Year)

Dragonflies are giants among insects as they are bigger than other insects in world. The biggest if the dragonfly is five inches long and six inches broad with wings spread out.

They are always moving from place to place and keep their wings spread even while at rest. They can fly at ninety-five kilometers per hour and they can keep flying for many weeks. They are in the air most of the time usually busy catching their prey.

They are born under water for the eggs laid on water or on water plant hatch out and live in water waiting for the prey. The different parts of their body take a year to grow into full grown dragon flies, with large and round heads and transparent wings. Then they can fly in the air. They have got long thin bodies , four long narrow eyes and two feelers.

The head contain large eyes. They contain thousand of separate eyes. They have as many as 2500 eyes in one eyes. They see a number of things at the same time.



Without breathing one would die so we breathe in pure air and breathe out impure air. But the dragon flies have a number through these holes. But they have their feelers to smell. They can smell not only their prey, catch it and kill it but also smell the their enemies and fly away from them.

The dragonflies do not have their ears in their ears in their heads. They have ears in a strange place. Just like the crickets have their ears in their legs, grasshopper in their stomach, they have their ears on their sides.

They have brains also like the human beings and there are cords connecting the brain to the rest of the body. But the nerve cords do not run at the back of the body but run on the underside. But the brain does not control all parts other body. Even if the brain is destroyed they can still carry on their normal life where as the human being cannot.

The six legs of the dragonfly are not meant for walking. The dragonflies do not walk but they are always. But the legs are used for holding on tightly to sticks and leaves when they want to rest. There are hooks on the tip of their legs. When they rest, these hooks hold on tight and they cannot fall off.

The dragonflies are not harmful for they neither sting nor bite. They are helpful to us in a number of ways. They eat the houseflies, ants and mosquitoes which are harmful to us for they bring disease and death

The birds are the enemies of the dragonflies for they prey on them. But the mother fly lays thousands and thousand of eggs and so they cannot be destroyed.

10 HABITS OF SUCCESSFUL STUDENTS

Girija Sankar Behera
Electrical Engg.(3rd Year)

1. Get Organized. Making a plan for what you're going to do and when you're going to do it will make sure you're always ahead of the curve - literally.
2. Don't multitask. Studies have shown that multitasking is physically impossible.
3. Divide it up. Studying isn't fun to begin with, and forcing yourself through a study marathon will only make it worse. Dividing your work into manageable chunks and rewarding yourself when you finish each chunk will make studying (more) fun.
4. Sleep. Don't underestimate the importance of those eight hours of sleep's every night! Getting a good night's rest will sharpen your focus and improve your working memory.
5. Set a schedule. Do you work better right after school or after you've eaten dinner? Are you more productive in 90-minute blocks or half-hour spurts? Find a schedule that works for you, and stick to it.

6. Take notes. Taking notes will not only keep you more engaged during class, but will also help you narrow down what you need to study when exam time rolls around. It's much easier to reread your notes than to reread your entire textbook!

7. Study. This one might be obvious, but did you know that there's a right and a wrong way to study? Review your material several days ahead of time, in small chunks, and in different manners (for example, write flashcards one day and take practice tests the next). In other words, don't cram.

8. Manage your study space. Find a place that will maximize your productivity. Look for places away from the television and other distractions. Whether it's your local library or just the desk in your bedroom, set aside a study space that you'll want to spend time in.

9. Find a study group. Sitting down with a group of people who are learning the same things as you is a great way to go over confusing class material or prepare for a big test. You can quiz each other, reteach material, and make sure that everyone is on the same page. After all, teaching someone else is the best way to learn.

10. Ask questions. You're in school to learn, so don't be afraid to do just that! Asking for help - from a teacher, a tutor or your friends - is a sure-fire way to make sure you truly understand the material.

