SHAHEED RAJGURU COLLEGE OF APPLIED SCIENCES FOR WOMEN

UNIVERSITY OF DELHI

NAAC GRADE A+ | NIRF RANK-37 (COLLEGE CATEGORY)

presents

E-MAGAZINE

DEPARTMENT OF COMPUTER SCIENCE

2021-2022

EXTRA-CURRICULAR ACTIVITIES

Khushi Panwar, Ist Year

- Winner of Treasurittle Showdown, under EXPO'22 organised by Robotics Club and KARVAAN'22.
- Winner of Interdepartment Yoga competition (SRCASW) held in Jan 2022
- 2nd Position at Interdepartment Aerobics competition (SRCASW) held in Jan 2022.

Prerna Yadav, Ist Year

- 2nd position holder in Intercollege Yoga competetion organised by SRCASW
- Winner intercollege Surya Namaskar challenge organised by SRCASW

Divya Singh, Ist Year

- Describe a picture (2nd Rank)

Savita Devi, Ist Year

- 2nd position organised by Miranda house

Anchal Patel, Ist Year

- Third rank in Spardhaa Rythmic Yoga

Prerna Kashyap, Ist Year

- 2nd position in quiz organised by SRCASW

Komal Sahu, Ist Year

- 1st rank in Robotixel

COURSES/WORKSHOPS

Khushi Panwar, Ist Year

- WinterFest2022 conducted by codeIn Community : Full-stack Development,
- Cloud Computing by Azure Developer Community,Android Development

Jyotshna Trivedi, Ist Year

- Acing Public speaking & confidence development, January 11th and 12th, 2022

Savita Devi, Ist Year

- Therapeutic Yoga oganised by Physical and sports department

Sarika Devi, Ist Year

- Therapeutic Yoga oganised by Physical and sports department

Sugandha kumari, Ist Year

- 6-Day session - into the vortex of web development

Deeksha, Ist Year

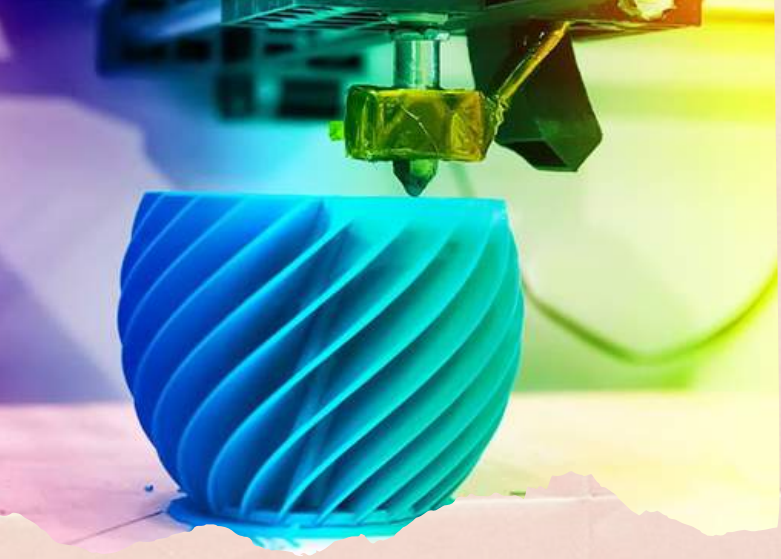
- 6-Day session - into the vortex of web development

Prachi Negi, Ist year

- Acing Public speaking & confidence development

WORD POWER


BLACK AMERICANA
NAACP
100
Celebrating a Century
100 Years in Pictures
BLACK HISTORY



3D PRINTING TECHNOLOGY : A Prodigious Contrivance

BY KHUSHI PANWAR, 1st YEAR

“Innovation is the unrelenting drive to break the status quo and develop anew where few have dared to go.”

