



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

SPECTRUM

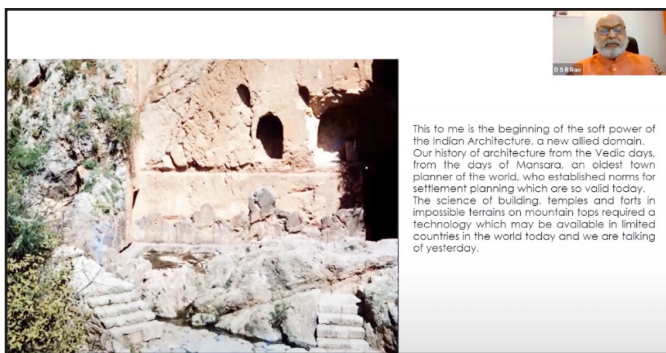
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Dr. T.R. Paarivendhar inaugurates new facilities at SRM College of Agricultural Sciences
Also in the picture are the Registrar, Vice Chancellor and Dean of Agricultural Science



An illustration showing Ancient Indian Architecture presented in the conference

ICON-BEST 2021: The Importance of Sustainable Building

PRIYANK KAPOOR

ICON-BEST or the International Conference on Built Environment, Science and Technology, was organized by the School of Architecture and Interior Design of SRM Institute of Science and Technology, Kattankulathur, from 20th to 21st February 2021. The focus of the conference was to highlight modern approaches to the design of buildings and urge the current generation to make the world a sustainable place for the future.

Several eminent researchers, academicians, and professionals from universities all over the world and belonging to varied domains such as architecture, engineering, urban planning, and psychology were present at the conference. Their primary objective was bridging the gap between different ideas and their implementation, and

they shared their experience of working in the field of building science and discussed their major research projects along with their outcomes to aid that. Several original research studies were presented with the idea that they could further help to solve issues related to the built environment and that the selected papers could be published in Scopus Indexed journals. The participants also viewed and talked about recent innovations, trends, and practical challenges in their field.

Overcoming all hurdles and barriers set by the pandemic, the conference successfully concluded with a valedictory ceremony with inspiring words from the guests of honour. Continuing the important conversation on sustainable building, ICON-BEST 2021 was a triumph and taught several important lessons to upcoming architects and designers.

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

IPO – Initial Public Offering

GAUTHAM P PILLAI

IPO stands for Initial Public Offering

A company enters the stock market through an IPO, marking the transformation of a company from private to public. Allotment of IPO stocks is done in two ways; fixed price offering and book building offering. In a fixed-price offering, a particular price is set for the stock. In the case of a book-building offering, a price range is set. IPO is an enthralling doorway to enter the realm of stocks, and is a riveting opportunity for college students. As students, any tiny profit made is an achievement. All you need is a PAN card and a trading account!

Choosing the right IPO requires a lot of research, which will indeed help build your understanding of the stock

market and companies. Never start with an enormous amount. Unlike normal stocks, this is a more calculated risk. IPOs have greater returns, provided the company that you have invested in is doing remarkably well in their sector, and they also provide a platform for newcomers to enter the market. Stock market knowledge is crucial as it will help in gaining information around the world. Thorough research about the company

must be done before investing. Earnings in the stock market are higher than bank returns. The only disadvantage of IPO is that if the total number of bidders is more than the available stocks then a lucky draw system is implemented. It is also a positive trait as the company's stock is in great demand. So, buckle up and dive into the world of stocks; just make sure you read all the scheme-related documents carefully!



Variety - The Spice of Agriscience!

B KAVYA SHRUTHI

The green revolution, though a boon in 1960-70s, has left a lingering wound in the Indian Agri-scenario lately. Its overly-simplistic paradigm focuses on the use of chemical fertilisers and pesticides, intensive irrigation and new-age machinery for maximum yield, resulting in increased input costs, degraded natural resources and lost genetic diversity. Indian farming, constituting 86.21% of small and marginal holdings and about 53.6% of rain-fed cultivation area, cannot bear Green revolution's economic and ecological costs. Integrated farming system (IFS), a practice where two or more subsystems of food production (agriculture, livestock farming, aquaculture, horticulture, apiculture, sericulture) are integrated for inter-dependence, is more resilient and sustainable.

Educated through the government's Women Scientist Scheme-B, Ms. Shanti Devi from Uttarakhand built a 1-acre IFS which includes a fish pond, a poultry unit and some vegetable beds. Fishes feed on plankton fostered by poultry droppings added to the pond. Vegetable beds are irrigated using nutrient (excreta)-rich pond water, and the chicken feed on plant waste.

Hence, in IFS, the by-products of a subsystem are inputs to another, ensuring efficient resource management, sustainability and reduced external inputs. IFS also incorporates natural pest and weed control.

The ICAR has devised 63 such IFS's based on the farm's terrain, local climate, biodiversity and abiotic resources; which have the potential to raise farmers' income by 2-3 times in 3-4 years. IFS perpetuates economic and

social justice. Diversification of farming ensures regular influx of income, reduces production and market risks, and builds subsistent livelihoods for small and marginal farmers. Women, an integral part of IFS, may set up agri-oriented businesses (weaving, food processing) assuring financial independence. It's high time that we transition from 'Green Revolution' to a 'Greener Lifestyle', and IFS can be a real game changer in that journey.



Give and take is fair play! Flooded farms integrating aquaculture with paddy-cultivation.



“Agricultural progress leads to economic development”

SHASHANK IYENGAR

At the inauguration of the College Academic and Residential Buildings at SRM College of Agricultural Sciences located at Vendhar Nagar, Baburayanpettai, Maduranthagam Taluk, Chengalpattu District, the Founder Chancellor of SRM Institute of Science and Technology (SRMIST) and Member of Parliament, Dr. T.R. Paarivendhar said “Time has always shown us the way forward and that is how SRM College of Agricultural Sciences, the newest school to the SRMIST, came into being.”

SRM College of Agricultural Sciences is located in a sprawling 180 acres with several facilities such as hostels, lab equipment, and so on. The inauguration was presided over by SRMIST’s Interim Vice Chancellor Dr. C. Muthamizhchelvan, Interim Registrar Dr. S. Ponnusamy, Dean of SRM College of Agricultural Sciences Dr. M. Chinnadurai and Associate Director (Campus Life) Dr. V. Thirumurugan.

Emphasizing the importance of the college, Dr. T.R. Paarivendhar said that the presence of the agricultural

college in Vendhar Nagar will help in the overall development of agriculture in the villages surrounding it.

“Students will learn new technologies and conduct research to help in the betterment of our nation-building. This, in turn, will aid in the monetary development of farmers.”

He also emphasized that students graduating from SRM College of Agricultural Sciences should go out and train our farmers on the latest technology and developments to improve agriculture and their own livelihood.

In his address, Dr. C. Muthamizhchelvan said, “People of neighboring villages should know what is happening in the college and students should be aware of the needs and requirements of the farmers. This way we can help each other grow mutually.” Urging agriculture students to take up research he said, “Never repeat what is already done but initiate and innovate new things.”

Dr. T.R. Paarivendhar distributed saplings to villagers. A few villagers, who were part of the inauguration, also shared their expectations and opinions during the occasion.



Admissions open for Science & Humanities, Medical & Health Sciences programs at SRM

STAFF WRITER

Admissions are now open to various programs at the Faculty of Science and Humanities (FSH) at SRM Institute of Science and Technology (SRMIST), Kattankulathur and for Medicine and Health Sciences programs at SRM Medical College Hospital & Research Centre (SRM MCHRC), Kattankulathur. Visit www.srmist.edu.in.

