SRMS College of Engineering, Technology & Research
(Established & Run by Shri Ram Murti Smarak Trust)

EDITORIAL BOARD

E-NEWSLETTER

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You may never know what results come of your actions, but if you do nothing, there will be no results.

Mahatma Gandhi
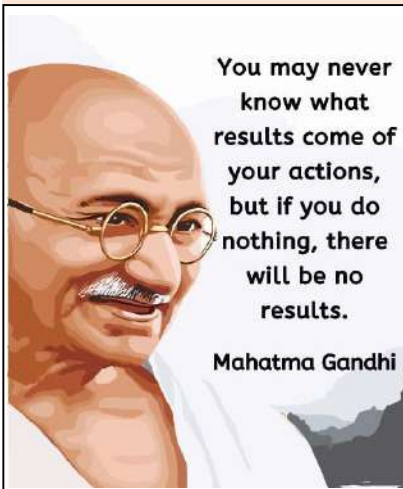
Principal's Desk

Education is not an act of acquiring knowledge but learning a skill to lead life and forming one's personality. This is an ennobling process of growth. I can boldly say that SRMS College of Engineering, Technology and Research have excelled in every initiative that we undertook and we have stood together in facing the challenges in realizing quality education. We focus on discovering, developing and drawing out the hidden talents and the magic lying dormant inside all of its students.

The purpose of Education is also the growth of consciousness, ability to look inward and seek higher levels of inquiry. We aspire to take teaching-learning in the direction in which students get to explore the full potential of their moral, ethical, cultural and spiritual consciousness. This will not only help them earn a living but also make the living successful. The curricular, co- curricular and extra-curricular activities are designed in such a way that the talent and exceptionality of each and every student develops to its full potential. We have a number of literary, cultural, sports committees and societies to enhance and explore their interests.

The greatest strength of any institution is its people and at SRMSCET & R we have competent and dedicated faculty members who are always willing to engage with the students, mentor them and prepare them to become well-rounded individuals ready to take challenges in their respective fields. We have equally capable and compassionate administrative staff who always work as a team to make the college life a smooth experience for our students.

"If your actions inspire others to dream more, learn more, do more and become more, you are a leader."
— John Quincy Adams

With these words, I wish the best of fortune, peace and prosperity to all those who contribute to the noble task of spreading education and its manifest qualities, aims and objectives.

Dr. L. S. Maurya

Principal

Shri Ram Murti Smarak (**SRMS**) **Trust organized a grand** '**Shradhanjali Samaroh**' **at Shri Ram Murti Smarak** (**SRMS**) **College of Engineering** & **Technology** (**CET**), **Bareilly on October 2**, **2023**, to pay tribute to visionary **Late Shri Ram Murti Ji**, a veteran Freedom Fighter, former Minister & ex-Parliamentarian on account of his **35th Death Anniversary**, which was a reminder of his untiring efforts & contributions towards social service & nation building.

The monumental occasion also witnessed the ground-breaking announcement by **Shri Dev Murti**, **Chairman**, **SRMS Trust** of the **Robotic Surgery Centre at Shri Ram Murti Hospital**, providing cutting-edge healthcare to all. In his address, Shri Dev Murti also urged students to excel in their exams with flying colours & avail maximum scholarships. He also announced the installation of third Linear Accelerator at SRMS Hospital's RR Cancer Institute & Research Centre.

The day kicked-off with paying heartfelt homage to Father of the Nation, **Mahatma Gandhi** & former India PM, **Lal Bahadur Shastri** on their birth anniversaries. Flag-Hoisting was done by **Shri Dev Murti**, **Aditya Murti**, Trust Secretary & **Richa Murti**,

Director Good life Hospital, respectively at all **SRMS Trust Institutions** namely, **SRMS CET**, **SRMS CETR**, **SRMS Institute of Medical Sciences**, **SRMS Goodlife Hospital** & **SRMS Riddhima**.