We’re privileged to be living in a time where science and technology can assist us, make our lives easier and rethink the ways we go about our daily lives. The exposed technologies identical to Artificial Intelligence, Augmented Reality, Robots, Metaverse, Cryptocurrencies, etc., have accustomed to has paved the way for us to innovate further. One such technology, which has the immeasurable potential to revolutionize our lives is undoubtedly the 3D Printing Technology.

“The Future of innovation has to include not only technology, but economic viability”

Ever wondered how the Sci-Fi movie like Jurassic World managed to get their hands over the flawless shots of the extinct gargantuans like Apatosaurus, Triceratops, Mosasaurus, etc.? Such spectacular realism was only possible with the touch of 3D Scanning & Printing.

3D printing is an additive technology used to manufacture parts: from prototyping to creating lightweight geometries via a layer-stack fusion process that doesn’t involve a block of material or a mold to manufacture physical objects. Seemingly, it took birth in sync with the evolution of customers' expectations and demands or vice versa. In recent years, 3D printing has matured into an excellent solution for many intricate production and manufacturing technologies.

Chuck Hull is typically credited with the invention of the 3D printer via his Stereolithography Apparatus (SLA) patent in 1984. During this period, multiple know-hows developed, corporations were founded and various stupendously feasible patents were submitted by the scientists worldwide. The forthcoming decades witnessed the swift commercialization, democratization and sooner, period of maturity where the hype around 3D printing had vanished from mass media, but the high level of interest of businesses in acclimatizing more commercial applications shot the notch.

“The future cannot be predicted, but future can be invented. It was man’s ability to invent which has made human society what it is”

3D printing is already shaking our age-old notions of what can and can’t be made. Stephen King once said, “To write is human, to edit is divine”, but instead of the word “edit”, you could substitute the phrase “3D Printing”, because this 3D expertise is playing a similarly godlike role. Today 3D printing embodies the prime industries like Architecture & Construction, Healthcare, Mechanics, Food Industry, Education, Fashion, Aeronautics, Automotive, Energy sector, etc. Apart from wide-scale usage, it also offers sterling recompenses like reduced cost, rapid manufacturing process, environment-friendly approach and improved freedom of shape.

The extensive productive efficacy is pushing the companies to use 3D technology as it is capable to cater unprecedented circumstances such as urgency, low volume of production and the failure of other technologies in the manufacture of a complex shaped product.

For an instance, large groups such as Boeing, SEB, Volvo and Volkswagen are embarking on such initiatives to provide customers with access to digital versions of their parts being cataloged. Other initiatives such as Boulanger in France, with their platform Happy3D, want to offer individuals to directly download spare components of their appliance, surfing the fight against planned obsolescence.

Other examples include the success in the surgical guides of the humans or pets with severe internal injuries; involving the use of prosthetic limbs and models of body parts. Even Hollywood exhibits the upshots of 3D printing in its Sci-fi movies like the Avengers, Black Panther, Iron Man, etc. via the winsome wearables, weapons and 3D printed props. Also, countless fashion industries are approaching this expertise to create flamboyant aesthetics. Forget shopping, imagine soon we will be able to download our clothes!

"The secret of change is to focus all of your energy, not on fighting the old, but building on the new."

Although, 3D printing antagonizes a few shortcomings like the elevated cost at a high volume production, the requirement of post-processing of printed parts, lesser product strength in comparison to the conventional manufacture and limited accuracy need a scope aimed at improvement. But its extraordinary trump card is the adaptive & versatile nature it inherits; it can be used to create just about anything your mind can conjure up. It just requires the digital file and the right material. While experts are troubleshooting how to incorporate 3D printing processes into all areas, pacesetters are finding clever hacks to create with their 3D printers including trash cans, electric outlet plates and more! Hence, 3D printing is redefining the affluence of our lifestyle.

"Our future success is directly proportional to our ability to understand, adopt and integrate new technology into our work."