YOURSELF

Ashish Biswas
Mechanical Engg.(3rd Year)

You likely consider yourself somewhere in the middle of these extremes. But, no matter your stance, you need to take control. Find out who you are and build on your gifts and talents of self. Listen to yourself. Reflect on what you say and do. Build on your experiences. Increase your knowledge through education and training. Grow from the adventures of others. Deep down, your convictions will be built on the opinion and beliefs of those you would emulate. Can you see or hear others in your thoughts, words, and emotions? Don't resist those responses. Be aware and choose to say and do the things you want to say and do yourself. Know yourself. See that you are unique and special. No one else is exactly like you. Learn from your strengths and weaknesses. Trust yourself. Learn to rely on your abilities and desires. Let God work in your life.

What Does Your Life Mean To You?

Pinki Biswas
Electrical Engg.(2nd Year)

I may still be young and naïve but I believe that life is worth everything. For me, it's not just about having a relationship, companionship, good friends or maybe a job that you like, if you are lucky. Some

people will settle for things like this because for them, it's by far the best it can get. For me, that's not all you get from this world.

I believe in harps and violin and thunders and lightning. I believe in being in love and not just a mere accord of comfort for two people. I believe in "being in love" with my partner, not just "loving" him.

Life is worth so much. Life is more than spending endless hours in the gym and eating carrot and celery sticks just to seek approval from others. It is not about basing my everyday existence an eternal word of wisdom of long-dead self proclaimed philosophers and saints. My life is not about living somebody else's dreams and beliefs but my own.

Life is so much more than merely pursuing the norms of the society but trying to be a good person in my own accord. It is not about wildly chasing dreams to be superior over others. It's more about long walks down serene green meadows drowned in my own thoughts. It's more about feeling the wind hit my face, as I traverse my bicycle down the lane.

Life is about passion, freedom and love. I will only walk this road once; I might as well make the most of it.

DECLINE IN GLOBAL WILDLIFE POPULATION

Aswini kumar Charchi
Civil Engg.(2nd Year)

Wildlife populations monitored across the globe have declined by a massive 69% according to the WWF's Living Planet Report (LPR) 2022. The report said the main drivers of wildlife population decline are habitat degradation and loss, exploitation, introduction of invasive species, pollution, climate change and disease .The planet has warmed by 1.2 degrees Celsius since pre-industrial times, which is one of the reasons freshwater species showed the greatest overall decline, at 83%. In 2021, ocean temperatures were the hottest on record for the third year in a row. A loss of habitat and barriers to migration routes – for example, dams – are responsible for approximately half of threats faced by fish. While the report finds the natural world near a tipping point, it also reiterates that immediate transformative action can slow and even reverse these devastating results. "It's a famous saying, 'you can't manage what you can't measure,'" so a manageable goal is needed. Climate, for example, needs to hit net zero carbon emissions, but net zero loss of biodiversity is not good enough," he said, because of the amount of loss incurred over a short period of time.

"As a community we have become aware of the difficulties that come our way year after year. The conservation of our territory is important to us."

SAVE ENVIRONMENT

Urmila Nayak
Mechanical Engg.(2nd Year)

The land is in a constant state of birth,
Giving life to all who live on Earth.
Our carelessness and fears
Have taken a toll over the years.
Her land is parched and scorched
As man continues to light the torch.
We continue a want of speed and ease,
All while our pesticides kill off our bees.
It's time to wake up and see Mother Earth's pain.
Humanity's selfishness is becoming insane.
Soon her cries will turn to gloom,
And man will cause its own doom.

IF SCIENCE MATTERS THEN EVOLUTION DOES MATTERS

Pius Patro
Electrical Engg.(2nd Year)

Science is growing day by day in an enormous way. Most of the puzzles which are believed to be unsolved and are the acts of god are now solved through science. The tools of science (molecular biology, genetic engineering) are gaining critical insights these days. Fate of medicine and agriculture are going to be changed completely by understanding and using the tools of molecular biology that are discovered and yet to be discovered. Science made human life easy and comfortable. It is a fact that all living organisms are developed from their earlier forms during the history of the earth.

Nature from the beginning (when there were no human beings) led the organisms to best fit into it. Through the journey of millions of years transforming life from one form to another, the most intelligent and skilful animal has evolved (HUMAN BEING). Unlike other living creatures, the human did not stop there. He started manipulating Nature for the benefit of human welfare. In course of time, he created a new path to manipulate the things in Nature and he named it SCIENCE.

