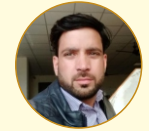




Dr. Rama Kant
Editor-in-Chief



Er. Jayati Krishna
Editor



Mr. Govind Ram
Designer



Mr. Nishant Sharma
Student, 3rd Yr



Ms. Himanshi Gupta
Student, 3rd Yr

Message from Desk of Editor

We are glad to bring out the Issue 1 of Vol. 4 of our eNewsletter TECHKNACK. Carrying forward our agenda of information clubbed with entertainment, this issue features variety of news and soft features. This issue addresses, departmental activities, faculty achievements, extracurricular activities, student achievements and new technologies that came into existence.

I really appreciate the efforts done by Er. Jayati Krishna Goswami, Assistant Professor, Mr. Govind Ram, Programmer cum Technical Assistant and also students volunteers, Mr. Nishant Sharma & Ms. Himanshi Gupta CSE 3rd Year. Techknack is thankful to all who contributed to this issue. We are equally open to comments, criticism and suggestions to make it more informative.

OUR TOPPERS



Sakshi Malhotra
First Topper - 87.19%

Fourth Year TOPPERS

Sakshi Malhotra (87.19%)
Dimple Sharma (85.67%)
Aarzoo Ahuja (84.92%)



Vardaan Raj Singh
First Topper - 85.42%

Third Year TOPPERS

Vardaan Raj Singh (85.42%)
Shobhit Rajawat (85.16%)
Hemant Agrawal (83.81%)



Pranjal Kulshreshtha
First Topper - 91.31%

Second Year TOPPERS

Pranjal Kulshreshtha (91.31%)
Sagar (86.32%)
Vaibhav Kulshreshtha (85.26%)

STAR PLACEMENT



Yukti Agrawal
28.29 LPA
Adobe System
Incorporated

10



Aarzoo Ahuja
20.67 LPA
Walmart



Sadain Kazmi
20 LPA
PlaySimple Games



TECHKNACK eNewsletter

GL BAJAJ GROUP OF INSTITUTIONS, MATHURA

What's Inside

New
Joinings

Departmental
Activities

Student
Achievements

Faculty
Achievements

Latest
Trends

Learning is a lifelong process. Education is more important affair in our life than learning or being literate. The newsletter is a good way to learn about developments and activities and let others know. I congratulate all the people who have been associated with this publication.

Dr. R K Agrawal
Chairman



It is wisely said that change is the only thing that is permanent in life. So be it, for the department as well. I congratulate the editorial board, advisory board and the department for online publication of Vol.4, Issue 1 of eNewsletter. I hope everyone would be benefited with it.

Mr. Pankaj Agrawal
Vice-Chairman



Working towards the overall development of the Computer Science and Engineering Students, the department is committed to bringing the best out of the students. The students are trained to struggle and conquer the international standards and platforms. The students are a globally accepted workforce and dedicated to the nation. They are leaders to start their own startups and employ the workforce. I wish all the best to the department for its flagship endeavours.

Prof. (Dr) Neeta Awasthy
Director

1



- New Joinings -

Two Teaching Staff joined as Assistant Professor

Er. Utpal Shrivastava has done BCA (BIT, Mesra), MCA (UPTU), M.Tech CSE (GJU&ST, Hisar) and pursuing Ph.D from Banasthali Vidyapith. He has a total experience of 16+ years. He has 20 research publications in to his credit. He has one patent. His areas of research interest are genetic algorithms, artificial intelligence and machine learning.



Er. Sachin Upadhyay has done B. Tech in Information Technology (AKTU, Lucknow) and M.Tech in Computer Sciences & Engineering. He has a total teaching experience of 11+ years. He has 5 research publications in to his credit. His area of research interest is software architecture transformation.



- Departmental Activities -

“Making you Placement Ready- Know your Mentors” An Engineer's Day Webinar series

On the occasion of Engineer's Day, we have come up with a 2 week long webinar series to help students during 01.09.21 to 15.09.21.

Event Objectives:

- Learn about latest technology
- Groom them better to understand what industry is looking forward in these Covid Times.