The 'Shradhanjali Ceremony' proceeded with floral tribute to Late Shri Ram Murti Ji by Shri Dev Murti, Aditya Murti, Bhagwat Saran Gangwar, former UP Health Minister in the gracious presence of Shahzil Islam MLA Bhojipura block, Asha Murti, Trustee & Richa Murti, Ambica Murti, Director FIMC, Lucknow, Er Subhash Mehra, Trust Advisor, Dr Prabhakar Gupta, Dean Academics, Dr LS Maurya, Principal CETR, Air Marshal Dr MS Butola, Principal IMS, Dr RP Singh, Medical Superintendent and several other dignitaries. The MOC was Dr Anuj Kumar, Director TDP Cell .

This was followed by **Scholarship Distribution** worth Rs 3.5 Crores, to meritorious students across various disciplines including B Tech Batch 2020, Paramedical, Nursing, GNM & MBBS—I, II & III Year (Professional) by SRMS Trust. Later, winners of **Annual Debate Competition** & **National-level Story Writing Contest** were also facilitated with certificates & cash prizes for their inspiring creativity & critical thinking.

The day concluded with **Blood Donation Camp** organized by **Department of Transfusion Medicine**, **SRMS IMS** at all Trust Institutions, witnessing active participation from students & faculty members. At the end of the majestic event, Aditya Murti extended his gratitude & vote of thanks to everyone.

SHRI RAM MURTI SMARAK ENGINEERING & RESEARCH COLLEGE & EDUNET FOUNDATION PARTNER FOR VIRTUAL 'TECH SAKSHAM' ORIENTATION PROGRAM FOR B TECH STUDENTS

With an aim to provide students with life-changing career opportunities & equip them for their life challenges, **Shri Ram Murti Smarak College of Engineering**, **Technology** & **Research** (**SRMS CETR**), **Bareilly** recently signed a **Memorandum of Understanding** (**MOU**) with **EDUNET FOUNDATION** through virtual process under **Tech Saksham Programme**. Additionally, to equip students with technical skills, an online 'Tech Saksham Orientation Session' was also organized for B.Tech students, Batch 2020, 2021 & 2022 at SRMS CETR campus.

The event began with introduction of Tech Saksham Program in the presence of Er Manvi Mishra, HOD, CSE Department; Er Ankit Khandelwal, DSW; Dr Rajiv Kumar Pandey, Chief Proctor, faculty & staff members, wherein, students were enlightened on how Tech Saksham Program bridges the gap between industries & academics by training students with

Cutting-edge technologies like Cloud Computing, Fog Computing, Data Science, Artificial Intelligence, Machine Learning etc.

However, benefitting from the MoU signed, it was also informed that the classes shall begin in near future, wherein, students shall be provided with hands-on training sessions by experts on emerging technologies, focusing on their practicality, gaining training certifications along with providing internships & placement opportunities in top-notch companies, which will build employability & interpersonal skills among students.

Moreover, an advanced course for Batch 2020 & Batch 2021-22 having 120-hours & 80-hours of training respectively, including theory lectures, practical-employability & interpersonal sessions will enhance knowledge & build their personalities. Later, an interactive Q&A session was conducted, addressing the queries of young minds.

NUKKAD NATAK

SHRI RAM MURTI SMARAK ENGINEERING & RESEARCH STUDENTS ILLUMINATE THE CAMPUS WITH POWERFUL 'NUKKAD NATAK' ADDRESSING GENDER INEQUALITY

Shri Ram Murti Smarak College of Engineering, **Technology** & **Research** (**SRMS CETR**), **Bareilly** recently organized an enlightening & fun-filled **Nukkad Natak** (**Street Play**) on the theme '**Gender Inequality**', wherein **B Tech** (**CS**) **students of Batch 2021** & **2022** performed enthusiastically.

The college premises came alive with a thought-provoking act by budding engineers, resonating with determination to challenge stereotypes & break the chains of gender disparity.

Their performances painted a vivid picture, delivering a message to create a world where everyone has equal opportunities and empowerment. The act left an indelible mark on all attendees

and was truly a stirring reminder that the path to change begins with raising our voices & challenging societal norms.

The event was graced with the benign presence of **Shri Dev Murti**, Chairman SRMS Trust in the presence of **Dr LS Maurya**, Principal CETR; **Professor Aneesh Chandran**, Vice Principal, College of Nursing; **Dr Naseem Akhtar**, Director, College of Law; **Er Ankit Khandelwal**, DSW; **Dr Rajiv Kumar Pandey**, Chief Proctor and several other dignitaries.