Under the Faculty of Science & Humanities, SRMIST offers various Undergraduate and Post Graduate programs from the College of Science and Humanities, School of Management, and School of Law. Several UG and PG programs are also available for students in the Faculty of Medicine and Health Sciences that has the College of Pharmacy, College of Physiotherapy, College of Occupational Therapy, College of Nursing, School of Public Health among others.

The soft launch of application forms for Faculty of Medicine and Health Sciences, and Faculty of Science and Humanities was held at the Institute’s premises in the presence of SRMIST’s Pro VC (Medical) Lt. Col. Dr. A. Ravi Kumar, Director (Admissions) Dr. K.S.Lakshmi, Director (Communications) Mr. R. Nandakummar, Assistant Director (M&H) Venkata Ramakrishnan, Assistant Director (S&H), Dr. Vivek Shivhare, Dean (FSH) Dr. J. Jothikumar, Dean (Law) Dr. C.A. Gurudath, Dean (Dental) Dr. N. Vivek, Dean (SHP) Dr. Padma Venkat, Dean (Pharmacy) Dr. V. Chitra,

Dean (Physiotherapy) Veera Goutham and Dean (Occupational Therapy) Dr. U. Ganapathy Sankar.

FSH and SRM MCHRC has several disciplines that prepare students to fill that growing need and take advantage of that growing opportunity. Admissions to any of these programs will be based on the eligibility, Board examination marks, Department level examination conducted by the respective schools in SRM and one-to-one interaction.

Candidates applying should have secured a minimum aggregate of 50 percent in the Board Examination. Indians and Non-Resident Indians can apply. Last year, there was an overwhelming 1.52 lakhs of candidates who participated to gain entry to India’s No.1 multi-stream university.

SRMIST has an enviable track record of 5500+ Job Offers for the graduating batch 2020-21. Around 625+ Top-notch companies, including Microsoft, Amazon, IBM, CISCO, Siemens, PayPal, Accenture, Capgemini, Hewlett Packard, TCS, Infosys, Cognizant, Wipro, ABB, L&T, Ford, TVS, Schneider, Renault Nissan, Cerner, GT Strategies, Ford, Bioclinica, and Zifo among many others, visit SRMIST every year to recruit our students. The university offers a wide range of scholarships to the tune of Rs.35 Crores making studying in the university affordable to all.

To apply, visit www.srmist.edu.in, click on the program of interest and then click on application.

SRM launches new online degree programs for students

STAFF WRITER

SRM Institute of Science and Technology (SRMIST), Kattankulathur has launched new online degree programs approved by UGC in response to high demand for online education to boost GER and Employability. This is done through the Directorate of Online Education. The launch of online degree programs approved by UGC are MBA specialization in Finance / HR/ Marketing / Business Analytics, MCA, BBA specialization in Digital

Marketing, BCA specialization in Data Science. SRMIST has developed an online delivery robust cloud based technology stack, called SRM Online Learning Platform. It provides the flexibility to learn from anywhere, anytime supported by live interactive sessions and powerful online assessment system.

Master of business administration (MBA) is a two year internationally accepted experiential master degree program designed specifically for professionals who want to develop leadership skills, strategic

capabilities and competencies that enables them to contribute higher order value in Industry.

The core courses in an MBA program cover various areas of business such as accounting, finance, marketing, human resources, operations, and statistics and many. It follows the four quadrant approach of National Mission on Education Through Information and Communication Technology (NMEICT).

Master of computer applications (MCA) is a two year master

degree program that aims to equip graduates with the advanced tools, technologies and applications in the IT industry to meet the constantly growing requirement of IT professionals. Bachelor of Business Administration with specialization in Digital Marketing (BBA DM) is a three year undergraduate program aims in providing numerous career opportunities to the students in the digital world by equipping them with the bundled knowledge of digital marketing, content strategy planning, business administration,

finance, social / business / market analytics. Bachelor of Computer Applications with specialization in Data Science (BCA DS) is a three year undergraduate program aims to provide skill oriented curriculum on data science to meet the growing demand of IT industry. The program is designed with personalized learning contents with motivation towards self-directed learning experiences.

Admissions Open for FEB/MAR 2021 Academic Session. Apply now - <https://www.srmonline.in>



SRM signs MoU for Ayurveda research

STAFF WRITER

Memorandum of Understanding (MoU) was signed between SRM Institute of Science & Technology, Kattankulathur and KP Manish Global Ingredients Private Limited, Chennai recently.

The purpose of this MoU is to develop Herbal Extracts and Herbal / Ayurvedic formulations and to perform pre-clinical and clinical studies. The MoU aims to carry out research and development activities in the field of Medicinal Plants

along with carrying out basic research in Pharmaceutical Chemistry / API. Developing innovative ingredients in the field of nutraceuticals and pharmaceuticals is another objective.

The following activities will be carried out between KPM and the Interdisciplinary Institute of Indian System of Medicine (IIISM), Directorate of Research and College of Agricultural Science of SRMIST - Herbal Extract & Formulations, Agriculture – Medicinal Plants, Pharmaceutical

API, Joint Research Projects, Joint Research Publication, Exchange of Knowledge and Sharing of Facilities.

The parties agree to share their respective important R&D facilities in order to promote academic and research interaction according to the rules and regulations of each party. SRMIST will upgrade the faculties where and when required for the project.

SRMIST is carrying out academic activities such as teaching and training students at the under graduate and post

graduate levels as well as carrying out research leading to M.Tech. and Ph.D. degrees, besides undertaking industrial consultancy and sponsored research and has highly qualified teaching faculty and well equipped infrastructure such as land, building, computer, canteen, library, laboratories, workshops, etc. KP Manish is into Pharma, Nutra and cosmetics ingredients distribution.

Kawman Pharma is into manufacturing of Pharmaceutical API and Sattva Vaid Nature's is into development of herbal

extracts and formulations. Present for the MoU signing were KP Manish Global Ingredients Private Limited's Mr. Jeevan Ganesh, Dr. K. K. Vijayakumar, Mr. Shrenick Modi, Mr. Vishal Jain, Mr. Deepak Jain, Dr. V. K. Gupta and Chairman of K. P. Manish Global Ingredients Mr. Parasmal Jain. From SRMIST were Vice Chancellor i/c Dr. C. Muthamizhchelvan, Registrar i/c Dr. S. Ponnusamy, Director (Research) Prof K. Ramasamy, Dean (Research) Prof. B. Neppolian and Coordinator -IIISMDr. R. C. Satish Kumar.

A Master Coaches workshop in 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."

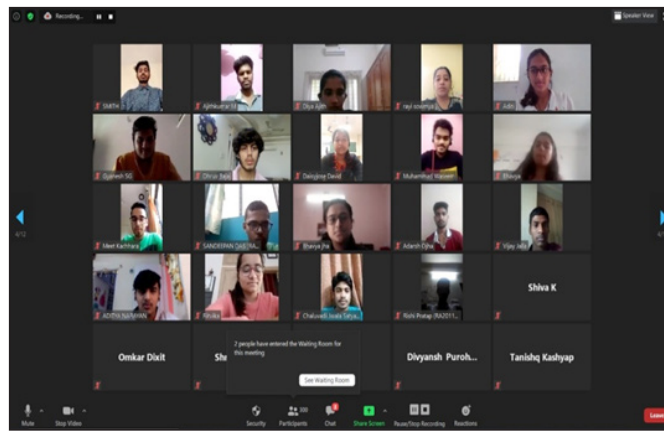
SRMIST's Director (Sports) Dr. K. Vaithianathan, "This workshop will be useful for those who are in the field of coaching. They can learn/update themselves with new formations, strategies - individual and teams, updates on rules and regulations and so on." R Arjundurai, Managing Director of SAN Media & Life President of Tamil Nadu State Volleyball Association said, "This is a good initiative because good players are the result of good coaches."

