

SBRR MAHAJANA FIRST GRADE COLLEGE (AUTONOMOUS), PG WING

BEST PRACTICE – TECH TALK, Department of MCA and MSc (CS)

SL. No	Date	Name of the Faculty	Time	Topic	Synopsis	Faculty Present
1.	16th March 2024	Mrs. Preethi Lakshmi R	01.15 PM	Robots Are Coming to the Construction Site	<p>Introduced By: Kendall Jones on February 27, 2024</p> <p>Imagine walking onto a construction site in the near future to find a team of robots doing site grading and layout, laying a brick wall, or even assembling scaffolding trusses. In fact, depending on the type of work you do, you might already be using robots at the construction site. Robotic heat welders and remote-controlled demolition robots have been commercially available for a number of years. Robots may never completely eliminate the need for human workers in the construction industry, but there are many applications robots could be used to make work on the construction site faster, safer, easier, and less labor-intensive.</p> <p>The most likely scenario is that robots will be used alongside human workers to augment their work, keep them safer and boost productivity. The current capabilities of existing robots, combined with a growing labor shortage will probably lead to robots handling some of the more menial repetitive tasks, leaving the human worker to focus on other aspects of their job. Brick Laying Robots -> Semi-Automated Masonry (SAM) System</p> <p>The SAM System was developed by Construction Robotics and is intended to work with a mason in order to reduce costs, increase productivity and increase the quality of work. The system eliminates the strenuous work by lifting the brick, applying mortar, and placing each brick in place. The mason is responsible for ensuring accurate placement of the bricks, cleaning up excess mortar, and overseeing the overall project is completed correctly.</p> <p>Hadrian X</p> <p>Fastbrick Robotics unveiled Hadrian X last year, a prototype of a bricklaying robot that can lay 1,000 bricks in an hour and can build an entire house in two days complete with pathways for electrical and plumbing and spaces for doors and windows.</p>	<p align="center">Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Sushmita Sheeba Dsa.</p>

2.	5th March 2024	Ms. Likhitha M M	3:00 PM	Neuralink Telepathy - A Brain Implant	A brain implant, also called a neural implant, is a device that connects to a person's brain, usually on the surface or attached to the cortex. Brain implants can contain electrodes that observe and interpret signals from neurons, which are nerve cells that send signals from the brain to the body to help with movement, breathing, eating, and talking. Telepathy is a product from Elon Musk's company Neuralink that allows users to control devices with their thoughts. The device is about the size of a quarter, and is inserted under the skull with electrodes and wires. It allows users to control their phone, computer, and almost any other device, simply by thinking. The device will first be used to cure quadriplegics, and then to restore vision for the blind. Initial tests have shown promising neuron spike detection.	Smt. Rachana C R, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Shushmita SheebaDsa, Smt. Preethi Lakshmi R.
3.	2nd March 2024	R. Eswin Pria Angel	3.30 PM	Active components and passive components in mobile communication	In mobile network, to receive and transmit the signal two categories of components are used. The main component is called active component and the supporting component is called passive component. The active component contains a Base transceiver station ie. Tower, Duplexer, Amplifier, Transceiver. The tower carries two types of antenna. One is RF antenna and another is microwave antenna. RF antenna helps in receiving the electromagnetic signal and transmit the electric signal as electromagnetic signal. The supporting functions like connecting the network centre, connecting the nearby tower are handled by microwave antenna. The duplexer creates path for two way communication and amplifier Amplifies the signal. The passive components gives power support for the active components	Smt. Rachana C R , Smt. Shobha, Smt. Yashaswini J, Smt. Preethi Lakshmi R, Ms. Likhitha M.
4.	20th February 2024	Mrs. Yashaswini J	3:30 PM	Zero-shot learning and Few-shot learning	Zero-shot learning and few-shot learning are two techniques used in machine learning, particularly in the context of natural language processing tasks like text generation and classification. They both involve training models to perform tasks without extensive amounts of labelled data, but they differ in the amount of training data they require. Zero-shot learning allows models to perform new tasks without fine-tuning on task-specific data, making it highly flexible but often requiring a strong understanding of the task descriptions. Few-shot learning is a more constrained version of zero-shot Learning, where the model is trained on a small number of examples or labelled data points for each task. Both zero- shot and few-shot learning are powerful	Smt. Rachana C R , Smt. Shobha, Smt. Yashaswini J, Smt. Preethi Lakshmi R, Smt. Eswin Pria Angel, Dr. Anisha Kumar, Ms. Likhitha M.

