




Department of Information Technology

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Message from Vice-Chairman, GLBITM

Congratulations to the Information Technology department for their dedicated work in producing the departmental magazine. Needless to say, efficient communication, in addition to several other factors, plays a critical part in the success of any firm. I am confident that this departmental magazine will reflect the department's work and improve communication among GLBians. I am convinced that the magazine will encourage students to engage in research, with a focus on entrepreneurship.



Mr. Pankaj Agarwal
(Vice Chairman)

Message from Director, GLBITM



Dr. Rajeev Agrawal
(Director)

To begin, I express my gratitude to the Department of Information Technology for their efforts in publishing a magazine dedicated to providing readers with a mix of timely and thought-provoking articles on technology and other topics. I am confident that this will reflect the institution's dedication to open discourse and will provide a glimpse of the department's varied activities and accomplishments. I am convinced that the magazine will encourage students to be more creative, with an emphasis on innovative learning. For their efforts, I express my gratitude to the dedicated staff and their team.

Message from HOD-IT

The concept that our department is publishing a magazine is a wonderful honor. The idea of keeping professors and students up to date on departmental happenings is commendable. It gives me great pleasure to know that our kids have great potential, and I am hopeful that their achievements will encourage other students to reach their goals, which will require them to have a clear vision and the determination to follow through. The Department Editorial Board has done an outstanding job developing and publishing the magazine. I wish the entire crew the best of luck in their future endeavors.



Dr. P.C Vashist
(HOD – IT)

Technical Events

Online Virtual Lab Workshop

Department of Information Technology, GL Bajaj Institute of Technology & Management organized Greater Noida has organized one-week Faculty Development Program (FDP) on Reach to Innovative Tech Concept | Applications | Implementation dated from 28th -2nd July 2021. This FDP was on the latest technology with hands-on knowledge. The Technical sessions were taken by the expert:

Dr. Monika Mangla, Lokmanya Tilak College of Engineering, Navi Mumbai

Dr. Sanjeev Shrivastava, National Coordinator I-STEM Indian Institute of Science Bangalore.

Mr. Arjun Chaudhary, Assistant Professor, Faculty of science, technology, and forensic, Sardar Patel University of Police, Security and Criminal Justice, Jodhpur, Rajasthan.

Mr. Kuver Pratap Singh, OLAM International Singapore, Manager Hybrid Cloud Computing.

Dr. Vaishali Wadhwa, Panipat of Engineering and Technology, Panipat, Haryana.

This was a faculty development program on the latest technology with hands-on knowledge.

Online Virtual Lab Workshop



Virtual Labs
An AICTE Cent of Excellence

GL BAJAJ
Institute of Technology & Management

G L Bajaj Institute of Technology & Management
(Virtual Lab Nodal Centre)
Plot No-2 , Knowledge park-III, Greater Noida(U.P.)

WORKSHOP
Understanding and exploration of Virtual Lab

.....28th June 2021 at 12:00 -2:00 pm using Microsoft Team
(Link will be shared)

For I.T. 2nd Year & 3rd Year Students

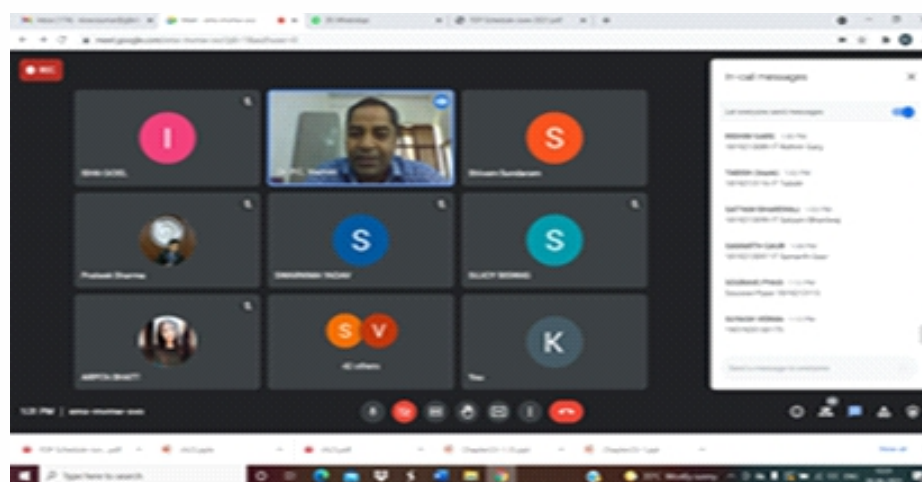
Organized By: -
Department of Information Technology
G L Bajaj Institute of Technology & Management,
Greater Noida