The Different Facets of Mathematics

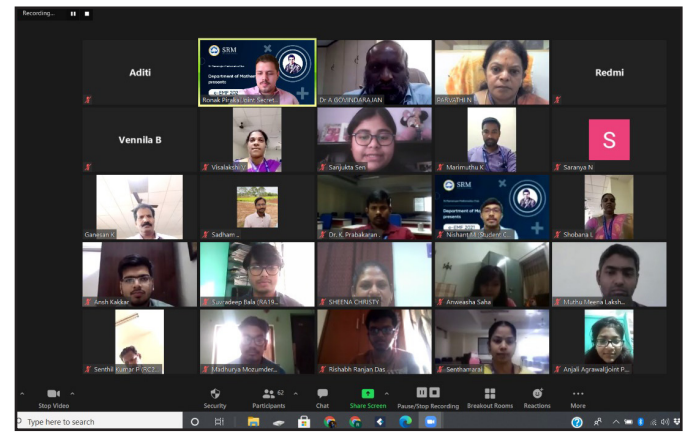
STAFF WRITER

A one-day Engineering Mathematics Festival (e-EMF 2021) in the online mode was organized by Sri Ramanujan Mathematics Club in the Department of Mathematics, SRM Institute of Science and Technology. The student's fest was inaugurated on 12th February 2021, Friday using the zoom platform.

The gathering was welcomed by the President of the club Dr. A. Govindarajan, Professor and Head of the Department of Mathematics. He apprised the performance of the Sri Ramanujan Mathematics club and he elucidate the active promotion and motivation by the club towards the development of mathematical skills and personality of SRM students. In his welcome address, he thanked the management for their constant support to conduct the event and also the chief sponsor Viswa & Devji for their continuous support. Also, he explained about the plan to include the software related programs, R programming, Business analytic and similar events in the next edition of EMF. This inclusion will drive many participants to participate in the EMF events which will bonanza the EMF



Engineering Mathematics Festival-2021



events. He also appreciated the interest that the students have shown as the number of participants had touched 300. Followed his welcome address, Dr.A.Anuradha, Department of Mathematics presented a brief overview about the department.

The Vice-President of the club Dr. N. Parvathi introduced the Chief Guest of the function Mr. S. Christy Rayan, Deputy Vice President and Branch Head HDFC Bank, Chennai. The Chief Guest expressed his happiness to be part of Alma matter of mathematics department and well appreciated the functioning of the departmental activities and club activities from 1991. He has shared his view about the importance of mathematics right from the schooling and mentioned that the mathematics

is given more importance than any other subjects and centum scoring is also expected by everyone. He explained that mathematics creates interest among people to become number one in each and everything happening in the world. He deliberated the continuous action of mathematics in all field like medicine, software and chemical etc. Also he pointed that mathematics is prevalent everywhere but it is not visible. Space science is an attractive one among people that also includes mathematics as base. He emphasized the importance of mathematics in all aspects.

Also, he shared his experience in their recruitment process, they will focus the capability of the candidate based on their mathematical skill. Because, the

critical thinking and problem solving ability can be improved if they are good in fundamentals of mathematics. He concluded that the mathematics makes a everyone successful in their life. Finally, he delivered that the mathematics department deserves kudos for their club activities and performances. The chief guest declared the meet open. The inaugural function was moved on with a smooth discussion and sharing of thoughts rather than a formal function.

The three events scheduled for the day began at 11 am. Math quiz was the first event followed by Search cross and Treasure hunt.

This was followed by the valedictory function. The gathering was welcomed by the Vice President of the club Dr. N. Parvathi, Professor, Department of Mathematics. Mr V.Maheshwaran Senior Director, Cognizant Technologies, Chennai was the chief guest of the day.

Dr. B. Vennila, Associate professor, Department of Mathematics introduced the chief guest to the audience. The Chief Guest spoke on the applications of Mathematics in Artificial Intelligence, Machine learning and Internet of Things etc., and also announced the prize winners. It was followed by vote of thanks by Gaurav Garg, the Secretary of the Sri Ramanujan Mathematics club and National Anthem.

SRM hosts Defence Service Hackathon for students

STAFF WRITER

SRM Institute of Science and Technology (SRMIST), Kattankulathur hosted a Defence Services Hackathon, the first-of-its-kind in the country. It was hosted by SRM Innovation and Incubation Center, SRMIST. The aim of this hackathon was to involve students and researchers in developing solutions for real time problems faced by our armed forces.

A total of 54 teams involving 200 students, researchers and faculty members, participated in the Defence Hackathon. 12 problem statements ranging from use of AI/ML for Inventory management, Surveillance, Anti-infiltration obstacle systems, to novel firefighting systems in high altitude, Land slide arrester and tracked snow removers were selected and worked upon putting across their ideas/solutions. The teams were supported by more than 15 mentors with a range of expertise.

WINNERS : Track : HARDWARE, Team ID : HB2, Problem Statement

: Fire Fighting System in High Altitude Area, **Team Members** : Ysh Sameer Sunkle, Abhinav Vishwakarma, Aman Arora

Track : SOFTWARE, Team ID SF2, Problem Statement : Need for Application Security, **Team Members** : Sornalakshmi K , Shalin N, Ashwin Raja S, Shamunesh P , Jerome Samraj M

RUNNERS : Track : HARDWARE, Team ID HF4, Problem Statement : Tracked Snow Remover, **Team Members** : Vedant Anand, Tanishq Das, Karun Ashok Kumar, Debjani Guha Biswas

Track : SOFTWARE, Team ID : SA4, Problem Statement : AI Monitor for Surveillance **Team Members** : Aryan Kargwal, Indira Dutta, Kunal Mundada, Srijarko Roy

JURIES SPECIAL PRIZE : Team ID : SE1, Problem Statement : Flight Procedure Trainer using Virtual Reality (VR)., **Team Members** : Pratik G K, KRM PUBLIC SCHOOL. Jury also awarded a special prize to Mr GK

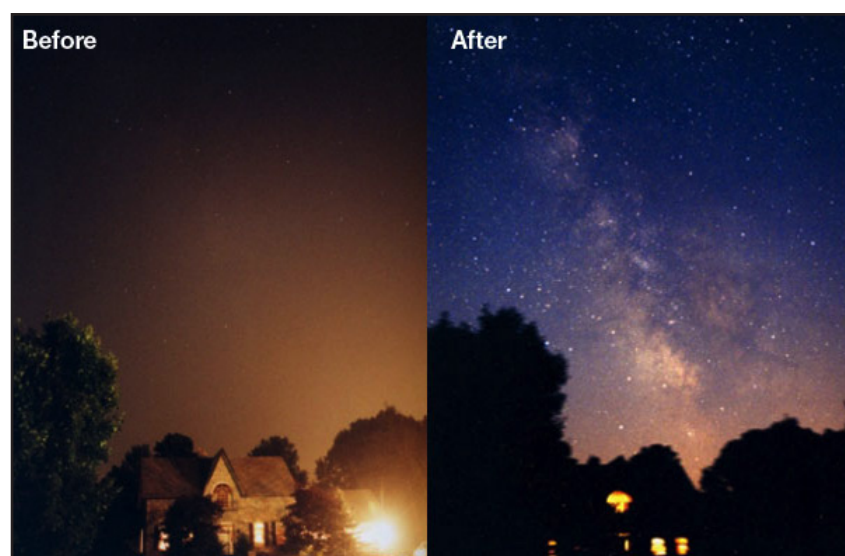
Prateek, 7th grade student from the KRM Public School. Chennai for his solution. The 10 top teams will have an opportunity to join SIIC, as incubatees, for developing prototypes and support also would be extended for developing their own startups. Dr. T. K. Varadarajan, Nodal Officer, DGQA Facilitation Cell, Tamil Nadu Defence Corridor, provided support and guidance throughout the initiation, planning and execution of the robust hackathon. He highlighted the efforts of two SRMIST alumni startups Big Bang Boom Solutions and Torus Robotics who are working together with DRDO and IDEX for providing solutions. The valedictory was graced by Vice Admiral G Ashok Kumar AVSM, VSM; Vice Chief of Naval Staff. He said, "Students and researchers should apply latest technology to solve challenges faced by the Armed forces, especially the Navy." He reminded the audience that all branches of the armed forces are now technologically highly intensive and depend heavily on technology and the impact of winning future wars is

dependent on the strategic use of latest technology. The event was presided over by Vice Chancellor (Interim) Dr. C. Muthamizhchelvan.