					techniques for enabling models to generalize to new tasks or domains with minimal additional training, making them particularly useful in settings where collecting large amounts of labelled data is impractical or infeasible.	
5.	16th February 2024	Dr. Anisha Kumar	3.30PM	Solar Roadway using Green Technology	A series of engineered solar pannels are driven with each size of 12ftX12ft is interlinked with neighbouring panels to form solar roadway system. The photovoltaic(PV) panel convert sunlight to electricity. Solar road panel is the important element, as in India consistent sunlight is available about 300 days, so this unique proposal was implemented. GERMI, Gujarat has installed the solar panels aceross 205 Km from Ahmedabad to Rajkot , highway to generate 104 megawatts of electricity. this energy can be used to power up the highway infrastructure, light the roads and also run a bit of adjoining buildings. Green Technology which involves in environment friendly component is used in this project.	Smt. Rachana C R , Smt. Shobha, Smt. Yashaswini J, Smt. Preethi Lakshmi R, Smt. Eswin Pria Angel, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Sushmita Sheeba Dsa.
6.	8th February 2024	Ms. Sushmita Dsa	3.30 PM	Black Box AI	BLACKBOX AI is an AI coding assistant that helps developers by providing real-time code completion, documentation, and debugging suggestions. BLACKBOX AI is also integrated with a variety of developer tools, making it easy to use within your existing workflow. Write and Review Code with the help of our AI-powered Code Autocomplete and Code Chat. Seamlessly integrate BLACKBOX AI into your existing workflow to Supercharge your Coding Experience. Blackbox code autocomplete is build to make developers faster while writing code. Blackbox code autocomplete is available in 20+ programming languages including Python, JavaScript, TypeScript, Go, and Ruby.With a click of a button, you can generate a commit message for your projects. With a click of a button, you can generate a code suggestions for your code	Smt. Shobha D, Smt. Yashaswini J, Smt. Preethi Lakshmi R, Smt. Eswin Pria Angel, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Sushmita Sheeba Dsa.
7.	1st February 2024	Mrs. Shobha D	3:30 PM	Nuclear battery	Nuclear battery is the first in the world to realise the miniaturisation of atomic energy, placing 63 nuclear isotopes into a module smaller than a coin. Already entered the pilot testing stage. Nuclear battery can meet the needs of long-lasting power supply. The battery works by converting the energy released by decaying isotopes into electricity. It uses 63 nuclear isotopes Atomic energy batteries - also known as nuclear batteries or radioisotope batteries - work	Smt. Rachana C R , Smt. Yashaswini J, Smt. Preethi Lakshmi R, Smt. Eswin Pria Angel, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Sushmita Sheeba

					<p>on the principle of utilising the energy released by the decay of nuclear isotopes and converting it into electrical energy through semiconductor converters.</p> <p>Scientists in the Soviet Union and United States were able to develop the technology for use in spacecraft, underwater systems and remote scientific stations; however the thermonuclear batteries were both costly and bulky. Research institutions in the US and Europe are also working on their development. Betavolt said its first nuclear battery can deliver 100 microwatts of power and a voltage of 3V, while measuring 15x15x5 cubic millimetres, however it plans to produce a battery with 1 watt of power by 2025. Nuclear battery capable of working in temperatures ranging from -60C to 120C. It has no external radiation, and is suitable for use in medical devices such as pacemakers, artificial hearts. Atomic energy batteries are environmentally friendly. After the decay period, the 63 isotopes turn into a stable isotope of copper, which is non-radioactive. Nuclear battery is used such as aerospace, AI equipment, medical equipment, microprocessors, advanced sensors, small drones and micro-robots.</p>	
8.	25th January 2024	Mrs. Rachana C R	3:30 PM	Serverless Architecture	<p>Serverless architecture is a cloud computing paradigm that allows developers to build and run applications without managing the underlying infrastructure. At the heart of serverless architecture is the concept of FaaS. Functions are small, stateless units of code that are designed to perform a specific task. These functions are triggered by events and are automatically scaled based on demand. FaaS is a subset of serverless computing and is designed to simplify the deployment and scaling of small units of code. Examples of Function as a Service platforms include AWS Lambda (Amazon Web Services), Azure Functions (Microsoft Azure), Google Cloud Functions (Google Cloud), and others. Serverless architectures can be applied to a variety of use cases- Web Application Backend, Real-time File Processing, Chatbots, Event-Driven Data Processing and many more.</p>	<p>Smt. Rachana C R, Smt. Shobha D, Mrs. Yashaswini J, Ms. Likhitha M M, Ms. Sushmita Sheeba Dsa, Smt. Preethi Lakshmi R.</p>

