



**GANDHI INSTITUTE
FOR EDUCATION & TECHNOLOGY**
BANIATANGI, BHUBANESWAR, KHURDA

**Campus
Focus**

A Quarterly News Letter
Volume - 7, Issue - III, Aug. 2017



From The Editor's Desk

FORTHCOMING EVENTS

1. Three days workshop on Search Engine Optimization August 2017 in association with Computer Society of India (CSI).
2. Two days National Conference on Recent Trends in Soft Computing and its Application (RTSCA) on 15th and 16th September 2017 in association with International Journal of Engineering Research and Application (IJERA).
3. An Entrepreneurship Summit to be held by the Department of BSH in September, 2017.
4. Two days National Seminar to be held by the department of BSH on 3rd & 4th of November, 2017.
5. International Youth Day will be celebrated in the college premises on 12th August 2017.

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The third issue of the Campus Focus (vol 7: Issue iii) comes with much enth& vigor. It is a picturesque of knowledgeable activities by both our students and faculties. They have shown their excellence in carving their thought process in fields of science, technology& socio-behavioural issues. I hope this edition would certainly be educative and lively.

The present issue deals with information of our Professors attending International /National / Seminars/ Workshops& FDPs. We congratulate all of them from the bottom of our heart. They have also added another feather to their cap by publishing their research articles in various International/National journals. We are proud to have you all with us my friends!!!Bravo!!!

A number of new faces; including me have joined the GIET family. We heartily welcome them to our family. We hope that together we can strive hard to make GIET reach its excellence. Friends! Let's join hands.....because "**Unity is Strength**"

Let's move ahead; classes have already started; all are in full swing. The Campus looks quite vibrant and lively with students going up and down. Our teachers are also

spirited to take up their routine classes. The ambience echoes jubilation .Perseverance and hard work are the underlying traits of a successful person. My dear friends; do follow these qualities/traits to be successful in all your endeavours. Let's not feel pressurised rather seek pleasure out of our work because-----"**Pressure is which turns a lump of coal into diamond.**"

Campus Focus; the Quarterly Magazine is undoubtedly a platform to showcase the creativity, hidden talents& literary skills our students& staffs. Not only is this but also a record keeper of various academic, festive activities of our college. Hence, I request all of you to work in a team; with full dedication to achieve our long term goal. I believe Success is achieved by ordinary people with extra ordinary Determination.

Thank you.



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"Success is not just the crowning moment, the spiking of the ball in the end zone or the raising of the flag on the summit .It is the whole process of reaching for a goal and, sometimes, it begins with failure"



- Erik Weihenmayer.

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Art without engineering is dreaming.
Engineering without art is calculating.

PUBLICATIONS

1. ANKIT KHARE & M.MAJUMDER 2017 Development of Location Suitability Index for Ocean Thermal Energy Conversion Systems International Journal of Control Theory and Applications 10/6/pp 63-71 
2. US. PANDE , ANKIT KHARE M.MAJUMDER 2017 Application of Literature and Expert based Delphi Analysis to identify Most Important Parameter in Selection of Location for Installation of Wind Energy Power Plant International Journal of Control Theory and Applications 10/6/pp 191-198
3. LAXAM KUMAR SAHU (HOD MECHANICAL DEPT) : CFD analysis of natural convection heat transfer augmentation from square conductive horizontal and inclined pin fin arrays. International journal of Ambient energy(Taylor & Francis), Scopus indexed, published on 25th July,2017. 

4. ABHISHEK KUMAR CHOUDHARY(ASST. PROF. CIVIL ENGG DEPT) : Attended and presented paper on "Rain Water Management for Sustainable Irrigation in Odisha" in All India Seminar on Role of Engineers for Sustainable Agriculture Related to Modern India organised by The Institution of Engineers (India), Berhampur Local Centre.(28-29 July, 2017) ISBN: 978-93-83060-17-7; pp-75-78. 
5. Attended a National Seminar "New World order and the future of Literature" in BJB Autonomous College , Bhubaneswar held on JULY 08-09 , 2017 and Presented a paper on " Role of English language in the Globalised world" 

GIET BAGS "ACHIEVING ENGINEERING INSTITUTE AWARD (ODISHA)"



Gandhi Institute for Education & Technology, Baniatangi, Bhubaneswar has bagged the "Achieving Engineering Institute Award (Odisha)" 2017 and National Education Awards held in Hotel ITC GARDENIA, Bengaluru on 28th June, 2017. The National Education Awards recognises excellence in education all over India. GIET has been awarded for providing qualitative education, maintaining emphasis on research and innovations. GIET has become a leading institution in the state imparting technical education to the future generations. This is really an outstanding achievement of GIET.

3RD INTERNATIONAL YOGA DAY CELEBRATION AT GIET, BANATANGI

The 21st June has been declared as The International Day of Yoga by UNO in the year 2015. Ever since, then, the entire world has joined hands in celebrating this day as "The International Yoga Day". In keeping with the theme for creating awareness among people and youngsters and to



provide yoga practicing sessions, Gandhi Institute for Education and Technology (GIET), Baniatangi arranged a slew of programmes from 09:00 AM onwards on 21st June 2017. The event was arranged on this occasion at the Auditorium Hall of the Institute. The event was inaugurated by our revered Principal Prof. (Dr) Anurag who narrated about the importance of yoga in day to day life. Chief guest & the Yoga Instructor of the event Shri Sitakanta Panda, President, Patanjali Yoga Samiti, Khurda said "Yoga was found by our ancestors for a peaceful and healthy life". "Even we can learn from animals in doing yoga mudras" he added. The method to reach the stage of Dharana, Dhyana and ultimately Samadhi through the practice of Ashtanga Yog was also discussed. All the employees of GIET, Baniatangi and its suburbs were invited to participate in these unique events to learn the techniques of harnessing their energies and directing the same to achieve ones' goal and lead a stress-free life In his message Prof Jyoti Prakash Mishra, the Vice-Chairman of the Institute told that :

"People should practice and give importance to yoga everyday to make their life peaceful and happier".