He announced that SRMIST would soon come up with the next hackathon identifying researchers who could provide ideas/solutions to real time problems faced by the naval staff. Dr Ananth Kumar, President of the Institute Innovation Council SRMIST delivered the vote of thanks.



Vice Admiral G Ashok Kumar



Before and after effects of light pollution

An Obscure Pollution - Light Pollution

SHASHANK IYENGAR

Light pollution - Unfamiliar yet a precarious pollution in conjunction to being the rival of the planet's sustenance. It is the presence of anthropogenic and artificial light in the night environment. Exacerbated by excessive or obtrusive use of light, it alters natural conditions and significantly affects the biological working of the living organisms, decreasing the visibility of the night sky concomitantly.

Improper planning and unnecessary use of artificial lighting especially during the festive season is one of the major causes of photo pollution. Overpopulation also results in an increase in the usage of artificial lighting for instance light pollution increased roughly by two percent between 2012 and 2016.

This obscure pollution leads to air pollution as due to heavy illumination

at night, huge amount of electricity is used thus releasing carbon dioxide in the environment. Apart from this, birds use moonlight to hunt for food and migrate however the artificial lighting perplexes them and interfere their instinctive behaviour ultimately resulting in their death either due to hunger or sometimes hunting. Also because most songbirds migrate at night over 100 million of them die due to collision with the brightly lit buildings.

Although, it is difficult to remedy the entire situation at once however making small efforts like using good quality outdoor lights which reduces the carbon emissions and at the same time directing it to the area where it is needed the most can create huge difference.

lighting is required, but it needs to be used efficiently and not at the cost of the loss of the biodiversity.

New Abode of Innovation and Design at SRM IST-KTR

NAVEEN PARTHASARATHY

SRM Institute of Science and Technology, Kattankulathur adds one more feather to its cap with the establishment of its newest premise dedicated for innovation and design.


The SRM Innovation and Design Centre (SIDC) was inaugurated on 4th February 2021 in the presence of SRM IST's former Vice Chancellor, Dr. Sandeep Sancheti, Vice Chancellor, (Current) Dr. C. Muthamizhchelvan and Dean (CET) Dr. T. V. Gopal.

SIDC has offered numerous technical courses for students which will help them enhance their skillsets making them ready for a dynamic work environment. The courses being offered focus on the application of the technical skills in a



way that could help solve modern world problems through in depth study and analysis which could further leads to the development of innovative projects and design prototype. Apart from the technical fluency, these courses also throw light on the benefits of effective entrepreneurship and being backed by the faculties of core subjects of the respective departments it aims at collaborating with the functioning student team to assist and promote pragmatic knowledge among them.

Post the enormous success of the SRM Innovation and Incubation Centre (SIIC) established a few years ago, the newly built Innovation and Design Centre too looks promising, taking in account its technical capabilities and mentoring pillars.





ICRAMC - 2021
5th International Conference on Recent Advances in Material Chemistry
(Virtual Mode)
Department of Chemistry, SRM Institute of Science and Technology
In Association with
Alternative Energies and Atomic Energy Commission (CEA) & U. Gustave Eiffel, France
February 18 - 20, 2021

International Conference on Recent Advances in Material Chemistry (ICRAMC - 2021)

International Conference on Recent Advances in Material Chemistry (ICRAMC) – 2021

RAMAY RAJ SINGH

Organized by the Department of Chemistry, SRM IST, KTR, in association with Alternative Energies and Atomic Energy Commission (CEA), and Université Gustave Eiffel, France, the 5th International Conference on Recent Advances in Material Chemistry (ICRAMC - 2021) was held in the Dr. T. P. Ganesan

Auditorium, SRM IST from 18TH - 20TH February 2021.

Recent Advances in material Chemistry is a multifaceted topic that could, upon research, trigger breakthroughs in material science that would bring a significant impact on future technology. The program included twelve technical sessions on several important areas covered by

the panel of global experts. Themes like Advanced Energy Materials, Nanomaterials, Quantum Dots, Computational Materials, Composite and Hybrid Materials, and many others were the main highlights of the discussion.

The members included patrons like Dr. T. R. Paarivendhar, Founder Chancellor, SRM IST,

Shri Ravi Pachamoothoo, Pro-Chancellor, (Admin) SRM IST and Dr. P. Sathyanarayanan, Pro-Chancellor, (Academic) SRM IST, Dr. Sandeep Sancheti, Vice-Chancellor, SRM IST, members from International and National Advisor Board like Prof. Gilbert Chambaud, Univ. Gustave Eiffel, France, and many other speakers and renowned professors from across the globe.

This conference brought together interdisciplinary teams to share their experience, new ideas, and research results about all aspects of materials and focus on the integration of new technologies to provide solutions to existing and anticipated challenges. There were several oral and poster presentations, and the best presentations were awarded.

“There are two components to business - entrepreneurship and social”... Mr.Vasudevan

STAFF WRITER

“Entrepreneurs should look at what they can do for the society”

* Microfinance lender P. N. Vasudevan addresses students on how to be successful business people with a social face

Kattankulathur: Over 600 MBA, BBA students and their faculties from the School of Management at SRM Institute of Science and Technology (SRMIST), Kattankulathur participated in the fifth edition of Dr. Paarivendhar Foundation Lecture Series that was held virtually.

The chief guest for the event was Mr. P. N. Vasudevan, Managing Director & CEO of Equitas Small Finance Bank Limited who enlightened students on ‘Entrepreneurship with a social face’.

In his welcome address, Vice Chancellor i/c of SRMIST, Dr. C. Muthamizhchelvan said, “These lectures pave the way for debating and deep thinking. Conceptualized by our Founder Chancellor, Dr. T. R. Paarivendhar, who believes that such lectures are organised so that the greater knowledge is shared with the general audience.” “Everyone has the right to dream when it comes to business. To be successful you don’t need great or unique ideas. You can copy but do it in an efficient and different manner,” said P. N. Vasudevan.

Addressing SRMIST students he said, “A few years back, only people born from industrial or business houses could



Vasudevan

think about starting a business because they had the financial situation to do so. But now this is not the situation as we have several environmental and financial support to back business and start-ups.”

He urged students to have a dream that will have some contribution towards the society. “There are two components to business - entrepreneurship and social. Desire, dream, and value to make your business a success. First, have a clarity of purpose, honesty of intention and integrity of action to be successful.”

He elaborated on the key features to become a success entrepreneur which is - passionate about the idea, ruthless on execution, ability to stretch capital, hunger for excellence and impatient on delivery.

On the social phase of entrepreneurship, he elaborated on the concept of social entrepreneurs (which is not new to India). “Many businesses have Corporate Social Responsibility (CSR) activities. Our government is also emphasizing on companies spending about 2% of their annual profit towards CSR programs.” On taking up entrepreneurship as first-time employment he elaborated, “Getting into employment after your graduation does not mean it’s a bad thing. However, trying your hand in business is also hard, tricky and has its own risk. But opportunity raises itself in this society.” On being socially responsible entrepreneurs he said, “All of you are going to make money in life at some point or other. As you step-up in your career, it is important to think about people who are not lucky as we are.” In his concluding statement, he said, “There is no shame in making money. However, you need to keep looking at what you can do in your society.”

