



**SRM**  
INSTITUTE OF SCIENCE & TECHNOLOGY  
(Deemed to be University u/s 3 of UGC Act, 1956)

# SPECTRUM

The Newspaper of SRMIST

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*Congrats!*



SRM'S Nethra Kumanan is the first Indian women to have qualified for the Tokyo Olympics

# The Handmaid's Tale: A Dystopian Pot of Brilliance

PRIYANKA SRINIVAS

"The Handmaid's Tale" is a fictional novel written by Margaret Atwood, published in the year 1985. It follows the tale of Offred, who narrates her story as an oppressed member of the Republic of Gilead.

Gilead strips down all the rights and dignities of women and confines them to roles of childbearing. However, if women are unable to give birth due to reasons, they are discarded as useless elements. This is the present, for Offred. However, she knows a sweeter time too, one before enslavement. Offred narrates her story between the two timelines, painfully recounting her memories of "the before" with the harsh juxtaposition of her present.

This book has all the standard elements of a dystopian novel: a covert government, a controlled society, an oppressed protagonist and a tussle for freedom. However, the worldbuilding in this particular novel is what sets it apart from

other beloved dystopian books such as "1984" focuses heavily on redemption from a totalitarian government and "Lord of the Flies" focuses on survival and other moral aspects of humanity. However, "The Handmaid's Tale" manages to portray both themes along with feminism, objectification of women, ways of gender expression, oppression, surveillance-based living, caste-based division of society and multiple other themes.



The Handmaids and their curse of being able to bear children.

The overarching brilliance of this novel lies in its ability to weigh in on multiple issues in a smooth, flowing storyline. Having a female protagonist is an integral part of the success of this novel since it brings a fresh perspective that shines a light on the role of women in a dystopian society. The writing in the novel is extremely verbose and explanatory, which feels overwhelming at times. However, overall, this cautionary tale is completely worth your time.

## Are we underestimating India's food culture?

ADITHYA R

There is an ancient proverb which states that our food is medicine. However, today's eating culture completely debunks this statement. Our negligence towards the traditional eating methods began when doctors claimed that these practices were unhealthy based on Western Study. Advertisements endorsing the

same brought about a change amongst the masses.

India's traditional eating ways have stood the test of time. For example, the three major oils used in Indian cooking are derived from Coconut, Sesame, or Groundnuts and contain good cholesterol whilst providing lubrication for internal organs, even aiding digestion. Palm sugar and Jaggery are traditional

sweeteners that provide a rich source of iron in contrast to modern white sugar.

The traditional Indian kitchen has several condiments including turmeric, pepper, mustard, tamarind, and cumin seeds which induce medicinal compounds already present when added in specified quantities. Ghee is another source of omega fatty acid that prevents aging, premature wrinkle formation, and improves digestion.

People are currently buying spices in packets loaded with preservatives and adulterants rather than making their own not understanding the risks involved. Indian food traditions were aimed to naturally cure various ailments and build a stronger immunity system. The cost of spending on healthy and nutritious food is lesser than the cost expended on medicines. Health is first the priority for a meaningful existence and requires a small conscious decision to bring the change.



Groundnut oil, Coconut oil, and Sesame oil have traditionally been the major oils used in Indian Cooking.

## Aiding the Defenders

PRANAV V  
AARYAN SHARMA

"Safety and security don't just happen; they are the result of collective consensus and public investment." Well said by Nelson Mandela. As the army give up on their tomorrow to let the people have their today, even small steps taken by the citizens can sometime bring huge difference. Keeping this very thought in mind the SRM Innovation and Incubation Centre (SRMIIC) in collaboration with the "Tamil Nadu Defense Corridor" hosted 'The Defense Services Hackathon' on 19th, 20th and 21st of March 2021 to identify and aid the problems faced by the soldiers and supporting both student and faculty teams for the development of technology and products for the Defense Sector. The hackathon was held online considering the current situation with a total



SF-2: one of the submissions

of 210 participants without any discrimination towards age or country of residence. The participants were provided with the details of the 16 problem statements and some of them included 'The use of block chain technology in military' and 'Tracked Snow remover'. Their skills were tested in front of 21 judges who ranked them based on their approach to the solution, use of technology, planning and execution of the ideas, and user experience. The event was a success with a huge participation and the message intended was spread across boundaries.

## Altitudes '21

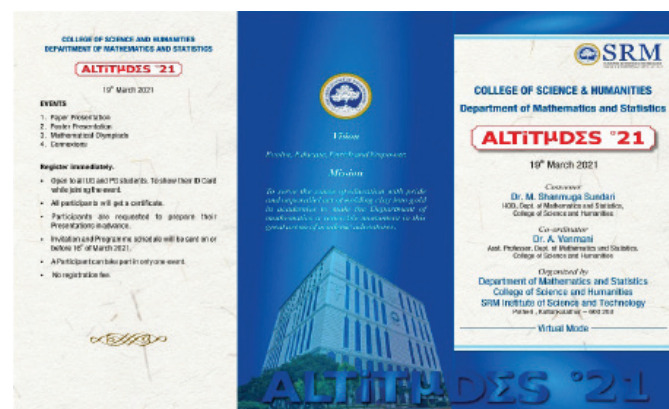
AASTHA AGGARWAL

With a vision to "evolve, educate, enrich, and empower" and a mission to "develop analytical, logical and reasoning skills," The Department of Mathematics and Statistics, SRM Institute of Science and Technology, successfully organized Altitudes '21, a math fest through a virtual platform. Dr. M. Shanmuga Sundari, HoD, Department of Mathematics and Statistics, convened the math fest. The Chief Guest, Dr. G.P. Youvraj, Professor, National Institute of Technology, Puducherry, honoured the audience by delivering the inaugural address. There were four categories in the event: Paper Presentation, Poster Presentation, Mathematical Olympiads, and Connexions. The fest inaugurated at 10:30 A.M

and ended with the valedictory function at 3:00 P.M.

Various themes were covered in this fest: Application of Statistics, Mathematics in Cryptography, Astronomy, and Modern Technology. The participants presented their posters on joyful learning, evolution in mathematics, and advanced mathematical applications via the virtual platform.

The online mode was not a barrier to the smooth preparation and execution of the whole event. The session was very enlightening, and many people came together to witness their peers' work. The research papers presented were well prepared and quite informative. All winners were applauded and rewarded for the hard work and dedication they had put in.



Brochure for Altitudes'21

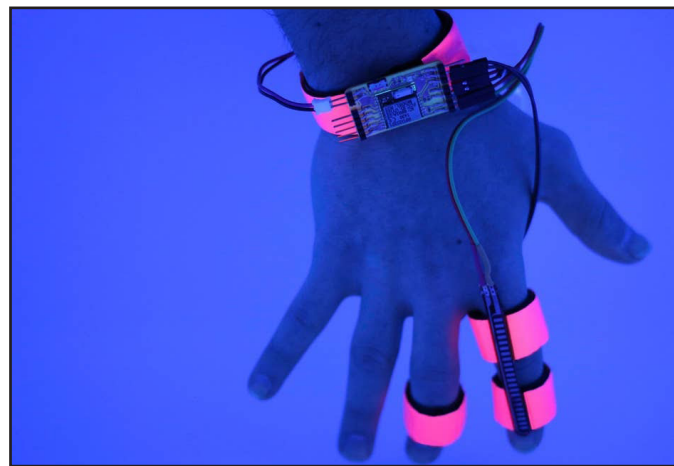


## Targeted Dream Incubation

ASMITA SOOD

The concept of incubation of dreams has intrigued people for ages. The research on Targeted Dream Incubation is based on the question of whether interacting and interfacing with dreams can lead us to unlock new potentials with respect to creativity and our day-to-day cognitive activities. Targeted Dream Incubation refers to the process of engineering or guiding dreams towards a specific theme. The use of TDI is to conduct scientific experiments that will enable us to determine the role of our subconscious in our emotions, creativity and brain potential. At a stage where the concept of engineering dreams seems like a fantasy, scientists are continuously experimenting and analysing to prove that it's not. The engineering or redirection of a dream in Targeted Dream Incubation is done in the phase

of sleep called 'hypnagogia', which marks the transition from a conscious state to the unconscious. Since it is a transition phase, the subject can still hear external noises and the senses are fully involved. The subject is made to hear an audio with the aim to project an image of that audio in their mind. Various steps are followed to make sure the subject doesn't lose track of the theme in deep sleep. The process is completed using a sleep tracker, and a device to control audio. At MIT, scientists have used sleep trackers like 'Dormio' and 'Masca'. Leading universities of the world are continuously experimenting with the use of TDI for a multitude of purposes ranging from treating PTSD based trauma to enhancing brain creativity and potential. With research on TDI going strong, it is helping us explore minds like never before