PREPARATORY WORKSHOP FOR NBA BY DR. B.L. GUPTA



A three days preparatory workshop for NBA was organized in the college auditorium from 4th June to 6th June 2017. Prof. (Dr.) B.L. Gupta, a senior professor of management at NITTR, Bhopal was the chief speaker on the occasion.

The objective of the workshop was to guide the faculty members for the effective preparation of NBA. Dr. Gupta explained all the points for preparing the



SAR (Self Assessment Report) and discussed the step by step procedures to go for NBA. Honorable Vice Chairman Prof. J.P. Mishra, Revered Principal Prof. (Dr.) Anurag, Respected Dean (Academics) Prof. (Dr.) Mohan Panda, Dean (DSA) Prof. (Dr.) Jivan Jena, Principal (Diploma Wing) Prof. Bikash Pattnaik also actively participated in the workshop. Almost all the faculty members participated in the workshop actively with full enthusiasm and boost up their inner self, making themselves more alert and competent to face the day-to-day situations and challenges in a better way. The workshop was very much interactive and the faculty members learned the basic requirements for NBA. It was also a worthy programme, towards brushing up and enhancing the personalities and methodology of teaching.

FACULTY DEVELOPMENT PROGRAMME



The main objective of the faculty seminar is to enhance learning process and make ourselves more dynamic and interactive for the future. It has become essential to conduct seminars, workshops and symposia to improve our teaching methodology ultimately making the class more interactive. Keeping this in mind the presentations of faculty members in terms of seminar was conducted from 31st May 2017 to 14th July 2017. It was a great success. All our faculty members participated in full swing to improve themselves.

**PLACEMENT-B.TECH AND DIPLOMA
Placement of Diploma and B.Tech students**

GIET Baniatang khurda has record placement of its students of the 2013-17 batches. They all are from Diploma and B.Tech wings and the records are by the month of July 2017. For details of the company in which our students got placement could be seen in our Website: www.gietbbsr.com

STUDENTS PLACED FROM B.TECH PROGRAMME

Branches	AUTO	CIVIL	EE	CSE	ECE	EEE	MECH
Student Placed	08	33	18	12	20	57	67

STUDENTS PLACED FROM DIPLOMA PROGRAMME

Branches	CIVIL	MECH	EE
Student Placed	02	59	11

ARTICLES BY STAFFS AND STUDENTS

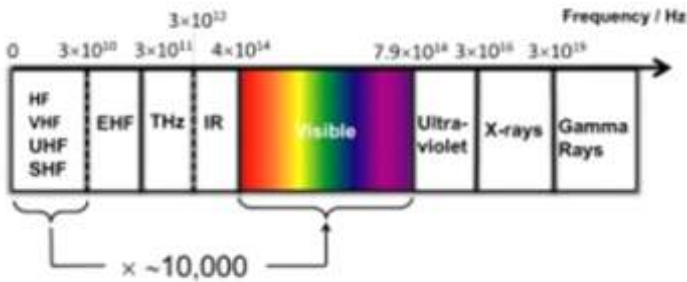
THE FUTURE INTERNET



Prof. Bikash Ch. Pattanaik
Principal, Diploma Wing

Li-Fi technology is a ground-breaking light-based communication technology, which makes use of light waves instead of radio technology to deliver data.

Li-Fi can compensate as the radio spectrum becomes overloaded



Using the visible light spectrum, Li-Fi technology can transmit data and unlock capacity which is 10,000 times greater than that available within the radio spectrum.

The visible light spectrum is plentiful, free and unlicensed, mitigating the radio frequency spectrum crunch effect.

The future speed

Li-Fi technology will in future enable faster, more reliable internet connections, even when the demand for data usage has outgrown the available supply from existing technologies such as 4G, LTE and Wi-Fi. It will not replace these technologies, but will work seamlessly alongside them.

Using light to deliver wireless internet will also allow connectivity in environments that do not currently readily support Wi-Fi, such as aircraft cabins, hospitals and hazardous environments.

Light is already used for data transmission in fibre-optic cables and for point to point links, but Li-Fi is a special and novel combination of technologies that allow it to be universally adopted for mobile ultra high speed internet communications.

A dual use for LED lighting

The wide use of solid state lighting offers an opportunity for efficient dual use lighting and communication systems.

Innovation in LED and photon receiver technology has ensured the availability of suitable light transmitters and detectors, while advances in the modulation of communication signals for these types of components has been advanced through signal processing techniques, such as multiple-input-multiple-output (MIMO), to become as sophisticated as those used in mobile telecommunications.

An integrated communication solution

Li-Fi technology is being developed into a ubiquitous systems technology, consisting of application specific combinations of light transmitters, light receivers including solar cells, efficient computational algorithms and networking capabilities that can be deployed in a wide range of communication scenarios and in a variety of device platforms.

ARTIFICIAL BEE COLONY OPTIMIZATION



Dr. Anil Kumar Mishra
Professor & HOD, CSE

Artificial Bee Colony (ABC) algorithm is one of the most recently defined, swarm-based meta-heuristic algorithm, introduced by Dervis Karaboga in 2005, motivated by the intelligent behaviour of honey bees for optimizing numerical problems. The algorithm is specifically based on the model proposed by Tereshko and Loengarov (2005) for the foraging behaviour of honey bee colonies. The main objective of this model is to find out how the synergistic information exchanging interactions between the individuals leads to globally intelligent selection of food sources in an unpredictable environment. To achieve this objective the model is developed which will be able to quickly select the “best” food sources in a changing environment of food sources, for this also Honeybees are considered because they are special among social insects for the

importance of the nest as a centre of information and recruitment, since the foragers communicate information about the environment to the nest.

The model proposed by Valery Tereshko & Andreas Loengarov (2005) studied and found out that the model grouped bee activity into four compartments:

- a. **Unloading nectar from a source.**
- b. **Dancing for a source.**
- c. **Feeding at a source.**

d. **Following a dancer.**

And corresponding probability functions need to consider for changing between these activities.

