

**THE  
SPINE  
OPINE**

**DEPARTMENT OF BASIC SCIENCE AND HUMANITIES**



## **MESSAGE FROM PRINCIPAL**

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I am proud to announce the release of the first issue of the e magazine, The Spine Opine. The magazine signifies the writer's penmanship and also allows them to share their ideas. I acknowledge the efforts of students and staff of BSH department who have taken the initiative to promote the writing and publishing skills of the students. This helps the students to share and express their ideas in an articulate manner. Students and staff achievements have also been presented which will be a motivational factor for the other students to achieve the standard of excellence. Glad to say that we have achieved our aim of turning this into reality. I would like to congratulate all the students, teachers, alumni and everyone involved in bringing out its 1st edition. Wishing everyone loads of success and bright future.

**Dr. S. Krishna Mohan Rao**

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## **MESSAGE FROM DEAN**



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It is a great pleasure and honour to be a part of the first e-magazine of Department of BSH. This is one of the active departments of Gandhi Institute for Technology. Faculties and students actively participate in the co- curricular and extra- curricular activities. I wish the Editor and his team a grand success.

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**Dr. P. K. Subudhi**

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### **MESSAGE FROM HEAD OF**

*I am pleased to know that our students along with staff are successful in bringing their first issue of magazine e-magazine , The Spine Opine for this academic year 2018-19. The departmental magazine has the prime objective of providing aspiring engineers a wide platform to showcase their technical knowledge and to pen down innovative ideas. This magazine is intended to bring out the hidden literary talents in the students and teachers to inculcate strong technical skills among them. I congratulate and thank all the students and Editor who have made untiring efforts to bring out this magazine. I wish them all the very best for releasing more such magazines in future.*

**Dr. Prasana Kumar Rout**

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### **MESSAGE FROM EDITORIAL DESK....**



*It gives me immense pleasure to present the very first issue of “The Spine Opine”, the e- magazine of the Department of BS&H. It is the talent and outcome of our students which is reflected through this. This is one of the best platforms for our students to present multifaceted personalities and innovative ideas. I take this opportunity to thank our respected Principal Dr. S. K. Rao, Dean Academics Dr. P.K Subudhi, HOD, Dr. Prasanna Kumar Rout, Faculty Coordinator, MsPranati Mishra, all the faculty members for their incessant inspiration and kind support. I believe that this edition will prove to be a success. I express my heartfelt gratitude to the editorial committee for their relentless efforts, and all those who have been a part of the Spine Opine.*

**Mr. BikramKeshari Rout**

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# THE SPINE OPINE-2019

## From the Editor...

### **“An investment in knowledge pays the best interest”**

*As a new dawn beckons, we entered into a New Year but with new vigour and vitality. The members of the department have renewed hopes and dreams to scale greater heights not only for themselves or the department but for the whole organisation. I am extremely elated to present before you some of the notable events organised under the aegis of our department, which are reminiscent of the year 2010.*

*Hope you will find it encapsulating.*

*God Bless!!!*

**Bikram K Rout**

## **Some Excerpts by our Professors-**

### **Role of Effective Communication in an Interview**

Communication plays a pivotal role while giving a job interview. It helps in heightening your resume. It plays a very major role for anyone who wants to have a good career. We take a lot of effort over the years to educate ourselves, learn new things and gain knowledge about different things so most of us could find a good job which will help us to gain more knowledge.

While going for an interview, most of the candidates do very good research about the company, tries to mug up every interview question and answer that they can find so that they do not face any difficulty during the interview. All these efforts count only if you have very good communication skills.

It is a very important factor as the interviewer judges you on the way you communicate and how confidently you present yourself. Good communication skills are not developed quickly within a week or a month, it needs practice over a long period of time as it cannot be mugged up.

A candidate with good communicating skills will never hesitate while speaking his strengths and without sounding nervous no matter how critical questions she/he has been asked and she/he will never deliver the things like a mugged up the script. The good communication skills of the candidate give the interviewer the idea about the personality, attitude, and etiquette of the candidate.

The candidate should have good etiquettes with positive body language, positive hand gestures and she/ he should be able to portray her/his personality in a positive manner to the interviewer which will help her/ him in getting selected for the job.

The way the candidate speaks in front of the interviewer decides her/ his future. If she/he communicates in a strong, confident and impulsive manner her/ his chances are high to get selected for the job. Having knowledge is important but delivering it in the right manner is what matters. The way you deliver your thoughts to the interviewer matters as she/ he has a very close watch on how you speak.

