DSU PULSE

NEWS AND UPDATES FROM DAYANANDA SAGAR UNIVERSITY

Bosch-Rexroth Industry 4.0 for DSU

ENGINEERING

This year, Dayananda Sagar University has renewed its Memorandum of Understanding with the Bosch-Rexroth Innovation lab, upgraded to Industry 4.0.

This will enhance the students' and faculties' knowledge in automation technology and also enable students to carry out their projects using the latest smart technology.

Today we are at the fourth industrial revolution which seeks to blur the boundaries between the physical, digital and biological worlds.

Artificial intelligence (AI), robotics, the Internet of things (IoT), 3D printing, genetic engineering and quantum computing are some of the most important pillars of "Industry 4.0".

The Centre of Competence for Automation Technologies first collaborated with Bosch Rexroth in 2015 where they set up hydraulics, pneumatics, programmable logic controller, sensors, and drives & control.

They also conducted the Train-the-Trainer program for all faculty members of mechanical, electronic and communication engineering in all three campuses.

Furthermore, several workshops, internships and hands-on training programs were conducted for students.

With the Centre's upgrade to Industry 4.0., and its collaboration with Bosch-Rexroth, it will now be a joint Certification Center for training industry personnel.

The Dayananda Sagar University (DSU) conferred degrees on 1,030 students during its fourth annual convocation held virtually on January 22, 2021. Seventeen received gold and 30 received silver medals. *Details on Page 2.*

Physics Lectures on Work of Nobel Laureates

ENGINEERING

ASTERIA, the Observational Astronomy and Space Science Club of DSU continued to function during the pandemic with online public lectures on black holes and radio astronomy.

In the first lecture, Prof. Jasjeet Singh Bagla, Dean (Academics), IISER-Mohali explained the concepts of event horizon in detail. He spoke about, matter falling into a black hole and the roles played by eminent scientists in understanding the properties of black holes.

Prof. Bagla also highlighted the discovery of a supermassive black hole existing in our Galaxy. The lecture was dedicated to 2020 Nobel winners, Roger Penrose, Reinhard Genzel and Andrea Mia Ghez for their work in physics.

The lecture on radio astronomy was delivered by Prof. Yashwant Gupta, Director,of National Centre for Radio Astronomy (NCRA) on February13, 2021. Prof. Gupta began with the basics of this science as an area of study. He explained the technology and mathematics involved in the building of radio telescope antennae.

The highlight was the introduction to the Giant Meterwave Radio Telescope (GMRT), which received the IEEE Milestone Award recently.

Prof. Gupta said, the Indian scientists and engineers were playing a major role in building the international Square Kilometre Array (SKA) telescope.

ASTERIA used Instagram and YouTube extensively to enable its members to share their experiences with short duration videos on its social media platforms.

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A CONVOCATION OF MEMORY AND HOPE

The year gone by was the one we expected the most out of, but the one that disappointed us most.

With the lockdown imposed, it was an especially hard time for the graduating batches across the world. After years of slogging through college assignments and teenage drama, not getting to wear that famous cap in an overcrowded auditorium may have certainly been a tad disappointing. Nevertheless, the convocation was still a moment to cherish. So hundreds of students, dressed up and logged in on Jan 22, 2021 to watch their batchmates pick their gold and silvers from the comfort of their homes, They knew their university was doing the best it could.

As name after name was called, a quieter applause and cheering came through. By the end of it, 1030 students had been conferred degrees. Forty seven were rank holders, 17 of them had won gold medals and 30 won silver.

Despite the strain of a pandemic affecting it, the convocation was still a proud moment for everyone. More so for those who bagged the medals.

See Pandemic as Opportunity, Students Told

Delivering the convocation address, Dr. R. Balasubramaniam, Founder, Swami Vivekananda Youth Movement (SVYM) and Grassroots Research and Advocacy Movement (GRAAM), exhorted the graduting students of Dayananda Sagar University to treat the ongoing crisis brought about by the pandemic as an opportunity rather than as a challenge,

“The ongoing crisis brought about by the Covid-19 virus has disrupted our lives. Skills we had acquired over decades; knowledge and experiences of people and Institutions proved irrelevant and inconsequential in most domains of human endeavour. We are exposed to a growing demand for new skills,” he said.

“Students now need to ask the question of preparing themselves for a world that is not just demanding newer skillsets, but a completely new mindset. A mindset that allows them to acquire new knowledge in different forms, and ensuring that their knowledge and skills are not only socially-useful but also financially-rewarding,” he added.