Guest Speaker

Mr. Prateek Sharma
Asst. Prof. & Head of Department
Department of Information Technology
GL Bajaj Institute of Technology & Management
Greater Noida

Mr. Siddhan Sankaran
Asst. Prof. & Head of Department
Department of Information Technology
GL Bajaj Institute of Technology & Management
Greater Noida

All the participants must register themselves on the following link: <https://forms.gle/yv5Lef5at8tkvau5Y5>



Safe Me Webinar on Cyber Hygiene

Department of Information Technology, GL Bajaj Institute of Technology & Management organized Greater Noida has organized one day online Safe Me Webinar on Cyber Hygiene dated 17th June 2021.

The Webinar provides an intensive session to empower students with knowledge in a simplified and easily graspable manner, towards adapting the best cyber hygiene best practices to stay safe and secure from cyber frauds and online scams. The session was taken by the expert Mr. Rahul Tyagi, Co-founder of safe security.



SAFE Me WEBINAR on Cyber Hygiene

The webinar provides an intensive session to empower students with knowledge in a simplified and easily graspable manner, towards adapting the best cyber hygiene best practices to stay safe and secure from cyber frauds and recent online scams.

To whom this webinar is beneficial

- Undergraduate and Postgraduate students from computer science. However, students from other branches with an inclination towards information technology must also be encouraged to participate.
- All Faculty of the institution are most welcome to be a part of the Webinar.

Date - 17th / June / 2021 **Time** - 2:00 - 3:00 PM IST **Venue** - Google Meet

Speaker
 **Rahul Tyagi**
Co-Founder, Safe Security

Webinar Flow

Introduction (15 Min)	Demonstration (15 Min)	Best Practices (15 Min)	Q&A (15 Min)
<ul style="list-style-type: none"> History of an Attack - Whatsapp Video Call How Criminals Hg individuals and other advanced phishing attacks 	<ul style="list-style-type: none"> Phishing Demonstration Remote Access Demonstration Stolen Credentials Demonstration Email extortion - How criminals use exposed passwords to scam board members 	<ul style="list-style-type: none"> Secure Email Secure File Sharing Secure File Transfer Secure File Storage Secure File Transfer Secure File Storage 	<ul style="list-style-type: none"> Introduction Q&A