The recruiter wants to ensure if in future he hires you, will you be able to work inside the office with your colleagues in a proper manner. If you become a team leader will you be able to convey your thoughts to your team members in the right way or will you hesitate? All these things are checked by the interviewer while you communicate and the candidate having good communication skills is preferred.

Being nervous is never going to help you, always be confident about whatever you say. Your communication skills play a Key and Important role while you are interviewed for a respective job post in a company. In fact, the way you are able to communicate goes a long way in terms of boosting your credentials which you have particularly mentioned on your resume.

Based on Current job profiles it can be safely said that commercial enterprises and the corporate Multinational companies across the globe irrespective of their sizes have unanimously focused on one quality which they are actively looking out in their potential employees and that is "good communication skills". So from the very point, it is very clear that you have to justify all your important degrees and professional skills with good communicative attributes while you are being interviewed for a particular job.

Modern Era Globalization is the main reason why so much importance is being given to communication skills. The different IT, ITES companies, Corporate MNCs, Union Public Service Commission, Government Organization and the State Public Service Commission, etc. are looking to hire smart and outgoing individuals with great communication skills besides their professional skills qualities.

The modern age of globalization has sparked a number of tie-ups between companies of different nations across the Globe as this has necessitates the presence of extraordinary communication skills among workers and employees in the respective companies as any companies selling either its product or service in the market want their employees to represent their brand in a presentable format in the market for which they are looking for an exceptionally good communication skills as without Good communication skills any companies would lack their idea of presenting their work, product or service in front of its customers or the project which would ultimately result in the loss of business.

Good communication is an important skill in any working environment where human interactions are involved. However, when it comes to communication in the workplace as most importantly good communication is an integral element to business success or failure. In the workplace environment, good and effective communication isn't just about mitigating conflict (although that is an important benefit of communicating effectively). Good communication is also considered an important factor in terms of client building relationships, profitability increasing team effectiveness and employee engagement in the company.

**Prof. Bikram Kesari Rout**

**Editor**

## **Quantum Physics to lead a Better Life**

**Dr Bidyut Prava Nayak**

Quantum physics along with general relativity can explain virtually everything about the universe. Quantum Physics also known as quantum theory or quantum mechanics, is a major part of modern physics along with general relativity. These two theories are believed to explain virtually all about the universe. It explains the theory of every object being isolated from their surroundings. It essentially becomes a theory of the microscopic world of



an atom and sub-atomic particles. Quantum physics has a reputation of being weird because its predictions are dramatically unlike our everyday experience. This happens because the effects involved get smaller as objects get larger— if you want to see unambiguously quantum behaviour, you basically want to see particles behaving like waves, and the wavelength decreases as the momentum increases.

Today, every other thing is influenced by quantum physics. For example: In Computers and Smartphone, the entire working process of computers is based on quantum physics. The phenomenon of band structure, which supports the modern semiconductor- based electronics, is fundamentally a quantum mechanism. In Lasers and Telecommunication, the base of fibre optic telecommunication is quantum physics. The light sources that are used to send messages down the fibre optic cables are lasers that are quantum devices. These are just a few of the ways that quantum physics shows up in the course of your everyday life.

Mastering the quantum theory will enable us to radically transform our world in ways previously thought unimaginable. Superconductors, for example, are a miracle of quantum physics and they are an outstanding example of us gradually becoming masters of matter itself. If you take a look at the ongoing advancements of Maglev trains, you can see that the world of transportation will be substantially different in the future as a result of our increased understanding of this theory. In the future we will also create materials with amazing new properties not found in nature. The furthering development of meta-materials or artificial materials will allow us to create things like cloaking devices. Other developments could include seismic meta-materials designed to counteract the adverse effects of seismic waves on man-made structures; the creation of ultra-thin sound-proof walls; and even super-lenses capable of capturing sharp details far below the wavelength of light. As we are still only in the early stages of understanding the development of these

artificial materials, it appears that the surface has a mere scratch on it so there is no telling what the future holds.

In the coming decades, you will most likely be hearing the word "quantum" quite a bit as our understanding of very small is helping us revolutionize virtually every aspect of technology we see today and even creating entirely new ones.

