

July 2022  
Issue-1

# News Letter

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



**GL BAJAJ**  
Institute of Technology & Management

▶ Farewell 2022

▶ Industry visit to ALTTC Ghaziabad

▶ ENVISAGE: Ideate for a Better Future to  
celebrate National Technology Day

▶ Guest Lecture on “Best Career Options  
& Career Planning”

▶ PARIKRAMA: The Campus Tour

▶ Faculty Corner

▶ Student Corner



**FIND  
YOUR  
SPARK**



[www.glbitm.org](http://www.glbitm.org)

## Farewell 2022

On 9<sup>th</sup> July 2022 Department of Electronics & Communication Engineering, G.L. Bajaj Institute of Technology & Management, Greater Noida, organized the farewell part for 2018-22 batch students. Head of Department Dr. Satyendra Sharma in their speech wished good luck to the final year students for their bright future and guided the third year students for their better campus placements. Students of B. Tech third year entertained their seniors with group dance, solo dance and solo song performances. Mr. and Ms. ECE Award were given to Pratyush Tiwari and Vaishnavi Parihar. At last the token of love and appreciation were given to the students of by their juniors.

Overall the event was full of entertainment and all the students enjoyed it a lot.



## Industry visit to ALTTC Ghaziabad

Department of Electronics and Communication Engineering has organised an industry visit under MOU On 14-15 June 2022 to ALTTC Ghaziabad. Total 160 students of ECE second year were involved in this visit. During this visit, the students visited broadband division, Mobile division, IT division, broadband topologies, functioning of various routers, concept of optical fibre etc. Practical approach of different technology was explained to all the students by system experts of BSNL. This whole visit was carried out under the supervision of Dr Abhishek Gupta, SDE, ALTTC Ghaziabad. At the end, Dr Abhishek Gupta shared the details of all the training modules provided by ALTTC. Students can attend summer internship/training program according to their choice of interest with the help of these training modules. Advance level of project may be completed with the help of ALTTC lab with expert supervision. Students can identify the various problems related to communication engineering and can resolve them.





## ENVISAGE: Ideate for a Better Future to celebrate National Technology Day

Departments of Electronics and Communication Engineering (ECE), Mechanical Engineering (ME) and Information Technology (IT) of GL Bajaj Institute of Technology and Management Greater Noida in association with GLBCRI and IIC-GL Bajaj celebrated National Technology Day on 11th May 2022, Time 10:00 AM to 5:00 PM by organizing an event ENVISAGE: Ideate for a Better Future. The event highlights were:

- An Institute-level Innovative Idea Competition.
- An Expert talk by industry leaders.
- Prize Distribution ceremony.

National Technology Day is celebrated on May 11 every year to honour the contributions of India's scientific community including scientists, researchers and engineers. The significance of the date lies in the series of technological advancements the country achieved on the day decades earlier. On 11 May 1998, nuclear test was held in Pokhran and based on these tremendous achievements of the scientists, engineers, etc., Late Prime Minister of India Atal Bihari Vajpayee declared 11 May as National Technology Day. Since 1999, every year the Technology Development Board (TDB) celebrates the day with various technological innovations that have positively impacted the nation. Also, every year TDB selects a theme and on that basis several events, competitions are held in the country. The theme of year 2022 is "Integrated Approach in Science & Technology for Sustainable Future". The theme was launched by Union Minister Jitendra Singh.

The institute level idea competition witnessed the huge participation out of which 33 teams were shortlisted for idea presentation. The ideas were evaluated on 10 May 2022 (2:00 PM- 5:00 PM) by judges comprising of senior faculty members where the teams were judged on the idea, problem statement and complexity of the solution, innovation and presentation. Among the participating teams, 5 teams were shortlisted for idea presentation on the event day 11 May 2022.

The event was graced by the presence of dignitaries and started with the welcome address by Dr. Rajeev Agrawal, Director, GLBITM. After welcome of speakers, the expert speakers Mr. Harish Jaggi, Director, Global Logic, and Mr. Raj Jha, Architect, GlobalLogic gave presentation on Block chain Technology and Artificial Intelligence. The speaker shared insights on topics on which presently R&D team is working upon and encouraged students to explore the Block chain, AI and Quantum Computing domain.