Activities at SRM University Delhi - NCR, SONEPAT

The Department of Biotechnology & Microbiology organized a symposium with Gut Microbiota and Probiotic Science Foundation (India) in a hybrid mode on 13th and 14th March, 2021 at Le Meridien, New Delhi. The theme of symposium was “Role of Gut Microbiota and Probiotics in reducing viral infections – mechanisms to combat them



Mentors of the University

The presentations by International and National experts have provided deeper insights on the benefit accrued by the beneficial components of the gut microbiota and probiotics in reducing viral infections and the unique mechanisms that they employ to impart that benefit. The year gone by came with a lot of learnings but what we learned most was that health cannot be neglected and it is important to focus on interventions that build immunity and keeps us strong to fight infections. Along with nutritional support, one obvious way by which you can build immunity is by controlling the health of the trillions of microbes living in your intestine, collectively known as intestinal microflora. From a clinical view, studies around the world have shown that improving the balance of the microbiota may help in preventing respiratory infections and viral influenza. Antibiotics and vaccines have been exploited for the treatment and prevention of many infectious diseases, but the infections are not controlled yet as expected. Many viral diseases remain poorly controlled such as dengue fever, Zika virus infection, avian influenza, severe acute respiratory syndrome (SARS), Ebola hemorrhagic fever, etc. During the COVID-19 pandemic, the ARDS patients and the severe cases were kept in ICU for the treatment and treated with many antibiotics during their stay. There are reports that increased incidence of gut microbiome dysbiosis during their stay at ICU, leading to sepsis and death. This dysbiosis may lead to various dysfunctions such as IBD, disruption of the immune system, and eventually organ dysfunction or failure. It may be possible that the incidence of microbiome disturbance and subsequent organ failure in COVID-19 could be decreased with supplementation of probiotics. Probiotics are known to modulate innate and adaptive antiviral immunity, maintain intestinal homeostasis during viral infections, normalize gut permeability, and increase the production of virus-specific antibodies. Considering the available information, probiotics are emerging as a safe and natural strategy for various disease prevention and treatment and it may prove itself fruitful for COVID-19 as well. In the present context, the symposium was very relevant. Three young scientists under the age of 40 years who after a rigorous selection were selected for the Young Investigator Awards.



Department faculties with Dr. Neerja Hajela



Department faculties with Padma Bhushan Prof. (Dr.) Nirmal Kumar Ganguly

Department of Biomedical Engineering

The Department of Biomedical Engineering organized a webinar on Career counselling on March 5, 2021. The Guest Speaker of the session was Dr. Marshal, Associate Professor School of Biomedical Engineering, IIT (BHU), Varanasi. He is currently Faculty Coordinator of International Exchange, Student Counseling Services, IIT(BHU) to assist students about various exchange programs across the globe. He is department Faculty Representative in the Training Placement Cell of IIT(BHU) and Convener of department undergraduate students to deal with their academic matters. He talked about deep understanding of career plans for the students, interests, aptitudes, personalities and explained career confusions related to jobs and further higher studies.



Webinar on Career counselling on March 5, 2021. Organized by Dept. of Biomedical Engineering

Department of Biotechnology & Microbiology

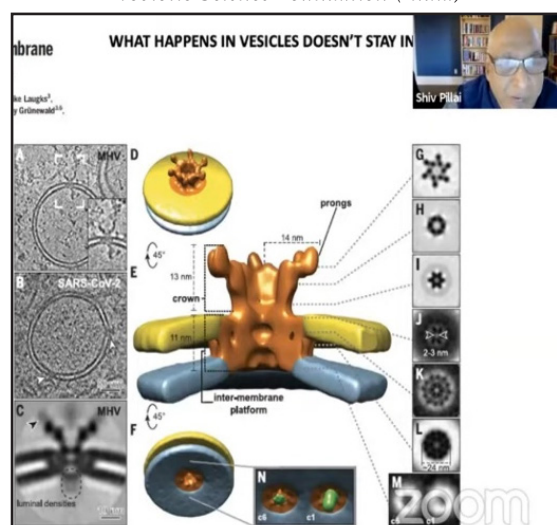
The program witnessed presentations by seven International speakers and three young investigators. The panel discussion was moderated by Prof. Anura Kurpad. Panel members included Prof. N.K. Ganguly, Dr. B. Sesikera, Prof. B.S. Ramakrishna, Prof. Anil Kumar Srivastava and Prof. J.B. Prajapati. There was a brief presentation by Ms. Inoshi Sharma from Food Safety and Standards Authority of India (FSSAI) on "Eat Right for a better future". This was followed by the vote of thanks.

Inaugural session

The inaugural session started with the welcome address by Prof. N.K. Ganguly (President, Gut Microbiota and Probiotic Science Foundation (India) and the opening remarks by Prof. V. Samuel Raj (Director and Dean Academics, SRM University, Sonepat, Haryana).



Prof. N.K. Ganguly (President, Gut Microbiota and Probiotic Science Foundation (India))



Prof. Shiv Pillai (Professor, Medicine and Health Sciences and Technology, Harvard Medical School Boston, USA)

The inaugural address was given by Prof. Shiv Pillai (Professor, Medicine and Health Sciences and Technology, Harvard Medical School Boston, USA). Prof. Pillai highlighted the limited durability of humoral response in COVID-19 disease. He stated that an examination of post-partum thoracic lymph nodes and spleens in acute SARS COV-2 infection, showed an absence of germinal centres and loss of transitional and follicular B cells in severe disease. It was demonstrated that majority of CD8+ T cells were exhausted and CD4+ T cells were the dominant T cell subset in the lungs, late in the disease and are likely drivers of viral clearance.

Scientific Session 1

The scientific session one (1) was chaired by Dr. Amulya K Panda, Director, National Institute of Immunology, New Delhi, India and co-chaired by Dr. Amit Awasthi, Associate Professor, Translational Health Science and Technology Institute (THSTI), Faridabad, Haryana.



Dr. Amulya K Panda, Director, National Institute of Immunology, New Delhi

The first presentation of the session was made by Dr. Kenji Oishi, Associate Chief Researcher, Microbiological Research Department, Yakult Central Institute, Tokyo on "Dynamics of probiotic strains in human small intestinal tract". His presentation focussed on analysing the small intestinal fluids after ingestion of a fermented milk drink containing a probiotic. His findings, following analysis of the bacterial composition of the terminal ileum, showed that the ingested probiotic could survive in the terminal ileum for several hours, suggesting their role in stimulating the host cells in the small intestine.

Prof. Bruno Pot, Guest Professor, Vrije University Brussel, Belgium, Europe showed that probiotic benefits are strain specific and a single strain may act in multiple ways to exert its benefit. He also highlighted how single bacteria can interact with the intestinal immune system to increase resistance to viral infections.

Prof. Jeffrey Gordon, Director for the centre for Genome Sciences and Systems Biology, Washington University School of Medicine, St Louis, USA proposed the hypothesis that perturbations in the normal development of the gut microbiota are related to childhood undernutrition including stunting, neurodevelopmental abnormalities, metabolic and immune dysfunction. His journey from preclinical proof of concept studies to clinical proof of concept emphasize both challenges and opportunities for developing microbiota directed therapeutics.

Scientific Session 2

The second scientific session was chaired by Prof. G. Balakrish Nair, Honorary Distinguished Professor, Microbiome laboratory, Rajiv Gandhi Centre for Biotechnology, Kerala, India and co-chaired by Prof. Saurabh Dutta, Professor New born unit, Post Graduate Institute of Medical Education and Research, Chandigarh India.