Dormio device developed by scientists at MIT to track sleep

## Hacktrix 2021

PRAKHAR BHARADWAJ

HackTrix was a unique, one of a kind 36-hour long hackathon organized by the IEEE SRM, a prolific student chapter and a multitude of scholarly that aims to advance technology for humanity. The event started on 2nd April 2021 and ended on 4th April 2021, after 36 grueling hours of coding. This event followed a unique pattern, where participants were given 8 different 'tracks' from which they had to choose one and make a coding project that in their opinion could revolutionize different fields. These tracks included topics, which are relevant to the present scenarios, such as, Healthcare, Ed-tech, Agriculture, Defense & Aerospace and IoT or Open Track wherein the participants were given the option to let loose

their imagination and come up with a solution to make the world a better place. The event was attended by a roster of incredibly talented judges including Alon Grinshpoon, CEO of echoAR, Akshay Saini, Software Engineer, Uber, and Sohay Dixit, Engineer at American Express. This event also showcased talented coders who mentored the participants and helped them with their projects. The winning team, TRIX4, received a cash prize of 13,000 INR and gifts from IEEE and their sponsors. The 1st runner-up acquired 8,000 INR while the 2nd runner-up received 4,000 INR. At the end of the day, the event was a huge success and fulfilled its promise of providing the participants an atmosphere of competitiveness among participants while turning their ideas into reality.



## SRM student becomes first Indian woman to qualify for Olympics

STAFF WRITER

SRM Institute of Science and Technology's (SRMIST) student Nethra Kumanan has become the first Indian woman to qualify for the upcoming Olympics. She will be representing India in sailing and confirmed her berth in the Tokyo Olympics recently. She qualified for the

Tokyo Olympics by coming first at the Laser Radial event in the Mussanah Open Championship, a joint Asian and African Olympic qualifying event. A second-year engineering student of SRMIST, she has represented the country at the 2014 and 2018 Asian Games in Incheon and Jakarta, respectively. She became the first Indian woman to win a World Cup medal in

sailing when she clinched a bronze medal at 2020 Sailing World Cup in Miami, USA. She will now become the first Indian woman sailor to represent the country at the Olympics. This 23-year-old professional sailor is a resident of Chennai and has made her Institution proud. She trains in the Canary Islands, Spain.

## Malvika Bansod brings laurels to SRM

STAFF WRITER

The woman's singles badminton 2021 Uganda international was held in Kampala, Uganda on March 1 2021. Malvika Bansod, 19, from Nagpur, a student perusing her B.Tech CSE course in SRMIST, bagged the gold medal, bringing laurels and pride to our nation and institution. Her final match was against Anupama Upadhyaya from Haryana. Anupama had a great start, winning the first set 17-21. However, Malvika Bansod came back with a bang in the second and third rounds, winning the finals 25-23, 21-10 respectively. Malvika took up badminton when she was just eight years old. Her first senior international debut was in September 2019, with a title victory in the Maldives. The very next week, she won the Annapurna Post International Series, Nepal. She is a consistent achiever from her young age and has won several gold medals at the national level-events in junior and senior categories before moving to the international tournaments.



Malvika Bansod After winning the gold medal

Now, the gold from the Uganda International sits proudly in her trophy case. Thereafter, she won a bronze medal at the Bahrain International Series in October 2019 and also reached the quarter final stage at the India International Challenge. With her performance in these recent international tournaments in just

two months, she managed to break into the world's top 200. The Nag Bhushan award by a Maharashtra-based non-profit organisation, the Khelo India Talent Development Athlete award and the Target Olympic Podium Scheme (TOPS) Athlete award are also a few of her other accolades.



## International Women's Day Celebration

ARYAN DIWEDI

ANAMIKA TRIPATHI

On the occasion of International Women's day on the 8th of March — The Internal Committee and Assurance cell of SRMIST organized several offline and online events to celebrate women and their contributions across various domains. The faculties,

students and the non-teaching staff participated in this celebration in great numbers.

The institution held an online webinar and a panel discussion on the eve of International Women's Day from 2:00 pm to 4:30 pm. The chief guest of the event was the Hon. Justice Nagamuthu, Madras High Court. He was accompanied

by a panel of legal authorities namely Ms G. Rajalakshmi, Commissioner, Municipal Office, Chengalpattu along with 130 faculty members and students. The event started with the invocation song performed by Dr Krithika from SRM, Kattankulathur, Dental College and Hospital followed by traditional dance. Dr Mythilli, Director of Students Affairs gave the welcome address and the event was hosted by Dr S. Ponnusamy, Registrar i/c, SRMIST. The highlight of the event was the screening of the video comprising various artworks by Indian women and the stories of their success despite the hardships faced by them. The event concluded with the prize distribution to the winners of the events held throughout the week along with the vote of thanks given by Dr E. Poovammal, Presiding Officer of Internal Committee.



*"Beauties beautifies different responsibilities"*

## Go Electric to Survive

RUDRA PRATAP SINGH

Today, the obsession with conservation and going green has nudged the automobile industry towards electric vehicles again, and rightly so. The history of EVs goes way before, somewhere to the 1800s. Initially, electric cars were appreciated more than their combustion counterparts, especially for moving around in the city or for short trips. However, with advancements made in gasoline vehicles, improvements in the road systems, the discovery of abundant reserves of crude oil, and the lack of infrastructure for long-distance travel in EVs, they disappeared around 1935.

In the present scenario of continuously depleting resources, crude oil being on the top of that list, once again EVs are becoming the need of the hour as they have not one, but

“ India, understanding the employment opportunities and advantages of it, has also entered the EV market. Companies like Tata, Mahindra and Mahindra, and a few others are taking the initiative in developing the technology in the country. ”

many benefits. From being inexpensive to run, maintain and register, to being better for our health, environment, the country's electrical grid, and even providing a better driving experience, they are proving to be a remarkable alternative.

India, understanding the employment opportunities and advantages of it, has also entered the EV market. Companies like

Tata, Mahindra and Mahindra, and a few others are taking the initiative in developing the technology in the country. Ashok Leyland, a major player in the automobile industry is working on bringing electric buses and vans to India through its subsidiary company in the UK. A Bangalore-based company, Ather, is pioneering in bringing efficient electric scooters on the roads. US-based Companies Tesla and Trinton, have already registered in India and will soon set up their manufacturing plants here. India is also providing fresh incentives to companies willing to invest.

This is a big challenge, and it will take almost 10 years to make the infrastructure and create demand for the same in India. One can expect EVs to be mainstream by 2035 – 40.



*Development of electric vehicles - from the first to the latest*



*The easiest way to learn a language is purely by observation.*

## Is there anything called correct English?

LAKSHMI VIBHA

The English language was originally one of the Germanic languages, which includes German, Dutch, Swedish, etc. It originated in England and is the dominant language of United Kingdom, USA, Canada, Australia, Ireland and some Caribbean islands. Both native and non-native speakers and learners find it very difficult to achieve proficiency in the language, although it is relatively easier for the native learners.

From about 7000 languages spoken in the world today, English has the reputation of being one of the most complex languages to learn with its notorious spelling, grammar and pronunciation. With all the rules and exceptions, sometimes it is just easier to go with what “sounds right”. It is

here that native speakers have an advantage. Most of this is mainly by intuition. So what exactly is “correct English”? There is no correct or absolute way to learning this language. Most people measure the level of correctness, with what they've been hearing around them. But English, like any other language has dialects, which influences differences within the language. English is still one of the most unique languages and out of all the Indo-European languages in Europe, is the only one without assigning any gender to each object rather retaining gender rules to people and occasionally animals. The verbs, nouns and pronouns usually do not vary with gender but still retain their usefulness causing a juxtaposition amongst other Germanic languages.

### Reporting for Spectrum

- Contributing reports should be confined to a maximum of 250 words and must be written by students only.
- Accompanying pictures must have captions. Pictures without caption will not be published
- Request for coverage in Spectrum by its editorial team must be made well in advance with an accompanying note and the invitation to sridhark@srmist.edu.in
- Coverage of a certain event or receipt of an article does not guarantee publication.

—Editor



# Educate, Agitate, Organize

SHREYA KHERA

Throughout history and all through time, it is an easy claim to say that change is the law of nature. Today's youth is on the frontline of protests; demanding change, from the mentality of the mass to reforms that harm the essence of the country. Some of them, however, fail to get a result out of the protests, be it orchestrated on the streets or on social media platforms.