Eminent Speakers:

- Mr. Radha Kant Jaiswal, Associate Director, Karl Storz Endoscopy India.
- Mr. Jigar Halani, Director, Solution Architect & Engg., NVIDIA
- Mr. Chetan Vashisth, Blockchain & AI NEC Technologies India
- Mr Hitesh Jain, Founder and CEO, WITS Interactive Mumbai, Maharashtra
- Mr. Naveen Venkat, Assistant Vice President, J P Morgan Chase & Co. Bengaluru
- Mr Sriram Sitaram, Practice Head, Data Science Leader, Bengaluru, Karnataka
- Mr. Mayank Kumar, Practice Head, Data Science Leader, Bengaluru, Karnataka
- Ms Shubhi Sachan, Founder, Material Library of India, New Delhi
- Mr Shailendra Gupta, Cryptocurrency One-Stop Solution, NOIDA, UP

- Departmental Activities -

Faculty Development Program on “Bridging the Gap between Academia and Industry”

22 Hours Online International Faculty Development Program on “Bridging the Gap between Academia and Industry” had been organized by the Department of Computer Science and Engineering at GL BAJAJ Group of Institutions, Mathura with distributed sessions over May-June 2021. Entire FDP was well supported by whole team of CSE department with the coordination of Dr. Rama Kant Baghel, Associate Professor & Head CSE and Er. Sachin Upadhyay under the mentorship our Director, Prof. (Dr) Neeta Awasthy. The event was successfully coordinated by Er. Jayati Krishna.

Event Objectives:

- To offer a variety of educational best practises concepts
- To discuss current requirements and needs of Industry
- To discuss the different Competency standards for students.
- To elaborate how to make students “Industry Ready”

Topics of FDP :

1. Industry Awareness & Data Science
2. What Industry wants from its new Engineers?
3. Deep Learning in Time Series: Cardiac and Pulmonary Signals analysis using CNN models.
4. Emerging Trends of Blockchain and AI for Smart City
5. Digital Diplomacy- Application of Artificial Intelligence in Geo-Politics
6. Machine Learning Applications in Robotics
7. Malware Analysis
8. Mobile Application Development
9. Cyber Security in Industry
10. Seeding industry domain knowledge in academia
11. Application of Data Analysis and uses of Computing Resources

Our Eminent Speakers



Er. Ashok Kr Sangwan
Head, Cost of Delivery
Wipro



Er. Manoj Kr Lal
Consultant, TCS



Er. Pankaj Verma
Director, Atharvshirsh



Prof. Amit Das
Director of Centre for Artificial
Intelligence & Machine
Learning, ICFAI University



Er. Mohd. Aamir Khan
Sr. Project Engineer
IIT Kanpur



Er. Vishal Pachori
Senior Xamarin Consultant
Acesoft Labs India



Dr. Manish Raj
Assistant Professor
Bennett University



Mr. Neeraj Baghel
JRF
IIIT SriCity



Dr. Ashu Sharma
Sr. malware analyst
Watchguard



Er. Sushil Kumar Singh
Research Scholar at Seoul National University
of Science and Technology, Korea



Er. Shilpa Singh
Security Engineer,
Stepstone, Belgium

- Departmental Activities -

Opening Ceremony of Coding Club

Opening ceremony was started at 11 AM with the welcome note by Himanshi Gupta, 3rd Year student. She then introduced CODE SQUAD club. She also explained importance of coding for better placement whether it is on campus or off campus. After that our mentor Dr. Rama Kant Baghel and Co-ordinator Er.



Jayati Krishna motivated students and appreciated work of CODE SQUAD club. At the end of the session, club activities (WEEKLY CHALLENGES) are announced and students are motivated to participate in further events of coding club. A survey was also conducted on 10th of May, 2021 for getting feedback from students for future activities plan according to their interests. Entire session was well supported by CODE SQUAD-Coding Club of CSE department. The event was successfully coordinated by Er. Jayati Krishna and Himanshi Gupta.



Hack Day, Code Innovation Series Powered by GitHub

This hackathon was hosted by IncubateIND under the GitHub Campus Program collaboration with GL Bajaj. This event was carried out in two sessions. Many students submitted their ideas and prototypes in Github repository of our college. Top ten projects/ideas were selected for next jury round which was held at 5:30 PM. Mr. Shakti Singh, Mr. Kaushik Roy, IncubateIND and Er. Jayati Krishna were jury members. All the participants were judged on the basis of various criteria such as novelty, social impact, target users etc. At the end of this, winners were announced.