9.	16th January 2024	Mrs. Preethi Lakshmi R	3.00 P.M	Rally	<p>Rally is an application which allows users to manage the work for one or many teams on one page. Teams, Product Managers and Product Owners can find work faster and easier. It is a Agile Methodology. Work with bcklogs across multiple teams and save a single view of all work with one or multiple teams. Can track your backlog or the work that you want to accomplish. Teams identify the work to be done, dependencies and challenges. Capacity planning allows to see how hightest business priorities stack up against the capacity of the teams and help to balance work allocations and team delivery. Teams break down features into stories and plan them into (typically) two -week iterations / sprints. Release tracking allows teams and team leaders to keep their finger of the pluse of their work without unpleasent surprise. Create user stories and issues, plan sprints and distribute task across your software team. Agile methodology is a project management approach that involves breaking the project into phases and emphasizes continuous collaboration and improvement. Agile teams break large complex projects. Sprint is a set period of time during which specific work has to be completed and made ready for review. Scrum is a framework for getting work done within agile.</p>	<p>Smt. Rachana C R, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Shushmita Sheeba Dsa, Mrs. R. Eswin Pria Angel.</p>
10.	5th January 2024	Mrs. R. Eswin Pria Angel	1.20 P.M	Basics about frequency	<p>There are two types of waves existing around the earth. One is Gravitational waves and another one is electromagnetic waves. The three components of electromagnetic wave is energy, frequency and wavelength. If the wavelength between the frequency is more, then it can travel more. This frequency exist naturally which cannot be modified by humans What is human made signal? This may be the audio signal to be send from radio station, or the videos send from TV stations. The raw signal must be modulated first and will be converted into electromagnetic wave with required frequency (but it should not exceed the defined limit) and will be transmitted.</p>	<p>Smt. Rachana C R, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Ms. Shushmita Sheeba Dsa, Smt. Preethi Lakshmi R.</p>

11.	20th December 2023	Ms. Likhitha M M	3:00 PM	Microsoft Copilot - AI chatbot by Microsoft	<p>Microsoft Copilot is a chatbot developed by Microsoft. It was launched as Bing Chat, as a built-in feature for Microsoft Bing and Microsoft Edge. It is based on a large language model, and has been suggested by Microsoft as a supported replacement for the discontinued Cortana. Over the course of 2023, Microsoft began to unify the Copilot branding across its various chatbot products.</p> <p>Copilot utilizes the Microsoft Prometheus model, which was built on top of OpenAI's GPT-4 foundational large language model, which in turn has been fine-tuned using both supervised and reinforcement learning techniques. Copilot's conversational interface style resembles that of ChatGPT. Copilot is able to cite sources, create poems and songs, and use its Image Creator to generate images based on text prompts. It is able to understand and communicate in numerous languages and dialects.</p> <p>At its Build 2023 conference, Microsoft announced its plans to integrate Copilot into Windows 11, allowing users to access it directly through the taskbar.</p>	<p>Smt. Rachana C R, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Smt. Eswin Pria Angel. Ms. Shushmita Sheeba Dsa, Smt. Preethi Lakshmi R</p>
12.	16 th December 2023	Dr. Anisha Kumar	1.20 PM	XERO Accounting Application	<p>Xero Accounting application is used to run a small business accounts from anywhere and remain productive in otherwise unproductive moments. It is very much similar to quickbooks with features of accounting and bookkeeping for small business. it can be used in mobile android version and web portals. It is used to send invoices to get payments, to keep track of what is owed, reconcile, see the cash flow in and out at a glance. It allows to add new customer, create new invoice, send invoice or convert quote to invoice, specify invoice of a customer, payments of customer tracked through invoice and the status. This app will be connected to the bank accounts and reconcile these transaction on time that suits us. Profit and Loss, overdue bills can be generated by this App.</p>	<p>Smt. Rachana C R, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Smt. Eswin Pria Angel, Smt. Preethi Lakshmi R.</p>
13.	2nd December 2023	Ms. Sushmita Dsa	1.00 PM	Microservices	<p>"Microservices is an architectural style that structures an application as a collection of small, independent services, each focused on a specific business capability. These services communicate with each other through well-defined APIs, often using lightweight protocols such as HTTP or message queues. Each micro service operates independently and can be developed, deployed, and scaled independently of other services in the system. This decentralized approach provides several advantages, including improved fault isolation, easier maintenance, and the ability to use different</p>	<p>Smt. Rachana C R, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Smt. Eswin Pria Angel.</p>

					<p>technologies for different services based on their specific requirements. Popular technologies like Docker and Kubernetes are often used in conjunction with micro services to facilitate containerization and orchestration, making deployment and scaling more efficient. Additionally, micro services can contribute to an organization's agility, allowing teams to work independently on different services, enabling faster development cycles and quicker adaptation to changing business requirements. Despite its benefits, the adoption of micro services requires careful consideration of factors such as team expertise, operational overhead, and the specific needs of the application. Successful implementation often involves a cultural shift, emphasizing collaboration, automation, and a DevOps approach to development and operations. In conclusion, microservices have become a prominent architectural choice for building scalable, flexible, and maintainable software systems. While it comes with challenges, the potential benefits make it an attractive option for organizations seeking to enhance their development practices and adapt to the demands of modern, dynamic business environments."</p>	
14.	31st October 2023	Mrs. Yashaswini J	3:00 PM	Quillbot AI	<p>An online paraphrasing tool called Quillbot AI employs artificial intelligence to assist writers in developing their writing abilities. It is intended to assist users in changing the wording of sentences, paragraphs, and entire documents while preserving the context and original meaning. Quillbot AI analyses the text using machine learning (ML) and natural language processing (NLP) algorithms to recommend ways to improve sentence structure, vocabulary, and flow. It can also aid in pointing out places that can benefit from more background information or clarification. Two options with varied payment terms are available from Quillbot. The free plan includes a restricted version with a summarizer word limit of 1,200 and a restriction of 125 words per paraphrase. Features of QuillBot- • Grammar Check Tool, Paraphrase tool, Tool to Generate Citations, Summarizer Tool, Translator. The app is made to support content creators and writers. Using its features, we can modify a prewritten article so that it is appropriate for another website, simplifying the language as needed.</p>	<p>Smt. Rachana C R, Mr. Basanth Kumar H B, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Smt. Eswin Pria Angel.</p>