Dr. Balasubramaniam further deliberated on how the outbreak of the novel coronavirus will witness the emergence of a new generation of young entrepreneurs and leaders who will redefine the very concept and purpose of human development.

Dr. C.N. Ashwath Narayan, Hon’ble Deputy Chief Minister of Government of Karnataka and Minister for Higher Education, applauded DSU’s efforts towards enhancing the employability of the graduates.

Speaking on New Education Policy, he said, “The implementation of NEP in the state would provide great opportunities for the younger generation.”

Delivering the presidential address, Dr. D. Hemachandra Sagar, Chancellor, encouraged the graduating students to think out of the box, innovate and practise life-long learning.

He also stressed on the university’s vision to produce industry-relevant graduates who can take up leadership roles to serve national and global needs.

Congratulating the graduates, Dr D. Premachandra Sagar, Pro-Chancellor, Dayananda Sagar University urged the students to embrace constructive disruption, to be a dreamer and practice creative ,thinking.

“Interdisciplinary and multidisciplinary approach would be DSU's mainstay. Our aim is to instill creative thinking, innovation and promote liberal education. We are living in a technologically-driven society and it is vital to focus on continuous learning to stay ahead and contribute to the nation and the society,” he said.

Winners reflect on their years at DSU

It wasn't easy for me to get through my engineering degree with first rank. There was a lot of persistence, hardwork and determination which went into the making.

Apart from academics, we never realised we were making memories.

I look back proudly at everyone, especially my parents who believed in me no matter what. I would like to thank all the teaching and non-teaching staffs for their support.

- Jyothi N., B.Tech.(Mech)

My four years at DSU were great and I have many great memories.

It gave me the opportunity to meet different kinds of people and learn many things. I am thankful to all the faculty, mentors as well as the placement cell. Overall it was a great experience at DSU.

- Sanjana M., B.Tech. (CT)

I am very happy with my decision of choosing dsu for my bachelor's degree in ECE. It was a very wonderful journey with more ups and less downs moments.

I will definitely miss the well equipped and well maintained labs, classrooms and friendly faculties.

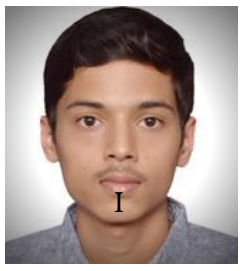
Thank you DSU, faculties and my fellow classmates for the wonderful journey!

- Nithin S., B.Tech. (ECE)

My first 14 years of Indian education never sparked a sense of deep passion for learning in me. It was only after joining CJMC, did I truly understand what learning meant.

Winning a medal was never my goal. I chose a course which I was interested in. My goal was to learn something new every day. The medal that I have received is a testimony that doing what you love will yield good results.

- Subhash N.K., BA(JMC)



"It has been a unique and enriching experience of continuous learning at DSU.I am thankful to have got constant support from my parents, professors, and friends in this journey."

- Saurabh P. Bhandari B.Tech. (CSE)

"Getting myself an admission at CJMC would always be one of those decisions I'd be proud of making. My time in the college department made me realise how essential a liberal arts education is

in any individual's life. It's a place where education truly means expanding one's mind and enriching oneself with true knowledge. For me, CJMC was and still is a place where I could thrive. The warmth of our faculty and non-teaching staff alike have created a safe environment that allows for us to let our ideas and thoughts of all natures flow freely.

While I am proud to have been a rank holder, I am glad it was at CJMC with the teachers and peers that I had."

- Md. Asif, B.A. (JMC)

"With well equipped labs and infrastructure, DSU gave me a good space for learning. This journey began with the support of amazing faculty who guided me to achieve academic success. I am deeply honored and thankful for receiving this medal from a prestigious University."

- Arun B., BCA

"I felt humbled and honoured to be the part of 4th convocation at DSU Amidst Pandemic, considering the Covid Protocols and convocation protocols the university successfully organised the ceremony by physicallyt inviting the medalists.

My sincerest thanks and l love to my dearest faculties, family and my batchmates for always keeping faith in me and keeping me stay focused for this glorious moment of receiving the gold medal. It wasn't less than a dream come true.

- Pallavi, M., B.Pharm

CHASING EXCELLENCE

> “Universities that have good faculty will be the ones that can survive...Faculty members will become the mainstay of a university. My prediction is that faculty would become the key people or should I say celebrities over a period of time.”