Man started exploring Nature and recording the data he explored which is beneficial to the upcoming generations. Through this data another branch of science called EVOLUTION has been framed.

For example, the corn which we are using today is not in its actual form. We have transformed it to a completely different fashion from its real form. The problem is that we have changed corn so much that it now looks very different from any wild grasses.

But understanding that corn has evolved, has allowed agricultural researches to find its wild cousin. Now, using the science of genetics, genes can be borrowed from that relative to improve corn. It has made more resistant to disease and insects, and more tolerant of salt and drought.

We studied Lamarck's evolution theory with the example of bug which evolves to best fit into nature to protect itself from the predators. Now let's bring our knowledge of evolution to the present era. If we want to see evolution in action we need to look for the organisms which have very short life period. For example insects and bugs. They have very short time between generations so they evolve very fast. You may rise a doubt, so what ? Looking from the farmers point of view pests in his field are evolved in such a way that they gained resistance towards pesticides. Using too much and too fast we ourselves forcing pests to evolve and increase resistance towards pesticides... This is not just a theory, this is a fact. In this process scientists have accidentally "created," by using too much antibiotics, new breeds of super-germs that have evolved resistance to antibiotics. It's now a race: can we find new antibiotics fast enough to keep up with the mutation-and-natural-selection rates of killers like resistant staphylococcus? And if we do find something that kills it, do we run the risk of forcing it to just evolve again into an even more unstoppable form? So evolution always does matter to understand the things that have gone wrong and discover the things that are correct them.

FEMALE EDUCATION IN INDIA

Debi Prasad Das
Electrical Engg.(2nd Year)

The female education is highly necessary for the society. Because mothers are the first teachers of the children. They are the first teachers of the mothers be ignorate, they cannot take proper care of the children. They cannot in fuse good qualities in them. Hence, they foundation of our people will remain weak, if the females will be ignorant the society will lose the services of a powerful part of our society.

So, female education is quite necessary for the girls. The women are writing books, driving cars and aeroplanes, running banks and big business i.e. firms and doing research in the laboratory. There are women scientists, women officers and women writers: The type writers, the news agents, the sales agents, the commercial solicitors are mostly women. Hence, we can not decry the women folk in our country. But the female education has some disadvantages too. It is found in Europe and America, that the educational women do not want to bear children. They do not like their children. So, separate, courses of study should be prepared for the females. India is now optimistic in the field of female education. We had the female philosophers like Gargi, Maitreyi and Viswabara in the vedic age. We had Mirabai and Ahalyabai, Durgabati and Laxmibai in the days of History. They were all learned. Hence, we had a great tradition during the days of our degeneration. Now, we have resized. So, we will certainly revive the female education in India.

MY VISION FOR INDIAN 2047

Archana Duria
Electrical Engg.(3rd Year)

Introduction-Every where is happiness, people love each other .India free of hunger fear it is the vision of my India 2047.In 2047 I want our country India to be free of corruption rapes erimes poverty unemployment. Illiteracy , child. Labor rich poor gap etc. The women should be safe that they can walk freely without any kind of fear.

My vision for india in 2047 is to see India attaining the need heights of prosperity and development with taking al the people together.

By 2047 I want to see india free from poverty unemployment malnutrition, corruption, and other social evils poor children should get an education in 2024 in want my India to be free of the problem of unemployment and high profile jobs for every person to make their life worth living. My vision for india is harmony, peace, truthfulness, and honesty after 100 year of freedom.

My vision is that there will be more protection for the environment forest and wild life. I want my country to be the cleanest and greenest country . my vision for india is that every one of equal respect there is no discrimination of caste gender colour , religion and economic status.

The Butterfly

KISHORE MONDAL

Mechanical Engg..3rd year

A man found a cocoon at a butterfly and day a small opening appeared .The man watered the butterfly for several hour as it struggled to force it body through that little hole.