The minimal model of forage selection that leads to the emergence of collective intelligence consists of three essential components:

- a. **Food sources.**
- b. **Employed foragers.**
- c. **Unemployed foragers.**

And defines two leading modes of the behaviour:

- a. Recruitment to a nectar source,
- b. Abandoned of a source.

a. **Food Sources:** The value of a food source to an insect depends on many factors including its proximity to the nest, richness or concentration of energy and the ease of extracting this energy.

To describe the “profitability” of a food source, the experimental research gives an idea that a richer source that is farther from the nest elicits the same profitability rating (as measured by number of waggle dances) as a source that is closer but not as rich, when they have the same net energetic efficiency. That is, when the energy gain minus the energy cost divided by the energy cost is the same this value is used to describe food sources.

The model observes how insects react to food sources with different values of this quantity, and if they are always be able to select the “best” food sources in a changing environment.

b. **Employed Foragers:** Employed foragers are associated with a particular food source which they are currently exploiting or are “employed” at. They carry with them information about this particular source, its distance and direction from the nest and the profitability

of the source. Employed foragers will share this information with a certain probability. The greater the profitability of the food source, the higher the probability the honeybee will do a waggle dance and share her information with her nest mates. Employed foragers are only locally informed they know only of the food source they are currently exploiting and continue frequenting this food source until it is depleted, at which point they become unemployed foragers.

c. **Unemployed Foragers:** Unemployed foragers are looking for a food source to exploit. There are two types of unemployed foragers,

i) **Scouts:** who search the environment surrounding the nest (up to 14 km radius) in search of new food sources

ii) **Onlookers:** who wait in the nest and find a food source through the information shared by employed foragers

The model expresses the role of the nest as a reservoir of information, and the importance of information circulating freely throughout this reservoir.

Each piece of information about the environment is able to circulate throughout the entire nest, but the information about each region of the environment does not flourish in equal quantities. The more insects who are recruiting for a different source, the more information there are circulating through the nest about this source, and this information carries more weight, the greater the probability of the source. So, the value of the source is expressed in the proportion of information about the source. Insects are recruited when information of a source reaches them; therefore, they are recruited to each source in proportion to the amount of the information circulating about that source.

DIGITAL BUSINESS STRATEGIES AND INTERNET OF THINGS

During the last decade, the business infrastructure has become digital with increased interconnections among products, processes, and services. Across many firms spanning different industries and sectors, digital technologies are fundamentally transforming business strategies; business processes, firm capabilities, products and services, and key inter firm relationships in extended business networks. We understand it is the right time to rethink the role of IT strategy, from that of a functional-level strategy, aligned but essentially always subordinate to business strategy to reflect a fusion between IT strategy and business strategy that may be called as digital business strategy.

The Internet of Things is a system of interrelated computing devices, mechanical and digital machines, objects, people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.



Dr. Sambit Kumar Mishra
Prof. Comp. Sc & Engg. & Head(R&D)

The Internet of things allows objects to be sensed or controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit in addition to reduce human intervention. When Internet of things is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber physical systems, which also encompasses technologies such as smart grids, virtual power plant, smart homes, intelligent transportation and smart cities. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing internet infrastructure.

Nowadays all physical objects, such as entire factories, manufacturing plants, cars and even natural environments such as rivers, can be connected directly to sensors in order to monitor and analyse the characteristics associated with each environment. These characteristics can include flow intensity, temperature, moisture levels, and location, to provide a few examples. In today's connected world, networking technologies can enable these devices to connect to one another in order to share data with each other across data centres and different networks. Internet of things examples extend from smart connected homes to wearable to healthcare. It is not wrong to suggest that internet of things is now becoming part of every aspect of our lives. Not only internet of things applications are enhancing the comforts of our lives but also it is giving us more control by simplifying routine work life and personal tasks.

The Internet of Things represents a convergence of three key technological trends: the increased proliferation of mobile and social networks, the massive increase in the amount of data made available via new devices and businesses ability to stimulate growth via the cloud. Applications of internet of things may be

observed in smart home which may give the owner the capability to customize and control home environment for increased security and efficient energy management. Similarly applications of internet of things may be observed for smart cities with smart surveillance, safer and automated transportation, smarter energy management systems and environmental monitoring. As the internet of things continues to reshape the digital and physical world, there will be huge opportunities for innovative businesses. The Internet of Things will transform the way companies manage their operations by responding to analytics and real-time data with smarter decision making. As the cost of connecting these various technologies decreases, this increased level of connectivity will radically transform the way to do business and communicate. The four key themes may be identified to guide thoughts on digital business strategy and help provide a framework to define the next generation of insights. The four themes are (1) the scope of digital business strategy, (2) the scale of digital business strategy, (3) the speed of digital business strategy, and (4) the sources of business value creation and capture in digital business strategy.

OH! IS THIS A COMPOSITE?

Through ages, man has become more innovative in discovering new materials and cost reduction techniques aiding life to exist far more better. A judicious combination of a matrix (that supports the reinforcement) in the form of metal or polymer with different types of reinforcement (that provides the required strength) in the form of fibre or particle, produces a material with magnificent properties which are always a step ahead of the properties of its constituents. Such types of materials are called composite materials (in short called as 'COMPOSITES').

The use of high performance fibre reinforced polymer matrix composites can now be found in diverse applications such as industrial drive shafts, windmill blades, door shutters, doors and windows frames, radomes for aircrafts, marine purposes, lightning poles, switchgear frames, roofing, furniture, golf club shafts, archery equipments, etc.

These materials boast an ocean of attractive properties such as low cost, light weight, easily and abundantly available, high strength-to-weight ratio, high impact strength, good corrosion resistance, non-conductive and many more. The development and manufacturing of products based on composites which are armed with a wide gamut of advantages would force



Prof. Aurovinda Mitra
Dept. of Mech

our modern, esteemed and smart customers of this century utter, "Oh! Is this a composite?" and would inculcate a feeling of trust and satisfaction in them.

As; nowadays the composite technology has become a boon for the manufacturing industries round the world, researches are in full throttle for the use of bird feathers, fish scales, human hairs, etc. as reinforcement for the composites towards the development of a variety of commodities.

In India, the indigenous achievements are scattered compared to the large geographical area. Thus, there is an urgent need to launch a very directed, concerted and planned effort for developing and demonstrating novel composite products as this could generate a significant boost to the usage of composites while simultaneously evolving specialized products towards commercialization.