- Hon'ble Vice Chancellor in an exclusive chat with *DSU Pulse*

While the world does a clawback from the pandemic, new modes of learning and communicating have taken root, changing our very definition of the "normal". Close on its heels came the New Education Policy (NEP) promising radical change.

Under the "new normal", what are Dayananda Sagar University's new goals? And how does the university propose to meet them?

On a quiet, pleasantly warm morning last week, we met our **Hon'ble Vice-Chancellor Dr K.N.B Murthy'** for answers. Here are some important excerpts from the interview.

Good Morning! You bring a very diverse set of experiences to Dayananda Sagar University. But each organization is as different as it may be similar. How do you find working at DSU?

In my understanding each university has its own priorities in terms of programmes of study, in terms of positioning it. As far as DSU is concerned the vision of the founders or promoters is very clear: to have programmes across disciplines, to be a multidisciplinary university in the true sense.

How would you go about doing so?

In my understanding, there are four important pillars for a university to do well, the first being faculty. Therefore the top priority must be the faculty. Second is the student body. The third one is the administration, the fourth is the alumni. DSU started six years ago, so there may not be a large alumni. But we must get a good reference from alumni. When these alumni start working in organisations, the reputation of the university starts building up.

Why are you so driven to put faculty as top priority? How will it help?

It’s an honest recommendation. Priority must be given to top quality faculty. If at all you want this university to be the university with a difference, I think we need to focus on three important things. One is to achieve excellence in teaching and research, thereby the university is known by the quality of the work done by the faculty and quality of work done by the students with them.

What about autonomy?

That’s the second. We need to provide autonomy to all the stakeholders. The third component is to build a governance system which is stable, sustainable, transparent and meaningful.

We need to ensure that the rules and regulations are framed and flexible at the same time. They are all going to provide a framework to deal with all the processes and contingencies. I am sure the last one year has been a good exercise for me to understand the overall scheme of things.

What are the initiatives that DSU has taken up under your leadership to meet the goals that you have mentioned?

I think we have focused on three or four things. One is academic reforms and trying to prepare the students for the requirements of the industry. We need to impart 21st century skills to the student. To do so, both faculty and the university must be geared up. Faculty need to understand, analyze and adapt.

But how can we know what works in the future ?

The requirements are all going to come from projections and recommendations of organizations across the world, like the World Economic Forum, NASSCOM, Gartner, MIT Technology forum, maybe hundreds of them.

Most of them identify four skills that are going to be critical going forward. We call them FourCs. The first being communication or ability of a person to explain a concept or an idea to a commoner.

Second one is collaboration. The ability to work in a team that working individually. The third one is critical thinking. Critical thinking is all about analyzing and solving a problem differently, Fourth is creative thinking. Of course, there is one more important C: Curiosity. If these five Cs are accomplished students can get the sixth C: Confidence. The last two Cs depend on how good you are with the first4 Cs.

And how about other set of skills?

We call them literacy skills. In the previous generation, we did not bother much about data, but now people are insisting on evidence and data, so it is necessary for us to know where this data or the facts and figures can be sourced.

How will these help a student?

Going forward, the kind of skills you currently have may be relevant after five years, meaning 60-70%of jobs would be lost to AI in the next 5-10 years. It has been predicted that about 50% of the jobs that are available today will be automated in the next 5 years, 70-80% over the next 10 years. Thereby a student who takes up a programme for study may have to learn the concepts in generality but understand the application of those concepts Students should be flexible enough to work in any kind of jobs across multiple disciplines.

All the reforms the university has committed itself to, seem to be falling into place with the onset of the New Education Policy (NEP) because many of its features seem to be built into the NEP. Will the two together create a more facilitating environment for learning?

In my honest assessment, the NEP components are consistent with the systems that existed in Nalanda and Takshashila, when the Indian education system was considered to be the best in the world, something we lost over time. Under guru’s observation, they would be picked up for specialization in areas they were good at after 10-15 years of acquaintance across all arts. So students used to learn and graduate at their own pace. A fixed regimentation of years to complete degrees or levels simply didn’t exist. That was the philosophy.

Within NEP we are also talking about multiple entry and exit options and it proposes a bank of academic credits. So now the student can go to different colleges and universities and buy credits from different professors. So what happens to the identity of an institution or brand. It seems like everything will depend on the individual teacher enjoying wide autonomy. How do we get ready for this kind of regime?