15.	12th October 2023	Mrs. Shobha D	3:30 PM	Top 10 Data Extraction Tools	<p>Data Extraction is the Process of Converting Data From its Source into a Structured Format for Enhanced Analysis & Usability. This Involves Organizing Data into Columns & Rows it Involve Extracting Specific Data Element, Such as Contact Details or Financial Information within Large Dataset. Top 10 Data Extraction Tools in 2023 are: 1: Apify-Apify Offers a Vast Repository of Readymade Tools for Web Scraping and Automation Project. 2. Octopuses-It is Suitable for Both Professionals Without Loading Coding Skills. It is Highly Versatile and Finds Application in Market Insights, Price Monitoring and Much More. 3. Rossum-Rossum's AI System Reads and Comprehends Documents with Human Like Cognition it extracts text from Scanner Image, Transforming them into actionable Business Data. 4. Integrate.IO-It Offers All in One platform. Its Feature is a drag and drop interface and a wide Array of connectors. 5. Data mines-It is a Chrome Extension using this Information's are directly from webpage into CSV, Excel files or Google Sheets. This Tool Eliminates the Manual Data Entry. 6: Air Byte-It is a Pen Source Platform its having a Tool ELT (Extract, Load, Transform) It is a Data Pipeline Creation. It is a Connector Development Kit.7: Diffbot-It is in depth web data extraction. Its expertise is in transforming unstructured internet data into structured. it is context rich databases. 8: Stitch-Stitch is a Fully Managed ETL Solution.9: FiveTran-it is also ELT Domain; it is 300 Built in Connectors. Users can Craft their Cloud Functions for personalized Data extraction. 10: Hevadata-its automated Schema management its Support Both Preload and Postload Data Transformations.</p>	<p>Smt. Rachana C R, Mr. Basanth Kumar H B, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Smt. Eswin Pria Angel.</p>
16.	30th September 2023	Mrs. Rachana C R	1:15 PM	Google Lens	<p>Google Lens lets you search what you see. Using a photo, your camera or almost any image, Lens helps you discover visually similar images and related content, gathering results from all over the internet. As a smartphone camera-based tool, Google Lens has great potential for helping people who struggle with reading and other language-based challenges. Lens uses computer vision, machine learning and Google's Knowledge Graph to let people turn the things they see in the real world into a visual search box, enabling them to identify objects like plants and animals, or to copy and paste text from the real world into their phone. Google Lens uses Tensor Flow which is Google's open-source machine</p>	<p>Smt. Rachana C R, Mr. Basanth Kumar H B, Smt. Shobha D, Smt. Yashaswini, Dr. Anisha Kumar, Ms. Likhitha M M, Smt. Eswin Pria Angel.</p>

					learning framework. Tensor Flow helps connect images to the words that best describe them. The algorithms then connect those labels to Google's Knowledge Graph, with its tens of billions of facts of image clicked and available over the Google search engine. First announced during Google I/O 2017 October 4, it was first provided as a standalone app, later being integrated into Android's standard camera app.	
17.	8th September 2023	Ms. Likhitha M M	4:00 PM	Apple Vision Pro	Apple Vision Pro is an upcoming mixed-reality headset developed by Apple Inc. It was announced on June 5, 2023, at Apple's Worldwide Developers Conference, The Vision Pro can display 3D objects in your current space or even transport you to new spaces. Apple Vision Pro has a laminated glass display front, an aluminum frame covered by a flexible cushion, and an adjustable headband. The frame contains five sensors, six microphones and 12 cameras. The user's face is scanned by the headset during setup to generate a persona—a realistic avatar used by OS features. Apple Vision Pro runs visionOS (internally called xrOS), which is derived primarily from iOS core frameworks (including UIKit, SwiftUI, and ARKit), and XR-specific frameworks for foveated rendering and real-time interaction. The operating system uses a 3D user interface navigated via finger tracking, eye tracking, and speech recognition. Its availability is scheduled for early 2024 in the United States and later that year internationally.	Smt. Rachana C R, Mr. Basanth Kumar H B, Smt. Shobha D, Smt. Yashaswini, Ms. Likhitha M M , Smt. Eswin Pria Angel.
18.	30th August 2023	Mrs. R Eswin Pria Angel	3.00PM	GAN and Slice GAN	GAN stands for "Generative Adversarial Network."Its a type of artificial neural network architecture used in machine learning and deep learning. A GAN consists of two neural networks: Generator: The generator network's role is to create fake data samples that resemble real data. It takes random noise as input and generates data, such as images, audio, or text, with the goal of making the generated data indistinguishable from real data. Discriminator: The discriminator network, on the other hand, tries to distinguish between real data and fake data generated by the generator. It takes both real and fake data as input and assigns a probability that the input data is real. The training process alternates between these two phases. Over time, the generator and discriminator become better and better at their respective tasks. Ideally, the generator becomes so skilled	Smt. Rachana C R, Mr. Basanth Kumar H B, Smt. Shobha D, Smt. Yashaswini, Ms. Likhitha M M , Smt. Eswin Pria Angel.