B.R. Ambedkar, independent India's first Minister of Law and Justice, and considered the chief architect of the Constitution of India, believed that there are 3 steps to bring in change - Educate, Agitate, and Organize. Education is the key aspect, the very first step to change. Without having a full understanding of what one is protesting against, one fails to make a comprehensive argument and can thus fail in the initial steps. Education also

implies an understanding of the rights that are being exploited. Educating themselves and the mass about what they stand for creates a stage for expression and change.

After education, lies Agitation. Agitation means anger, mass protests on streets, expressing displeasure against the current reforms and buckling up for the ricochet. Anger and dismay towards the ideal that is being protested for, shouldn't and mustn't die down. The protesters must remain apprehensive, firm on their grounds, and courageous.

Proceeding Agitation is Organization. Having an organized protest, where everybody is on the same page is the final step to bring change. One voice is easy to suppress, but thousands of voices will always roar and thus cannot be ignored. Going through an organized protest helps people to sustain, have a concrete plan of action and thus a stronger sense of credibility towards their decision to work towards the final goal. To quote Alvin Toffler, "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn."



A new way of going places – 'flights to nowhere'

## Finding Opportunity in Adversity

KRITIKA MALHOTRA

The pandemic brought travel to a standstill, but it could not dampen the spirits of the travellers. During the time when planes were grounded, airlines came up with creative ideas to recoup some lost profits and also afford travel-starved customers the chance to get back up in the sky.

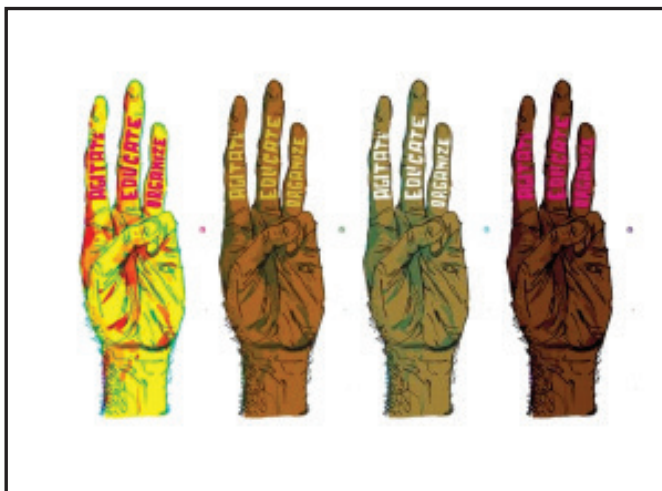
'Flights to nowhere', albeit an old concept, gained rapid popularity in the past year. These flights depart and disembark at the same airport meaning that no quarantine is needed for flyers. It gives passengers an aerial tour of famous spots, flying at a low enough altitude to offer picturesque views. The aim was to recreate the magic of travel. In August 2020, Taiwan's Eva Air was the first to fly its

“ ‘Flights to nowhere’ , albeit an old concept, gained rapid popularity in the past year. These flights depart and disembark at the same airport meaning that no quarantine is needed for flyers. ”

passengers on a daytime journey along Taiwan's coastline and over Japan's Ryuku Islands. Air India had similar plans in the works for 'flights to nowhere'. Following suit, Singapore Airlines announced a 'suite of experiences' that would give customers the chance to tour airplanes, eat airline food, and meet with pilots. It also offered diners the opportunity to have lunch on a stationary Airbus A380 parked at the city's main airport. Recently, 'runway dining' has become

a trend, with Japan's ANA providing an exquisite dining experience aboard a Boeing 777 at the Haneda Airport in Tokyo. Tarmac meals became so sought-after that some airlines like the British Airways took to delivering them at home!

While these ideas would have once been rubbished by many in the pre-Covid era, rows upon rows of grounded aircrafts and borders becoming no entry zones have now made these an attraction.



## Food for the Stray Thought

DIKSHA AVIRAL

Cultural Anthropologist, Mary Bateson once said, "The human species thinks in metaphors and learns through stories." Undoubtedly, stories are considered more often than not the most powerful medium to cultivate empathy. But stories, sometimes, can cause damage too. Books that encourage and romanticise harmful coping methods, aversion to medical help and toxic positivity are dangerous and further stigmatise mental

illness. Thus, it is important that when we read about mental health we do so from books that portray it accurately and emphatically.

An excellent example of such a book is "Perks of Being a Wallflower" by Stephen Chbosky. This epistolary novel follows Charlie, a teenager suffering from anxiety. The novel brilliantly explores how even normal everyday events can trigger a relapse, and debunks toxic positivity.

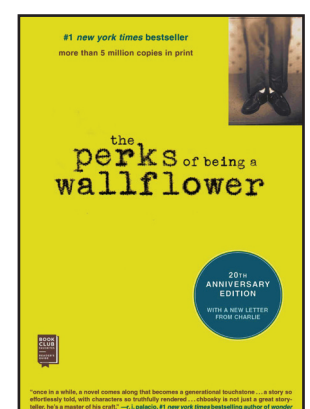
Similarly, "The Rest of Us

Just Live Here", by Patrick Ness is a masterpiece when it comes to portraying Obsessive-Compulsive Disorder. The central character, Miles, is seeking professional help, takes his medication, and still routinely suffers from obsessive thoughts. This book does an amazing job debunking harmful stereotypes about seeking therapy and help.

"All the Bright Places" by Jenniffer Niven is another book which does a brilliant job of putting bipolar disorder in perspective. We see the character,

Finch, contract slowly into himself as the story progresses. The book tells us of the unhealthy coping mechanisms a person can turn to in absence of help.

To effectively understand mental illness, we need to read books which portray neurodivergent characters without detachment, condescension or harmful stereotyping. Read books which do not feed into the need for sensationalism but are instead authentic and do justice to the characters and the problems they portray.



"So, this is my life. And I want you to know that I am both happy and sad and I'm still trying to figure out how that could be."



# Intricacies of Anime

MAYANK JHA

The word “Anime” is no longer just associated with just any animated work, but it is now

meant to be a community itself. The anime industry consists of over 430 production companies, including major studios like Studio Ghibli, Sunrise, and

Toei Animation.

More than just animation art, Anime concentrates mostly on the issues of life and the things that are closely tied to human emotion. The vastness and impactfulness of the emotions conveyed are an integral reason behind the several genres of Anime — such as romance, science fiction, comedy, adventure and even sensual genres. Offering the viewer many options to choose their preferred genre from. These immersive stories take us away from reality into a world where we forget the stress of everyday lives. Genres like action, comedy are especially favoured by the viewers pertaining to the same reason. “Attack on Titan” and “Naruto” are some of the popular shows liked by many.

The world has now become more familiar with the word Anime like never before, although many people even now may not fully understand or know what it means. The intricate details and hard work that goes into portraying stories, emotions and characters through this art form is what fascinates and immerses its audience.

No detail is too small or trivial. The carefully designed plots, characters and animations are indeed what constitute the intricacies and the deeper significance of Anime.



*'A frame from the attack on titan where a "Titan" is attacking a concentration camp, similar to the ones created by Nazis during world war.'*



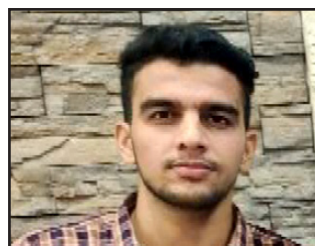
*'A frame from Naruto: Shippuden which has a very emotional and significant meaning to it'*

## Awards and Achievements



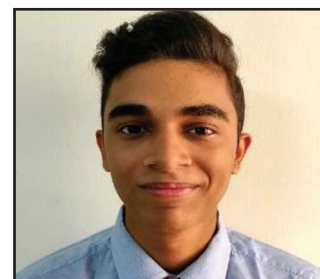
Ms. Srinidhi Kesavan of Final year B.Com Honours International Accounting and Finance has successfully completed Advanced Diploma in Accounting and Business by qualifying in the examinations certified by Association of Certified Chartered Accountant (ACCA), UK.

Mr. Mohamed Jamseer of Final year B.Com Honours International Accounting and Finance has successfully completed Advanced Diploma in Accounting and Business by qualifying in the examinations certified by Association of Certified Chartered Accountant (ACCA), UK.



Mr. Preetam Ola of Second Year B.Com Honours International Accounting and Finance has successfully completed Audit and Assurance Examination certified by Association of Certified Chartered Accountant (ACCA), UK.