Entire workshop was well supported by Coding Club of CSE department. The event was successfully coordinated by Er. Jayati Krishna.

Winners:

1st	Rishi Raj Singh	3rd, Year
2nd	Swantatra Gupta	2nd, Year
3rd	Shivang Shah	2nd, Year



Mr. Rishi Raj Singh



- Departmental Activities -

Hands-on workshop on “Getting Started with Git & GitHub”

More than 150 students and faculties participated in this workshop held on 12.12.2020. Mr. Kaushik Roy, Incubate Ind, explained the usefulness of GitHub, a code hosting platform for version control and collaboration that lets you to work together with your teammates on projects from anywhere. It hosts your source code projects in a variety of different programming languages and keeps track of the various changes made to every iteration. Mr. Roy also explained the process to perform version control and collaboration. Hands-on practice was carried out by students and faculties using various GitHub tools such as repositories, branches, commits, and pull requests etc. .

Entire workshop was well supported by Coding Club of CSE department. The event was successfully coordinated by Dr. Rama Kant, Associate Professor. & Head and Er. Jayati Krishna, Assistant Professor.

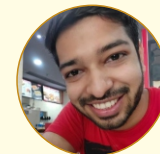
SMART HACKS 2020-21

Online Programming Quiz “SMART HACKS– 2020-21” EICT Academy- IIT, Kanpur was organized at various colleges across the country. It is a two-stage competition based on coding and is meant for the students. The purpose of it is to evaluate the students' competence in basic programming skills.

This Quiz checked the knowledge of students on basic programming languages. More than 100 students have participated in this quiz. Sagar Mudgal, CSE-3rd Year, has cleared the first round. This quiz was coordinated by Er. Jayati Krishna Goswami, Assistant professor, CSE Department. The Finale of the event will be held at IIT, Kanpur.

- Student Achievements -

- Aman Kumar Saksena, 4th year, has published a research paper "Methods for Classification of Items for Inventory Management," in 2021 International Conference on Computer Communication and Informatics (ICCCI), 2021, pp. 1-4.



- Sagar Kumar Gupta, 3rd year student has won 1st Prize of “AN ONLINE QUIZ COMPETITION ON APTITUDE & REASONING” organized by department of Mechanical Engineering held on 17th July, 2021.



- Faculty Achievements -

Prof. (Dr) Neeta Awasthy has published 1 patent, 1 research paper and 1 book chapter.

Patent :

- “ARTIFICIAL INTELLIGENCE BASED SMART TOILET FOR ELDERLY AND PHYSICALLY CHALLENGED” (APPLICATION NUMBER : 202121004527)

Publications :

- Siddiqui, Salman & Awasthy, Neeta & Sharma, Neeta. (2021). Building Large Scale Self Driving Car using Machine Learning Pipeline: An Experiment The International journal of analytical and experimental modal analysis. The International journal of analytical and experimental modal analysis. 13. 1660-1664, Volume XIII, Issue III, March/2021.
- Sharmila, A.N Mishra, Neeta Awasthy, Vineeta Verma, Sarika Malhotra. (2020). HINDI SPEECH AUDIO VISUAL FEATURE RECOGNITION. International Journal of Advanced Science and Technology, 29(5s), 1734 - 1743.
- Impact of IoT in biomedical applications: Part II Electronic Devices, Circuits, and Systems for Biomedical Applications Challenges and Intelligent Approach, Editors- Suman Lata Tripathi, Valentina E. Balas, S.K. Mohapatra Kolla Bhanu Prakash, Janmenjoy Nayak



Dr. Rama Kant Baghel has published 3 patents, 1 Scopus paper, 2 book chapters and 1 Springer book as an editor.

