RAMAIAH
College of Arts, Science
& Commerce - Autonomous

M S Ramaiah College of Arts, Science and Commerce
Re-accredited 'A' by NAAC, Permanently Affiliated to Bengaluru Central University,
Approved by Government of Karnataka, Approved by AICTE, New Delhi,
Recognized by UGC under 2F & 12B of UGC act 1956

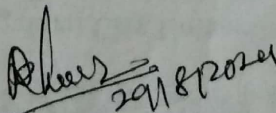REF/MSRCASC/CHEM/BIOCHEM/2023-2024/

Date 28.08.24

CIRCULAR

Department of Chemistry and Biochemistry has organized a Guest lecture on on **"Emerging trends on Cyber crime and attacks and Career guidance for the students"** by Mr. Vyshak R, MSc forensic science, (PhD in Digital Forensic), Assistant professor Department of Cybersecurity and Cyber forensics Srinivas University Institute of Engineering and technology on 31/08/24 at 11:30am.
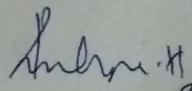
Note: **Attendance is compulsory for all.**

Time: 11:30AM to 12:30PM

Venu: Kuvempu hall

Head of the Department
CHEMISTRY / BIO-CHEMISTRY
HOD
M.S. Ramaiah College of Arts,
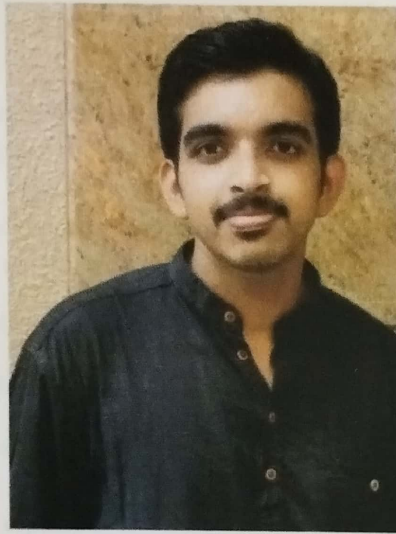Science & Commerce
Bangalore - 560 054

Registrar (Academics)

Principal

Principal
M S Ramaiah College of Arts, Science
Commerce-Autonomous
POST, MSR Nagar
Bengaluru - 560 054

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जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY
सत्यमेव जयते

Department of Chemistry and Biochemistry
Organizes

Guest Lecture
on
Emerging trends on Cyber crime & attacks
and
Career guidance for the students

Guest Speaker

Mr. Vyshak R.
Assistant professor
Department of Cybersecurity and Cyber forensics
Srinivas University Institute of Engineering and
technology

Date:31/08/24   **Time:11:30AM**

Venu:Kuvempu Hall

Head Of the Department   **Faculty Coordinator**
Ramya Kumari B S   Dr Prasanna Kumar

Department of Chemistry and Biochemistry

Report on: Guest Lecture on **"Emerging trends on Cyber crime and attacks & Career guidance for the students"**

Guest Lecture on "Emerging trends on Cyber crime and attacks & Career guidance for the students" was organized under Department of Chemistry and Biochemistry at M S Ramaiah college of Arts Science and Commerce on 31-08-2024.The resource person was Mr. Vyshak ,Assistant professor ,Department of Cybersecurity and Cyber forensics Srinivas University Institute of Engineering and technology,Bengaluru.

1. Introduction

The digital age has revolutionized the way we live and work, but it has also led to an increase in cybercrime and cyberattacks. As organizations and individuals rely more on technology, the risks posed by cybercriminals have grown exponentially. This report highlights emerging trends in cybercrime and cyberattacks, and provides career guidance for students interested in pursuing a career in cybersecurity, a rapidly growing field.

2. Emerging Trends in Cybercrime and Cyber Attacks

2.1 Ransomware-as-a-Service (RaaS)

Cybercriminals are increasingly offering ransomware tools for rent, making it easier for individuals with minimal technical knowledge to execute attacks. This has resulted in an uptick in ransomware incidents, especially targeting small and medium-sized businesses.

2.2 AI-Powered Cyber Attacks

Artificial Intelligence (AI) and Machine Learning (ML) are being used by attackers to automate and improve the effectiveness of cyberattacks. AI-driven attacks, such as advanced phishing schemes and malware development, are more sophisticated and harder to detect.

2.3 Deepfakes

The rise of deepfake technology—AI-generated videos and audio that manipulate media—has led to a surge in identity theft, fraud, and social engineering attacks. Cybercriminals are using deepfakes to impersonate individuals for financial gain or to damage reputations.

2.4 Supply Chain Attacks

M S Ramaiah Nagar | T +91 80 2360 0966/8597 | E principal.msrcasc@gmail.com
MSRIT Post | +91 80 2360 6905 | W www.msrcasc.edu.in
Bangalore 560 054 | F +91 80 2360 6213

Cybercriminals are targeting less-secure third-party suppliers to gain access to more secure organizations. High-profile incidents, such as the SolarWinds attack, have exposed vulnerabilities in global supply chains, leading to data breaches and disruptions.

2.5 IoT and Cloud Vulnerabilities

As IoT devices proliferate, many of them have weak security measures that cybercriminals exploit for botnet attacks and data theft. Additionally, the growing reliance on cloud storage and services has introduced security challenges, particularly due to misconfigurations and weak access controls.