Mr. Advait Krishnakumar of Second Year B.Com Honours Professional Accounting has successfully qualified Diploma in Management Accounting in Business Accounting, Certified by Chartered Institute of Management Accountant (CIMA), UK



## Between family, love and sacrifice

NANDITA  
BHYRAVBHATLA

Through a whirlwind of emotion and enthralling family dramas, Jodi Picoult touches the heart of every reader in her book ‘My Sister’s Keeper’.

The book dives deep into the mind of a young Anna Fitzgerald, fighting a relentless legal battle for the right to her own fate. Born from a test tube to be a bone marrow supplier for her ailing sister Kate, Anna has had enough of the needle and is suing her parents for the right to her own body. But how far is she willing to go?

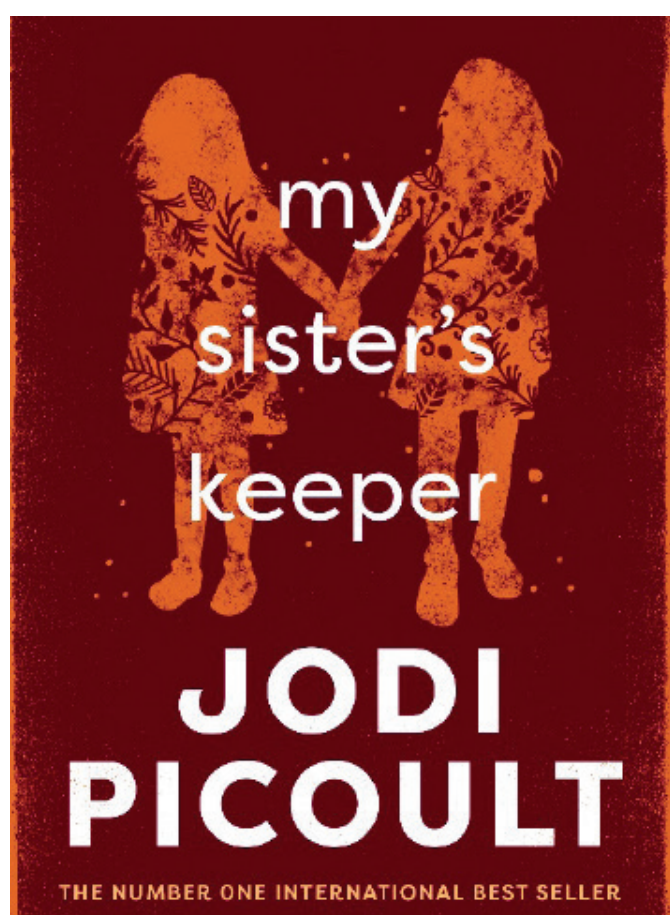
Through the use of vivid language and impassioned brilliance, Picoult transports the reader into a fight between family, love, and sacrifice from the perspective of each character. Through a multitude of flashbacks

“The book does not only cater to young adults but also to an older demographic as it depicts marital tension between spouses with opposing opinions on which child to save and what they are willing to lose.”

and sentimental subplots, the reader begins to question the morality of unconditional love of family if it means that one must sacrifice their own happiness. The book does not only cater to young adults but also to an older demographic as it depicts marital tension between spouses with opposing opinions on which child to save and what they are willing to lose. This

makes ‘My Sister’s Keeper’ a captivating read for a wide range of realistic fiction enthusiasts.

Gut-wrenching legal battles, internal family conflicts, life and death decisions are but the surface of this adventure story. As was mentioned by the author, it bears in mind the frightening question, “What if the only way to save your daughter is by sacrificing her sister?”



*An adaptation of the original cover art*



## String theory -The theory of everything

GAYATRI RAMYA  
KOTHURI

The vast expanse of space hides a lot of mysteries within it which scientists try to discover day after day. They make theories and then try to find their practical applications. One such theory is the String theory which is the dream of many scientists as it holds the power of uniting all the forces and matter we know into one big picture. String theory works on the idea of everything in the universe being made of tiny vibrating strings. It says that the direction of spring vibration gives its properties i.e. a string vibrating in a certain way would be an electron and a string vibrating in some other way would be neutron and so on. But this revolutionary theory also comes with complexity. String theory can't work in the four-dimensional world we know right now. It requires six additional dimensions that are visible only to the strings and are said to be curled up in an extremely tiny space of  $10^{-33}$  centimeters, and it cannot normally be detected, according to NASA. Scientists have come up with five models of the theory which have similarities as well as differences, with all of them requiring strings and an additional six but having differences in their vibrations.



A question arises on the accuracy of these models, with the main problem occurring

due to the lack of completion of theory and an abundance of loopholes. Facing little progress has the scientists believing it a fantasy, but today's models are overly simplistic, and features like cosmological expansion and a lack of supersymmetry may be built into future versions someday. So, with more technological development this theory of everything may solve all the mysteries of this universe.

## The Fascinating World of Underground Cities

TYRA MINNAL VINAY

The concept of underground cities has existed since the beginning of time. However, every now and then we seem to hear the news of new cities, artifacts and pathways being discovered. It makes one wonder how much more could remain undiscovered. Let us delve into that very train of thought.

All around the world, there have been multiple underground cities that have been discovered. Many built for various reasons like storage, protection and religion. The purpose of underground cities has shifted throughout the ages but the basic motive seems to be the same consistently; To protect people from danger. The danger of invaders attacking or natural disasters. The city of

Derinkuyu is a great example of one such scenario — A structure 18 stories deep having proper ventilation shafts, wells, kitchens, living spaces, winery, school rooms and even bathhouses for the 20,000 people. The structure was also equipped for any disaster of its time. This marvel of a structure was forgotten for around 40 years or so before being rediscovered by a man simply trying to renovate his house. One can only try and fathom how it would feel to have discovered an entire city underneath one's floor. Underground cities have always seemed to be mysterious and rightly too after the events that have taken place in these cities. Is the design of a structure beneath the surface a thing of the past or a novel solution to sustainable living in the future? Will meticulously planned projects like the Dixia Cheng built under Beijing in the 70's scale globally? The answers to these questions, only time will tell.



Wieliczka Salt Mine (Underground salt city) - Krakow, Poland

## The “Unreal” movie production technology!

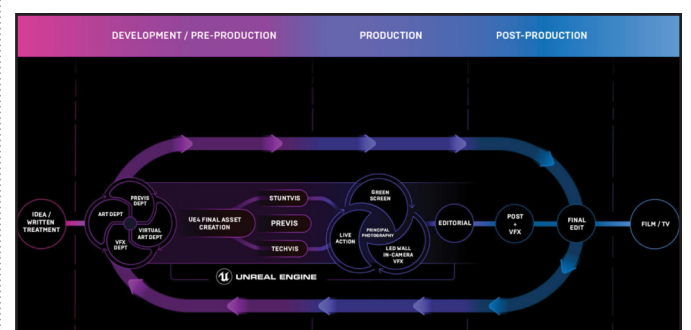
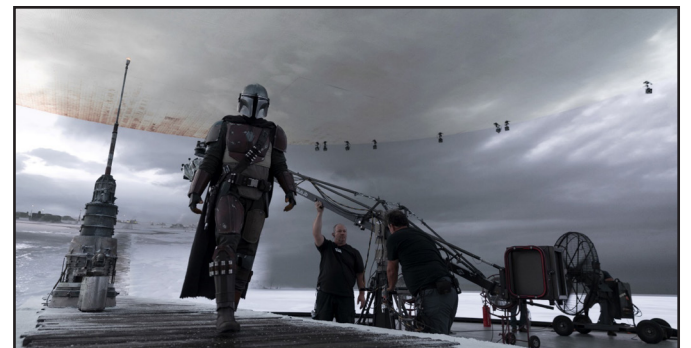
SHASHANK KUMAR

Gone are the days when production houses would build massive sets, or set up green screens, and VFX teams would spend hundreds of hours of computing to add an object in the background of a 10-seconds long clip. Well, almost gone.

The “Unreal Engine” was developed by Epic Games to render real-time photorealistic graphics for games in 1998. It allows the crew to project pre-filmed or simulated backgrounds, or CGI characters, on the 20-foot high LED walls that completely surround the sound stage. The camera is always in sync with the servers which are actively rendering the background content and any movement by the camera is read by the engine and it renders a new background to suit the camera's perspective. The LEDs eliminate the need for artificial lighting and give an authentic feel to the frame which green screen, on its own, never could. The Unreal Engine

can move mountains, literally, at the director's discretion. Any background object can be moved and rendered in real-time, thus giving the crew more control over the end-result. This technology was groundbreaking enough before the pandemic but opens so many avenues now. It eliminates the need for travelling to multiple locations, those scenes can now be shot on a stage with a relatively smaller crew. DC's upcoming film, The Batman, used this technology to wrap up filming when lockdowns were imposed throughout Europe, making it impossible for them to film on-location.