MOTIVATION-TIME TO FACE FEARS



Prof. Baidyanatha Tiwary
Dept. of Mech

Fear a four letter word but when catches up with us... it Creates a havoc in our minds which then transfers into every inch of our body. It makes us shiver, takes away our ability to think rationally. All in all Fear ruins more Bright lives much more than we might imagine. Each of us faces different kinds of fear.. like whether we will get a good job, will we be able to give right answers in the Interview, fear about the uncertainty in the future....so on and so forth!!

Each of us, by virtue of our very human nature, has the potential to lead and achieve great things that elevate everyone around us. But the chattering voice of fear in our heads stops us from playing big. It robs us of our energy, our dreams and our opportunity for redemption. They are very much like rubber bands flinging us back and forth into our comfort zones the moment we try and expand the possibilities.

So why does this fear do what it does?? Our fears are indeed horrible figments of our imaginations, much like dreams seemingly real, yet completely fictional occurrences taking shape within our minds. So our suffering is always about that which does not exist, simply because we are not rooted in reality, we are always rooted in our mind and in our imagination. If we were rooted in reality, there would be no fear.

Our fear is always about what's going to happen next (whether we will make it in life, fear of failure, will I be appreciated by people).

Just think about it we people are always suffering from either what happened yesterday(mistakes we might have made, something we might have achieved, people we might have met, discussions we might have had) or

what may happen tomorrow , so basically in this process of past and future, we forget to live TODAY i.e. the PRESENT!! Today comes to us with so much beauty and hope, an opportunity that we often forget to cease. The fact that we are alive today is in itself a blessing in disguise...something to be excited about, something to cherish and celebrate with the task in hand!! What would be our lives like if we lived each day like it was our last!! worked like we needed to give a return gift to life for the gift of TODAY!! must decide whether you have come here to experience life or to avoid life Just think about it...

You don't have to be great to start. But you DO have to start To be great

So let's go out there and face your fears! So let us all promise to ourselves to daily practice this philosophy of being excited about our work, about relationships with our loved ones, experiences that life throws at us absorbing all we can from it even if it failure. Remember failure is not the end of life merely a stepping stone. !

Jaan Hai To Jahaan Hai!!

"The brave man is not he who does not feel afraid, but he who conquers that fear."

--Nelson Mandela

So let's go out there and face your fears

SOFTENING OF HIGH PRESSURE BOILER FEED WATER

Introduction

Water after pre-treatment such as screening, coagulation followed by sedimentation and filtration should be de-ionized to use as boiler feed water to generate steam. Hardness in water is due to presence of bicarbonate, Chloride and Sulphate of calcium and Magnesium. Temporary or carbonate hardness is caused by the presence of dissolved bicarbonate of calcium and magnesium, which can be removed by easy boiling. Permanent or non-carbonate hardness is caused by the presence of chloride and sulphate of calcium and magnesium, which cannot be removed by easy boiling.

If hard water is feed directly to the boilers, there is possibility of scale and sludge formation. Scales are hard deposits, which stick very firmly to the inner surface of the



Prof. T. Samal
Dept. of BSH

boiler. The scales are formed by the decomposition of calcium bicarbonate, deposition of calcium sulphate, by hydrolysis of magnesium salts and presence of silica to form calcium silicate and/or magnesium silicate. Sludge is a soft loose and slimy precipitate formed within the boiler. Sludges are formed by substances which have greater solubilities in hot water than in cold water. The natures of the Sledges are $MgCO_3$, $MgCl_2$, $CaCl_2$, and $MgSO_4$ etc.

Disadvantages:

- I. Wastage of fuel
- II. Lowering of boiler safety.
- III. Decrease in efficiency.
- IV. Danger of explosion
- V. Chocking of biller pipes

Preventive Measures:

- I. External treatment softening of water
- II. Internal treatment In High pressure Boiler, Scale formation can be avoided by adding sodium phosphate, which reacts with hardness of water to form soft sludge's of calcium and magnesium which can be removed by blow-down operation.



Softening of Boiler feed water:

The process of removing hardness in water is known as softening of water. The method used for softening of Boiler Feed water is Ion-Exchange method in which ion-exchange resins are used. Ion exchange resins are insoluble, crossed linked, long chain organic polymers with a micro porous structure. The functional groups attached to the chains are responsible for the ion exchanging properties. Resins containing acidic functional groups (-COOH, --SO3H) are capable of exchanging their H+ ions with other cations where as resins containing basis functional groups (- NH2 , =NH as hydrochloride) are capable of exchanging their anion with other anions.

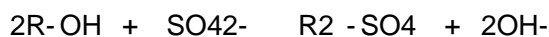
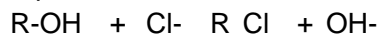
Cation exchange resins (RH) are mainly styrene divinyl benzene Co-polymer, which on sulphonation or Carboxylation, become capable to exchange their H+ ions with the Cation in the water.

Anion exchange resins (R-OH) are styrene divinyl benzene amine-formaldehyde Copolymers, Which contain amino or quaternary ammonium group. These after treatment with dilute sodium hydroxide solution, become capable to exchange their OH- ions with the anions in water.

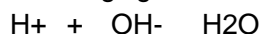
Process : The Hard water is passed first through Cation exchange column, which removes all the cations and release equivalent amount of H+ ions to water.



After Cation exchange column, the hard water is passed through anion exchange column which remove all the anions like SO42- , Cl- present in water and release equivalent amount of OH- ions to water.

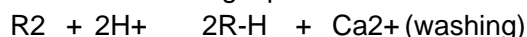


H+ and OH- ions released from Cation and anion exchange get combined to produce water.



Water coming out from the exchangers is free from caption and anions, is known as de-ionized or de-mineralized water, used in stream generating boilers as feed water.

Regeneration: The Exhausted anion exchange column is regenerated by passing a solution of dilute HCl or dilutes H2So4. The column is washed with de-ionised water and washing is passed to sink or drain.