The first talk was given by Dr. Tahmeed Ahmed, Director, International Centre for Diarrhoeal Disease and Research, Bangladesh.

Dr. Ahmed highlighted that a condition of Environmental Enteric Dysfunction (EED) caused by repeated exposure of a child to pathogens is responsible for 40% of childhood stunting. This also results in chronic inflammation, malabsorption, and malnutrition.

The Bangladesh Environmental Enteric Dysfunction study (BEEDS) was conducted to understand the pathogenesis of EED, discover simple and robust biomarkers, assess the impact of feeding on reversal of stunting and the role of gut microbiota in EED. A key result of the study was presence of a core group of 14 bacterial taxa in at least 80% of the children with EED. They also positively correlated with duodenal proteins involved in immune inflammatory responses.

The second talk of the session was given by Dr. Satoshi Hachimura, Associate Professor, Research Centre for Food Safety, Graduate school of Agricultural and Life Sciences, The University of Tokyo, Japan.

Dr. Hachimura elucidated that oral administration of Lactic Acid Bacteria (LAB) could result in the enhancement of immune response with direct effect on the intestinal immune system. Studies have shown that IgG and IgA responses are enhanced by lactic acid bacteria which are important in preventing pathogen invasion. It has also been postulated that LAB may act on dendritic cells to produce IL-6 which enhance IgA production. They may induce T follicular helper (Tfh) cells and activate host defence through NK cells.

The third presentation in the session was given by Dr. Stephanie Jeanssen, Science activation Senior Manager, Danone Nutricia Research France. She presented a systematic review and meta-analysis that had been conducted specifically with a probiotic dairy drink containing *Lactobacillus paracasei* CNCM-1518 and yoghurt strains *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. Compared to the control, the consumption of the probiotic drink resulted in reduction in the odds of experiencing Common Infectious Diseases (CID's), a significant reduction in the mean CID's/subject and a trend towards reduced risk in cumulative CID's, suggesting that regular consumption of the probiotic drink may reduce CID's in the general population.



Dr. Satoshi Hachimura, Associate Professor, Research Centre for Food Safety, Japan Young Investigator Awards

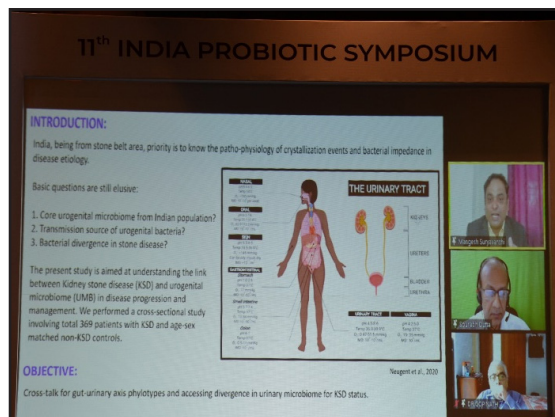
The first prize for the Young Investigator Award was given to Mr. Subhrajit Bhar (TCS Research, Tata Consultancy Services Ltd, Pune).

The title of the talk was "Sensory protein signatures in gut microbiome as biomarkers for early detection of asymptomatic diseases". His presentation highlighted a database of bacterial sensory proteins (SP's) which were generated and subsequently used for analysing metagenomic data from previously published case-control studies on Colorectal cancer (healthy, adenoma, carcinoma samples), and diabetes (healthy, pre-diabetes, diabetes samples). The results of the study suggested that SP-based techniques could aid in early detection/risk-assessment, thus enabling timely intervention. It was also expected that the SP-signatures were universal and not confounded by geography/diet/ethnicity-associated taxonomic variations in the gut-microbiome. Thus SP-signatures in gut-microbiome samples may be used for non-invasive risk-assessment and as companion diagnostics.

The second prize was awarded to Dr. Mangesh Vasant Suryavanshi (Yenepoya Research Centre, Mangalore)

His topic was "Skin, Oral and Gut share phylotypes to urinary microbiome and its divergence may associated with types of urinary kidney stones". The study was aimed at understanding the link between Kidney stone disease (KSD) and urogenital microbiome (UMB) in disease progression and management. They performed a cross-sectional study involving total 369 patients with KSD and age-sex matched non-KSD controls. Their results showed that UMB may play

a role in KSD and alterations in the UMB may be a risk factor for KSD. There may be a few key species that give protection against stone disease, while, some phylotypes like *Kalamiella piersonii* MCC 3118 may facilitate the stone accumulation due to their specific metabolic pathways or modify the stone composition.

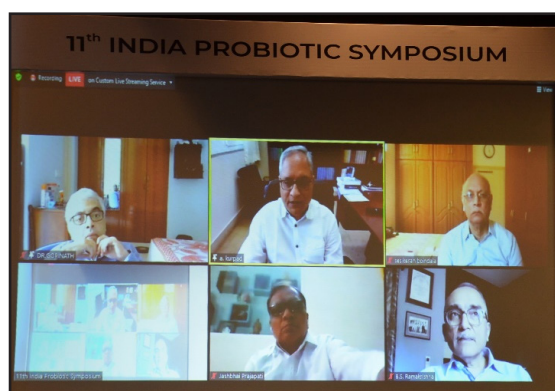


Mangesh Suryavanshi
(Yenepoya Research Centre, Mangalore)

The third prize was awarded to Dr. Ankita Kumari (NATIONAL DAIRY RESEARCH INSTITUTE (NDRI), Karnal). She presented on “Probiotic *Lactobacillus fermentum* mediates its immunoregulatory function by targeting epigenomic modulations. The probiotic bacteria was isolated from the faeces of a 10-month-old infant had a role in gut homeostasis through the regulation of the immune response and could attenuate *E.coli* or LPS induced inflammatory response in intestinal epithelial cells. The proposed mechanism was that *L. fermentum* regulated immune genes by activating HDAC1 which reduces H3 acetylation in a manner opposite to inflammatory which increases the levels of H3 acetylation by suppressing the mRNA expression of HDAC1.

The regulation of immune genes by probiotics through epigenomic mechanisms further aided the existing understanding of cellular and molecular pathways that regulate host-commensal interactions.

Panel Discussion



The panel discussion was moderated by Prof. Anura Kurpad and the panel members were Prof. N.K. Ganguly, Prof. B.S. Ramakrishna, Prof. Anil Kumar Srivastava, Prof. J.B. Prajapati and Dr. B. Sesikeran. The panel discussion highlighted the importance of the gut and its microbes in maintaining the immune system. It also highlighted the role of the gut microbiome in chronic systemic inflammation and the role of probiotics in mitigating inflammation. There was a discussion on real evidence for the use of probiotics and the conditions where they may be useful. The carrier matrix for delivery of a probiotic strain was discussed and the advantage of milk or fermented milk as a food matrix was highlighted. The difference between a probiotic food and traditional fermented foods was clearly brought out. The myths surrounding A1 and A2 milk in terms of their nutritional and health attributes were clarified. The panel discussion was highly interactive and very well conducted.



Participants

Total registration of 1700 + delegates. Online participation of about 900+ on Day 01 and 700+ on Day 02. 50 plus participants attended the symposium physically.

Valedictory Session

Panel Discussion



Dr. Neerja Hajela (General Secretary,
Gut Microbiota and Probiotic Science
Foundation (India))

Feedback

Most of the delegates rated the Symposium as “Excellent” for all sessions.