DANDIYA DELIGHT

'DANDIYA DELIGHT' LIGHTS UP THE FESTIVE AURA AT SHRI RAM MURTI SMARAK ENGINEERING & RESEARCH COLLEGE

Keeping up the festive spirits of divine nights & marking the end of **Navaratri**, the students of **Shri Ram Murti Smarak** (**SRMS**) **College of Nursing** had a gala and fun-filled **DANDIYA evening**.

The dandiya night witnessed enthusiastic participation of youngsters, who came together to dance, socialize & create lasting memories. The celebration brought together students, faculty, and staff in a spirit of unity, dance & cultural fervor. The mesmerizing evening saw the presence of **Dr LS Maurya**, Principal CETR; **Aneesh Chandran**, Vice-Principal, Nursing College; **Er Manvi Mishra**, HOD, CSE; **Er KK Agarwal**, HOD, Basic Science; **Dr Rajiv Kumar Pandey**, Chief Proctor; **Er Ankit Khandelwal**, DSW respectively, along with several other faculty members.

The atmosphere, filled with pulsating music and dandiya beats infused electrifying energy among students, who danced their heart out in unison & showcased their impressive dancing skills.

It was a visual treat to watch boys & girls dressed in traditional and vibrant-coloured outfits that certainly added to the festive mood. However, the dandiya extravaganza united everyone in the celebration of dance, devotion & cultural significance of Navaratri.

SHRI RAM MURTI SMARAK ENGINEERING & RESEARCH COLLEGE KICKS OFF THE ACADEMIC YEAR WITH A VIBRANT & FUN FRESHER'S JAMBOREE

A spectacle of boundless enthusiasm unfolded, as Shri Ram Murti Smarak College of Engineering Technology & Research (SRMS CETR), Bareilly recently hosted a fun-filled Fresher's Party on the theme 'Exuberance' for B Tech (CS) students of Batch 2023.

The celebrations perfectly embodied its theme, infusing the day with joy, music, laughter, and delight as these budding engineers embarked on their academic journey.

The event began with Saraswati Vandana and ceremonial lamp lightning by Shri Dev Murti, Chairman SRMS Trust & Dr LS Maurya, Principal CETR in the presence of Er Manvi Mishra, HOD CSE; Er KK Agarwal, HOD Basic Science; Er Ankit Khandelwal, DSW; Dr Rajiv Kumar Pandey, Chief Proctor along with other faculty members & students.

With the vibrant gusto, the fresher's gala kicked-off with mesmerizing and devotional dance performance on Ganesh Vandana that set the mood of the evening. The celebrations saw pulsating & enthusiastic performances by B Tech students of Batch 2022 & 2023, who set the stage on fire with their boundless zeal. The highlights of the event were back-to-back dance & musical performances, movie spoofs & a heart-throbbing fashion show, leaving the audience in awe. As the freshers party drew to a close, the titles of Mr & Miss Fresher were awarded to Gaurav Joshi & Shivangi Choubey, while Vaibhav Pandey & Sneha Harariya were crowned as Mr & Miss Versatile. Towards the end, Shri Dev Murti addressed the young minds with inspiring words & wished them continued success in their future endeavours.

COGNITIVE COMPUTING

Cognitive computing is a subfield of artificial intelligence (AI) that refers to systems that aim to simulate human thought processes and reasoning in order to interpret data, understand natural language, and learn from interactions. The goal is to create intelligent systems that can adapt and make decisions similar to the way humans would.

Cognitive Computing Explained

The main purpose of cognitive computing is to develop computer systems that are capable of tackling complex problems that usually require human cognition. This involves advanced techniques like machine learning, neural networks, natural language processing, computer vision and more.

Unlike traditional programmed systems, cognitive computing solutions can analyze large amounts of unstructured data from various sources and identify patterns and insights. They can interpret text, images, speech and make connections across data. Over time, these systems continue to learn from their interactions and experiences.

This ability to mimic the natural learning process makes cognitive computing well-suited for domains like healthcare, finance and customer service where huge amounts of complex data must be analysed to find solutions.