The exhausted anion exchange column is regenerated by passing a solution of dilute NaOH . The column is washed with de-ionised water and washed is passed to sink or drain.



The regenerated ion-exchange resins are then used again.

Conclusion:

- I. The Process can be used to soften highly acidic or alkaline water
- II. It produces water of low hardness.
- III. The ion-exchange resins are regenerated and used again.

SOFT SKILLS

Soft Skills is a synonym for “people skills”. The term describes those personal attributes that indicate a high level of emotional intelligence. Unlike hard skills ,which describe a person's technical skill set and ability to perform specific tasks, soft skills are broadly applicable across job titles and industries. Soft Skills are character traits and inter-personal skills that characterize a person's relationship with other people. Thus Soft Skills are a combination of interpersonal skills, social skills, communication skills, character traits, attributes, career attributes, social intelligence and emotional intelligence quotients among others that enable people well etc. But question arises -----Why is it important to have soft skills????

Now-a-days we have to interact with others in diverse fields .Knowing how to get along with people and



Prof. Chinmayee Das
Dept. of BSH

displaying a positive attitude are crucial for success. The problem is, the importance of these soft skills is often undervalued and therefore there is less training provided for them. The most important soft skills are being personal characteristics and work ethic such as effective communication ,problem resolution ,customer service and team collaboration .Developing good soft skills has become crucial now-a-days. It makes you a good employee and compatible to work with.

For a skill to be considered a soft skill, it needs to have three characteristics:

I. **Rules for mastering this skill are not black and white:** Soft skill depends upon the emotional state, external circumstance and the type of people we interact with.

II. **Skill is portable & valuable to any job/career:** Soft skills are undoubtedly about our inner strength and interpersonal effectiveness, as long as you work with people, these skills are valuable to your career.

III. **Mastering this skill is an ongoing journey:** Though we reach at a competency level yet we can always encounter new situations/people that will test our soft skills and push to learn more.

The major soft skills training topic areas are: ---

- Emotional Intelligence
- Problem Solving
- Presentation Skills
- Time Management
- Interpersonal Skills
- Leadership & Management
- Business Etiquette
- Communication Skills

Among all these skills the top five skills in demand are Communication skills, Ability to work in a Team, Problem solving skills, Leadership skills and Strong work ethic.

The fact is that soft skills are the most important skills for your career. They are the skills that are difficult to systemize and automate. They are the skills that define leadership and creativity. Soft skills are those skills that are difficult to measure. In other words, hard skills can easily be measured by a test but soft skills can't. It's easy to determine who has the best math skills. It's difficult to determine who is best at innovation or diplomacy.

So let's try to improve our skills to be competent enough to face this challenging world.

COMMUNICATION SKILLS ----The fundamental basis of all soft skills---Come out of your COCOON, Break the Ice, Enhance your Communication skills first.

THE TEACHER AS A NATION BUILDER

“A teacher is a compass that activates the magnets of curiosity, knowledge, and wisdom in the pupils.”

The teacher can be rightly called a nation builder. Teachers through their preservance, love and sacrifices have shown us the right path in which great men have built our nation. It is our dear teachers who moulds our characters, our personality and show us the right direction which leads us to our final destination. Flourishing national development and a society truly prosperous with knowledge all begins from its teachers. While the role of knowledge and a skilled society with visions and aspiration in the success of a nation cannot be stressed enough, it should also be remembered that knowledge cannot be acquired if it is not sought and received through the help of the teacher. That is why everyone should put efforts into seeking as much knowledge as possible. We should never forget to appreciate the role of a teacher in guiding us and the generation to come, to become knowledgeable and to be morally upright.

Knowledge received without a teacher's guidance can be compared to a blind man walking without his stick. The teachers need to have a high level of commitment towards their duties and responsibilities which have been entrusted to them. The teacher is a representative of society who inculcates moral precepts. The role of the



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teacher is a multi faceted one comprising academic, pedagogical and social roles. An academic role comprises teaching, counselling and supervisory roles while pedagogical roles include instructional, evaluation and facilitating roles. As facilitator of learning, the teacher is involved in motivating pupils to learn, maintain control in the classroom and to create a conducive environment for learning to take place. Social roles include preparing pupils to participate in the way of life of the society.

No other personality can have an influence more profound than that of a teacher. Students are deeply affected by teacher's love and affection, their character, competence and moral commitment. A popular teacher becomes a model for their students. Therefore, teachers have to play a cardinal role in building up of the character of the next generation. The good deeds of teachers are great. Because of them we will grow to become knowledgeable people who will be of great use to society, religion, our nation and country.

“The teacher is the one who gets the most out of the lessons, and the true teacher is the learner.”

WATER RESOURCE MANAGEMENT & CLIMATE CHANGE



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Water is precious natural resource for sustaining life and environment. Effective and sustainable management of water resources is vital for ensuring sustainable development. In view of the vital importance of water for human and animal life, for maintaining ecological balance and for economic and developmental activities of all kinds, and considering its increasing scarcity, the planning and management of water resource and its optimal, economical and equitable use has become a matter of the utmost urgency. Management of water resources in India is of paramount importance to sustain one billion plus population. Water management is a composite area with linkage to various sectors of Indian economy including the agricultural, industrial, domestic and household, power, environment, fisheries and transportation sector. The water resources management practices should be based on increasing the water supply and managing the water demand under the stressed water availability conditions. For maintaining the quality of freshwater, water quality management strategies are required to be evolved and implemented. Decision support systems are required to be developed for planning and management of the water resources project. There is interplay of various factors that govern access and utilization of water resources and in light of the increasing demand for water it becomes important to look for holistic and people-centered approaches for water management. Clearly, drinking water is too fundamental and serious an issue to be left to one institution alone. It needs the combined initiative and action of all, if at all we are serious in socioeconomic development. Safe drinking water can be assured, provided we set our mind to address it.

