

E-NEWS LETTER

Master of Computer Applications

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Contents:

Vision & Mission of The Department	01-02
Latest Update World	02-03
College Update	03-06
Faculty Arena	06-07

VISION & MISSION OF THE DEPARTMENT

Vision

- Flourish the SRMS as the world leader in computer application through continuous research & development directed towards the betterment of the society.
- Establish the cooperative learning for facilitating the quality academics, state-of-the-art research and remarkable development activities.
- Establish world-class resources especially Research & Development laboratories, value addition, courses etc. for the in-house up gradation and community service.
- Groom the students into industry-ready professionals through a rigorous training in a self-disciplined environment.
- Groom the learned pool of faculty in accordance with the recent advancements in the field of computing technologies & their applications.

Mission

M1. To provide qualitative education and generate new knowledge by engaging in cutting-edge research and by offering state-of-the-art postgraduate programme, leading to careers as Computer and IT professionals in the widely diversified domains of industry, government and academia.

M2. To promote a teaching and learning process that yields advancements in state-of-the-art in computer application, resulting in integration of research results and innovations into other scientific disciplines leading to new technologies and products.

M3. To harness human capital for sustainable competitive edge and social relevance by inculcating the philosophy of continuous learning and innovation in Computer Application.

LATEST UPDATE WORLD

Researchers weigh pros and cons of ChatGPT Code Interpreter, await upgrades

While West Virginia University researchers see potential in educational settings for the newest official ChatGPT plugin, called Code Interpreter, they've found limitations for its use by scientists who work with biological data utilizing computational methods to prioritize targeted treatment for cancer and genetic disorders.



"Code Interpreter is a good thing and it's helpful in an educational setting as it makes coding in the STEM fields more accessible to students,"

said Gangqing "Michael" Hu, assistant professor in the Department of Microbiology, Immunology and Cell Biology at the WVU School of Medicine and director of the Bioinformatics Core.

"However, it doesn't have the features you need for bioinformatics. These are technical issues that can be overcome. Future developments of Code Interpreter are likely to extend its use to many fields such as bioinformatics, finance and economics."

Since its release in December 2022, the popular artificial intelligence chatbot ChatGPT has gained the attention of businesses, educators and the general public. However, it didn't quite live up to the needs of people working in biomedical research including bioinformatics—the field where computer science meets biology—who eagerly awaited OpenAI's Code Interpreter plugin hoping it would fill the gaps.

Hu and his team put Code Interpreter to the test on a variety of tasks to evaluate its features. Their findings, published in *Annals of Biomedical Engineering*, show the plugin breaks down some of the barriers, but not all of them.

For example, people without a science background will have an ease of access to coding, or computer programming, with Code Interpreter. Hu said it's also cost-effective and sparks a curiosity for students to explore data analysis and boosts their interest in learning. He points out, though, users will need to understand how to interpret data and recognize whether the results are accurate and know how to interact with the chatbot.

Bioinformaticians rely on precise coding, computer software programs and internet access to store, analyze and interpret biological data such as DNA and human genome used for advancements in modern medicine.

Despite the need for improvements specific to bioinformatics, Hu said, Code Interpreter helps

users determine whether a response is accurate or if it is a fictitious answer presented with confidence, known as a hallucination.

"People know that ChatGPT can do many impressive things, but it is not good at providing a citation or reference to support its answer. If it is asked about the source to support the claim of a response, it may start to make up references," Hu explained. "Code Interpreter provides a solution to minimize hallucinations. For questions that can be addressed through coding, the code itself serves as the source or citation. That is a significant step forward."

Working with Hu were Lei Wang, a postdoctoral fellow in the WVU Department of Microbiology, Immunology and Cell Biology; Xijin Ge, of South Dakota State University; and Li Liu, of Arizona State University.

The team found positive results in Code Interpreter's ability to convert data to charts and graphs.

Suggestions for upgrades to Code Interpreter include internet access for downloading genome data, installation of software specific to bioinformatics, expansion of storage capacity and support for additional programming languages. In addition, researchers found a need for privacy and security applications to comply with regulations such as HIPAA.