Examples of Real-World Use Cases of Cognitive Computing

- **IBM Watson** has been utilized in the healthcare industry to analyze medical records and find insights to improve diagnoses and treatment plans. It can understand patient history, current conditions and latest research to provide recommended actions.

- Virtual assistants like Alexa, Siri and Google Assistant use cognitive computing to understand natural speech, search vast knowledge bases and respond appropriately in conversational manner.

- Financial institutions use cognitive computing systems to monitor economic conditions, analyze financial transactions and discover patterns of fraud and risk. This improves compliance and protects against threats.

- Retailers like Amazon and Netflix apply cognitive computing to understand purchasing history and interests of customers. Product recommendations and targeted promotions can then be presented.

What are the Benefits of Cognitive Computing?

Cognitive computing has several benefits:

- **Improved decision making.** By analyzing vast amounts of data, cognitive computing can provide insights that help in making informed decisions.

- **Increased efficiency.** Cognitive computing systems can automate complex tasks, leading to increased efficiency and productivity.

- **Personalized experience.** Cognitive computing can provide a personalized experience to users by understanding their preferences and behaviors.

What are the Challenges of Cognitive Computing?

Despite its benefits, cognitive computing faces several challenges:

- **Data privacy.** Cognitive computing systems require large amounts of data, which raises concerns about data privacy and security.

- **Complexity.** The development and implementation of cognitive computing systems are complex and require significant resources.
- **Lack of understanding.** There is a lack of understanding and acceptance of cognitive computing among many people, which can hinder its adoption.

Ethical Considerations of Cognitive Computing

Cognitive computing, like other AI technologies, raises several ethical considerations. These include concerns about job displacement due to automation, the transparency of AI decision-making processes, and the potential misuse of AI technologies. It's crucial to address these issues through regulations and ethical guidelines to ensure the responsible use of cognitive computing.
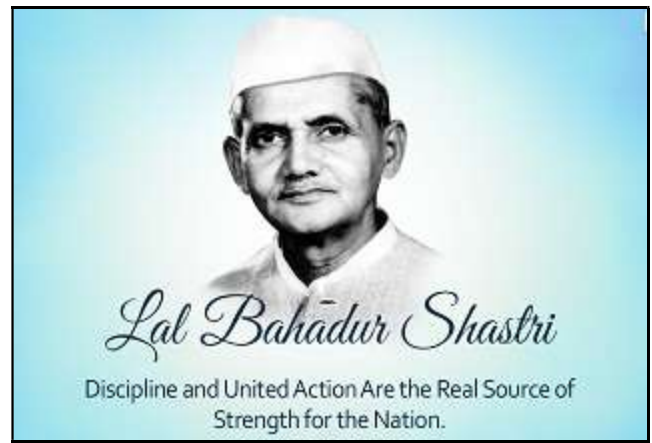
The Future of Cognitive Computing

I'm fascinated by the future of cognitive computing. I think it will change the way we interact with technology and each other. This is because cognitive computing is the ability of machines to understand, reason, learn and communicate like humans. It's not just about processing data, but also making sense of it and generating insights.

Some of the applications of cognitive computing are already here, such as voice assistants, generative AI (**ChatGPT**), facial recognition, self-driving cars and smart home devices. But I believe that's just the tip of the iceberg. In the future, cognitive computing will enable us to solve complex problems, such as climate change, health care and education. It will empower us to be more creative and innovative, as well as more empathetic and compassionate.

With the help of **AI Agents**, we will be able to build, modify, and maintain complex systems. These agents will enable us to connect with multiple databases and monitor audio, video, and text data in real time to develop autonomous AI systems. Although humans will provide the initial prompt, these systems can improve and refine themselves through iterative processes to meet project objectives. The most exciting thing about autonomous AI is that it might see them fully integrated into our systems in a few years.

Ms. Neha Sharma
Assistant Professor (CSE)

Lal Bahadur Shastri

Discipline and United Action Are the Real Source of Strength for the Nation.

Shri Lal Bahadur Shastri, born on October 2, 1904, in Mughalsarai, Uttar Pradesh, was a prominent Indian statesman who served as the second Prime Minister of India from 1964 to 1966. Despite his humble beginnings, Shastri rose to become a beloved and respected figure in Indian politics.