					that it produces data that is nearly indistinguishable from real data. SliceGAN, which is able to synthesise high fidelity 3D datasets using a single representative 2D image. This is especially relevant for the task of material microstructure generation, as a cross-sectional micrograph can contain sufficient information to Statistically reconstruct 3D samples.	
19.	19th August 2023	Mr. Basanth Kumar H B	3:00 PM	Adobe Firefly	Firefly is the new family of creative generative AI models coming to Adobe products, focusing initially on image and text effect generation. Firefly will offer new ways to ideate, create, and communicate While significantly improving creative workflows.	Smt. Rachana C R, Dr. Anisha Kumar , Ms. Likhitha M M , Smt. Eswin Pria Angel.
20.	1 st August 2023	Dr. Anisha Kumar	3:15 PM	Google Feature : Unknown Tracker Detector	Google along with apple was working on a new safety feature called Unknown Tracker Alerts. This notifies the users about unwanted Bluetooth trackers travelling with them. While Bluetooth trackers like AirTags and Tiles are often used to track or find lost items, many have used them for stalking other People and committing crimes like planned car theft. Available on device running Android 6 marshmallow this unknown tracker alerts feature works by sending users a notification if it finds bluetooth tracker that does not belong to them and is travelling with them. It also gives more details like notification to see the location of map, it shows when the tracker started to follow. Here a trigger manual scans by connecting the setting app on the phone, heading over to the Safety and emergency.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini, Dr. Anisha Kumar , Ms. Likhitha M M , Smt. Eswin Pria Angel.
21.	07th July 2023	Smt. Yashaswini J	3:15 PM	Atomic Breathing	University of Washington researchers have discovered they can detect atomic "breathing," or the mechanical vibration between two layers of atoms, by observing the type of light those atoms emitted when stimulated by a laser. The sound of this atomic "breath" could help researchers encode and transmit quantum information. The researchers also developed a device that could serve as a new type of building block for quantum technologies, which are widely anticipated to have many future applications in fields such as computing, communications and sensor development.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. Basanth Kumar H B, Dr. Anisha Kumar , Ms. Likhitha M M , Smt. Eswin Pria Angel.

22.	26th June 2023	Smt. Rachana C R	3:00 PM	Roam Around - world's first viral AI travel planner	Roam Around is the world's first viral artificial intelligence travel planner, forever revolutionizing the way people plan their trips. The days of spending weeks tediously planning trips are long gone. Now, simply enter any destination on Earth, and Roam Around will generate a tailor-made itinerary within seconds. Roam Around is built on OpenAI's ChatGPT. It incorporates a feedback system where users can rate activities with a thumbs-up or thumbs-down, enabling it to learn about their preferences. This data is used to fine-tune the models and adapt to travelers' habits and interactions with AI systems. With over 5 million itineraries and interactions, this model is set to become increasingly travel-specific, ensuring that future recommendations are bespoke to individual user needs based on their feedback history.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. Basanth Kumar H B, Dr. Anisha Kumar , Ms. Likhitha M M , Smt. Eswin Pria Angel.
23.	06th May 2023	Ms. Likhitha M M	1:00 PM	Brain Attention Detection and Analysis Device - "Focus 1"	"Focus 1" is a gadget which is wearable device specifically designed to detect and analyse the user's attention levels, it was developed by the scientists from Harvard's centre of Brain Science, with algorithm based on a formula developed at NASA, it accurately translate Brain signals into attention levels. It uses the EEG sensor that is the "Electroencephalography" sensor. In Focus 1, hydrogel sensor has been used. EEG is a recording of brain activity, where these sensors are attached to the scalp to pick up the electrical signals produced by the brain. The acquired signals go through the feature extraction and are classified, by these methods the mental state is identified and the feedback is given, to make these process, Machine learning tools like 'Super Vector Machines' and most of the other 'Neural network algorithms' are used.	Smt. Rachana C R, Smt. Yashaswini J, Dr. Anisha Kumar, Ms. Likhitha M M.
24.	26th April 2023	Mrs. Eswin Pria Angel	3.00 PM	Robotic Process Automation	Robotic process automation (RPA) is a software technology that makes it easy to build, deploy, and manage software robots that emulate humans actions interacting with digital systems and software. It is a Software robots—instead of people—do repetitive and lower-value work, like logging into applications and systems, moving files and folders, extracting, copying, and inserting data, filling in forms, and completing routine analyses and reports. Advanced robots can even perform cognitive processes, like interpreting text, engaging in chats and conversations, understanding unstructured data, and applying advanced machine learning models to make complex decisions. When robots do these types of repetitive, high-volume tasks, humans are freed to	Smt. Rachana C R, Smt. Yashaswini J, Dr. Anisha Kumar, Ms. Likhitha M M.