Patents :

1. MUSIC RECOMMENDATION, MOTION SENSORS ON MOBILE DEVICE USING INTERNET OF THINGS (IOT)” (APPLICATION NUMBER : 202011034751)
2. VOICE CONTROL CIRCUIT BREAKER: INTELLIGENT VOICE CONTROL CIRCUIT BREAKER FOR HOUSEHOLD APPLIANCES. (APPLICATION NUMBER : 202011037758A)
3. DRONE AERIAL VEHICLE: DRONE AERIAL VEHICLE TO DETECT THE OBJECT AND PROVIDE THE NOTIFICATION. (APPLICATION NUMBER : 202011037761A)



Publications :

1. Lalit Kumar Tyagi, Rama Kant and Anish Gupta, A Comparative Analysis of Various Local Feature Descriptors in Content-Based Image Retrieval System Published under licence by IOP Publishing Ltd, Journal of Physics: Conference Series, Volume 1854, International Conference on Future of Engineering Systems and Technologies (FEST) 2020 18-19 December 2020, Greater Noida, Delhi/NCR, India (**Scopus**)
2. Rama Kant. Title: “Quantitative Analysis of Industrial IoT System” in Springer Book “Artificial Intelligence for a Sustainable Industry 4.0” Editors: Awasthi, S., Travieso-González, C.M., Sanyal, G., Kumar Singh, D. (Eds.), Publisher: **Springer (Accepted)**
3. Rama Kant. Title: “Formal Verification of Industrial IoT System: A Behavioural Equivalence” in Springer Book “Artificial Intelligence for a Sustainable Industry 4.0” Editors: Awasthi, S., Travieso-González, C.M., Sanyal, G., Kumar Singh, D. (Eds.), Publisher: **Springer (Accepted)**

Book Editor:

1. Title: “Sustainable Computing: Transforming Industry 4.0 to Society 5.0” Editors: Awasthi, S., Travieso-González, C.M., Sanyal, G., Kumar Singh, D., Srivastava, P.K., Kant, R. (Eds.), Publisher: **Springer (Approved)**

- Faculty Achievements -

Er. Sanjiv Agrawal

- One week each FDP on “Cyber Security” and “Internet of Things (IoT) from AICTE Training And Learning (ATAL) Academy.
- A Three Days FDP on Learn, Unlearn and Relearn the collaborative, creative and critical thinking in the classroom from GL BAJAJ Group of Institutions, Mathura and ELT@I.
- One week each FDP on “Python”, “Advanced Excel with Data Visualization”, “Introduction to Software Development Life Cycle”, “Competitive Coding”, “Advance Concepts on Networking and Linux” and “App Development with Android” from E & ICT Academy, IIT Kanpur.
- 22hr International FDP on “Bridging the Gap between Academia and Industry” from GL BAJAJ Group of Institutions, Mathura.



Er. Sanjiv Kumar Singh

- One week Online Faculty Development Programme on “Cyber Security Analytics and Cyber Forensics” from Department of Computer Applications, Saintgits College of Engineering, Kottayam
- One week FDP on “Mechine Learning Based Applications” from Department of ECE Sreyas Institute of Engineering. & Technology, Hayderabad.
- 1 Day each workshop has done on AWS Public Sector Summit Online and AWS Modern Applications Online Series from AWS.
- One week each FDP on “Cyber Security”, AI, and “Internet of Things (IoT) from AICTE Training And Learning (ATAL) Academy.
- A Three Days FDP on Learn, Unlearn and Relearn the collaborative, creative and critical thinking in the classroom from GL BAJAJ Group of Institutions, Mathura and ELT@I.
- 22hr International FDP on “Bridging the Gap between Academia and Industry” from GL BAJAJ Group of Institutions, Mathura.
- One week each FDP on “Python” and “Core Java” from E & ICT Academy, IIT Kanpur.
- One Day FDP on IPR Strategy and Cleantech Innovation from Turnip Innovations.



Er. Utpal Shrivastava

- One week FDP on “Python” from E & ICT Academy, IIT Kanpur.
- A Three Days FDP on Learn, Unlearn and Relearn the collaborative, creative and critical thinking in the classroom from GL BAJAJ Group of Institutions, Mathura and ELT@I.
- 22hr International FDP on “Bridging the Gap between Academia and Industry” from GL BAJAJ Group of Institutions, Mathura.

Er. Santosh Kumar Swarnkar

- 5 Days Online FDP on “Inculcating Universal Human Values in Technical Education” from AICTE.
- 22hr International FDP on “Bridging the Gap between Academia and Industry” from GL BAJAJ Group of Institutions, Mathura.