If you look at the underlying principle or its possible impact, any university that has good faculty are the ones who can survive. There will be more people registering for a particular course for study based on its faculty. If the faculty is good there will be a great rush. If bad, there may be no takers. Faculty members become the mainstay of a university. My prediction is that faculty would become the key people or should I say celebrities over a period of time.

So are we going ahead with the NEPs academic credit bank?

The proposed academic bank of credits under NEP has its complexities. For instance, the equivalence of credits from different colleges and universities.

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Chasing Excellence

CONTINUED FROM PAGE 3

How do we draw equivalence of 10 credits earned from IIM with 10 credits from IISc or 10 from DSU?

And who is going to give the degree?

Yes, who is going to give the degree? These questions have to be resolved. So wide discussions on regulations are still required before we can make progress. NEP has a lot of positives. For now, a student will come to the university and register for four years. But probably in the future, a model or approach on how universities will mop up the resources to run or to manage the institutions needs elaborate deliberation.

Under life skills you mentioned flexibility as one of the points. As a university how do we make sure the entire system is ready for such flexibility?

By flexibility I mean, never have a fixed mind, and never have aspiration to become one kind of professional. You may probably work in a domain which is completely different from what you've learnt. My way of looking at undergraduate level is that it is the best period to plan your future. Four years or three years is a solid time. Students should think what they are good at during the four years, then start pursuing their passion.

Suppose a student says there's this music director who he/she wants to work with to earn credits, would that be okay?

Exactly, that's the 2+2 credits system I have been talking about....the passion credits. As a chairperson I talk to the music director, talk to candidate's parents, and if all of them are ready, let the student learn. I don't have any questions. The faculty must be honest. The faculty has to evaluate the student without just giving away credits. All I need to hear is that the student is happy working on it and learning.

National Webinar on Home-Based Healthcare Held

College of Pharmaceutical Sciences, DSU, conducted a national webinar on Jan 12 for its faculty and students. Dr. Ashoojit Kaur Anand, Clinical Director, PCMH Restore and Dr Prathamesh S. Sawant, Clinical Pharmacist, PCMH Restore spoke on home-based primary healthcare program based on physician-clinical pharmacist partnership. They highlighted the service provided by their organization and importance of clinical pharmacist in their team. The session was attended by 60 participants and on completion of the webinar, queries of participants were answered by speakers.

First Doctoral Graduates from Mechanical Department

For the very first time, two doctoral candidates from the department of mechanical engineering have received their Ph.Ds this year.

Dr.Vijay Tambrallimath has successfully completed his thesis titled Synthesis and Characterization of Graphene Filled PC-ABS Based Nanocomposite Developed by Fused Deposition Modelling.

Dr. Saravana Bavan (associate professor) and Dr. R. Keshavamurthy (professor and head of mechanical) assisted and encouraged him in his paper.

Dr. Murgayya S. Basavankattimath also successfully completed his thesis titled Design and Optimization of a Reliable Rotor System Using Axisymmetric Model.

Dr. Saravana Bavan (associate professor) and Dr. Suresh H.N (professor and head of automobile engineering) supervised and aided Dr.Murgayya in his journey.

Grant for Corrosion Testing Project

Dr. Viswanathan R., Assistant Professor,, mechanical engineering, has been sanctioned Rs. 20 lakh for his project "Corrosion Testing of Fiber Metal Laminates Using Droplet Cell Microscopy". The grant comes under the core research grants awarded by the Science and Engineering Research Board (SERB) and is recommended for the next three years.

"My main motivation to write this proposal was to continue doing good research and working with my students." said Dr. Viswanathan.

Fiber metal laminates (FML) have layers of metal bonded with composite fibers. Its durability and resistance to impact make it an important material in aerospace manufacturing. FML is used in making wings and fuselage structures and is a better option than aluminium because its stiffness is much lower.

However, the main issue with using FML is galvanic corrosion that occurs between the metal (aluminium) and the carbon fibers. The reason for this galvanic corrosion is the large potential difference between the two materials.

Dr. Viswanathan's project aims to test FML for corrosion to understand its exact behavior. To do this, the droplet cell microscope would be used for studying corrosion at the region of interface (where a few hundred microns would be exposed to the corrosive environment). The project therefore promises to give more insight into corrosion behaviour, which will help in making FML a better material than it already is.

GATE assistance for SoE students

The Department of Mechanical Engineering conducted a webinar on job opportunities and preparation strategy for students aspiring to write the GATE exam this year. Mr. Akash Pushkar (M.Tech, IIT Kanpur) from the Gate Academy briefed the students about the major advantages of writing GATE and tips to crack it.