The prolonged pandemic has only forced the other studios to look this way and adopt the technology. Now, the chances of Unreal Engine replacing on-location shoots or chromakey are just as low as Kong defeating Godzilla, but when used together, the visuals served to the viewers are impossible by any other existing technology.



The entire process of making a movie or a show with the Unreal Engine in the first picture. Behind the scene pictures of the “The Mandalorian” crew using the Unreal Engine and LEDs to film scenes.





Brochure of e-ICMTA

## Everything scientific has a mathematical connection

GAUTHAM PILLAI

Even through the tough times of the pandemic, the Department of Mathematics conducted the second iteration of their renowned event called the ICMTA (International Conference on Mathematical Techniques and Application). Due to the reason that it was conducted online, it was renamed to e-ICMTA 2021. The sole purpose of the event

was to give a platform for young minds to experience and learn from the best in the field. It created a stage where the young researchers could express their innovative and intuitive ideas. Talks by experts enhanced the overall aptitude of these young minds. The event was presided by Shri G. Grahadurai, Deputy Director, Satish Dhawan Space Centre, Sriharikota. He delivered a beautiful speech

on the topic of Mathematical Applications in Space Science. He further said, "Mathematics is everywhere and everything scientific has a mathematical connection." Moreover, he gave many insights regarding the topic which truly enlightened the minds of the participants. This was followed by the release of the conference proceedings. The inaugural meeting ended with a thanking speech by Dr.

E.P. Siva, Assistant Professor, Department of Mathematics.

The participants were further asked to join the speaker talks. There was a total of 15 speakers out of which 3 were international speakers. They shared their intellectual ideas regarding the importance of mathematics. The participants were then directed to display their research work. The event ended on an encouraging and positive note.

## The Journey of Perseverance: NASA's Mars Rover

SUMISHA MOHAN

NASA's Mars 2020 Perseverance rover landed successfully on 18th February 2021. Its journey to Mars, which began on 30th July 2020 hasn't been without its share of challenges including those caused by the COVID-19 pandemic. A large chunk of the work was completed remotely and the Perseverance team had to undergo a three-day-long COVID-adapted simulation of the upcoming landing. One of Perseverance's main missions is looking for signs of ancient microbial life at Mars' Jezero Crater, which was home to an actively forming river delta and lakes filled with water billions of years ago. "Our science team has been busy planning how best to work with what we anticipate will be a firehose of cutting-edge data," said Ken Farley, project scientist for Mars 2020.

Its other missions include collecting and storing a set of soil and rock samples that could be returned to earth by a future NASA mission as well

as testing new technology to benefit future robotic and human exploration of Mars.

The hardware of the rover consists of instruments that will carry out unprecedented and exciting science such as SHERLOC or Scanning Habitable Environments with Raman & Luminescence for Organics and Chemicals, a spectrometer that will provide fine-scale imaging and uses an ultraviolet (UV) laser to map mineralogy and organic compounds. Another is MOXIE, the Mars Oxygen In-Situ Resource Utilization Experiment, a technology demonstration that will produce oxygen from Martian atmospheric carbon dioxide. If successful, this technology could be used to burn rocket fuel for returning to Earth.

The Perseverance rover will spend at least one Mars year or two Earth years, exploring the landing site. Like every space mission, NASA's Mars mission will also further our understanding of the universe and the future of the human species.



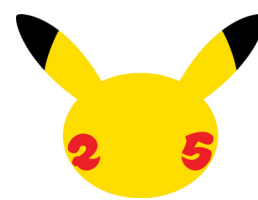
The first high-resolution colour image sent to Earth after Perseverance landed

## Pokémon – A behemoth of an IP goes Silver

RITIK SHRIVASTAVA

With phrases like "Gotta catch 'em all" and "I wanna be the very best", Pokémon made its way into all our households one way or another and integrated itself into our systems so comfortably that the colour Yellow became practically synonymous with the cute electric mouse Pikachu.

While a larger part of the Indian public might have come to know of Pokémon through the TV series following the journey of Ash Ketchum as he tries to be the very best trainer there ever was, but the concept of Pokémon had been brought to life by Game Freak in the year 1996 in the form of a game for Nintendo's 'Game Boy'. The game, much like the show, centred around the



The Official Pokémon 25th anniversary Logo

player catching these creatures with special powers, training and winning Pokémon battles with them to prove his mettle.

Since then, Pokémon has only grown, so much so that it has left behind every competing franchise in smoke as it became the highest-grossing media franchise with a collective revenue of well over 90 Billion dollars. This fan favourite franchise already has 18 iterations of the game along with an umpteen number of spinoffs. Similarly,

the show, which has 23 seasons under its belt with an ongoing 24th season and more movies than you could count.

Another not-so-well-kept secret to this miraculous IP are the trading cards which have become something of a collectors' favourite and the mobile gaming sensation, Pokémon GO which now has become the most downloaded mobile game.

This year, 2021, Pokémon is celebrating its 25th anniversary this year with events planned through 2021. We already have seen the announcement of 3 new games arriving in early 2022 and a concert featuring Post Malone, but with Silver, Gold, Platinum and Diamond, the journey has only begun.

## The Second Wave Rises– Are Vaccinations Working?

SHRUTI RAMESH

Exactly one year since the outbreak, the second wave of the novel Coronavirus has taken the entire world by storm yet again. And it isn't breaking any time soon. As of Sunday, 4th April 2021, India recorded its highest ever daily count of new cases – 1,03,558 to be precise. While Maharashtra has been hit worst, states such as Punjab, Kerala, and Tamil Nadu are closing in on the race with alarming speed. However, with extensive vaccination campaigns being conducted across the globe, why is the situation so dire?

The answer is two-fold. Firstly, it is still unclear to what extent the vaccines protect people from infection entirely. The data we do have, however, confirms that these vaccines will decrease the

transmission of the virus by at least 80%. This means that while there is no guarantee that one will not contract the virus after being vaccinated, infection rates will certainly be

lower. Secondly, it is imperative that people get both shots to achieve immunity, a process spanning over months. So far in India, only 9 out of 1,366 million people have been fully vaccinated. According to a statement by the Indian government, the steep rise in the number of daily cases could be mainly attributed to the severe decline in compliance with Covid-appropriate measures. It goes without saying that social



Frontline workers, people with comorbidities, and people over the age of 45 are currently eligible for vaccines.

distancing, regularly washing our hands, and wearing masks are still a must.

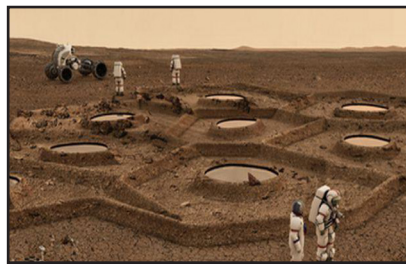
In conclusion, the vaccines are working, but the process of putting an end to this gruelling pandemic is long and arduous. This aim can only be achieved if the general public complies with the rules set forward by officials, and that includes getting vaccinated when possible.



## Should we get ready to rub shoulders with the Martians?

ISHIKA GHOSH

A top-secret “Mars Workshop” was recently held in Boulder, Colorado, to discuss what it would take to colonize Mars. SpaceX founder Elon Musk and renowned physicist Stephen Hawking have previously stressed the importance of establishing a sustainable outpost of human civilization on the Red Planet. The idea comes as a life raft for the elite few who can afford to throw a few billion dollars at flying themselves off to a new planet while the rest are nuked. Cosmologists say that Mars is more hostile than the top of Everest, or the South pole; with no food, air to breathe, or water. We might have to derive oxygen out of Martian rocks to survive. Ron Garan, a former NASA astronaut, believes instead of abandoning hope for continued life on planet Earth, innovative technologies can be used to benefit Earth. The proposal to terraform Mars and create atmospheres



Concept images of Mars colonization

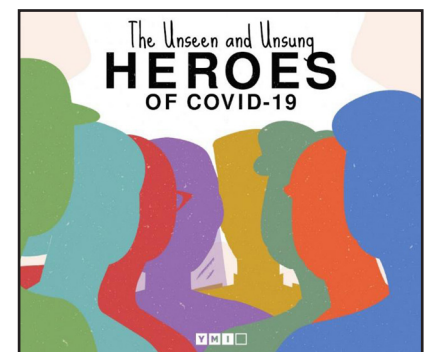
and climates on other planets does not seem much logical. Climate change is shaping up to be even more catastrophic than we feared and the window to save the earth is rapidly narrowing. Even if astronauts arrive on Mars, the water is one mile below the surface, and the atmosphere is toxic without cosmic radiation filters. Elon Musk said that we need “enough of a seed of human civilization to bring human civilization back.” Even with his futuristic technology, Musk does not believe his colony could be self-sustaining anytime soon. The closest estimate is that SpaceX will transport one million people to Mars in the next 100 years. It makes sense to expand human presence to Mars, but abandoning Earth does not seem like a viable option to escape the problems at home.