- Faculty Achievements -

Er. Sachin Upadhyay

- One week each FDP on “Cyber Security”, “Data Science”, “Internet of Things (IoT) and “ Cyber Security Vulnerabilities & Safeguards” from AICTE Training And Learning (ATAL) Academy.
- One week each FDP on “Python”, “Data Science”, “Cyber Security”, “Cloud computing”, “Project Management”, “Introduction to Software Development Life Cycle”, “Competitive Coding”, “App Development with Android”, and “Advance Networking Concepts” from E & ICT Academy, IIT Kanpur.
- One day webinar of Pedagogical view of Developing 21st Century on “Problem Solving & Programming Skills” from AKTU, Lucknow.
- 5 Days Online FDP on “Inculcating Universal Human Values in Technical Education” from AICTE.
- 22hr International FDP on “Bridging the Gap between Academia and Industry” from GL BAJAJ Group of Institutions, Mathura.

Er. Jayati Krishna

- A Three Days FDP on Learn, Unlearn and Relearn the collaborative, creative and critical thinking in the classroom from GL BAJAJ Group of Institutions, Mathura and ELT@I.
- 1.5 Hrs Udem Online Course on “Introduction to Python Online Course”.
- 25 Hrs Udem Online Course on “Python for Data Science and Machine Learning Bootcamp”.
- 22hr International FDP on “Bridging the Gap between Academia and Industry” from GL BAJAJ Group of Institutions, Mathura.



- Extra Curricular Activities -

-Alumni Connect Program-

In this program distinguished Alumni come and share their views with the Institute, the Department and students.

It provides a good platform for feedback to the Institute and the Department. It also provides a mean for interaction among students with their seniors as technocrats. Alumni also provide the knowledge of cutting edge technologies.



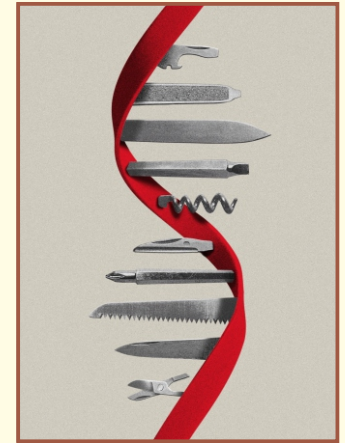
(Nitin, Sonam, Priyanka, Shubhanshi, Rishabh and Gopal, 6 Alumnus of 2017 Batch with Er. Sanjiv Kumar Singh and Dr. Rama Kant Baghel, HOD, CSE.)



- Latest Trends -

Messenger RNA vaccines

The two most successful coronavirus vaccines are based on messenger RNA, a technology that has been in development for more than 20 years. When the covid-19 pandemic broke out last January, scientists at several biotech companies were quick to turn to mRNA as a source of potential vaccines; the vaccines were approved in the US in late December 2020, at a time when more than 1.5 million people had died from the virus worldwide, signalling the start of the pandemic's end.



The new covid vaccines are based on a technology that has never been utilised in treatments before, and it has the potential to revolutionise medicine by allowing vaccines to be developed for a variety of infectious diseases, including malaria. Furthermore, if the coronavirus continues to evolve, mRNA vaccines can be readily and swiftly changed. Messenger RNA also has a lot of promise as a foundation for low-cost gene repairs for diseases like sickle-cell anaemia and HIV. Using mRNA to assist the body fight cancer is also in the works.

Generative Pre-trained Transformer 3 (GPT-3)

Large natural-language computer models that learn to write and speak are a major step toward artificial intelligence that can better understand and interact with the world. GPT-3 is the most populous and well-educated of all the GPTs discovered thus far.



GPT-3 is the most impressive language model yet produced using machine learning, having been trained on the text of thousands of books and the majority of the internet. It can mimic human-written text with uncanny and at times bizarre realism, making it the most impressive language model yet produced using machine learning. However, because GPT-3 doesn't understand what it's writing, the outcomes are occasionally jumbled and incomprehensible. Training requires a tremendous amount of processing power, data, and money, resulting in a significant carbon footprint and limiting the creation of similar models to labs with exceptional resources. And, because it is trained on internet text that is full of disinformation and prejudice, it frequently delivers biased paragraphs.