## ENVISAGE: Ideate for a Better Future to celebrate National Technology Day

The session was followed by exuberant band and dance performances that left the audience spellbound. After that, the Top 3 winners were announced and prize distribution ceremony was conducted. The top 3 winners of the Innovative Idea competition were:

1st Prize- Manas Tiwari, Piyoush Jaiswal, Ankit Raj, Prashant Singh

2nd Prize- Prakhar and Himanshu Mishra

3rd Prize- Shashank Kumar, Prakhar Singh, Aman Gupta, Naman Rana, Richa Agrawal

The session was concluded by the Vote of Thanks given by Dr. Sanjay Kumar, DGM GLBCRI. HoD-ECE, ME and IT and DGM, GLBCRI were convenors of the program. The event was well organized by organizing secretaries: Dr. Astha Sharma, Mr. Avdhesh Tyagi, and Mr. Birendra Saraswat and the student coordinators team.





## Guest Lecture on “Best Career Options & Career Planning”

Department of Electronics and Communication Engineering organized a Guest lecture "Best Career Options & Career Planning " in offline mode on 12th March 2022 (10:30 AM- 12:30 PM) in association with the IIC-GLBITM, and G.L. Bajaj Center for Research & Incubation (GLBCRI), Greater Noida. This lecture aimed to enhance self-awareness, new awareness on career, and develop a concrete career advancement vision. The event started with the welcome address by Dr. Satyendra Sharma, HOD-ECE. The speaker of the session was Ms. Sweta Sahu, Centre Director, T.I.M.E Greater Noida. The speaker emphasized on the Importance of Career Planning, discussed various Career options available after Graduation, how to decide from Traditional Versus Offbeat Career Option, Job Avenues and Future Scope in Various Career Options and shared details for Important Entrance Exams such as GATE, CAT, GMAT, GRE etc. The session helped students to understand that comprehensive career planning requires knowing enough about one's unique attributes, about specific career fields, and about one's life priorities. The lecture witnessed the active participation of around 180 students of ECE department. The workshop was concluded with a Q&A session, followed by a Vote of Thanks by event faculty coordinator Dr. Astha Sharma.





## PARIKRAMA: The Campus Tour

Department of Electronics & Communication Engineering celebrated National Science Day on 28<sup>th</sup> Feb 2022 by engaging school students in innovation experience at the department advanced labs. This event was organized in association with IIC-GLBITM, G.L. Bajaj Center for Research & Incubation (GLBCRI) and EEE department. Around 100 students of class 9<sup>th</sup> and 10<sup>th</sup> from Oxford Green Public School (OGPS), Greater Noida visited the ECE department and the other advanced labs of the institute during the day.

National Science Day is celebrated every year to spread a message about the Importance of science in the daily life of the people, to display all the activities, efforts and achievements in the field of science for human welfare. It is one of the main science functions of India. It is also celebrated to commemorate the discovery of Raman Effect by Nobel laureate Shri C.V. Raman. The major idea of the celebration is to discuss all the issues and implement new technologies for the development in the field of science and to give an opportunity to the scientifically minded citizens in the country and to encourage the people as well as popularize the Science and Technology. The theme of National Science Day 2022 is 'Integrated Approach in Science and Technology for Sustainable Future'.