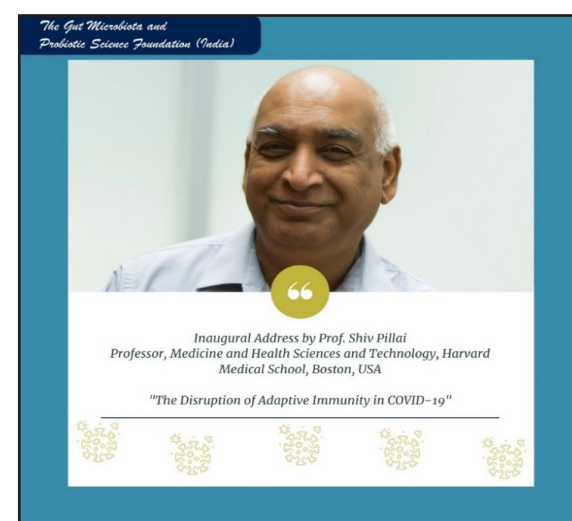
Social Media

Three social media platforms were created for the digital promotion of the symposium.

1. Facebook - https://www.facebook.com/11th-India-Probiotic-Symposium-103923931757909/?ref=page_internal
2. Instagram - <https://www.instagram.com/indiaprobioticsymposium/>
3. LinkedIn - <https://www.linkedin.com/in/india-probiotic-symposium-b07a2a206/>

Regular posts were uploaded to encourage people to register. Of the three platforms, LinkedIn got us the best results. The method adopted was to reach out to groups on Linked In and furnishing symposium details on these groups. We filtered people on Linked Inn by location in India and targeted those who specialized in Biotechnology, Immunology and Microbiology.

Some of the posts, posted on social media were as under:



Human Gene Editing: Both Sides of the Coin

SHASHANK IYENGAR

Gene editing is the method of making changes to specific parts of a gene in the DNA which has been made faster, cheaper, and more accurate by recent developments in science and technology.

Almost 4% of the babies born every year have some type of genetic disorder which can be cured by genetic engineering. Furthermore, modifying the genes not only increases the life span but also the quality of the life. For instance, in August 2017, Chinese researchers fortuitously managed to alter the genes of a human embryo to rectify a genetic disorder, Hypertrophic Cardiomyopathy, that is life threatening. With the help of genome editing, the embryos formed were devoid of this disorder gene which, if left unaltered, could have caused a tension to the heart muscles.

Despite its advantages, it

comes with some unignorable disadvantages too. Altering the DNA of an organism is an uphill battle especially because it deals with the health of the progeny. Genetic codes are extremely specific in nature and a change in their sequence could lead to diseases like sickle cell anaemia. Many religious tenets argue that altering of the gene is against the creator and is also against all moral and ethical values of humans.

Focusing just on the safety risks and the medical implications overlook the several solemn social risks which gene editing could pose. The availability of treatment to different social groups in the society, inclusivity of different groups, and the decision of the diseases where these methods can be applied are areas which remain obscure when it comes to human gene editing. Thus, it is important to take these into consideration as well in the future when dealing with altering genes.



(Left) India-Myanmar Friendship Road, Moreh, Manipur. (Right) The success of India's Look East Policy depends on swift restoration of Democratic Government in Myanmar

Manipur's tryst with South East Asia

ADITHYA R

India's rocky relationship with several neighbors made it harder for establishing trade routes via land. However, the India-Myanmar Friendship Road located in Manipur's remote town of Moreh provides an ideal solution. Despite its establishment in 2001, lack of investment towards expanding connectivity has reduced its significance to just small scale trade between locals on either side of the border. However, the current leadership's Look East Policy took centre stage to counter China's Belt and Road Initiative by fastening the construction of the India-Myanmar-Thailand trilateral highway with plans to further expand connectivity to Vietnam via Cambodia which could potentially revive India's historic affinity with South East Asia.

The Corona Virus has forced closure of Moreh's border road

temporarily which affected local trade. However, In February 2021, The Military Junta seized power and detained Myanmar's Democratic Icon, Aung San Suu Kyi and other pro democratic leaders. India's constant support to Myanmar's democratic movements and China's growing support to the military junta could result in extension of the border's closure. However, the locals are confident in border's reopening as local trade has taken place even during the long periods of military rule in Myanmar. India's tug of war between handling Manipur's insurgent groups and Myanmar's democratic progress has forced the country to take a neutral stance. The trilateral highway's construction is expected to be completed by 2021. India's shift towards developing the infrastructure and connectivity between North East Provinces, especially Manipur and handling the internal and

However, the locals are confident in border's reopening as local trade has taken place even during the long periods of military rule in Myanmar

external issues without disturbing India's broader partnership between India and ASEAN countries would be vital for the prosperity of South and South East Asian corridor. Manipur's melting pot of different trading communities such as Kukis, Meiteis, Tamils, Biharis, Marwaris and Nepalis and improving Moreh's infrastructure as a trade hub proves to be crucial for the province's progress.



Structure of the human DNA

A workshop on Entrepreneurship for Self-Help Groups

STAFF WRITER

SRM Institute of Science and Technology (SRMIST), Kattankulathur and Pudhiya Thalaimurai Foundation together with ISRB EXPOTM Indian Small and Rural Business Exposition conducted "Entrepreneurship Orientation Programme on Areca plates and spirulina production

and marketing" at Government Middle School Campus, Orathur village. Under the Unnat Bharat Abhiyan, SRMIST has adopted eight villages (Orathur, Kolathur, Chettipunnam, Nattarasampattu, Thenmelpakkam, Patravakkam, Anjur, and Kalivandhapattu.) from Chengalpattu and Kanchipuram district. The institute constantly works on improving rural

livelihood and economic self-sustainability through the creation of employment opportunities, health and hygiene, education, energy, clean water and sanitation. Over 100 peoples from eight villages including ladies, self-help group members and youths participated in this event. The welcome address was given by Dr. V. Thirumurugan, Associate Director (Campus Life), UBA – Nodal officer at SRMIST. He encouraged participants to seek advice from the expert speakers for starting their own venture. Resource persons Mr. Pavendhan (Managing Director, Evergreen Industries, Chennai), Mr. Rajarathnasingam (Project Coordinator, Integrated farm and Spirulina production), Mr. Vijayagopal (Pudhiya Thalaimurai Foundation)

were felicitated by Dr. Deepa (Associate Professor, SRMIST & Village coordinator, Orathur), Dr. B. Samuel Jacob (Assistant Professor, SRMIST, Village coordinator, Nattarasampattu) and Mr. S. Sridhar (Health Inspector, SRMIST) respectively.

The sessions were very informative and the speakers addressed the gathering about the opportunities. In areca plate manufacturing, Mr. Pavendhan gave the information on raw materials procurement, vendors, manufacturing process, machinery cost, financial route for establishing the unit and marketing (export). Some of the participants are encouraged to visit their manufacturing facility and get trained for making different utensils. Mr.

Rathinarajasingam gave the importance of spirulina towards health and the environment. He explained the process of production through a virtual tour of their facility which is an integrated farm. Different products such as cosmetics, bath soaps, health drinks and food items prepared from Spirulina were exhibited and the participants were enthusiastic to note the employment opportunities through this technology. The meeting was interactive throughout and concluded with a vote of thanks by Mr. Vijayagopal (Pudhiya Thalaimurai Foundation) where he acknowledged the SRMIST and the PT foundation for organizing the event smoothly and intended to organize such events in forthcoming days in other villages too.