Major highlights of session:

- Benefits of GATE & overall opportunities for mechanical students.
- Institutions and courses students can opt for in their masters program (new opportunities for mechanical engineers).
- Recent changes in GATE's exam pattern.
- Cut off marks for the mechanical department.
- Education opportunities abroad & admission processes for premier institutions.
- Private & government sector job opportunity for engineers.

Student-Driven Solutions from SoE

ENGINEERING

Hrithik Kaul started his entrepreneurial journey with the web development company, Wpify, in August 2019.

When they started, they invested 1.2 lakhs, only to earn 10 lakhs in profit within just two years. The company provides various tech solutions for businesses.

Soon, Hrithik and his co-founder, Harshal Sadhu, found the need for an all-in-one solution for artists, designers and anyone building a brand. Growmmerce was born to pacify this.

The freemium eCommerce platform is supposed to simplify the work of small business owners by helping them build their eCommerce websites.

Solving others' eCommerce problems started with solving their own. Back in 2016,

Hrithik had started a merchandise brand where he sold customized accessories. Because he faced some trouble looking for an affordable and skilled web developer, he was motivated to make something of all the technical knowledge he had.

After referring to several eLearning platforms, he was able to develop a simple eCommerce website. It was through this research that he discovered how common his problem was.

Many skilled business owners with unique and niche products promote their products on social media platforms like Instagram & Facebook.

However, they fail at drawing in more customers or scaling up their business. eCommerce websites like Amazon and Flipkart provide an alternative platform for these business owners, but competition makes higher product visibility almost impossible.

Less-popular platforms fail at providing the right analytics software.

With over 50 websites developed since 2019, Wpify is now receiving projects from countries like Australia, Canada, the USA and UAE while Growmmerce has brought in many small businesses owing to their free plan policies.

In the future, they plan to employ AI, Data Analytics and ML to conquer all web-development-based problems and improve user experience.

The duo has used technologies like AWS Lightsail, S3 and SES for Cloud Infrastructure; WordPress / WooCommerce as website core; MariaDB for Database;

Django for billing system/control panel; Redis / FastCGI for Caching; PHP / JavaScript; LiteSpeed / NGNIX; Cloudflare for DNS Management and Content Delivery Network.

Aerospace Students Take a Trip

FIELD TRIP

With little to no knowledge of a word of new technologies, it is hard for novices to blend in. By understanding theoretical concepts and with enough practical knowledge, life gets easier. For an engineer to interpret and implement their skills the right way, an educational tour is the best approach. Educational tours are believed to help students understand the basics learned in class.

To enhance this knowledge, the Department of Aerospace Engineering organized a two-day visit to the Campus One of Dayananda Sagar Institute of technologies. Students were taught various concepts of aircraft and automobiles along the tour. The professors covered topics related to the stability of an aircraft, turbojet engines and the fundamentals of an aircraft engine. The models of aircraft and its parts present on-campus further made things more comprehensive.

Women's Cricket at SoE

ENGINEERING

Often, women players are overlooked in the world of professional sports. To try and battle this, The Department of Aerospace Engineering organized a Women's Cricket Tournament for the faculty of Dayananda Sagar University.

The event was organized by Prof. Sripad, Prof. Kartik, Mr.Harish, Prof. Srinath with help from Prof. Kanmani, Cultural coordinator and Dr. Bhagyajyothi, Physical Director.

A total of four teams participated in the gully cricket tournament. 'It was a fun game We played cricket when we were children and it has been a long time since our last match. The happiest moment was when I got the wicket.

This encouraged me to play better!', says Prof. Gayatri. 'I think cricket is usually a 'male sport' I was happy to play cricket organized exclusively for women. This was my first time and I enjoyed it very much.

I'd love to be part of such events again', says Prof. Sharvari. This tournament was won by Captain Arunjyothi and team, followed by Captain Sudha Deepti and team.

Heal by Dance

ENGINEERING

Amidst all the fuss and the confusion, the pandemic brought, a lot of hope was lost and regained. In an effort to alleviate the mood and get its students involved in cultural activities, the School of Engineering organized a five-day-long "Sattriya" dance workshop in association with Spic Macay. The workshop was held virtually from January 25 to 29.

Sattriya is an Assamese classical dance form. The workshop was organized by national awardee Dr. Anwesa Mahanta, a Sattriya Dance Practitioner & Scholar and the India Festival Director of the Pragjyoti International Dance Festival.