Although many climatic components impact water resources, the two most crucial variables are temperature and precipitation. Global warming is expected to accelerate the hydrological cycle, which is a thermally driven system. Warming temperatures will also mean that more precipitation will fall as rain and less as snow. This will mean reduction of glacier size and depleting snow/glacier melts in the long run. In the regions where appreciable river flows come from snow/glacier melts, there might be changes in the mechanism of run-off production and its timing. Rising temperature may also increase potential evapotranspiration from crops/vegetation and land surfaces, and higher water demands from the population (of course, it depends upon other related conditions such as humidity, wind velocity, etc.). In some basins, evapotranspiration has been found to be decreasing and this is termed as the evapotranspiration paradox. Global warming is also likely to accelerate extreme events: floods, droughts and rain storms. The precipitation pattern is likely to change in two ways: (i) the temporal patterns or the monthly distribution of

annual precipitation may change and (ii) the spatial pattern may change: some areas receiving high precipitation will receive less and vice-versa. This change is termed by some experts as 'wet getting wetter' and 'dry getting drier'. In the coastal areas these effects are compounded by the sea-level rise. The three types of impacts are different, and call for different responses in terms of adaptation, but they are also strongly inter-related. These changes could be in the seasonal patterns as well as the quantity of precipitation; some areas are likely to receive more precipitation, and others less. Intensity of precipitation may also change. A number of processes are involved in run-off production in a catchment. Most of these processes occur concurrently and interactively. Climate (and land use/land cover and demographic) change adds complexity to these interactions. In some cases, a combination of these impacts on water resources may exacerbate the existing problems; in other cases, it is possible that the adverse impacts on water resources may diminish. For example, the ageing and poorly maintained embankments, combined with the growth of residential, commercial and industrial development in the flood plains has substantially increased flood risk in the adjacent areas (the flooding in Bihar due to the breach in Kosi embankment in 2008 and the flooding of habitats constructed in the flood plains of Tapi river in Surat). In some locations, climate impacts will exacerbate this problem due to increased precipitation intensity, higher peak run-off, or changes in the form of precipitation that increase run-off. Due to these changes, incidence of floods and droughts will increase. Managers of hydro-structures have to face many challenges and climate change will introduce one more complexity in the decision making process. Potential climate change impacts affecting water availability include changes in precipitation amount, intensity, timing and form (rain or snow); changes in snowmelt timing; and changes to evapotranspiration. In India, winter precipitation is projected to decline and this is likely to lead to higher need for Rabi irrigation, lesser storage and increased water stress during the pre-monsoon months. Intensity of rains is projected to increase, which will imply more frequent and severe floods and lesser recharge to groundwater. As more areas and hence more population will fall under severe water stress, this will be the most pressing water management task in the near future. Further, due to rise in sea-water level, cities in the coastal areas will be at increased risk and the delta areas may face more flooding.

13 TIPS FOR PREPARING FOR YOUR NEXT TEST



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How you prepare for tests can count almost as much as how you take tests. Sometimes it counts more. Since there are as many different kinds of tests, what's the best way to prepare? Here are our baker's dozen of tips for excellent test preparation:

1. **Spread out:** Make sure you divide your studying time over a number of days, rather than leaving it all for the night before. If you try to learn it all at one go, you could find yourself in the same position as that Burmese python in Florida who tried to swallow an alligator whole.
2. **Study for the test, not for the course:** Many students think that study time is "go over the whole course" time. No, instead resolve to focus your attention only on those points you think will be on the test. And stick to your resolution.
3. **Scope out the scope :** Be sure you know what's fair game for the test and what's not. Many times students aren't exactly sure which lectures, readings, sections, and homeworks are to be covered for the test. You can't study right if you don't know what you're supposed to be studying.
4. **Figure out the format :** There are many kinds of questions the examiner could ask namely multiple choice, short answer, essay, problem solving etc. Make sure of the pattern beforehand. Consult the sample questions, syllabus, or instructions.
5. **Line up your ducks :** Before you start studying, make sure you have a complete set of study materials. It's difficult to study well if you're missing essential pieces. Extra Pointer. If you're going to borrow a friend's notes for a lecture you missed, pick a studious and sincere friend, not just a Face book friend. You'll really put yourself behind the eight ball if you get the notes from someone who barely paid attention in class and then the big question on the midterm is on that very lecture.
6. **Remember this :** In some courses like language, history, math, and social sciences, for instance there's a lot of stuff to be memorized. Do this first. You'll memorize better while you're still at least half awake. And you'll feel a sense of relief and well-being when you've gotten the tedious work out of the way.
7. **Capture the concepts:** In many courses, the real studying work is to get your mind around the key concepts and central ideas of the course. So try to learn and understand the central theme and concepts instead of mugging up the lesson.
8. **Go for the score:** Allot your studying time in proportion to the points on the test. Are short ID's worth only 15 percent? Spend about 20 minutes preparing them. Do essays count 80 percent? Spend 110 percent of the time on them. You get the idea.
9. **Never read:** Reading the assignment or if you've been good, re-reading the material is never an efficient way to study. It takes too long. Instead, scan your reading notes or, if you don't have these, study the lecture notes. Your Professor probably flagged the main points.
10. **Milk a friend:** In many cases, it's good to invite a friend to your "study group" that is, to find a friend, smarter than you, whom you can ask to explain the things you don't understand. Discussion and interaction makes learning faster.
11. **Conspire with the Professor :** If your professor is having a review session, that's a gift from God. Be sure to go, equipped with lots of questions about what you think will be on the test. Otherwise, try the special office hours the days before the test or your own individual meetings during the regular office hours.
12. **Test-drive your test:** The last stage of your studying should always include some practice, "self-testing," in which you construct some questions in the format you expect to be on the test, and then formulate some answers. You might be tempted to skip this step, but don't. Drill yourself with similar questions or sample questions. Practice is essential.
13. **Pull a "half-nighter.:"** Figure out how many hours there are in the night, and then spend half that number cramming. Try sleeping the other half.

*Education is not the amount of information
that is put into your brain and
runs riot there, undigested, all your life.*

- Swami Vivekananda

PLASTIC ROAD: IMPROVING THE DURABILITY AND LIFESPAN OF OUR ROADS



Nitesh Kumar Dubey
2nd year Civil Engg.