In testing data analysis, they discovered several limitations. The plugin supports only one computer program, Python, and few of its software packages are dedicated to bioinformatics. In addition, it doesn't allow access to internet data and lacks the capacity to work with large files.

"It allows for 100 megabytes or so, but the files we're handling are at a gigabyte level," Hu said. "Also, it doesn't support parallel processing needed for large datasets which results in slow performance."

Hu said that while he anticipates more upgrades for Code Interpreter, he plans to help students learn more about the advantages of the current plugin.

"In my class next spring, I plan to introduce this plugin to help students learn about data visualization," Hu said. "AI is a fast-moving field. I hope by that time OpenAI may overcome some of the limitations so it can be used for a broad range of bioinformatics coding."

Earlier this year, Hu led another study to prepare high school and college students to harness the power of ChatGPT by learning more about coding. The process employed OPTIMAL—Optimization of Prompts through Iterative Mentoring and Assessment—to improve communication with a chatbot.

In the long run, Hu said he will continue to monitor and test new AI programming and features.

"As new products develop, I'll just keep going," Hu said. "There are certainly many other innovative uses awaiting to be discovered."

COLLEGE UPDATE

स्वतंत्रता दिवस समारोह
15 अगस्त -2023

स्थान: एस.आर.एम.एस.सी.ई.टी., बरेली

राष्ट्र के प्रति स्वतंत्रता और प्रेम की भावना के साथ, एसआरएमएस कॉलेज ऑफ इंजीनियरिंग एंड टेक्नोलॉजी ने 15 अगस्त- 2023 को 77वां स्वतंत्रता दिवस बड़े उत्साह के साथ मनाया। उत्सव ने न केवल एकता और भक्ति दिखाई, बल्कि मेरी माटी मेरा देश

और हर घर तिरंगा की पहल के तहत आजादी का अमृत महोत्सव की भावना को भी आगे बढ़ाया।

कार्यक्रम की शुरुआत स्वर्गीय श्री राम मूर्ति जी और प्रिय बापू महात्मा गांधी को पुष्पांजलि अर्पित करने के साथ हुई, इसके बाद ध्वजारोहण एसआरएमएस ट्रस्ट के अध्यक्ष श्री देव मूर्ति द्वारा किया गया जिसमें आदित्य मूर्ति - ट्रस्ट सचिव, इंजीनयर सुभाष मेहरा - ट्रस्ट सलाहकार, डॉ. प्रभाकर गुप्ता - डीन एकेडमिक्स उपस्थित रहे।

स्वतंत्रता दिवस समारोह राष्ट्रगान के साथ शुरू हुआ, जो एकता और भाईचारे का प्रतीक है। बाद में, श्री देव मूर्ति ने एक प्रेरक भाषण दिया, जिसमें शैक्षिक क्षेत्र में अभूतपूर्व प्रगति पर जोर दिया गया। उन्होंने छात्रों से इंटरनेट पर अधिक निर्भर रहने के बजाय किताबों से ज्ञान हासिल करने का आग्रह किया।

कार्यक्रम, धन्यवाद ज्ञापन और प्रसाद वितरण के साथ संपन्न हुआ और सभी के बीच राष्ट्रीय गौरव और प्रगति की भावना का पोषण हुआ।



World Entrepreneurship Day

21st August - 2023

B.Tech, B.Pharm, MCA, and MBA students from SRMS College of Engineering & Technology (SRMSCET), Bareilly, conducted a Discussion Forum on August 21, 2023 in honor of World Entrepreneurship Day. In the presence of Dr. Prabhakar Gupta, Dean Academics;

Professor Dr. DN Rao, Director IQAC; HODs & faculty members from other departments, the event began with a series of enlightening speeches & presentations.

Dr. Saurabh Gupta, a professor in the MBA department, gave a discussion on the entrepreneurial attitude and the funding options available to aspiring business owners during the event. Afterwards Dr. D.N. Rao focused on innovation and its critical role in entrepreneurship. He advised a long-term strategy for success, stating that it takes a minimum of three years to establish the essential abilities before starting a business.