His political journey began during his college years when he joined Mahatma Gandhi's non-cooperation movement. He actively participated in various freedom struggles and played a pivotal role in the Salt Satyagraha.

Upon Nehru's death in 1964, Shastri assumed the office of Prime Minister, leading India during a turbulent period. He is most notably remembered for his leadership during the Indo-Pakistani War of 1965, where he displayed remarkable courage and resolve. His slogan "Jai Jawan Jai Kisan" encapsulated his vision of honoring both the soldier and the farmer.

Shastri's tenure saw a focus on self-sufficiency in food production, leading to the Green Revolution that helped alleviate food shortages and ensure food security for India's growing population. He also initiated policies like the Nationalization of Banks and the White Revolution, emphasizing economic development and social justice.

His sudden demise in 1966 left the nation grieving, but his legacy endures. Shastri's life of simplicity, honesty, and commitment to the welfare of the common man continues to inspire Indians, and he remains a revered figure in Indian political history, posthumously awarded the Bharat Ratna, India's highest civilian honor. Lal Bahadur Shastri's story is a testament to the transformative power of determination, integrity, and selfless service.

Shivpoojan
System Admin

FACULTY CORNER

ESSENTIAL CHARACTERISTICS OF A SUCCESSFUL ENGINEER
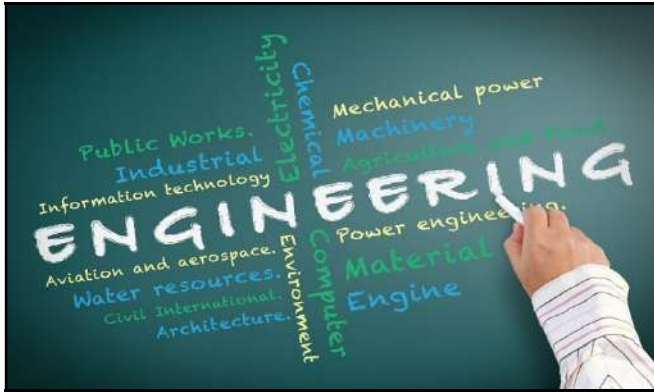
Engineering is a dynamic and ever-evolving field that plays a pivotal role in shaping the world we live in. Successful engineers are more than just technical experts; they possess a unique combination of skills and traits that set them apart.

Strong Problem-Solving Skills

Successful engineers are adept problem solvers, approaching challenges with a systematic mind set. They can break down intricate problems into manageable components, devising innovative and practical solutions.

Strong Problem-Solving Skills

Successful engineers embrace change and remain open to new ideas. They continually update their knowledge and skill set to stay at the forefront of their field.

Analytical Thinking

Analytical thinking is a fundamental skill for engineers. Successful engineers excel at critically examining information, drawing logical conclusions, and using their findings to drive problem-solving and project management.

Creativity

Creativity is not exclusive to the arts; it's also a vital characteristic for engineers. Successful engineers are creative problem solvers who can think outside the box to develop novel solutions. They combine their technical knowledge with innovative thinking to tackle complex challenges.

Teamwork and Collaboration

In the engineering world, teamwork is paramount. Successful engineers work effectively in multidisciplinary teams, appreciating the diverse skills and perspectives their colleagues bring to the table. They can lead, follow, and contribute to a harmonious work environment.

Time Management

Successful engineers are masters of time management, ensuring that tasks are completed efficiently, and project milestones are met. They strike a balance between speed and quality, resulting in successful project outcomes.

Effective Communication Skill

Effective communication is paramount in engineering, especially when working in multidisciplinary teams. Successful engineers can convey complex technical information in a way that is comprehensible to colleagues, clients, and non-technical stakeholders.

Resilience

Engineering projects can be challenging, with setbacks not uncommon. Successful engineers exhibit resilience in the face of adversity. They persist in finding solutions, learn from failures, and continually improve their work, demonstrating their commitment to overcoming obstacles.

A successful engineer possesses a unique blend of technical expertise and personal characteristics that set them apart in the field. Their time management skills ensure that projects are completed efficiently, and their ability to work collaboratively in teams contributes to a productive work environment. Successful engineers play a crucial role in advancing society by bringing innovative solutions to life, and these key characteristics are what make them exceptional in their field.