## The Unsung Heroes of the Pandemic

NANDINI NIGAM

The world was brought to a standstill with the arrival of a global pandemic. We were enveloped with a feeling of uncertainty. While most people were confined inside walls of fear and chaos, there were a few amongst us who showed the best face of humanity during a crisis. They were the unsung heroes who rose to serve the ones in need. Our first unsung hero is Sister Astridah Banda of Zambia. She is a passionate public healthcare advocate who noticed that most of the public health bulletins for the Covid-19 pandemic were being written in English. She took the initiative of working with the Yatsani Community Radio in order to translate the health bulletins to the seven local languages of Zambia so that the locals would not miss out on critical information. Another unsung hero is Sikander Bizenjo from Baluchistan. He founded a group called Baluchistan Youth Against Corona to raise funds for food rations for numerous households along with PPE kits, masks, sanitizers etc. He truly was a messiah for deprived families struggling to make both ends meet. When the mode of learning

shifted to online platforms, there were many students who weren't fortunate enough to access e-learning. In the village of Parpanda, a teacher called Shailesh Rawal emerged as a hero who came up with an innovative plan by installing 20 loudspeakers across the village so that the process of learning would not halt. He encouraged the students to join the loudspeaker classes while maintaining proper norms of social distancing. It is during a crisis, that people like Sister Banda, Sikander Bizenjo and Shailesh Rawal restore humanity's faith with their novel ideas and unmatched courage. These unsung heroes are the true embodiment of kindness, compassion and bravery.



## SRM holds Master Coaches workshop in training Volleyball

STAFF WRITER

A three day Master coaches workshop on "Modern Practices in Training Volleyball the way to success" was held at SRM Institute of Science and Technology (SRMIST), Kattankulathur.

About 70 (Physical Director, Physical Education Teacher, Coaches, International Players, National Players) participated in this event that has experienced and master from Volleyball teach the latest techniques. The event

was held from 26th to 28th Feb 2021. This was organized by Tamil Nadu State Volleyball Association in association with the Department of Physical Education & Sports Sciences of SRMIST. The aim of this workshop is to enhance the knowledge of coaches in Tamil Nadu to train the younger generation of players. The workshop will include sessions on Modern practices in training, rules related to coaches, team training, and tactical approach among other things. The event was presided over by S. N.

Jayamurugan, Chariman, SNJ Group of Companies & Chief Patron of Tamil Nadu State Volleyball Association. Speaking at the event he urged coaches to updated themselves in the latest techniques and lift Indian Volleyball to a global level. He also declared the workshop open.

In his keynote address, SRMIST's Registrar (I/c), Dr. S. Ponnusamy said, "Our Founder Chancellor Dr. T. R. Paarivendhar is a big supporter of sports. He believes in the overall development of students and

hence urges youngsters to take a keen interest in sports. Although we have been conducting national and international workshops and conferences, this three-day master coaches workshop is the first of its kind. The purpose of this is to develop our up-and-coming players to be updated and have improved skills in their game." The General Secretary of Tamil Nadu Volleyball Association, A. J. Martin Sudhakar said, "This workshop will be like a refresher training for coaches. It will have advanced training methods."

SRMIST's Director (Sports) Dr. K. Vaithianathan, "This workshop will be useful for those who are in the field of coaching. They can learn/update themselves with new formations, strategies - individual and teams, updates on rules and regulations and so on."

R Arjundurai, Managing Director of SAN Media & Life President of Tamil Nadu State Volleyball Association said, "This is a good initiative because good players are the result of good coaches."





## Mistress of Ceremony from Anglo-Indian Community

### STAFF WRITER

From humble beginnings came a woman with fervent commitment that led in the creation of a name for herself like never before! Dr. Anderleen Diana Lazarus began her career as a kindergarten teacher and gradually over the years took the necessary steps to pursue higher studies so as to escalate her rank in the professional world. To take up teaching profession was definitely her first choice but was ardent to teach at a college/university. So as to follow her dreams she took bold decisions and walked confidently in search of career building opportunities. She gave up her permanent position as a middle grade teacher in one of the leading aided schools in Tamil Nadu. She worked harder and harder to find her own identity both in academia and non-academia. She says her heart has no bound of joy when she thinks of her journey as a KG teacher to PG teacher. Yes, Dr. Diana Lazarus serves as Asst. Professor in a large private university in Chennai. She recently completed Ph.D. in ELT (English Language Teaching). She is also an author, poet, EFL trainer, calligrapher and the most sought-after woman MC in Trichy and its neighboring districts particularly by the English-speaking community.

As you know, master of ceremonies, abbreviated MC or emcee, is the official host of a ceremony, staged event, conference, convention, or similar performance. Generally, such a domain in her cluster was predominantly taken up by men for reasons best known to a few. Dr. Diana has carved a niche for herself in the role as

Mistress of Ceremony. She hails from an Anglo-Indian family in Golden Rock, Trichy and therefore a command over the English language comes natural to her. She has emceed about a dozen Anglo Indian weddings and 45 other ceremonies and programs across the society in many districts in Tamil Nadu. Even in academia she is the most sought-after MC for all major events organized at her place of work and across campuses. She also was awarded The Best MC by Chroma – The Business Game Changer team. She is the first women MC in her cluster to have emceed so many events and won people's hearts in a short span. She fondly remembers her first program in 2001 and how gradually over the years she became the people's choice. She always makes the programs/events interesting with a lot of creativity and customization to meet the client's needs; as well as pays attention to keeping the audience happy. She was recently honored with the title "Dr. D - The Ever Happy MC", one more feather to her cap. Dr. Diana is definitely giving out a strong message to upcoming MCs in terms of innovation, style, role and contribution and is a role model to upcoming women MCs. She says she became a MC merely by "need of the hour" as most of her senior MCs have aged gracefully, migrated and a few took to heavenly abode. She stepped in to fill the vacuum with an intention of "giving back to the society" and now it's no turning back! She is always booked way in advance for weddings/events/ceremonies. Dr. Anderleen Diana Lazarus is undoubtedly a MC with passion and is certainly Golden Rock's pride says a senior Anglo-Indian resident of Golden Rock, Trichy. So here is a message to the women across the globe, stay strong and keep progressing to fulfill your dreams. It is "you" the go getter for "yourself". Blame none, work hard to celebrate your success in complete ownership! Happy Women's Day to All.

Dr. Anderleen Diana Lazarus is an Asst. Professor & Executive Assistant to the Vice Chancellor at SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu. She can be reached at 9789546662.