Dr Bidyut Prava Nayak

Assistant Professor(Physics)

## Significance of Life Skills

### Education

In the new millennium, education is undergoing a revolutionized change regarding science & technology, globalization, privatization, urbanization, industrialization, etc. Today's youth are facing many emerging issues such as global warming, famines, poverty, suicide, population explosion as well as social, emotional, physical and psychological issues. Cut-throat competition, unemployment, lack of job security, etc. are some of the major concerns for us. No one has time for his/her 'self', to develop empathy with surrounding and to have harmony in society. Young mind is being considered, as the most productive members of the society, due to their physical and intellectual capability. But in real scenario, most of them are unable to utilize their potential in an appropriate way due to lack of guidance and motivation. Social problems like alcoholism, drug abuse, sexual abuse, smoking, juvenile delinquency, anti-social acts, etc. have an adverse effect on them and others too, to a large extent. This new challenge requires immediate and an effective response from a socially responsible system of education.



**Education is very important but the kind of education to support and live life better is more important. Thus, the cardinal focus of Education needs an extraordinary emphasis on developing such skills in students who can cope up with future challenges, and survive. The world bodies such as UNICEF, UNESCO, and WHO list the ten core Life Skills as:**

- 1. Self-awareness**
- 2. Critical thinking**
- 3. Creative thinking**
- 4. Decision making**
- 5. Problem Solving**
- 6. Effective communication**
- 7. Interpersonal relationship**
- 8. Empathy**
- 9. Coping with stress**
- 10. Coping with emotion**

**Now Covid-19 pandemic is an opportunity to teach us about life skills. Firstly, during a vulnerable time such as now, it becomes imperative that we must understand the importance of human values like compassion, empathy, patience, optimism, among others. These quintessential virtues, not always found in textbooks which can help us comprehend why a concept like social distancing is necessary and respect for those who are unwaveringly working to tackle the pandemic such as healthcare professionals and police personnel. The pandemic has brought about huge digital transformations—employees are working from home; they are doing online meetings and social media tools to connect professionally. It is important that people should develop an aptitude to learn new technologies and develop the skill to use emerging tools in their work effectively. The lockdown has brought about many changes in our lives and there will definitely be more changes waiting our way after the pandemic is over. The way offices function, how we work etc. will change and with work from home becoming a reality. Now students are attending online classes and self-disciplined. The change has already begun. These survival strategies are in reality, known as life skills.**