Umesh Kumar
Lab instructor (CSE)

GOOD GOVERNANCE- A MYTH OR REALITY?

Good governance is basic requirement for maintaining peace and harmony in society. However, in today's world it is rarity. There are plenty of ideas which can enrich our understanding of co-operate governance and leadership. People expect an elected government to create condition for peace, progress and prosperity. Good governance is basic requirement for maintaining peace and harmony in any society.

A large majority of political, business and other leaders are increasingly engaged in self –serving pursuits of personal glorification and enrichment. The masses have practically no role in governance. Economic progress and prosperity is confined to a handful of top industrialists, who are politically well connected, at the same time the fate of large masses has painfully remained unchanged. Social justice remains a mere slogan at election rallies and in five – star conferences attended by the elite.

Today the state of affairs of the country in India is very bad indeed. Centuries of foreign rule and occupation have left a legacy of poverty and despair. Large groups in the society are practically neglected, there is a spread of corruption and lawlessness that most of the population has lost hope that the divine exists, let alone that it will ever intervene to establish order and justice.

However, the most enduring Indian spirit still exists and hope is not entirely lost.

The Ramayana has a lot to offer to Governance and Leadership, however, there is a lack of awareness of the message and lessons from Ramayana in leadership in this 21st century.

The two famous works that are synonymous to epic literature of India are Ramayana and Mahabharata. These two classical epics of India are written in ancient Sanskrit and present the most common ideals of human civilization that seem to have gone down the drain in the modern times.

The value of truth, the importance of self-sacrifice, etc. that make an able individual are explained in much detail over here.

Many people say that Ramayana is a story of compassion and selflessness, but a stern look will remove these misconceptions. Ramayana was strictly an objectivistic tale based on reasons and uncompromising morals like a democratic society, capitalistic free-trade civilization and virtue of selfishness.

Sri Ram symbolizes virtue as he never compromised with anything unethical while upholding the principles of Justice.

This is the first principle of Governance. Is it not applicable now?

Ms. Ruchie Sah
Assistant Professor (B.Sc)

STUDENT CORNER

EDGE COMPUTING

Edge computing is a new computing paradigm that performs computing at the edge of the network. As opposed to cloud computing, edge computing moves closer to the user and closer to the source of data. At the edge of the network, it is lightweight for local, small-scale data storage and processing. Read more at.

Based on the continuous and massive growth of data volume and various data processing requirements, cloud-based big data processing has shown many shortcomings.
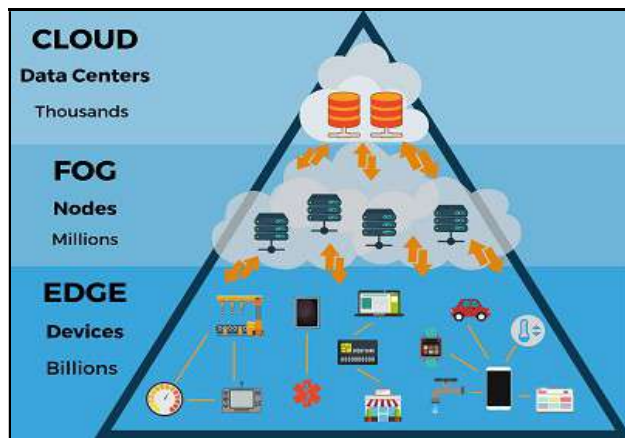
1. REAL-TIME: The transmission of large amounts of data to the cloud results in a large load of network transmission bandwidth, resulting in data transmission delay. Cloud computing will not be able to meet real-time business requirements.

2. ENERGY CONSUMPTION: The power consumption of data centers has increased significantly. Cloud computing is not able to meet the increasing demand for optimized energy consumption.

3. **SECURITY AND PRIVACY:** Uploading the data to the cloud and storing them in a centralized environment comes with privacy leakage risks or attacks. The probability of data en-route attacks is higher in cloud computing than in edge computing caused by the longer path to the server.

Pooja Arya
B.Tech (CSE)
3rd Year

ETHICS OF TECHNOLOGY

We all want the technology in our lives to fulfil its promise to delight us more than it scares us, to help much more than it harms.