Sunidhi Malick, an MBA 2nd semester student, shed light on India's entrepreneurial ecosystem by emphasizing the government's active role in integrating academia and business.

Aditi, a fourth-year B Tech-IT student, gave an insightful speech that served as the event's closing remarks. She focused on the importance of a support structure and a supportive atmosphere for the development of entrepreneurial endeavors.

By highlighting the significance of entrepreneurship in India and giving attendees a clearer awareness of the issues & methods associated to its development, the event successfully attained its goal.





Faculty Arena

New Trends about Technology

Today's technology is developing quickly, enabling quicker change and advancement and accelerating the rate of change. However, there are many more changes that have occurred this year as a result of the COVID-19 epidemic, which has made IT professionals recognize that their job will alter in the contactless world of the future and IT professional will also be continually learning, unlearning, and relearning in 2023–2024 (if not out of choice, then out of necessity). With improvements in machine learning and natural language processing, artificial intelligence will be more common in 2023. Using this technique, artificial intelligence will be able to comprehend us better and carry out more difficult tasks.

The Next Three to Eight Years Will Be Revolutionized by Four Emerging Technologies

1. The Use of Neuromorphic Computing

Neuromorphic computing, a crucial enabler offers a way to more precisely simulate the

functioning of a biological brain using digital or analog processing techniques.

2. Self-guided education

Self-supervised learning will have a big impact on current goods and markets, and it will take six to eight years to get from early adopter status to early majority adoption.

3. Metaverse:

The metaverse will have a very significant impact on current products and markets; it will take eight or more years to move from early-adopter status to early majority adoption.

4. Human-centered AI (HCAI)

Human-centered AI (HCAI) is a widely accepted AI design approach that encourages AI to advance humankind and society, perhaps enhancing transparency and privacy.

Early majority adoption will take three to six years to achieve;

HCAI will have a significant impact on current products and markets.

Some new Technical trends in the scenarios of

Today's Technologies are:

- AI and Machine Learning
- Cybersecurity
- METAVERSE
- Devops
- Full Stack Development
- Blockchain
- CLOUD Computing
- HyperAutomation
- Data Science
- Business Intelligence

Ankur Gupta
(Assistant Professor)

“Azadi Ka Amrit Mahotsav”



This year India is celebrating 77th Independence Day on 15th August 2023 to mark the country's freedom from nearly two centuries of British colonial rule. Prime Minister Narendra Modi is leading the celebrations from Red Fort in New Delhi and is addressing the nation from Red Fort in New Delhi. This is his ninth address as the prime minister. To celebrate the 76 years of Independence the Government of India has started an initiative called “Azadi Ka Amrit Mahotsav”.

On March 12, 2021, Prime Minister Narendra Modi has launched the “Azadi Ka Amrit Mahotsav” to celebrate and commemorate 76 years of independence that started a 76-week countdown to our anniversary of independence.

This means that India will celebrate its 76th Independence Day on August 15, 2023, and mark the end of its 76 years of freedom.

Indian Independence Day 2023: History

The Englishmen entered Surat and Gujarat in 1619 for trading purposes. After the victory of the English East India Company at the Battle of

Plassey in 1757, the Britishers made their control over India.

The British Government dominated over the people of India for almost 200 years starting from 1757. Legendary freedom fighters and leaders like Bhagat Singh, Chandrashekhar Azad, Netaji Subhas Chandra Bose, Sardar Vallabhbhai Patel, Mahatma Gandhi and others sacrificed everything to see India as a free nation.

The Indian Independence movement began during World War I and was led by Mohandas Karamchand Gandhi. On August 15, 1947, India got its freedom, ending an almost 200-year British rule. India's first prime minister Jawaharlal Nehru raised the Indian national flag above the Lahori Gate of Red Fort in Delhi on August 15, 1947.



It is a tradition that has since been followed by the incumbent Prime Minister, followed by an address to the country.

Vijay Kumar Dubey
Assistant professor, MCA