ARTIFICIAL INTELLIGENCE: A Peril In Disguise

BY KHUSHI PANWAR, 1st YEAR

"Predicting the future isn't magic. It's Artificial Intelligence" -Dave Waters

Artificial intelligence or expert systems, is among the avant-garde we often onlook in our daily lives. Who doesn't love to witness the action and thrill of the Sci-fi movies like the Terminator, Matrix, Iron Man, Robo, Ra-One, etc., wishing to get their hands on Jarvis, Marvin or the Red Queen someday? While the idea of Artificial Intelligence and virtual technologies is utterly fascinating, these charms have a peculiar veiled side, full of drawbacks and detrimental effects.

"Our predecessors endeavored to make men into machines; we are endeavoring to make machines into men."

We've seen advancing technologies that eliminated the traditional methods, tools or machinery. From bricks to mortar stores, from the barter system to e-Commerce; we don't need to run errands anymore, we literally can press a button and have most of our first-world problems solved in an instant. But we don't always recognize how these innovations are making us lazy, too. Some believe that the latest innovations like automation, augmented reality, Virtual reality, IoT, Artificial Intelligence, etc., is making us work-shy, but others believe the benefits outweigh the potential risks.

According to John McCarthy, Artificial intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs. AI's are trained via deep learning which involves processing a vast amount of data. "In order to learn something as complex as language, these models have to be large", says Strubell.
Although Artificial Intelligence is bestowed with speedy execution algorithms, advanced applications and higher availability, there are few immediate risks of AI worthy to be considered.

"Artificial Intelligence is about replacing human decision-making with more sophisticated technologies."

As AI systems continue to improve, they will become far more adept at tasks than humans. This could be in pattern recognition, providing insights, or accurate predictions. The resulting job disruption could result in increased social inequality, tremendous unemployment issues and even an economic disaster. AI can be programmed to do something malicious or can possibly do something destructive while achieving its goal as it lacks emotional thinking which only exists in the living entities.

In 2020, the UK government commissioned a report on Artificial Intelligence and UK national security, which highlighted the necessity of AI in the UK's cybersecurity defenses to detect and mitigate threats that require a greater speed of response similar to human decision-making. This also begs the question of how we make AI systems secure themselves. If we use AI algorithms to defend against various security concerns, we

need to ensure that the AI itself is secure against bad actors. Moreover, it could also be used in privacy breaches and data thefts. The risk is that this technology could be expanded to authoritarian regimes or individuals/groups with malevolent objectives.

Newer smart technologies (like self-driving cars, virtual assistants, etc.) have been assessed as a high-risk target for this kind of attack, with the potential for bad thespians to cause car crashes or gridlocks. Wealth inequality will also be created as the investors of AI will take up the major share of the earnings. AI has the potential to degrade the environment due to its high carbon emissions, and huge energy demands, it can high-powered GPUs to run for days at a time. New estimates suggest that the carbon footprint of training a single AI is s much as 284 tons of carbon dioxide equivalent- five times the lifetime emissions of an average car. As we become more and more reliant on internet-connected smart technology, more and more of our daily lives will be impacted by the risk of disruption.

"You can have data without information, but you cannot have the information about data"

Joseph Weizenbaum, a pioneer of AI once said, "We must not let computers make important decisions for us because AI as a machine will never possess human qualities such as compassion and wisdom to morally discern and judge."

A versatile invention like AI was brought into this world as a result of human hard work, creativity and intelligence. We must try to enforce the AI bioethics of beneficence, value upholding, lucidity and accountability. As AI and Machine Learning advance, bioethical frameworks need to be tailored to address the problems that these evolving systems might pose. Since AI is without a soul as it is, its bioethics must be transcendental to bridge the shortcoming of AI's inability to empathize. Thus, the cautious progression of AI technology is directly reliant on our approach and actions. The ultimate paradox is that this technology may become a powerful catalyst that we need to reclaim our humanity!

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