Medicine Greet Machines

PRANAV.V

AARYAN SHARMA

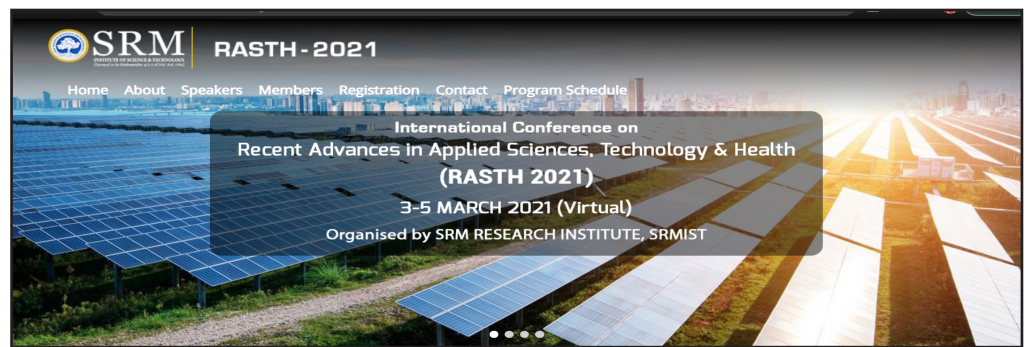
Lifeline Health Care 2020 award ceremony was held on the 31st of January at the Holiday Inn Hotel at Rajiv Gandhi road, Chennai on behalf of Dr. Sangeetha Health and Educational groups. Professor R. Rajkumar from the faculty of Computer Science Engineering of SRM Institute of Science and Technology, Kattankulathur, was conferred the “Best Innovative Professor”. The event presented almost 70 awards to honour the various doctors, nurses, NGOs, medical staff, social workers, teachers, pharmaceutical companies and hotels for their

hard work in this COVID-19 pandemic. Gautham Vasudev Menon, one of the leading Indian film directors, attended the ceremony as the Chief Guest. He spoke highly about the award winners and congratulated them all. Ms. Kirtanya Krishnamurthy, CEO of MindFresh, presided with the director and spoke in the forum. Actor Kalloori Vinoth attended the event too.

Professor Rajkumar was awarded for his latest patent works in the field of medicine. His patented works are a humanoid robot that can be operated remotely to treat the patients and air-circulated personal protective kits for medical professionals.



Professor Rajkumar receiving the award



RASTH held from 3rd to 5th March, 2021, SRMIST (Virtually)

A Celebration of Science - RASTH 2021

SRISHTI CHAKRABORTY

AISHIKI HALDER

No matter the circumstances, the advances in science and technology should never come to a halt. A cancellation of curiosity limits wandering and questioning minds in a dilemma, which is why SRM Research Institute decided to host and organize the much-awaited, international conference- RASTH. Standing for Recent Advances in Applied Sciences, Technology and Health, RASTH is the umbrella term under which the conference was held from the 3rd till the 5th of March 2021. RASTH aimed to bring together researchers from multidisciplinary fields of sciences, including environmental, chemical, biological and

The main reason for the International Conference was to push forward ideas, papers, and innovative problem-solving in the field of Applied Sciences and Technology virtually, despite the ongoing Pandemic

mathematical domains. With such thriving fields in the talk, the conference was graced by Dr. T. Paarivendhar, the Founder Chancellor of SRMIST, Mr. Ravi Pachamoothoo, Pro-Chancellor (Admin) of SRMIST, and Dr. P. Sathyanarayanan, Pro-Chancellor (Academics) of SRMIST as their Chief Patrons, along with an Extensive Advisory Committee of 12 prominent figures from SRMIST, and an immensely dedicated and co-ordinated Organizing Committee of 8

esteemed members from the SRM Research Institute, SRMIST.

The event could not have run as immaculately without Dr. Bhalchandra Kakade, Dr. K. M. Ramkumar, Dr. Paromita Chakraborty, who were the conveners from SRMRI, SRMIST, responsible for the coordination of all the events throughout the Conference. The main reason for the International Conference was to push forward ideas, papers, and innovative problem-solving in the field of Applied Sciences and Technology virtually, despite the ongoing Pandemic. The poster presentation was held at Dr. Paarivendhar Research Colloquium, with a diverse community of people in academia from around the globe sharing views and reviewing papers that are to be published on SCOPUS.

What They Don't Tell You About Coffee

PRIYANKA SRINIVAS

On a particularly difficult day, with a looming set of assignments to look forward to, students generally resort to some external stimulants to keep the midnight oil burning. The prime beverage of choice for most college students is coffee. This drink is extremely vital since it fuels their energy and makes them run those metaphorical final laps towards their goal. However, what goes into this universally reliable drink? Where does it come from? In India, most coffee beans are sourced from south-western states such as Karnataka and Kerala. Different types of beans produce different types of powders, which are further processed into different types of coffee. Irrespective of the type, all coffee is bitter. Most people believe that the bitterness of the coffee lies in its beans. However, there are multiple methods of roasting and preparing coffee

that decides its bitterness and caffeine level. There are three commonly known roasts: light, medium, and dark. Contrary to what the names suggest, these roasts are not labelled on their level of bitterness, but their duration of roasting. Dark roasts have a longer duration of roasting, hence the flavor of the beans is more uniform. They also contain less caffeine than a typical light roast, due to a longer roasting period. Caffeine is the chemical that helps us stay up at night. Additionally, caffeine can also act as a pain reliever for many people. Non-regular coffee drinkers usually experience some degree of pain relief from a gym workout after one or two cups of coffee. Students also experience less back or joint pain if they have a cup of coffee before sitting for their study session. There are many misconceptions when it comes to coffee. When you consume a beverage so regularly, it is best to stay informed!

e-EMF 2021

NISHANT SAGAR
PRAKHAR ALOK
CHAUDHARY

e- Engineering Mathematics Festival-2021 was conducted on the 12th of Feb'2021 by Sri Ramanujan Mathematics Club, operating under the aegis of the Department of Mathematics, SRMIST, KTR.

The President of the club Dr. A. Govindarajan, Professor and Head, Department of Mathematics welcomed the audience by giving a brief introduction about the origin and the growth of Sri Ramanujan Mathematics Club since its inception in the year 1991 till date. He also emphasized that the event this year was totally revamped and had a wider reach as 300 participants from different universities had registered for the event.

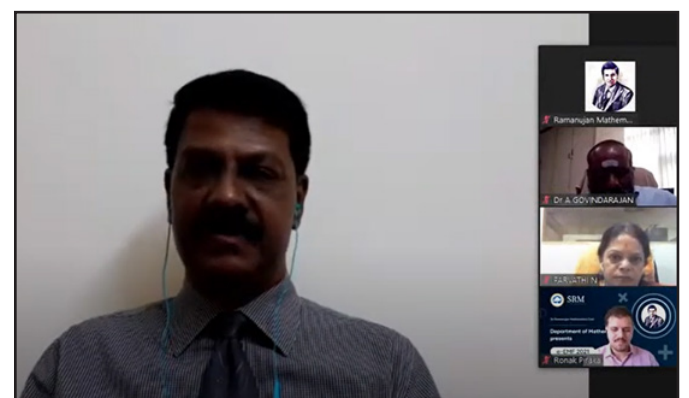
For the participants apart from the SRM KTR campus, three events were organized namely Math Quiz, Search

Cross, and Treasure hunt. The Maths Quiz had 30 questions based on core math. In Search Cross, participants had to solve hints and find the solution. For Treasure Hunt, 10 questions were given and the solution for the question was the key to unlock the next question. Winners were awarded prizes and a participation certificate was given as a token of appreciation and encouragement.

The chief guest for the event Mr. Christian Ryon, Deputy Vice President & Branch Head, HDFC

Bank who is also an alumnus of SRMIST (1991batch), in his address appreciated the club for its contribution towards mathematics since 1991. He also emphasized the importance of mathematics in every sphere of life.

The secretary of the club Gaurav Garg, third year, CSE presented the vote of thanks which was followed by the national anthem. The event concluded on a positive note with a hope to increase its reach in the years to come.



A Still from e-EMF 2021