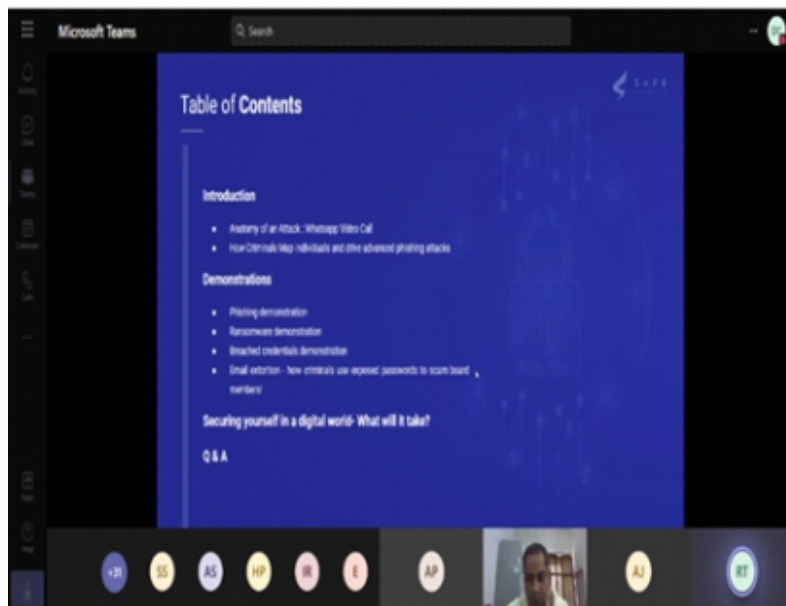


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Introduction

- History of an Attack - Whatsapp Video Call
- How Criminals Hg individuals and other advanced phishing attacks

Demonstrations

- Phishing Demonstration
- Remote Access Demonstration
- Stolen Credentials Demonstration
- Email extortion - How criminals use exposed passwords to scam board members

Securing yourself in a digital world: What will it take?

Q & A

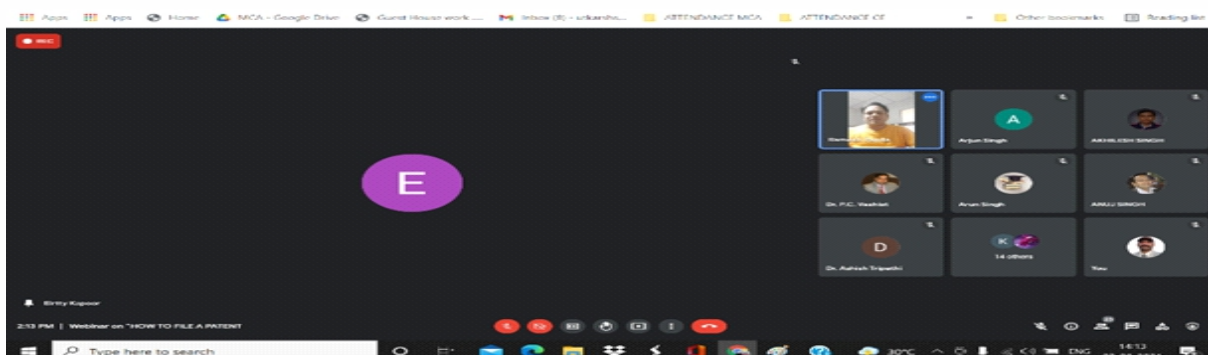
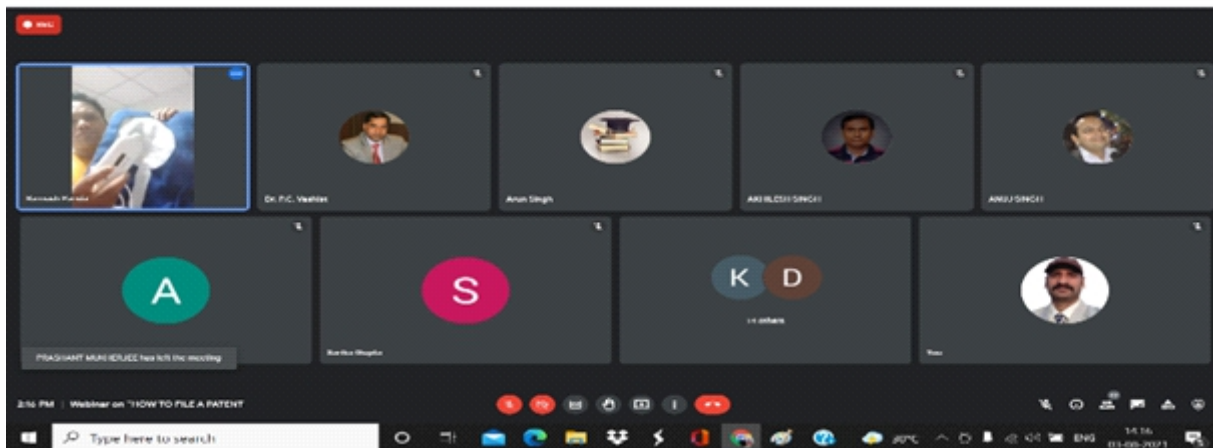
Online Webinar on How to File a Patent