					focus on the things they do best and enjoy more: innovating, collaborating, creating, and interacting with customers. Enterprises get a boost too: higher productivity, efficiency, and resilience.	
25.	3rd April 2023	Dr. Anisha Kumar	3.30 PM	Technology of ORCAM Eye	This technology was invented in Israel and has won the Innovation Award of 2022. It helps the visually impaired unfortunate people to see everything around them. The brand ambassador of the product is the world-renowned football player Messi. It is a portable, artificial vision device that allows visually impaired people to understand the text and identify objects through audio feedback, describing what they are unable to see. This technology reads text from any surface, recognizes a face, and identifies colors, products, and more. This device snaps a picture of the text from any surface and relays the information to the user via a small earpiece. This allows the user to be able to read work emails, medicine labels, and more on their own. Comparatively, with other similar devices, this is small, portable, and discreet.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. Basanth Kumar H B, Dr. Anisha Kumar , Ms. Likhitha M M , Smt. Eswin Pria Angel.
26.	10th March 2023	Smt. Yashaswini J	3:15 PM	Importance of Fibonacci Sequence	The Fibonacci sequence is a set of numbers following the rule that each number, called a Fibonacci number, is equal to the sum of the two preceding numbers. Fibonacci sequences are indeed found everywhere in nature/life. They're useful at modelling growth of animal populations, plant cell growth, snowflake shape, plant shape, cryptography etc. This Fibonacci number provides a model for designing recursive programming algorithms in computer programming, where the time for any routine is the time within it, as well as the time for each recursive call. In Fibonacci heap, the number of children of each node in the heap is at most $\log(n)$. Also the sub tree starting a node with m children is at least $(m+2)^{\text{th}}$ Fibonacci number.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. Basanth Kumar H B, Smt. Shruthi Prabhakar, Dr. Anisha Kumar.
27.	22nd February 2023	Smt. Shruthi Prabhakar	3:15 PM	Find, lock, or erase a lost Android device remotely	The lost device gets a notification. On the map, you'll get info about where the device is. The location is approximate and may not be accurate. If your device can't be found, you may find its last known location, if available. If you get a prompt, tap Enable lock & erase. Select what you want to do: Play sound: Rings your device at full volume for 5 Minutes, even if it's set to silent or vibrate. Secure device: Locks your device with your PIN or password. If you don't have a lock, you can set one. To help someone return your	Smt. Rachana C R, Smt. Shobha D, Dr. Anisha Kumar, Mr. Basanth Kumar H B, Ms. Likhitha M M, Smt. Shruthi Prabhakar.

					device to you, you can add a message or device number to the lock screen. Erase device: Permanently deletes all data on your device, but may not delete SD cards. After you Erase, Find My Device won't work on the device.	
28.	10th February 2023	Smt. Shobha D	4:00 PM	Information about Lithium deposits in our country	The Lithium deposits are very much needed for India, as the country put its focus on electric mobility for both public and private transport. Lithium is used in electric vehicles, phones and laptops solar panel everywhere it is required. To be self-reliant, it is very important for country to find out critical minerals and also process those. Currently, India is importing minerals like lithium, nickel and cobalt etc., to strengthen the critical mineral supply chain for emerging technologies The Geological Survey of India (GSI) was established in 1851 to serve British interest in exploring Coal deposits for the expansion of the railway network in the country. After independence it has come under mining ministry. In this year, India is considering 966 mining programs, including 318 mineral exploration project and 12 marine mineral investigation project. India's mining ministry announced that, it has found 5.9 million tonnes of lithium deposits in Reasi district of Jammu and Kashmir, for the first time that lithium has been found in India.	Smt. Rachana C R, Smt. Yashaswini J, Ms. Likhitha M M, Smt. Shobha D.
29.	08th February 2023	Smt. Rachana C R	3:00 PM	Types of Cloud and Google cloud platform	Private Clouds: A private cloud is a type of cloud computing environment that provides IT infrastructure services to a particular user or organization. There is no interference from third parties in a private cloud. Public Clouds: While private clouds provide computing services only to a single organization, public clouds are managed by third-party vendors that offer on-demand cloud computing services to multiple organizations. Some examples of public clouds are Google, Microsoft Azure, and Amazon Web Services (AWS). Hybrid Clouds: Hybrid clouds allow the integration of private and public cloud features into a single IT infrastructure. It brings together private and public cloud environments from multiple vendors and provides users with a flexible and scalable cloud environment. Google Cloud Platform: New customers can use \$300 in free credits to try Cloud Storage. Hosting a static website with Cloud Storage is simple. If you have a web app that needs to serve static content or user-uploaded static media, using Cloud Storage can be a cost-effective and efficient way to host and serve this content, while reducing the amount of dynamic requests to your web app. Google Cloud's hosting services	Smt. Rachana C R, Smt. Yashaswini J, Smt. Shobha D, Dr. Anisha Kumar, Mr. Basanth Kumar H B, Ms. Likhitha M M, Smt. Shruthi Prabhakar.