2.6 Cryptocurrency Cybercrime

The rise of cryptocurrencies has led to an increase in cybercrime activities like money laundering, fraud, and ransomware payments. The anonymity provided by cryptocurrencies makes it difficult for law enforcement to trace and apprehend perpetrators.

3. Career Guidance for Students in Cybersecurity

As cyber threats become more complex, the demand for cybersecurity professionals is surging. Here are some key steps for students to build a successful career in this field:

3.1 Develop Technical Skills

A strong foundation in computer science, networking, and systems administration is essential. Students should learn programming languages (e.g., Python, C++) and understand networking protocols (e.g., TCP/IP, DNS). Knowledge of operating systems, databases, and security practices is also crucial.

3.2 Pursue Cybersecurity Certifications

Certifications validate skills and enhance employability. Some valuable certifications include:

- CompTIA Security (entry-level)

- Certified Ethical Hacker (CEH)

- Certified Information Systems Security Professional (CISSP) (advanced)

- Certified Cloud Security Professional (CCSP) (for cloud security)

3.3 Gain Hands-on Experience

Practical experience is vital in cybersecurity. Students should engage in Capture the Flag (CTF) competitions, pursue internships, and set up home labs to practice ethical hacking and security techniques.

3.4 Stay Updated on Industry Trends

Cybersecurity is an ever-evolving field. Students should follow industry news, attend conferences (e.g., DEF CON, Black Hat), and engage in online communities to keep abreast of the latest threats and solutions.
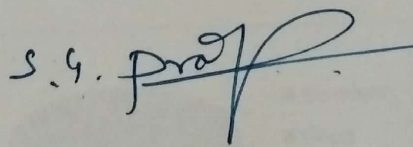
3.5 Develop Soft Skills

In addition to technical expertise, cybersecurity professionals must have strong problem-solving, communication, and analytical skills. Being able to explain complex security issues to non-technical stakeholders is crucial for success.
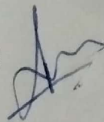
4. Conclusion

The rapid evolution of cybercrime and cyberattacks, driven by innovations such as ransomware-as-a-service and AI-powered threats, has created a growing need for cybersecurity professionals. Students interested in this field should focus on building a strong technical foundation, obtaining certifications, and gaining practical experience. By staying informed and developing both technical and soft skills, students can prepare for a successful and impactful career in cybersecurity.
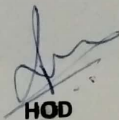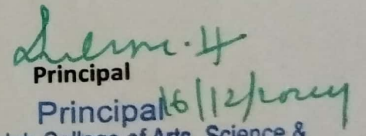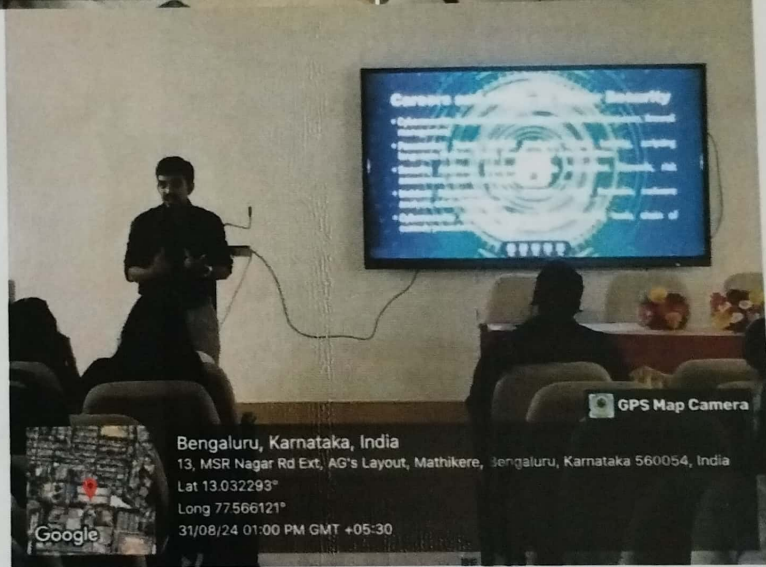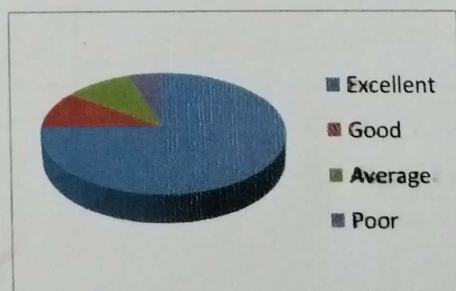
HOD

Principal

Coordinators:-

Principal 16/12/2024
M.S.Ramaiah College of Arts, Science & Commerce-Autonomous
MSRIT POST, MSR Nagar
Bengaluru - 560 054

1 .Dr Prasanna Kumar S G

2. Mrs. Ramya Kumari B S

Bengaluru, Karnataka, India
20, MSR Nagar Rd Ext, M S Ramaiah Nagar, Mathikere, Bengaluru, Karnataka 560054, India
Lat 13.032284°
Long 77.566292°
31/08/24 11:45 AM GMT +05:30

Bengaluru, Karnataka, India
13, MSR Nagar Rd Ext, AG's Layout, Mathikere, Bengaluru, Karnataka 560054, India
Lat 13.032293°
Long 77.566121°
31/08/24 01:00 PM GMT +05:30

Feedback on Guest Lecture

- Excellent
- Good
- Average
- Poor

M S Ramaiah Nagar   T +91 80 2360 0966/8597   E principal.msrcasc@gmail.com
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Bangalore 560 054   F +91 80 2360 6213