Unit it suddenly stopped making any progress and looked like it was stuck so than man decided to help the butterfly .He took a pair of scissors and snipped off the remaining bit of the cocoon .The remaining bit of the cocoon .The butterfly then emerged easily although it had a swollen body and small shriveled wing.

The man didn't think any thing of it and sat waiting for the wings of enlarge to support the butterfly .But that didn't happen .The butterfly spent the rest of it's life unable to fly crawling around with tiny wing and swollen body.

Despite the kind heart of the man he didn't understand that the restricting cocoon and the struggle need by the butterfly to get it 's self through the small opening gives way of forcing fluid from the body of the butterfly in to it's wing. To pre-prepare it's self for flying once it was out of the cocoon

MORAL- Our struggles in life develop struggle.

MOTHER 'S LOVE

Sumitra Challan
Electrical Engg.(3rd Year)

There was an angel. Once she announced that the creature whose child would be the most beautiful ,she will reward her. Hearing this all the creatures gathered in one place with their children.

The angel watched all the children carefully one by one . when she saw the flat nose child of female monkey; She said that the kid was so ugly. Its parent can never get the award. Hearing the voice of the angel the child's mother was very hurt. She took her mouth near to the child and said don't worry my child; I love you very much. You are the biggest prize for me .I don't want to gate any other award. God gives you a long life.

NATURE

Chandrabati malat
Mechanical Engg.(2nd year)

On wonderful nature
your are so beautiful

with green trees

and humming Bess the grass

the is so green and water is so green
and water is so clean
birds fly in the sky
and mountains are so high
the wandering butterflies
make my thoughts fly
the waterfalls are so cool
just like a swimming pool
I love nature very much
god give as this feature

YOUR BEST

Biranchi Narayan Gomango
Electrical Engg.(2nd Year)

If you always try your best
Then You'll never have to wonder
About what you could have done
If you'd summoned all your thunder.

And if your best
Was not as good
As you hoped it would be,
You still could say
I'll gave today
All that I had in me...

INTERNET: GOOD AND BAD EFFECT OF INTERNET

Asish Kumar Moharana
Mechanical Engg(3rd Year)

Internet is a global network of interconnected networks of computers. It makes it easier and quick for people to access information sitting at any corner of the world. Introduction of internet has digitized the society. Its use has increased in our daily life. It has resulted in complete transformation in availability

of knowledge, social interaction, and communication. Just like any other technology, internet too has its own share of positive and negative effects on society.

1.Positive Effects of Internet

Easy to carry out a research

Browsing and reading books at your own place and convenience is the key benefit of internet. Quick access to information makes it faster and convenient to prepare for interviews. Internet also help people to review medical articles, medical studies, business articles, hone their hobbies, scientific articles, create videos, and find answers related to any topic.

Internet helps you to watch television shows, music videos, movies, and podcasts from varying sources, watch sporting events, do trade, talk to doctor or employer using this facility. Internet exposes a job seeker to several employers via job websites. In this way it assists him to apply in for the employment opportunities, and get the employment job of his choice and capabilities.

Makes communication faster

Communication is a very integral part of your daily life. Internet makes it easier for friends, relatives, and families to communicate easily and quickly. Several websites and applications such as Gtalk, Skype, WhatsApp, etc. help you to stay in touch with your near and dear ones at all the time. Internet is a boon for people who stay far from their family. These communication apps make it easier for them to stay in touch with them by sending snaps, emails and videos, and feel the closeness.

A good opportunity to earn income

Internet is beneficial for people who want to work from home. It provides several job platforms to people who want to work as a freelancer. There are millions of jobs available on the internet on various niches such as Graphic designing, Content writing, Marketing, Data Entry etc. to help people earn income at the comfort of their home.

Quick business transactions

Now a lot of banking services are available on the internet. People are relieved from the hassle of visiting banks to perform various banking transactions such as accessing bank balance, withdraw funds, deposit funds, funds transfer between accounts etc. Internet is a valuable way to manage your finances effectively.

2.Negative Impact of Internet

Causes addiction in people

Internet allows people to watch movies, online games, and chat with others. All these beneficial services of the internet can make one addicted to it. Whether you are a child, youth or an adult, people of all ages get addicted to it. This can take away their precious time, that when invested at the right place would have enhanced their productivity at the workplace.