					give your WordPress site improved performance, virtually limitless scalability, stronger security, greater control, and more flexibility. Once your free trial ends, you can continue to host your website starting at \$12.71/month with WordPress on Google Cloud. Pricing for Cloud Storage services is based on storage class (location and operation fees apply), network egress, and network usage. Pricing calculator helps the users estimate their monthly Cloud Storage charges, including cluster Management fees.	
30.	25th January 2023	Ms. Likhitha M M	3:30 PM	Sixth Sense Technology	The sixth sense technology employs a sixth sense which is in reality a wearable pendent-like device. This device is actually a mini-projector coupled with a camera and a cell phone, designed for obeying hand gestures. Using simple hand Sixth Sense is a gesture-based wearable computer system gestures, touch screens can be obtained from any surface for various applications. This sixth sense technology provides us with the freedom of interacting with the digital world using hand gestures. This technology has a wide application in the field of artificial intelligence. This methodology can aid in the synthesis of bots that will be able to interact with humans. This technology enables people to interact in the digital world as if they are interacting in the real world. The Sixth Sense prototype implements several applications that demonstrate the usefulness, Viability and flexibility of the system.	Smt. Rachana C R, Smt. Shobha D, Dr. Anisha Kumar, Mr. Basanth Kumar H B, Ms. Likhitha M M
31.	12th January 2023	Mr. Basanth Kumar H B	4:00 PM	Deepfakes: Medical Image Tamper Detection Data Set	Attackers have the ability to intercept and add/remove medical evidence in medical imagery with high realism using deep learning. In this dataset medical deepfakes are presented: 3D CT scans of human lungs, where some have been tampered with real cancer removed and with fake cancer injected. The objective of this dataset is to distinguish between real and fake cancers, and identify where medical scans have been tampered. Three expert radiologists have evaluated this dataset and could not reliably tell the difference between real and fake cancers, meaning that the fake cancers are realistic And this detection task is very challenging.	Smt. Rachana C R, Smt. Yashaswini J, Smt. Shobha D, Dr. Anisha Kumar, Mr. Basanth Kumar H B, Ms. Likhitha M M, Smt. Shruthi Prabhakar

32.	06th January 2023	Dr. Anisha Kumar	3:30 PM	NFT -A Non-Fungible Token	Non-Fungible means that something is unique and cannot be replaced. In contrast, physical money and crypto currencies are fungible, which means they can be traded or exchanged for one another. NFTs are digital representations of assets and can also represent real-world items such as artwork and real estate. Tokenizing real-world tangible assets in this way is considered by some users to make buying, selling, and trading them more efficient as well as potentially reducing the likelihood of fraud. The process of buying NFTs is as follows: First, open a crypto exchange account which is a platform to buy and sell different types of crypto currencies. Secondly, open a crypto wallet that has the keys to grant access to digital assets. There are two types of wallets Hot Wallets and Cold Wallets. NFTs are sold on a block chain called ETH (Ethereum), whichever crypto wallet is brought should be compatible with the Ethereum Block chain.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. G Prasanna David, Smt. Shruthi Prabhakar, Dr. Anisha Kumar, Ms. Likhitha M.M.
33.	07th November 2022	Smt. Yashaswini J	1:30 PM	Mastodon-decentralised Social Networking	Mastodon is an open source social network, similar to twitter or tumblr,. Users can make profiles, post messages, images or videos and follow each other users. Unlike other platforms, Mastodon is decentralized, meaning that there is no one sever, company or person running it. While other social media platforms are owned and operated by a single corporation who has full control over everything, anyone can run their own server of Mastodon. When someone creates their own version of mastodon this called as an instance (My site My rules). Since Matsodon is an open source anyone can create their own instance of Mastodon with their own set of rules. Because of these, all instances are owned, operated and moderated by the community that creates them and not some large corpation which tracks our data to sell to advertisers.	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. G Prasanna David, Smt. Shruthi Prabhakar, Dr. Anisha Kumar.
34.	28th October 2022	Smt. Shruthi Prabhakar	4:00 PM	Google to alert parents when their kids leave school	Google has announced new updates to Family Link, which offer a range of options and help keep families safer online. "Location tab", parents can see all of their children on the same map with their children on the same map with their device location. "Highlights tab" will allow the parents to track the usage of their child's device by showing a snapshot of their child's app usage, screen time and recently installed apps. "Controls tab" enables parents to monitor children with the ability to set screen time limits for individual devices or specific apps, as well as set content restrictions. For parents and children, Family Link will also be available on the web. With this, parents will be able to access online	Smt. Rachana C R, Smt. Shobha D , Smt. Yashaswini J, Mr. G Prasanna David, Smt. Shruthi Prabhakar, Dr. Anisha Kumar.