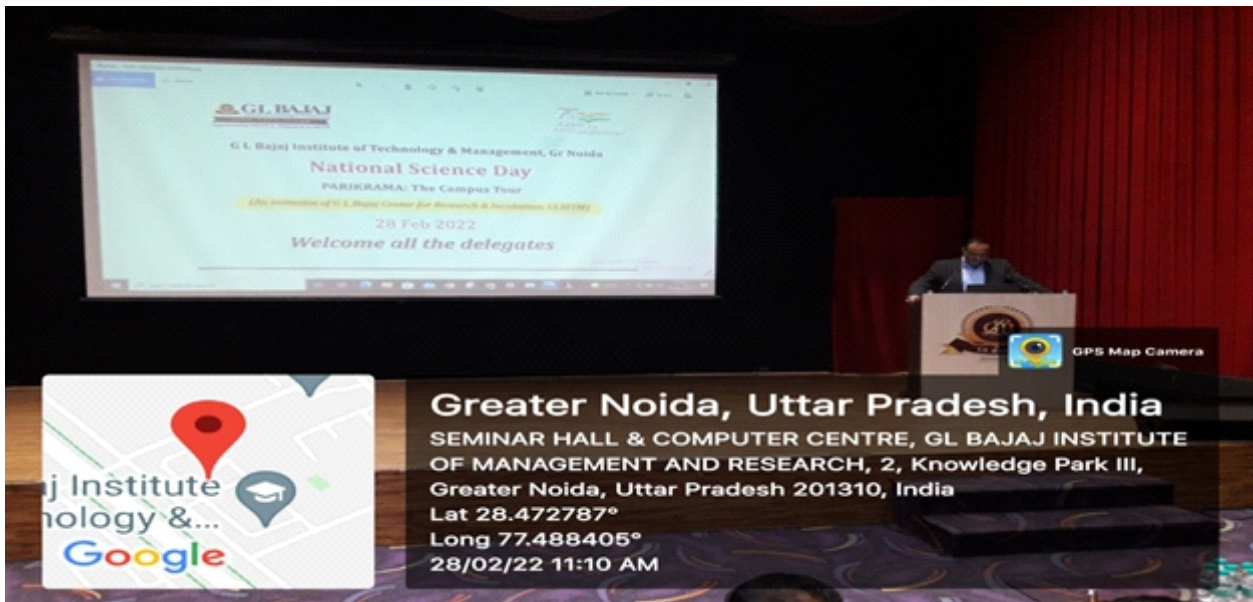
The Day was started with the welcome ceremony of all the invited teachers and students of OGPS by organizing committee of the National Science Day 2022. At the beginning of the event Prof. Rajeev Agarwal, Director, GLBITM welcomed all the guests and talked about the basic science and technology with the basic advancement of Indian science. Dr Agarwal briefed that this celebration honors Sir C. V. Raman's exceptional contribution to research and discovery by providing hope and inspiration to future generations to pursue their dreams. Not to stop with just one discovery in any field, but to continue chasing the nation's credits in every way.

After the inauguration ceremony, the students visited Advanced labs of Electronics and Communication Engineering Department among which Project lab gained students special interest where various students working projects and prototypes were displayed. Dr. Satyendra Sharma, HoD-ECE motivated students by briefing students about role of Electronics & Communication Engineering in building Innovation and Entrepreneurship culture essential for Aatma Nirbhar Bharat. Some of other labs visited by students were Robotics, IoS, Computer lab, PCB, Mechanical workshop project labs so that they can learn the practical science and technologies, which are in current use. They also visited G.L. Bajaj Center for Research & Incubation. The faculty coordinators were Dr. Astha Sharma, Innovation Ambassador and Dr. Manoj Joshi, Assistant Professor, ECE.

The objective of this visit was to give school students an insight into the engineering world, with a hope to inspire them about science and technology.



**PARIKRAMA: The Campus Tour**





## Faculty Corner

**Dr. Krishanu Kundu and Dr. Dipti Ranjan Pattanayak** have successfully developed MOOC course on Digital Electronics (KOE-039/049) and Digital Communication (KEC-601) respectively for AKTU affiliated students and recorded more than 30 e-lectures for YouTube platform of AKTU Digital Education. This entire lecture series will be beneficial for students across the world who wants to gain deep knowledge on Digital Electronics.

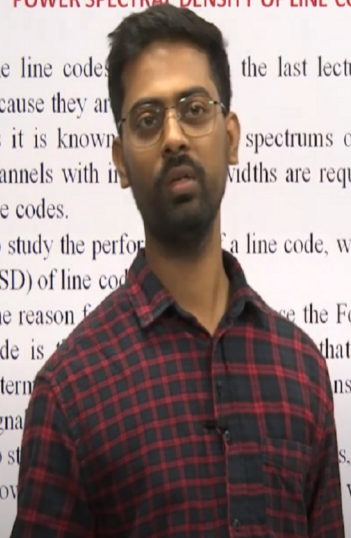
The Video link - Digital Electronics (KOE-039/049)  
<https://www.youtube.com/watch?v=gQM6jd3pidc&t=193s>

The Video link - Digital Communication (KEC-601)  
<https://www.youtube.com/watch?v=FipGIQJFNOE>



▪ **POWER SPECTRAL DENSITY OF LINE CODES**

- ✓ The line codes discussed in the last lecture are not the optimal line codes to utilise because they are not bandpass signals.
- ✓ As it is known, the power spectra of the form of *sine* functions. So, in theory, channels with infinite bandwidths are required to transmit any of the previously stated line codes.
- ✓ To study the performance of a line code, we need to consider the Power Spectral Density (PSD) of line codes.
- ✓ The reason for this is that we use the Fourier transform to find the spectrum of a line code is that the signals that generate a line code is a stochastic (non-deterministic) signal. The Fourier transform cannot be applied for non-deterministic signals.
- ✓ To study the performance of a line code, we use the PSD, which shows the power spectrum versus the frequency.