Dr. Anderleen Diana Lazarus

## Second International Conference on Mathematical Techniques and Application (e-ICMTA-2021)

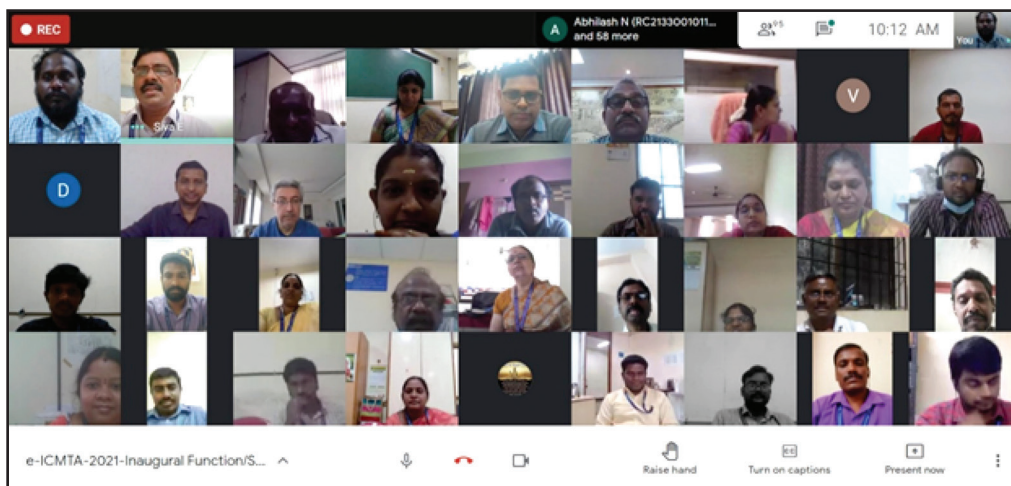
### STAFF WRITER

The 2nd edition of International Conference on Mathematical Techniques and Applications (e-ICMTA-2021) took place from 24th March to 26th of March. The virtual conference witnessed good response from the delegates. Despite the prevailing Covid-19 pandemic, the management and sponsors Vishwa & Devji and IIC were gracious to support the event. During inaugural ceremony, Dr. A. Govindarajan, Professor & head welcomed all the dignitaries and participants from various parts of the country. He mentioned the significance of Virtual conference at this pandemic situation and its aim. Dr. Neppolian, Dean (Research) gave the presidential address and explained about the research activities of SRMIST in detail. The inaugural address was delivered by the chief guest, Shri G. Grahadurai. The inseparable relation between Mathematics and Space science was well interpreted by him. This was followed by the release of the conference e-proceedings by Dean CET. Dr. E. P. Siva delivered the vote of thanks. Prof. Ismail Naci Cangul, Bursa Uludag University gave a talk on the topic "Graphs produced by number sequences". Prof. Srinivasan, Dept of Maths, IIT Bombay gave a talk on the topic "The Gamma Function: An Eclectic Tour." This was followed by the lecture on "Interactions between Algebraic Structures and Graphs". Prof. Intan Muchtadi from BIT, Bandung, Indonesia. Prof. Srivastava, the Dept of Mathematics, IIT Patna spoke on the topic "Nonlinear Dynamics of an Infectious Disease Model". Prof. Jana, Dept of Applied Science, HIT, Haldia, lectured on the topic "Type-2 Fuzzy Set and Type 2 Fuzzy Logic and its Industrial Applications". Prof. Jana was followed by the



Prof. Sivasubramanian, Dept of Mathematics, IIT Bombay, gave a talk on the topic "Gamma positivity of the Excedance based Eulerian polynomial in  $A_n$ ". Prof. Krishna Pada Das, Dept of Mathematics, Mahadevananda Mahavidyalaya, Manirampur, West Bengal gave a talk on the topic "A study of chaos and its centralization in different ecological and epidemiological models". Prof. Tripathi, Dept of Mathematics, NIT, Uttarakhand gave a talk on the topic "Non-Newtonian fluids flow model with Rhythmic Membrane Contraction". Prof. Sajid from College of Engineering, Qassim University, Saudi Arabia who visited recently Einstein's residence in Switzerland gave a talk on the topic "Fractals in Differential and Difference Equations". Prof. Toufik Mansour, Dept of Mathematics, University of Haifa, Israel gave an interesting talk on the topic "Bounds on Vertex based topological indices". Prof. Muthu, Dept of Mathematics, NIT Warangal spoke on the topic "Mathematical models of physiological fluid flows". Prof. Chand, Dept of Mathematics, IIT Madras gave an excellent talk on his recent work on the topic "Cyclic Iterated Function Systems". Prof. Sandra Pinelas, Dept of Exact Sciences and Engineering, Academia Militar, Portugal gave a talk on the topic, "Mixed type difference equation: The challenge". Around 400

research papers out of 500 were selected for presentation after peer review. The paper presentations by the delegates took place in four parallel sessions through Google meet organized on all the three days of the conference. The faculty members, post graduate and graduate students of the Department also showcased their research work by virtual presentations which won the appreciation of the jury. The valedictory function began with the welcome address by Dr. Parvathi. Dr. Jyothikumar, Dean (SH) graced the occasion and mentioned the importance of conducting the online conferences due to this pandemic situation. Dr. Vennila introduced the Chief Guest Mr. N. Murali (Alumnus, Mech- SRMEC-1989 Batch) Chief General Manager (Mech), ONGC Limited, GOI enterprises, Chennai. The valedictory address was delivered by the chief guest Mr. N. Murali. This was followed by the conference report delivered by Dr. Saurabh which gave a glimpse of the entire event. The feedback given by the participants was a moral boost to the organizing committee and motivated all the participants for their future contribution to the field of Mathematics. Dr. Bapuji proposed the vote of thanks. The curtains came down with the National Anthem and a photo session was arranged to add to our memories.





## Activities at SRM University Delhi - NCR, SONEPAT

### Webinar on 'IoT and Law'

#### STAFF WRITER

The Faculty of Law, SRM University, in association with KnowLaw, conducted the webinar on 19th February 2021 at 2:00 PM on the topic 'IoT and Law' for the faculty members, scholars and students. The speaker of the event was Adv. Sushanth Samudrala, a Cyber Law Expert, Techno-Legal Consultant and the CEO of Sushanth IT Law Associates delivered the lecture. He has added many laurels to his name and has also authored many books. He highlighted the concepts of IoT Technology,

Internet and Internet enabled devices that have become vital part of our life especially with the development in science and technology. He threw light on the legal implications and privacy concerns attached to it.

He also discussed about the problems and issues relating to the IoT Technology. In the last 15 minutes, an interactive session was there where the attendees raised many questions which Adv. Sushanth Samudrala very graciously and patiently replied to. Vote of thanks was proposed by Prof. (Dr.) Komal Audichya, HOD.



### Webinar on 'Blockchain and Law'

#### STAFF WRITER

The Faculty of Law, SRM University, in association with KnowLaw, conducted the webinar on 'Blockchain and Law' for the students, scholars, and the faculty members on 15th February 2021 at 2:00 PM.

The speaker of the session was Adv. Sushanth Samudrala, a Cyber Law Expert, Techno-Legal Consultant and the CEO of Sushanth IT Law. He has added many laurels to his name and has also authored many books.

The concept of Blockchain Technology and its legal implications were discussed in the session. He highlighted the concepts of Blockchain Technology, Hash Functions, Public Key Encryption, among

many others. He even threw light on Bitcoin and Crypto Currency and the need for giving legal sanction to it. He also discussed about the problems and issues relating to the Mining of Bitcoin and how it leads to ecological problems due to release of lot of heat and over consumption of electricity. To make the concepts more clear and to provide practical knowledge he explained the topic with the help of various case studies. The attendees also raised many questions which Adv. Sushanth Samudrala very graciously and patiently replied to. At the end of the event, all of the participants gained a lot of valuable insight about the topic. Vote of thanks was proposed by Prof. (Dr.) Komal Audichya, HOD.

### International E-Workshop on "Violence against Women and Girls with Physical Disabilities in India"

#### STAFF WRITER

The Faculty of Law, SRM University in collaboration with Law Mantra organised an International E-Workshop on the occasion of International Women's day titled "Violence against Women and Girls with Physical Disabilities in India" on 8th March, 2021 at 4:00 PM.

The Speakers of the event were Hon'ble Justice (retd.) Mirdula Mishra, Vice-Chancellor Chanakya National Law University, Patna, Prof. (Dr.) Viney Kapoor Mehra, Vice Chancellor, Dr. B.R. Ambedkar National Law University, Haryana, Prof. (Dr.) Manoj Kumar Sinha, Director The Indian Law Institute, New Delhi, Prof. (Dr.) Sarfaraz Ahmed Khan, Director, Symbiosis Law School, Hyderabad, Ms. Aishwarya Bhati, Senior Advocate & Additional Solicitor General of India and Prof. (Dr.) Komal Audichya, HOD, Faculty of Law, SRM University, Sonapat, Haryana. The speakers discussed that access to justice is particularly difficult for women and girls



with disabilities largely due to the stigma associated with their sexuality and disability. As a result, they often do not get the support they need at every stage of the justice process: reporting abuse to police, getting appropriate medical care, and navigating the court system and difficulties in obtaining the

compensation and many more. They highlighted "One of the biggest challenges for women [with disabilities] is access [to services], not just physical but access across the board." At the end the vote of thanks was delivered by Prof. (Dr.) Komal Audichya on behalf of SRM University.