Plastic is one of the most commonly recycled products, with plastic materials often being recycled into bottles, bags, toys, containers, and much more. But now, a Dutch company is attempting to recycle plastic into something much larger: Roads. Volker Wessels is a Dutch construction firm that is preparing to build a Plastic Road in Rotterdam. While Volker Wessels' Plastic Road is still only a concept, it's becoming quite popular in Holland, where 96 million tons of carbon dioxide is released into the air through road building and maintenance alone. Volker Wessels expects that its Plastic Road will reduce greenhouse gas emissions while making roads stronger and increasing their life span.

Holland's infrastructure industry expects that these new roads will radically change the way Dutch development occurs. Relative to laying an asphalt road, building a road out of plastic is significantly faster and (at least in theory) could take as little as just a few weeks. The Plastic Road also allows for easy infrastructure upgrades, as the road is hollow, which enables city planners to run pipes and wires inside the road itself. Civil engineers say the road's hollow cavities may also be useful in draining flood water in the event of rainstorms. Should Holland's plan succeed, it would

serve as a viable proof of concept that could forever change the way civil engineers all over the world approach road building.

There are, however, concerns about the plastic roads that Holland plans to build. Environmentally, there are concerns that the plastic may leach into the soil and harm the local flora. The road's components are also somewhat volatile, and exposure to chlorine will cause the road to give off hydrogen chloride a colourless gas that, when exposed to atmospheric humidity, turns into hydrochloric acid. When it becomes sufficiently concentrated, hydrochloric acid forms an acidic mist that can cause irreversible damage to human tissue and if it is combined with an oxidizing agent, hydrochloric acid synthesizes into toxic chlorine gas. That means the engineering process will require stringent safety protocols in order to protect the on-site crew, and the materials engineers responsible for the plastic road will need to create a safeguard or additional waterproof layer that prevents leaching and exposure to chemical.

HEALTH IS WEALTH

With increasing work pressure & busy lifestyles, we often fail to pay attention to our body's health and fitness needs. That is why illness takes over, leads to poor health and fatigue. A healthy and fit person is often happy and positive about life. Each one of us should make it a point to take care of our health and physical fitness.

Here are a few simple tips for keeping healthy and happy:

Exercise regularly:

A good half hour of regular exercise and aerobic workout can do wonders for you. Exercise is essential to keep your body fit, running, cycling, swimming and brisk walking are some of the ways by which we can reduce fat and burn excess calories.

Take the stairs:

If you feel that you do not get enough exercise during the day, look for and utilize simple opportunities to walk and move about, for instance take stairs instead of the



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elevator while going up or coming down. Of course this depends upon the number of floors you need to go up or down and what is comfortable for you.

Avoid smoking & drinking:

Remove negativities from your life if you want to be healthy and happy. Drinking and smoking can lead to multiple diseases and illness. It is generally seen that those who smoke and drink heavily are susceptible to heart attacks, cancer, and high blood pressure.

Think positive:

Your body reacts to your mood and state of mind. An unhappy person is more prone to fatigue and other illness. Adapt a positive life style and be happy and content with whom you are.

SAVE OUR MOTHER EARTH

Our Earth is the most beautiful planet in our solar system. As far as we know, Earth is the only planet that has life. Before 500 A.D., man had a good relationship with Mother Earth. But since humans developed cities and industries, the modern lifestyle has changed. Man has been using and misusing natural resources up to the limit. Now we are tearing up remote corners of the planet looking for crude oil and coal, and our forests and wild animals are disappearing. Our environment is totally polluted: we drink polluted water, inhale air full of dust, and eat food with traces of pesticides and other



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toxic chemicals. Hence we are suffering from diseases. As a result of human activities, the ozone layer has a hole, the sea is rising, and the ice caps of Antarctica and Greenland are melting. Now global warming is warning us that climate change is coming. Mother Earth is in danger; life on Earth is in danger. Let us come together to save our life-giving and life-saving Mother Earth.

DEMONETIZATION AND ITS IMPACT:

When PM Modi announced that Rs with the denomination of 500/- and 1000/- would cease to be the legal tender from 9th of Nov, the whole country was stunned. This decision caused sensation in the whole country. Social Media was flooded with messages and information. People started counting the trash they had accumulated for years legally or illegally.

Rumours became rife. Some tried to invest their dying currency in gold. Some contacted their near and dear ones in this miserable hour. People could get only Rs 4000/- of old denomination exchanged with the new one. Big queues before the banks and ATMs became the order of the day. Instead of getting shorter, these queues were getting longer with every passing day. The last date for the whole process was 30th of December. The persons could deposit the old cash worth Rs 2.5 lac till the said date.

The main objective of this move was to curb the black money, corruption and fake money menace. All the people but those who were indulged in malpractices welcomed the move. The whole opposition shook hand against this move under one pretences or the other. They called this decision a draconian law and wanted the govt to roll back it. Tirades were made to target the decision. Govt also carried out counter attacks.

The new currency which replaced the old one is of denomination of 500/- and 2000/-. Though the people faced a lot of inconvenience owing to shortage of funds, they did not criticize the govt for the move. Even they lauded the Modi govt for this big move. Prime Minister also addressed the people many times telling the people that it was a mahayajna and they must offer their own ahuti in it.

He further said he was aware the hardships they were suffering from but he sought only 50 days for setting the things right. He jibed at the chief political leaders who have stashed big amount of money and therefore joined hands to force govt to rollback its decision.

The most interesting thing regarding the demonetization was that people had devised various unique methods for transforming their black money in to white one. Some of these methods were as follows



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- Depositing money in the accounts of their poor relatives and friends.
- Enticing the people with some percentage of money for exchange.
- Asking their employees to stand in the long queues in front of Banks and ATMs for getting money exchanged.
- Hiring labours for some Rupees ranging from Rs 500/- to 700/- for becoming the part of long queues in front of banks/ ATMs.
- Converting black money in to gold.
- Paying a few months salaries in advance.
- Paying back loans forcibly.
- Using their influence / links with bank employees and so on.