					features even when they are away from their phones or don't have the app.	
35.	19th October 2022	Smt. Shobha D	4:00 PM	New Hybrid Car for Sustainable Development	Ethanol based engine are using in some countries like Canada, Brazil, US etc. According to the analysis ethanol based engines are cheaper and Reduce pollution. So, the Indian Government is encouraging the use of electric vehicle and vehicle that runs on bio fuels like ethanol and methanol. In this regard, Nithin Gadkari launched flex fuel strong hybrid electric vehicle from Toyato in the name of the car is Toyato Corolla Altis Hybrid Car. Flex fule car means which can move on with petrol, methanol, ethanol or the combination of both.	Smt. Rachana C R, Mr. Basanth Kumar, Smt. Shobha D , Smt. Yashaswini J, Smt. Shruthi Prabhakar.
36.	14th October 2022	Mr. G Prasanna David	4:00 PM	Ad-block killer in Google Chrome	News and discussions are going on about "Manifest V3", which is the upcoming updated Google Chrome Extensions platform. According to reports, Manifest V3 will greatly limit what browser extensions could do. More importantly, privacy preserving extensions that block web usage tracking, ad blockers would not work in the near future. It is not surprising since Google's business model and revenue model is dependent on tracking and advertisements.	Smt. Shobha D , Smt. Yashaswini, Mr. G Prasanna David , Smt. Shruthi Prabhakar, Dr. Anisha Kumar.
37.	10th October 2022	Mr. Basanth Kumar H B	4:10 PM	Dataset for Classification	Datasets play a vital role in evaluating the performance of any classification system. Two new datasets, namely JSSSTU CG and PG Image Dataset and JSSSTU PRCG Image Dataset comprise 14000 samples and 2000 samples respectively. The former dataset consists of a diverse collection of graphical contents collected from reliable CG resources and photographic images are collected from various camera models. The latter dataset consists of only surrealistic computer-generated images and is hard to distinguish with the naked eye.	Smt. Rachana C R, Mr. Basanth Kumar, Dr. Anisha Kumar Mr. Prasanna David, Smt. Yashaswini J, Smt. Shobha D, Smt. Shruthi Prabhakar.
38.	29th September 2022	Dr. Anisha Kumar	4:10 PM	Apple Watch SE2	Apple Watch SE2 "Essential Smart watch" is like a pair of denim and jeans as casual to wear. This watch series cost 29900/- in the market. it looks similar to the Apple Watch of series 8 but is available in an aluminium finish and it comes with 40mm and 44mm options with GPS. It uses the feature of Retina deduction. It is available in the market in three different colors, trendy for sports persons. It has outstanding features like Retina OLED display, Digital crown facility and water resistance of 50 meters.	Smt. Rachana C R, Mr. Basanth Kumar, Dr. Anisha Kumar, Mr. Prasanna David, Smt. Yashaswini J , Smt. Shobha D.

39.	26th September 2022	Smt. Rachana C R	4:00 PM	5G and JIO	<p>5G is the 5th generation mobile network. It is a new global wireless standard after 1G, 2G, 3G, and 4G networks. 5G enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices. 4G LTE has a peak speed of 1GB per second; 5G could theoretically achieve speeds of 20GB per second. Reliance Jio announced its 5G services called Jio True 5G. However, Jio will roll out 5G services based on standalone (SA) architecture in several cities including Delhi, Mumbai, Chennai and Kolkata. The rollout will begin by Diwali 2022 i.e. October 24, 2022. The telecom company further said that they will deliver 5G to every town in India by December 2023. Plans- Rs 149 - 24 GB (1 GB per day)- 24 Days, Rs 199 -42 GB (1.5 GB per day)</p>	<p>Smt. Rachana C R, Mr. Basanth Kumar H B, Dr. Anisha Kumar, Smt. Yashaswini J.</p>
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