### Workshop on Research Training Programme by SCC Online

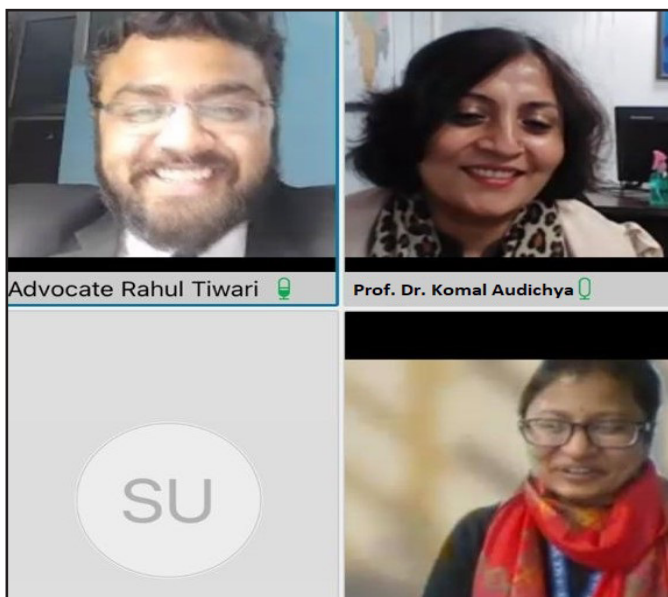
#### STAFF WRITER

The Faculty of Law, SRM University conducted the Research through E-resources Workshop on 'SCC Online' for the faculty members on 19th February, 2021 at 11:00 AM. The speakers of the workshop were Mr. Sanjay Kapoor (Vice President (Sales & Marketing)), Mr. Chetan Singh Gill (Manager (Training)) and Mr. Kapil Ajmani (Manager (Academic Sales)) of Eastern Book Company Pvt. Ltd.

SCC Online is a publishing house of international repute and an acknowledged leader in the field of law publishing in India. SCC Online Web Edition is the most comprehensive and well-edited legal research tool for Indian & Foreign law. It covers All Indian Courts, Statute Law, and Articles etc. They gave the training how to use the SCC website and how one can search each and everything pertaining to law online.







## Webinar on Media Trial vs. Fair Trial

### STAFF WRITER

The Faculty of Law, SRM University, in association with KnowLaw, conducted the webinar on 'Media Trial vs. Fair Trial' on 11th February 2021 at 5:00 PM for the faculty members, scholars and students. The speaker of the session was Adv. Rahul Tiwari, Managing Partner at LNS Associates, Gurugram. He is also a practicing lawyer in Delhi High Court & Gurugram District Court. The impact of Media Trial on the Judiciary and on the Society at large was discussed in the session. He discussed the

concepts of Media Trials, Fair Trials, Media Ethics, Criminal Jurisprudence and the Presumption of Innocence among many others. He solicited to discourage all such episodes of Media Trials which can be substantial risk to the administration of justice or a fair trial. He ended his lecture with a quote of Mahatma Gandhi – 'Be the change you want to see in the World'. The attendees raised certain questions which Adv. Rahul Tiwari graciously replied in an elaborate manner. Vote of thanks was proposed by Prof. (Dr.) Komal Audichya, HOD.

## Webinar on art of Drafting Effective Contracts

### STAFF WRITER

The Faculty of Law, SRM University in association with KnowLaw conducted the guest lecture on 'The Art of Drafting Effective Contracts' on 13th February 2021 at 11:00 AM for the faculty members, scholars and students. Adv. Bhumes Vema was International Corporate Lawyer and the Managing Partner at Corp. Comm Legal. His primary expertise areas are advising domestic and foreign clients on inbound and outbound Mergers and Acquisition transactions, Private Equity, Venture Capital, Foreign Investments, Joint Ventures, Technology Transfers, External Commercial Borrowings, Corporate Structuring, Strategic Advice, Employment laws, Entry Strategy for foreign investors, Regulatory Approvals, Corporate Advisory, Due Diligence and related legal fields. The art of drafting effectual contracts and the significance of drafting effective contracts was discussed in the

session. The guest lecturer also gave certain tips as to how should a contract be made and what all things should be included. He further explained the crux of effective drafting by mentioning the key terms that is the draft should add more value to the clients' case, to use the words miserably. He emphasised on the knowledge of law coupled with the ability to understand complex documents is a much desired skill set. He highlighted the difference between litigation and contract drafting that litigation talks repetitive whereas the contract drafting talks to the point and contract drafting ensures the balance between the parties and in litigation there is no regard to the other party. The attendees raised certain questions which Adv. Bhumes Vema graciously replied to. He answered all the questions in a very elaborative manner. He further insisted that the budding lawyers should pay due attention on the skills of drafting contracts.

## 'Catalysis is a highly demanded technology for sustainable society'

### STAFF WRITER

\* Chemistry expert address students at SRMAP's University Distinguished Lecture Series

"We have to think about sustainable development and chemists have to play a major role in this," said Prof. Lakshmi Kantam, the Dr. B P Godrej Distinguished Professor of Green Chemistry, Department of Chemical Engineering, Institute of Chemical Technology, Mumbai. Speaking at the ninth edition of University Distinguished Lecture Series at SRM University, Andhra Pradesh, Prof. Lakshmi Kantam Mannepalli, elaborated on "Design and Development of Homogeneous/Heterogeneous Catalysts for Sustainable Chemical Industry". Prof. D Narayana Rao, Pro Vice-Chancellor inaugurated the Lecture Series with a welcome speech. Also present were Prof. VS Rao, Vice-Chancellor SRMAP and Dr. S. Mannathan, Department of Chemistry. Prof. D. Narayana Rao expressed that "Industrial collaboration is very much necessary in the context of self-reliant India (Atma Nirbhar Bharat)". In her presentation Prof. Lakshmi Kantam's said,

"Global and Indian chemical industry estimate 5.1 trillion and 108.4 billion USD in 2021. Catalysis is a highly demanded technology for sustainable society and drives innovation in many other fields. Achieving the high catalytic selectivity is the aim of catalysis science in 21st century". She also stated, "The catalysis of organic reactions by homogeneous and heterogeneous catalysts remains a diversified field of scientific inquiry. It attracts a large group of scientists with specialties spanning synthetic organic chemistry, inorganic chemistry, surface science, material science, reaction engineering and computational modeling". As a part of Prof. Lakshmi Kantam's research study, she briefly explained "Hydroxyapatite (HA) is a hydrated calcium phosphate material, which is an important biomaterial because of its similarity to the mineral component of mammalian bone. We have utilized these materials and their metal exchanged materials as catalysts for C-C and C-N coupling reactions. Similarly, hydrotalcites, anionic clays have been exchanged with different metal ions and successfully



applied in a number of organic transformations". An overview of the work on the design and development of catalysts for sustainable, economical process and technologies for the chemical industry was introduced. Noted personality in the field of Chemical Sciences and Engineering, Prof. Lakshmi Kantam holds esteemed titles of FNA, FTWAS, FNASc, FRSC. Her fields of expertise are Catalysis, Materials and Process Chemistry. She has served as the Director of CSIR-Indian Institute of Chemical Technology, Hyderabad and is a Non-Executive Independent Director of Godavari Bio Refineries Ltd, Indo Amines Ltd, Vinati Organics Ltd. and several others.

## SRM bags best outreach program award

### STAFF WRITER

SRM Kattankulathur Dental College and Hospital has bagged the 'Best outreach programme award' from The Indian Association of Public Health Dentistry (IAPHD). The college has been recognised for its best outreach activity and is honored with U Sumithra & Ramanath Bhat - Best outreach programme award. The department of Public Health Dentistry at the SRM Kattankulathur Dental College and Hospital participated in this category for the year April 2019 to March 2020. The event which made its entry in this category was the "World Health Day" which was celebrated recently.

The World Health Day (7th April) is marked with global awareness on the prevention and control of diseases. This day was observed by the department under the guidance of Dean Dr. N. Vivek and Vice Principal Dr. KT Magesh.

This event was an attempt initiated by the Department of Public Health Dentistry, where doctors and interns focused on undertaking oral health awareness programmes to different age groups as prescribed by WHO. Programmes such as word puzzles, games, and storytelling which emphasize oral health were held at various schools, communities, and old age homes. In addition to this health promotion, activities on oral and general health with an

added benefit of free screening and treatment of basic oral ailments were carried out on the field. Additional referral system for complex procedures was also undertaken. A compilation of various activities on account of this day was sent to the IAPHD and SRM Kattankulathur Dental College and Hospital was selected as one of the best outreach programmes under U Sumithra & Ramanath Bhat - Best outreach programme award among all colleges in India.