Department of Information Technology, GL Bajaj Institute of Technology & Management organized Greater has organized an online webinar on “**How to File a Patent**” dated on 17.07.2021. The expert for this session was Prof. Ramesh Chandra Panda, Dean Research and Development Cell, Synergy Institute of Engineering and Technology, Dhenkanal, Odisha.

The participants of the webinar were able to understand the procedures to convert the research outcome into patents. Professor Panda discuss various innovations and patents dimension, like

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India is arming itself with ideas and innovations to fight the outbreak i.e Automatic mask machines, cost-effective ventilators, Low-cost PPEs: Brithibity, Advanced washbasins, COVISAFE: Transporting patients, Sanitiser Tunnels: A 'jugaad, Safe swab: Phonebooth testing, Robotic hospitality, Health ATM, Disinfectant jackets, super-thin globes, auto Sensing Herbal dispenser. Innovation empowering industries putting effort best for treatment, testing, emergency communication, humanitarian assistance, safe transport, Data management, enabling community & connection, Economic and workforce support engineering & utility support to vulnerable groups.



Extra-Curricular Activities:

Felicitation cum Orientation Program

Department of Information Technology, GL Bajaj Institute of Technology & Management has organized a Felicitation cum Orientation Program dated 24/03/2021. Students make a significant contribution to the success of any educational institution, and when we recognize their efforts, it encourages them to continue on their path.' A felicitation ceremony was held to honor the students for their great performance throughout the 2021 Orientation Program. This felicitation program is organized for 4th-year students and peer-to-peer interaction programs between 2nd,3rd, and 4th Year Students.



Online Poster Presentation

Department of Information Technology, GL Bajaj Institute of Technology & Management organized Greater has organized an online poster presentation event. This event has been organized for Intra department students dated 26/6/2021. The purpose of this event was to encourage students during the pandemic and to share the togetherness. The theme of this poster presentation is the effect of covid-19 on human life and how technology supports human life during this pandemic. The number of participants actively participated in this event who presented their poster.



New Technology Trends

DevSecOps:

Development, security, and operations are referred to as DevSecOps. Its goal is to deploy security on the same scale and at the same pace as development and operations, rather than just for the sake of it. DevSecOps appears to be gaining traction in our DevOps market as Microservices become more widely adopted. For enterprises



to succeed in this market, they will need a model that allows them to operate wherever. This operations paradigm, at its heart, enables a business to be accessible, provided, and enabled from anywhere. This style is currently branching out to include topics like GitOps, DataOps, and NoOps.

Intelligent Process Automation:

'Anything that can be automated should be automated,' is the core premise of robotic process automation. We've discovered something even more interesting this year: Intelligent Process Automation. In a word, IPA enables bots to benefit from AI, Big Data, and Machine Learning capabilities, allowing them to learn and improve over time.



This aids in the evolution of these clever bots from the 'If-this-then-that' rule.

Human Augmentation

Humans have always experimented with technology in order to improve life as we know it. This fascination has now expanded to include Human Augmentation, which entails using technology such as Artificial Intelligence and the Internet of Things to not only improve our daily lives but also to push human intelligence to new heights.

Currently, research is focused on using nanobots and artificial augmentation to assist people with disabilities, as well as working with genes to cure disease. However, the aim is to eliminate current physical limitations or to prevent accidents from occurring in the first place.