Impact of Demonetization on Indian Society/ Economy

We shall see a great impact of this move of the Central Govt on Indian Society and Economy. The first impact shall be that people will have lower expenditure power. With that they will not be able to purchase luxurious things. There shall be no ostentatious expenditures on marriages and other ceremonies. So the society will grow lesser materialistic and people more prudent. With the fake money destroyed, Indian economy will see a big boom and the so-far-booming-real-estate-sector shall fall on the ground. The things may be cheaper. Indian Currency may get respect at the international market. There may be a great check on the terror-related funding and therefore on terrorist activities. Corruption shall be down to a great extent as people will stop the tendency of accumulating money using wrong means.

These big moves will certainly a bridge the gap between the haves and the have-nots. However, there may be some difficulties for a couple of months. But this inconvenience shall be temporary and for short-term.

LET US KNOW

RAMNATH KOVIND AS THE 14TH PRESIDENT

Ramnath Kovind has taken the oath as India's 14th President at a grand ceremony in New Delhi. The NDA candidate and former Bihar governor Ram Nath Kovind garnered massive support from various parties and allies across the country which led to a victory over Opposition's pick Meira Kumar by a clear margin of 65.6 percent votes translating into 702,044 electoral college votes, while Congress party candidate Meira Kumar managed to get 34.35 per cent - 367,314 votes. He will be India's second Dalit president after KR Narayanan.

POETRY CORNER

A Dream within A Dream

Take this kiss upon the brow!
And, in parting from you now,
Thus much let me avow--
You are not wrong, who deem
That my days have been a dream;

Yet if hope has flown away
In a night, or in a day,
In a vision, or in none,
Is it therefore the less gone?

All that we see or seem
Is but a dream within a dream.
I stand amid the roar
Of a surf-tormented shore,

And I hold within my hand
Grains of the golden sand--
How few! yet how they creep
Through my fingers to the deep,
While I weep--while I weep!

O God! can I not grasp
Them with a tighter clasp?
O God! can I not save
One from the pitiless wave?
Is all that we see or seem
But a dream within a dream?

- Edgar Allan Poe.

What is GST?

Goods & Services Tax Law in India is a **comprehensive, multi-stage, destination-based tax** that will be levied on every **value addition**. The Goods and Services (GST) is an indirect taxation wherein most of the existing taxes will be merged into a single taxation system. The Centre and the states will be able to levy indirect tax on manufacture, sale and consumption of goods and services across the country. When Goods and Services Tax is implemented, there will be 3 kinds of applicable Goods and Service Taxes: CGST, SGST & IGST.

CGST: where the revenue will be collected by the central government.

SGST: where the revenue will be collected by the state governments for intra-state sales.

IGST: where the revenue will be collected by the central government for inter-state sales.

In a first of its kind initiative, the GST will be implemented in two components Central GST or CGST and State GST or SGST. This dual GST will be levied on all the supply of goods and services across the country. Therefore, if there is a sale within the State, then the both CGST and SGST will be charged. However, if the sale is outside the State, then only the Intra-State GST will be levied by the Centre. CGST is doing away with indirect taxes such Central Excise Duty, Service Tax, Addl. Customs Duty, Special Addl. Customs Duty as well as Addl. Excise Duty. These indirect taxes are those that are collected by the Centre. SGST will remove indirect taxes on goods and services which are charged by the State such as VAT, Entertainment Tax, Purchase Tax, Octroi, Luxury Tax and Entry Tax. The credits of Input Tax of CGST will be accessible for settling the output of CGST liability at every stage. Likewise, in the States, the credits of SGST taken on the inputs will be made available for clearing the output of SGST's liability at each stage.

Leisure

*What is this life if, full of care,
We have no time to stand and stare.*

*No time to stand beneath the boughs
And stare as long as sheep or cows.*

*No time to see, when woods we pass,
Where squirrels hide their nuts in grass.*

*No time to see, in broad daylight,
Streams full of stars, like skies at night.*

*No time to turn at Beauty's glance,
And watch her feet, how they can dance.*

*No time to wait till her mouth can
Enrich that smile her eyes began.*

*A poor life this is if, full of care,
We have no time to stand and stare.*

- William Henry Davies

HEALTH TIPS

- 1) A mixture of honey and tulsi juice help to remove stone in kidney.
- 2) Tulsi help to reduce cholesterol
- 3) Tulsi helps to fight diabetes by controlling blood sugar levels.
- 4) Improve dull skin.
- 5) Remove kidney Stone.
- 6) Extremely beneficial during the rainy season, when diseases like malaria are prone.
- 7) Reduce Heart Disease



- 8) Purifies the blood and the flow of blood in the body.
- 9) Repairs the Skin cells.
- 10) Tulsi is a good ayurvedic medicine so its stop vomiting

Jokes:

OMG, I have finally Discovered what's wrong with my Brain: on the left side, there is nothing right, and on the right side, there is nothing left...



GIET IN NEWS:



YOGA DAY CELEBRATED AT GIET, BANIATANGI

On the occasion of International Yoga Day, a Yoga Camp was held on 21st June 2017 at Gandhi Institute for Education and Technology (GIET), Baniatangi, Bhubaneswar, Khurda. Yoga Guru Sri Sankar Pandya narrated the importance of yoga and instructed the right practice of yoga. In this occasion the Vice-Chairman of the Institute Prof. J. P. Mishra advice the staff and students to practice yoga to keep balance between the body and soul for a peaceful professional career. A large number of faculty members, Staff and students joined in the camp and learned the practice of different yoga mudras. The camp was successfully organized in presence of Principal Dr. Anurag, Dean Prof. M.C. Panda, Prof. J. Jena, Diploma principal Prof. R. C. Pattnaik & GM Sri D.P. Majumdar. Our staff members are encouraged and enthused by the live session in our auditorium with Prime Minister Sri Narendra Modi's Yoga practice at Ramnagar Anandkumar Maidan, Lucknow.

NEW FACES



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B.K. Pradhan
Dept. of ECE



D. Panigrahi
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THE RECOGNITIONS OF EXCELLENCY



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PAST PHOTO GALLERY



B.TECH : Mechanical, Electrical, Electrical & Electronics, Computer Science, Civil & Automobile
M.TECH : Structural, Mechanical System Design, Communication System & Power Electronics & Derives
DIPLOMA : Civil, Electrical & Mechanical



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