**Prof.Mousumi Das Patnaik**

**Assistant Professor**

**(English)**

**EPITOME OF CREATIVITY BY OUR STUDENTS**

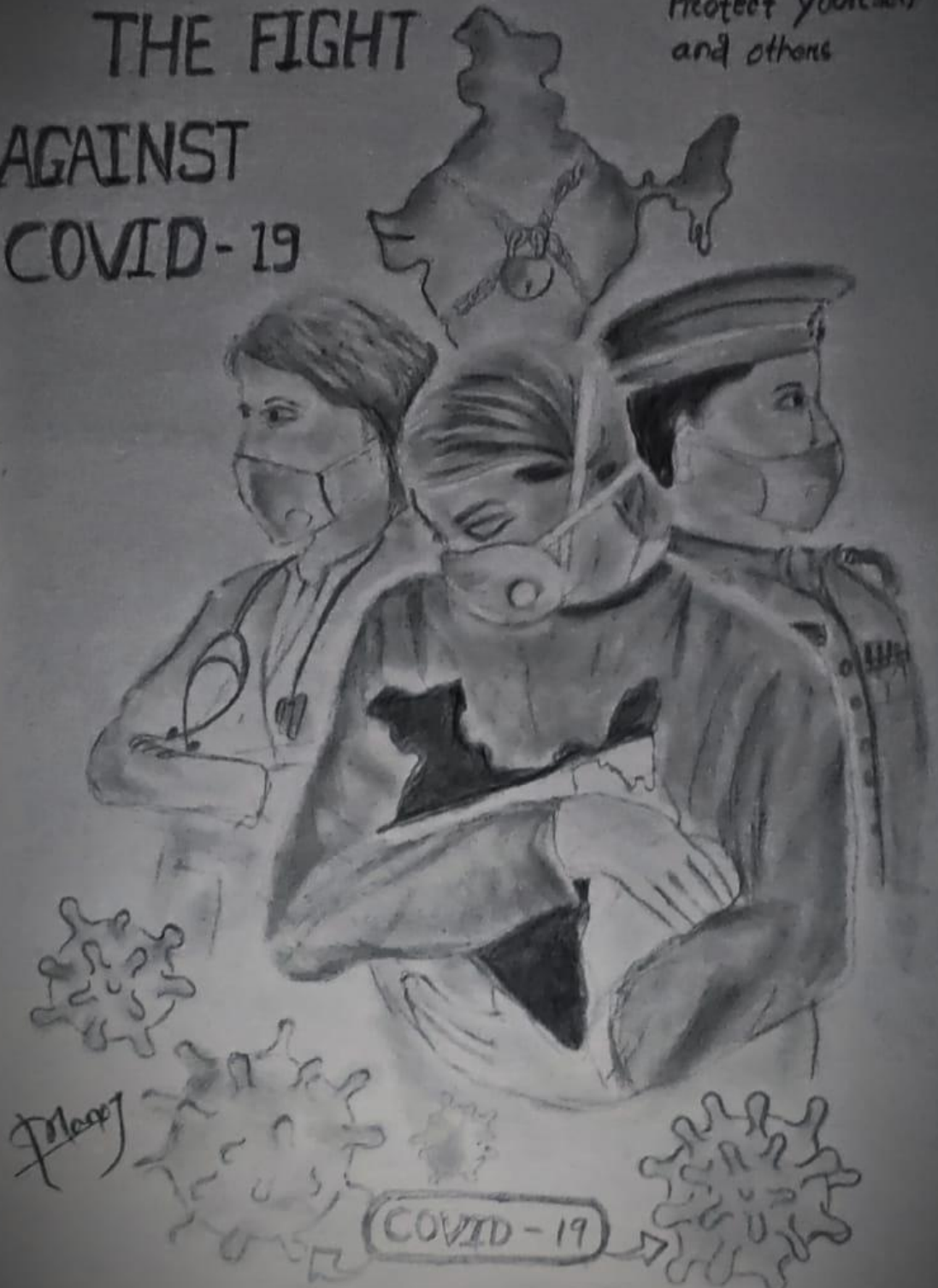


**ART BY-**

**ASUTOSH DAS (B. TECH. CSE BEHERA 2023)**

JOIN  
THE FIGHT  
AGAINST  
COVID-19

COVID-19  
Protect yourself  
and others



## **Today's worst Nightmare COVID-19**

**COVID-19/ Novel corona virus which was declared as public health emergency of international concern (PHEIC) on 30th of January and on 11th of March it is declared as pandemic by the World Health Organisation. This is because the risk of catching COVID-19 for someone with no symptoms at all however, many people with this virus experience only mild symptoms. Also, there is no specific treatment for disease caused by it.**

**In December 2019, an outbreak of pneumonia of unknown origin was reported in Wuhan, China. The spread of the virus started from here, as with a severe form of pneumonia known as SARS (severe acute respiratory syndrome). It spread around the world just like a fire in the jungle. Till now 215 countries are affected by the virus. 4,761,559 people are infected globally and has claimed 317,529 lives patients infected with the virus can present a wide range of symptoms ranging from mild to severe fever, cough and shortness of breath are the most common symptoms. There is no proper information about the origin of the virus the Chinese said that the virus origin was from the bats. But as the U.S intelligence reported that it was prepared in the lab of Wuhan named Wuhan National Biosafety Laboratory. The world is soon going to find the truth.**

**There is no specific treatment of the virus the best ways of preventing it is frequently wash your hands, don't touch your eyes, nose or mouth. Cover your face with a mask if you are moving outside and frequently sanitize your personal things. Stay Home. Save Lives.**



Ankit Sahu (1<sup>st</sup> Year. Bhaba House)

## GOOGLE GLASS: AUGMENTED REALITY EYE-GLASSES

Augmented Reality has already gotten into our lives in the form of simulated experiment and education app, but Google is taking it several steps higher with Google Glass. Google Glass is a wearable, voice- and motion-controlled Android device that resembles a pair of eyeglasses and displays information directly in the user's field of vision.

Theoretically, with Google Glass, we are able to view social media feeds, text, Google Maps, as well as navigate with GPS and take photos. We would also get the latest updates while we are on the ground.

### **Features of Google Glass includes:**

- The ability to take photos and videos and then share exactly what the user is seeing through Google Hangouts.
- The option to use the Google search engine through the glasses, using Wi-Fi or a smartphone's data connection.
- The ability to have translations streamed straight to the wearer through the screen.