'No matter how rigid the situation in our life is, dance teaches us flexibility. It helps me overcome all my fears.

Learning a new dance form strengthens my soul', says Prarthana of 4th semester CSE.

The main intention was to "Reconnect the youth with the culture and heritage of India". The workshop was to teach the young participants to indulge in traditional art.

This rhythmic sense of the Raagas and Taalas was supposed to rejuvenate their minds.

Science Meets Humanities in the Fight Against Plastic

SCIENCE

The School of Basic and Applied Sciences (SBAS) and the College of Journalism and Mass Communication (CJMC) have collaborated on a project that analyses the harmful effects of plastic on human health.

Dr. Roshan Pais, Dr. Farhan Zameer, and Prof. Sunil S with Dr. Ravish H (Department of Neurochemistry, NIMHANS) will attempt to evaluate various molded plastics. Prof. Rakesh S. Katarey (CJMC) will help in bringing out the societal significance and relevance of the project.

The research will be carried out by M.Sc. students - Shivali Raj and Pooja Poonia with technical assistance from Mr. Anirudh Gururaj Patil, and Ms. Aishwarya S.Centuries ago when Earth was first observed from outer space, more than 80% of it was green and had an abundance of natural resources. Today, the same planet is choked with plastic in amounts we can't even fathom.

Plastic, made up of polyethylene terephthalate (PET) and polyvinyl chloride (PVC), is the most widely used synthetic chemical in the world. Its durability, flexibility, and cost-effectiveness has made the world heavily dependent on it, despite its polluting nature.

This shape-shifting material, that takes thousands of years to break down, threatens the balance of the ecosystem, pollutes the environment and causes global warming. But another adverse effect of plastic use is the threat it causes to human health.

A major contributor to health issues is Bisphenol A (BPA) - the primary building block of plastic. It is used for the production of polycarbonate plastics like food containers, infant bottles, compact disks, medical devices, and distilled beverages. But when exposed to high temperature variations, BPA leaks out of the product.

For instance, when hot food or hot water is added to BPA-containing plastic containers, BPA is released into the food that we ingest.

In fact, it's found almost everywhere: microenvironments, outside dust, indoor dust and water. Even though the Food and Drug Administration (FDA) has declared that even a small dose of BPA exposure is toxic, more than 90% of the population ingests BPA.

When BPA enters the body, it gets accumulated in the body plasma and circulates in the blood vessels, which directly targets organs systems like the reproductive system, the immune system and the nervous system.

The most dangerous threat BPA poses is towards pregnant women and infants.

Previous research shows that BPA is a known cause for infertility. It decreases the sperm count in men and limits the hormone levels in women.For instance, when hot food or hot water is added to BPA-containing plastic containers, BPA is released into the food that we ingest. In fact, it's found almost everywhere: microenvironments, outside dust, indoor dust and water!

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- Since the 1950s, the weight of roughly a billion elephants or 8.8 billion tonnes of plastic has been produced.
- Only about nine percent of this plastic has been recycled,
- Up to 12.7 million tonnes of plastic enters the oceans every year @ a truckload every minute.
- There are five trillion pieces of plastic in our oceans – enough to circle the Earth over 400 times.
- Countries like Canada, the U.S., and the UK export plastic waste to various countries in Asia and Africa, offloading their trash problem to other communities.

Source: Greenpeace.org

To make it worse, it can pass through the placenta and accumulate in the foetus, thereby causing problems during pregnancy.

In fact, plastic (BPA) consumption has become so high that microplastics have been detected in the placenta, creating 'cyborg babies' - they have microplastics embedded within their cells! This causes reduced body weight, neurological disorders, and weak immune systems in infants.