**Faculty Corner**

**Dr. Amrita Rai**, Associate Professor, Department of Electronics and Communication Engineering, received best paper award for presenting paper in The International Conference On Bio-Neuro Informatics And Algorithms – (ICBNA 2022). The title was “A Deep Model for Handwritten Devanagri Character Recognition”





## Students Corner

**Unnati Gupta**, Student from Department of Electronics and Communication Engineering got placed in amazon with the package of Rs. 44 Lacs per annum.



**Ritika Agrawal** and **Rupal Sinha**, students of ECE 3<sup>rd</sup> year participated in BU Rescon 22' at Bennett University (The Times Group), Greater Noida on 22<sup>nd</sup> and 23<sup>rd</sup> April 2022 in the Undergraduate Project Expo (ECE Panel). They presented their work titled 'Modelling of Smart Damage and Crack System' along with 25 other universities. They achieved 2<sup>nd</sup> position with a cash prize of Rs 3000.





## Ayush Startup Challenge 2022

**Ms. Kajal Shrivastava**, Alumni (2014-18), Department of Electronics and Communication Engineering got 1<sup>st</sup> Position in Ayush Startup Challenge 2022 Ministry of Ayush, Govt. of India. Congratulations Kajal, keep up the good work!



Kajal Shrivastava  
Founder & CEO  
Nadipulse Prognostic Pvt. Ltd.

## Women in leadership

**Ms. Anshu Kumari**, Alumni (2015-19 batch) has secured 1<sup>st</sup> position in 65<sup>th</sup> BPSC exam. She is now District Education Officer in Bihar. She was self-disciplined, diligent, team-player, punctual, courteous, confident and responsible during her academics. We congratulate her for this achievement and express best wishes for her bright future.





'Anveshana 2021'

Two teams from the Department of Electronics and Communication Engineering, GL Bajaj Institute of Technology and Management selected in 'Anveshana 2021', a state-level project championship, organized by the Agastya international foundation, in association with Synopsys. Somya Singh & Sahil Soni group with project title “Basti Preparation Machine”, Dev Parihar & Divyanshi Katiyar and group with project title “UVC based compressor” won the 2<sup>nd</sup> and 5<sup>th</sup> consolation Prizes respectively in Anveshana . We congratulate both the groups for this achievement.





## Startup

GL Bajaj Student's, **Mr. Praveen Kumar Yadav (ECE)** and **Mr. Avadhesh Chaudhary (CE)** founded a Startup named as **Dream Provider Pvt. Ltd.** incubated at **GL Bajaj TBI (G L Bajaj Center for Research and Incubation), Greater Noida.** It is a private company, incorporated on 14 February, 2022 and have received recognition from **Startup India** and **Start in UP.**

Dream Provider aspires to solve the problem of finding hostel/PG room/flats for students/tenants by helping them in finding a suitable and safe accommodation, overcoming the challenge of unnecessary paying huge sum of money to brokers. Providers offers a platform that can help in booking or posting of accommodation location in an easy way. The services include connecting all hostel and PG to Provider App/ Website location wise, making room comparable as per required location/rent/facilities wise, directly connects to verified owners avoiding brokerage charges, facility of Digital visiting (no door-to-door visit) and exciting rewards on every single booking.





## Editorial Board

**Convenor** : Dr. Satyendra Sharma (HOD)

**Editors** : Dr. Dinesh Singh - Professor

: Dr. Shilpa Choudhary - Associate Professor



## VISION

To become a department of repute and prepare globally competent and socially responsible professionals with holistic knowledge and technical skills.

## MISSION

- ✓ To provide a supportive environment for effective knowledge transfer and nurturing ideas.
- ✓ To equip students with technical and leadership skills, and abilities to face the global challenges.
- ✓ To create an environment conducive for research and development with continuous involvement of industry.
- ✓ To inculcate professional and moral values in the students.

## Program Educational objectives (PEO)

On completion of this course, our graduates will be able to

1. Exhibit multi-disciplinary technical and leadership skills for better employability, higher education and entrepreneurship.
2. Possess strong knowledge in the field of Electronics and Communication Engineering to develop solutions for real life problems.
3. Undertake professional responsibilities through strong team-work, communication skills and life-long learning.
4. Become socially responsible professionals with moral values and ethics.



[www.glbitm.org](http://www.glbitm.org)



Plot No. 2, Knowledge Park III,  
Greater Noida, Distt. G.B. Nagar, U.P., India-201306