We also know that every new technology needs to earn our trust. Too often the pattern goes like: A technology is introduced, grows rapidly, comes to permeate our lives, and only then does society begin to see and address any problems it might create.

Those who are immersed in the world of software engineering and I count myself in this group are often inclined to see, first and foremost, the promise of a technology and the opportunity to create value.

As questions about the impacts of a technology become more common, the engineers still have far to go in understanding the potential harms. Engineers and software developers do not necessarily have all the expertise they need to understand and address the ethical risks their work might raise.
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STUDENT CORNER

Taking cloud manufacturing and 3D printing as another example. As companies pursue these technologies, which have the potential to dramatically change the skillset needed on the factory floor, they might talk to labor economists who can shed light on larger workforce issues.

As 5G connectivity brings factories online that can be managed entirely remotely, companies may want to consult with specialists in plant security, cybersecurity, and perhaps even philosophy to understand the potential pitfalls created by factories that don't employ people.

During the strategic planning stage, a team will naturally focus its attention on what's possible. That's where the excitement and enthusiasm lie. But there also has to be attention paid to understanding what can go wrong.

It's vital to pause and brainstorm potential risks, consider negative outcomes, and imagine unintended consequences
After assessing potential negative impacts from a particular new technology and building a team that has relevant experience, it's important to go deeper.

The team has to do the research, and from there, it should be possible to begin to establish the handhold that can minimize risks and mitigate potential harm. Leaders should mandate the development of ethical risk mitigation strategies as part of the planning for any new technology project.

If we can imagine a world in which vehicle and traffic safety progressed as fast or faster than the development of the automobile, then we can probably imagine the benefits that could accrue for those who get these challenges right.

Harsh Saxena
B.Tech (CSE)
2ⁿᵈ Year

NAME OF SPECIAL DAYS IN OCTOBER

- 1 October   International Day of the Older Persons
- 1 October   International Coffee Day
- 2 October   Gandhi Jayanti
- 2 October   International Day of Non-Violence
- 4 October   World Animal Welfare Day
- 5 October   World Teachers' Day
- 8 October   Indian Air Force Day
- 9 October   World Postal Day
- 10 October   World Mental Health Day
- 11 October   International Day of the Girl Child
- 15 October   Global Hand washing Day
- 15 October   World Students' Day
- 16 October   World Food Day
- 16 October   Boss Day
- 23 October   Mole Day
- 24 October   World Development Information Day
- 30 October   World Thrift Day
- 31 October   Rashtriya Ekta Diwas or National Unity Day

DO YOU KNOW?
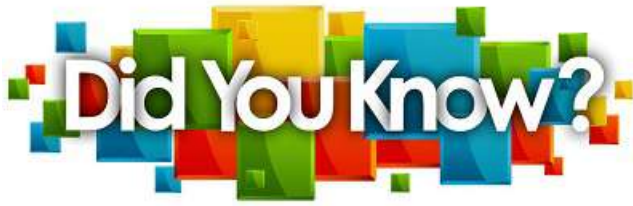
1. IoT helps in _____ human efforts.
1. Removing
2. Reducing
3. Increasing
4. Stopping
Ans. 2

2. IoT devices can collect data from _____.
1. Environment
2. Internet
3. Books
4. Documents
Ans. 1

3. _____is the primary factor in automation which we can save through IoT platform.
1. Cost
2. Time
3. Privacy
4. Security
Ans. 2

2. ___ gives users access to storage, networking, servers and other computing resources via the cloud.
1. PaaS
2. IaaS
3. SaaS
4. All of above
Ans. 2

3. _____ is the example of IaaS Cloud Computing.
1. Amazon web services (AWS) ec2
2. Microsoft Azure VM
3. Google Compute Engine (GCE)
4. All of above
Ans. 4

4. In _____, the providers take care of security, operating systems, server software and backups.
1. IaaS
2. PaaS
3. SaaS
4. All of above
Ans. 4

5. _____ service provider delivers software and applications through the internet.
1. IaaS
2. PaaS
3. SaaS
4. All of above
Ans. 3

6. Google's G suite, GitHub and Dropbox are the examples of _____ Cloud computing.
1. PaaS
2. IaaS
3. SaaS
4. None of above
Ans. 3