- Reminders to complete certain chores or tasks with an added visual aspect that will prompt a notification to appear on the user's screen every time they look at a particular object.
- The ability to sync the glasses to calendars stored on phones or computers in order to receive reminders of events and meetings.
- Support of both voice and video calls. In the video calls, wearers can show the other person exactly what they're looking at instead of talking face-to-face.
- The ability to answer emails and text messages using voice dictation.
- Collaboration with Google Maps to provide step-by-step directions with a map displayed on the screen.
- At last but not the least, the ability to respond to facial and head movements, such as allowing the user to tilt their head to scroll through a page or operate the device with eye movements.

It's truly what we call vision, and it's absolutely possible given the fact that the Google has demoed the glass with skydivers and creatives. But howsoever adverse effects were more potent owing to its high cost and privacy concerns. As such the product failed But, on the technological group it is no doubt a revolutionary step.



ASUTOSH DAS (B. TECH. CSE BEHERA 2023)

**OUR EVENTS IN 2019**

### **QUIZ COMPETITION: \$ QUIZ MY BRAIN**

A national level Quiz Competition was organised by GIFT in association with IIM, Kashipur. Mr Shibananda Dash, an alumnus of IIM Kashipur hosted this Quiz Competition on 18<sup>th</sup> February 2019. The winners were Sailinkan Mohanty (1st Prize), Ankit Roy (2<sup>nd</sup> Prize) and the 3<sup>rd</sup> prize went to Subrat Barik. Vice Principal, Dr. Alok Kumar Mohapatra and HoD, Dept. of BS&H gave away the prizes and certificates to the winners. Prof Bikram K Rout, who happens to be an avid Quizzee and a Quizzer, facilitated this much hyped competition.

### **BEC VANTAGE EXAMINATIONS@GIFT**

The Business English Certification (Vantage) Exams offered by Cambridge University was held in our college on 14 & 15 March 2019. A total of 76 students took the Speaking Test and RWL Test on 14 & 15 March 2019 respectively. British Council, Kolkata conducted the Exams with the ebullient support of the BEC Coordinator, Prof. Bikram K Rout. The test is a testimony to the candidates' adequate knowledge about Business English.

### **FACULTY DEVELOPMENT ON TEACHING METHODOLOGY**

A two-day Faculty Development Program on Teaching Methodology was organised by our department on 17 & 18<sup>th</sup> June 2019. The FDP was conducted by Dept. of BS&H in association with British Council, Kolkata. Globally acclaimed Soft



Skills Trainer and Communication Expert, Dr CLN Prakash engaged the participants in activity-based training. More than forty faculty from various departments participated in this program, which was highly interactive and enriching. Principal Dr S Krishna Mohan Rao and Dean Academics, Dr P.K, Subudhi attended the FDP. Dr P.K. Rout, HoD, BS&H felicitated the Trainer. Convenor, Prof Bikram K Rout thanked all concerned for their support and distributed the certificates.

### **ORIENTATION PROGRAM FOR 1<sup>ST</sup> YEAR STUDENTS**

The Orientation Program cum Welcome Ceremony for the newly inducted students was organised on 13th August 2019. Principal, Vice Principal and Dean Academics welcomed the freshers to the new career destination by urging them to follow the path of discipline to attain the desired goal. First Year Coordinator, Dr Prasanna Kumar Rout briefed the students about the BPUT Exam System and the importance of staying focused in life. A cultural program was followed after the official Ceremony. Then 2<sup>nd</sup> year students formally welcomed the new students house wise by conducting different types of games and selection of Miss Fresher and Mr Fresher.

### **INVITED TALK BY PROF (DR) G.C. PRADHAN**

An invited talk on Technical Education: Expectations and Challenges by Prof. (Dr) G.C. Pradhan, Ex Director, Dept. of Higher Education, Govt. of Odisha was organised by the department on September 30, 2019. Prof. Pradhan shared his erudite thoughts with the 1<sup>st</sup> year students and urged them to

live up to the expectations of their parents. He also reiterated about the global situation of Engineering Education and sensitised the students to remain ready to confront any challenge. HoD, BS&H, Dr P K Rout presided over the program. Asst. HoD, Prof Bikram K Rout felicitated the Chief Guest with a citation and a memento. All staff of BSH Department attended the program.