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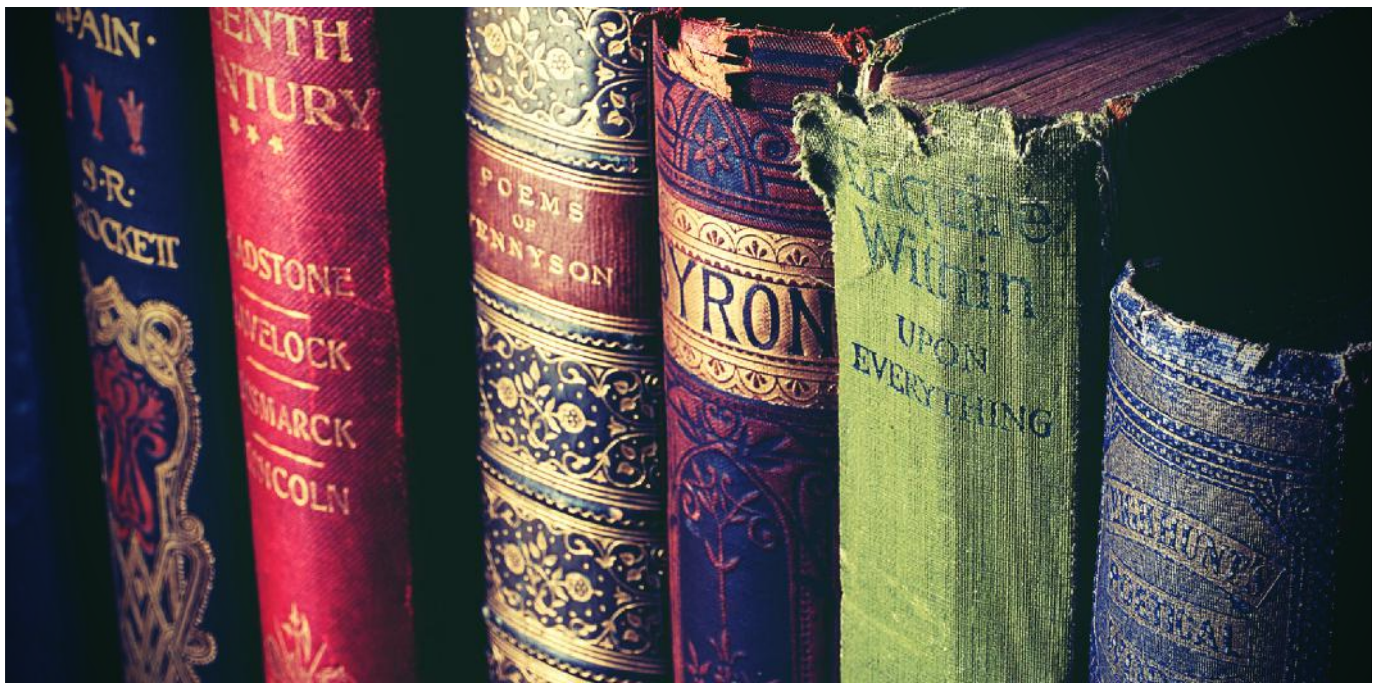
High exposure to BPA can also lead to cardiovascular disorders such as irregular heart rhythm, changes in blood pressure, and cardiac toxicity. It also reduces insulin secretion and glucose metabolism leading to an early stage of diabetes.

Despite knowing the negative impacts of BPA exposure on human health, it's consumption has globally increased by 4.8% in 2020.

Which is why it has become imperative to have precautionary measures to prevent the leaching of BPA. Plastic containers must be replaced by glass or steel containers. Smaller, scratched or broken pieces of plastic should always be dumped and crushed. And most importantly, BPA-free feeding bottles should be used for infants.

Environmental degradation is a planetary issue and that makes it all the more important for science to collaborate with humanities.

Dr. Farhan Zameer, assistant professor (SBAS) said "By bringing CJMC professors on board, SBAS is trying to tell young researchers to collaborate across disciplines to fight for a common cause."



Poetry...when everything else fails

LITERATURE

The literary club of SOE held the academic year's first intra-college poetry competition, *Metanoia* in Kannada, Hindi, and English.

The event was held virtually on January 23.

The choice of topics for the poetry contest was 'A New Morning' and 'War and Peace'.

The jury had a mix of faculty members and external experts. Poems were evaluated for their authenticity, originality, creativity and relevance.

Towards the end, participants received feedback and encouragement from the judges.

Dr. Pauline, a judge, said, "I am surprised to see B.Tech students taking interest in literature. This is the first time I am judging engineering students and I loved the students' enthusiasm and idepth of thought."

The Kannada poetry competition was judged by Sridevi T., HoD, Kannada Department, National Public School, Yelahanka and by Prof. Karthik S.B., Assistant Professor, Mechanical Engineering, DSU.

Deepthi, the winner of the Kannada poetry competition said, "Kannada, an ancient language with a rich cultural and linguistic heritage, is losing prominence. I wish to write in Kannada language and preserve its existing glory".

Varun, who won the second position, said, "My impression of poetry is that it's a beautiful way of expressing my feelings. Words open a new dimension for imagination".

The Hindi poetry contest was judged by Sourav Chaturvedi, an established poet besides heading customer support in an IT firm. Prof. Mukti Chaturvedi, Assistant Professor, ECE.