7. _____ manages all the services and supporting infrastructure off-site over the internet and shares it across multiple users.
1. Public cloud
2. Private cloud
3. Hybrid cloud
4. None of above
Ans. 1

8. _____solutions are preferred for enhanced security and privacy by the users.
1. Public cloud
2. Private cloud
3. Hybrid cloud
4. None of above
Ans. 2

9. 5G is the next generation of __communications.
1. Wireless
2. Wired
3. Both of above
4. None of above
Ans. 1

10. _____technology may use a variety of spectrum bands.
1. 2G
2. 3G
3. 4G
4. 5G
Ans. 4

Mr. Arun Kumar Sahu
Assistant Professor (CSE)

NEWS AT A GLANCE

Google's New APG Technology Can Bring Heart Rate Sensing Capability to ANC Headphones

India's forex reserves rise $2.6 billion to $586.1 billion as of October 27

Delhi Metro Introduces Smart Lockers at 50 Stations for Safe Storage of Belongings

Hamas official vows more October 7-like attacks on Israel

Windows 11 Update Brings Native Support for RAR, 7-Zip, Other File Formats

India Had Third-Hottest October on Record

THE PUZZLE

The Puzzle:

5 pirates of different ages have a treasure of 100 gold coins. On their ship, they decide to split the coins using this scheme: The oldest pirate proposes how to share the coins, and ALL pirates (including the oldest) vote for or against it. If 50% or more of the pirates vote for it, then the coins will be shared that way. Otherwise, the pirate proposing the scheme will be thrown overboard, and the process is repeated with the pirates that remain.

As pirates tend to be a bloodthirsty bunch, if a pirate would get the same number of coins if he voted for or against a proposal, he will vote against so that the pirate who proposed the plan will be thrown overboard. Assuming that all 5 pirates are intelligent, rational, greedy, and do not wish to die, (and are rather good at math for pirates) what will happen?

Our Solution:

The oldest pirate will propose a 98:0:1:0:1 split, in other words the oldest pirate gets 98 coins, the middle pirate gets 1 coin and the youngest gets 1 coin.
Let us name the pirates (from oldest to youngest): Alex, Billy, Colin, Duncan and Eddie.

Working backwards:
2 Pirates: Duncan splits the coins 100:0 (giving himself all the gold). His vote (50%) is enough to ensure the deal.
3 Pirates: Colin splits the coins 99:0:1. Eddie will accept this deal (getting just 1 coin), because he knows that if he rejects the deal there will be only two pirates left, and he gets nothing.

4 Pirates: Billy splits the coins 99:0:1:0. By the same reasoning as before, Duncan will support this deal. Billy would not waste a spare coin on Colin, because Colin knows that if he rejects the proposal, he will pocket 99 coins once Billy is thrown overboard. Billy would also not give a coin to Eddie, because Eddie knows that if he rejects the proposal, he will receive a coin from Colin in the next round anyway.

5 Pirates: Alex splits the coins 98:0:1:0:1. By offering a gold coin to Colin (who would otherwise get nothing) he is assured of a deal.

(Note: In the final deal Alex would not give a coin to Billy, who knows he can pocket 99 coins if he votes against Alex's proposal and Alex goes overboard. Likewise, Alex would not give a coin to Duncan, because Duncan knows that if he votes against the proposal, Alex will be voted overboard and Billy will propose to offer Duncan the same single coin as Alex. All else equal, Duncan would rather see Alex go overboard and collect his one coin from Billy.)

Mr. Arun Kumar Sahu
Assistant Professor (CSE)

Ms. Neha Sharma(U) (Assistant Professor CSE) successfully completed **Microsoft, SAP&AICTE** led **Faculty Development program** on **Full Stack Application Development with MS Azure Cloud** under **TechSaksham** from **4th-9th September, 2023.**

Ms. Neha Sharma (Assistant Professor CSE) and Ms. Neha Sharma(U) (Assistant Professor CSE) successfully completed the 4 week **NPTEL** course of "**Python for Data Science**" from **July- Aug 2023.**

Think - If people knew how hard I worked to get my mastery, it wouldn't seem so wonderful after all.