Obesity

Spending a lot of time sitting and accessing internet all the day causes children to become obese. Children are nowadays more interested in watching movies and playing games online than engaging in

outdoor sports activities. This sedentary lifestyle is badly affecting their health and adversely impacting their personality.

Lack of the human touch

People are so much engrossed in online activities that they forget talking to their family members, and neighbors. Communicating via typing messages and calling to virtual friends, they tend to lack interpersonal and socialization skills with real ones. They lack abilities to interact with family, relatives, and other surrounding people that make their personality unattractive.

Increase in criminal activities

Cyber-crimes are increasing day by day. There are several criminals on internet that have malicious intention to harms others and illegitimately access their financial data. They work by developing phishing websites that looks legitimate to people. These deceptive websites fool and misled people and steal their financial information. In this way they make unethical money.

COLLEGE LIFE

Lipun Kumar Mohanty
Mechanical Engg.(2ndYear)

People who go to college are incredible. We go to classes. We read and absorb and are comprehensively tested on heavy amounts of various materials. We sleep very little. We party too much. Someone is always sick. Someone is always complaining. We become attached to close friends. We smother each other. We lean too much. We think often of the past and want to go back. We know we cannot.

We all have separate lives, families, backgrounds and pasts. We live totally different from how we used to live. We are frustrated and sometimes want to give up, but we never stop trying. We disregard health. We eat awful foods. We are forced to think about the future. We are scared and confused. We reach out for things, yet we don't find them. We try to sort out our minds, which are filled with studies, worries, problems, memories, emotions, Powerful feelings. We wander the halls looking for happiness. We hurt—a lot We keep going, though, because above all else, we never stop learning, growing, changing, and most important dreaming. Dreams keep us going and they always will. All we can do is be thankful that we have something to hold onto, like dreams and each other.

TO MY FRIEND...

Hariprasad Samal
Mechanical Engg.(2ndYear)

Thank you for always being there. You are the stability in my life, the one who's always cared. Even when I let you down, when I wasn't there for you, you never walked away. You tried to talk, to see, to hear, and to understand; you never gave up on me. You just kept trying, until that day came, when I finally realized that I needed you.

I said to you I was sorry, I didn't expect you to care, or even want to look at me, but you did. You looked

right into my eyes, into my heart, and told me you loved me. I knew I had hurt you, but you still reached out.

Now I know what friends are all about. To be a friend like you are, it takes unconditional love- whether happy or sad, near or far. No matter where life takes us, where we go, where we've been, I will always remember that. Thank you my friend, I will never let you down again.

LIFE WITHOUT INTERNET

Molleti Vijay
Mechanical Engg.(3rd Year)

Internet is one of the most effective instruments we have for globalization. Can we imagine to live a day without Internet? Internet has become an indispensable component of modern man's life. Internet and computers have already taken over each and every field. Education, Finance, Defence, Teaching and Learning, Research, Medicine, Accounting, Entertainment, Telecommunication, Media, Space Research and Exploration and a host of other fields have largely become dependant on internet. Internet has made its presence felt everywhere. Imagine if internet gets disrupted for a day or two, what will happen? I think all walks of life will be affected. Banking, ATMs, TV and Media World, Websites, online transactions, etc. will get interrupted and life will almost come to a standstill. Can you imagine how difficult is it to go on without internet? Even in the Covid-19 pandemic (C19), everything has been done through internet, whether it is online classes, admissions, online mode of exams or something else. Poor connectivity of internet is a hindrance for our digital learning. But we are in digital divide. This generation of ours is a generation of science. Science has showered a lot of gifts on us and one of the greatest gifts is 'Internet'. Internet is one of the most important inventions ever and life would stop without it. Internet has become everyone's beloved as it provides countless services viz. ability to connect with the people all around the world and entertainment in the easiest and cheapest way. Internet in the modern times has become a necessity, so living without it even for a day will cause a lot of problems to everyone.