Everything-as-a-Service (XaaS)

Everything-as-a-Service (XaaS) is a cloud computing terminology for the wide range of services and applications that are becoming available for customers to consume on-demand over the Internet rather than on-premises. It allows you the freedom to customize your computing settings on-demand to create the experiences you want. XaaS has grown to include a variety of services, including:

- Function-as-a-Service
- IT-as-a-Service
- Infrastructure-as-a-Service
- Security-as-a-Service
- Database-aa-a-Service

As these apps grow more portable, real-time compute cycles become easier to acquire, data integration platforms streamline communication, and manufacturers build cross-platform alliances, the multi-cloud trend may soon morph into an Omni-cloud trend.



Vision

To develop competent IT professionals catering to the needs of Industry and society in a global perspective.

Mission

To attain academic & professional excellence with collective efforts of all stakeholders through

M1: Dissemination of basic concepts and analytical skills.

M2: Exposure to new tools in the area of Information technology.

M3: Effective interaction with industry for better employability.

M4: Inculcating values and professional ethics with social responsibility.

Program Educational Objectives

PEO1: To provide students a strong foundation in mathematical and IT fundamentals with emphasis on different programming languages/ platforms.

PEO2: To prepare students with a strong foundation in IT tools and analytical skills.

PEO3: To analyze, design, and develop efficient and cost-effective IT solutions for society.

PEO4: To become a successful professional in the software industry with leadership quality and value.

PEO5: To provide a supportive academic environment and guidance for life-long learning.

Program Outcomes (PO's)

Students of this Program are expected to demonstrate:

PO1- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the Solution of complex engineering problems.

PO2- Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3- Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4- Conduct Investigations Of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 - The Engineer and Society: Apply to reason informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 -Environment, and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Program Outcomes (PO's)

PO9- Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10- Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11-Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader.

PO12 - Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in th

Program-specific Outcomes

PSO 1: Design and develop an application/product that efficiently utilizes system software and hardware to cover current user requirements in social and economic form.

PSO 2: Apply and acquire knowledge of computer network in the implementation of secure data communication and reliable network system.

PSO 3: Design and implement knowledge-based discovery, machine-based learning by using the concept of DBMS, soft computing, neural network, image processing, and pattern recognition etc.

PSO 4: Design and develop mobile-based applications that use the concepts of the latest application system development technologies.

Department of Information Technology

The Department of Information Technology at G.L. Bajaj Institute of Technology & Management was founded in 2007 with the goal of producing qualified IT professionals who can meet the needs of industry and society on a global scale. By exposing students to new IT tools and technologies, the Department hopes to help them achieve professional greatness. The flagship branch of engineering, information technology, focuses on scientific research, scientific programming, application programming, and software engineering. The Department has well-equipped laboratories, lecture halls, seminar halls, tutorial rooms, and faculty sections, all with cutting-edge technology and software. The Department has a mix of senior and junior faculty members who serve as mentors to the department's equally dedicated and hardworking students.

From HOD's Desk

It gives me great joy to congratulate the editorial team on continuing and publishing their collective thought process as a magazine. It serves as a display of their research efforts and accomplishments, as well as a reflection of the department's creative and cultural activities. It gives me great pleasure to know that our students have enormous potential, and I am hopeful that the accomplishments of the students featured in this magazine will encourage other students to reach their goals, which will require them to have a clear vision and determination to pursue it. The Department Editorial Board has done an outstanding job developing and publishing the magazine. I send my warmest greetings.

PATRONS

Dr. Ram Kishore Agarwal
(Chairman)

Mr. Pankaj Agarwal
(Vice Chairman)

Dr. Rajeev Agrawal
(Director)

Dr. P.C Vashist
(HOD – IT)

EDITORIAL BOARD

Dr. Pushpa Choudhary

www.glbitm.org



 **GL BAJAJ**
Institute of Technology & Management
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Approved by AICTE & Affiliated to AKTU

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