Through poetry, I'm able to express the feelings that cannot be talked about easily. We received valuable advice from the judges that made us realize how much better we can write".

"I didn't win, but I was extremely delighted to be a part of this event!" says Avantika Mishra, one of the participants.

The winner of the Hindi Poetry Competition was Bhagyalaxmi N. Kulkarni, with Kaushal Yadav coming second.

The jury panel for English poetry was Dr. Pauline, assistant professor, Kristu Jayanti College and Dr. P. C. Deshmukh, Head of Humanities, SoE.

"Poetry helps me connect with the world.

Raising concerns over topics that could jeopardize us is possible through poetry.

When no one heeds your call, only words can do the trick".

- Shambhavi, student

"Writing is a coping mechanism in an otherwise monotonous world. I always look forward to the vivid imagery a poem can provide".

"I chose poetry over other literature because it's always about hitting the right emotional notes with a compact set of words. I also use poetry to regain my concentration whenever I feel lost," he said.

Dr. Baishali: Straddling both worlds

FACE IN THE CROWD

Science and art are often posted at the opposite ends of the career binary and mostly you either abandon one field to step into the other or fail trying to maintain a balance. Dr. Baishali, Asst. Prof., Department of Physics, SoE, defies the odds and straddles both worlds.

Dr. Baishali has received training under the best gurus in both her worlds. An alumna of IISc, Bengaluru, Dr. Baishali studied classical Hindustani music under Pandit D.T. Joshi, who, in turn, was a disciple of Ustad Vilayat Khan, the son of legendary sitar artist Ustad Enayat Khan.

She was enticed by music at an early age of three, following which her mother, Mrs. Chitra Garai, trained her until for the first three years. When she was 12, Dr.Baishali received the distinguished Sangeet Prabhakar award from Prayag Sangeet Samiti, Allahabad.

Her accolades in music did not hold her back from academic advances. Dr. Baishali, who is an alumnus of the Indian Institute of Science (IISc) Bangalore, was also an active researcher in collaboration with the Indian Space Research Organization and an Early Career Research awardee from the Department of Science and Technology. She has made time to train Indian and International students in the field of music alike.

Dr. Baishali also received taleem from Padmabhushan Guri Gnan Prakash Ghosh, an acclaimed musician and composer of Bengali Raag Pradhan songs. She is well versed in pure classical, Semi-Classical, Film songs and Rabindra Sangeet.

On her YouTube channel, SARGAM, she regularly posts music recitals of different genres. With her sister, Dr. Baishali has composed the "Hindustani Raga in fusion style" and "Tarana in fusion style".

Kudos to her accomplishments!

College of Physiotherapy Undertakes Health and Welfare Work

PUBLIC HEALTH

Students from the College of Physiotherapy (CoPT) participated in the door-to-door survey of vaccine beneficiaries for the third phase in NR Colony and Kumaraswamy layout in March 2021

Earlier, CoPT also conducted a week-long the Pulse Polio programme in these areas.

The College collaborated with the youth empowerment club of ISKCON, Bangalore to present a very practical online session on training participants to overcome pandemic-related stress, anxiety and dilemmas.

"The webinar titled, "From Setback to Comeback" provided advice on using exercise and fitness to stay positive during the pandemic. Experts from the industries and academia made their presentations during this event held on February 17.

The students and faculty also participated as volunteers during the launch of Covid-19 vaccination drive at Sagar Hospitals in Banashankari, Bangalore.

an ode to Ramanujan's legacy

COURTESY: BHAVYA ARTS

MATHEMATICS

In 1913, Ramanujan started his association with Godfrey Hardy, a renowned British mathematician, leading to a grant at Cambridge.

Ramanujan is known for his work in the field of partition of numbers. He published regularly in several English and European journals and was elected to the Royal Society of London.

Years later, "He (Hardy) came up with an informal rating scale of natural mathematical ability on which he assigned himself a score of 25.

To David Hilbert, the most eminent mathematician of the day, he assigned an 80. To Ramanujan, he gave 100."

Robert Kanigel's 1991 biography *The Man Who Knew Infinity* on India's perhaps greatest mathematician ever, Srinivasa Ramanujan, provides an authentic account of the his Ramanujan's early life.

Despite his father being an accounts clerk and his mother earning by singing at a temple in Erode, Ramanujan never let his poverty distract him from the science of numbers.

At 15, Srinivasa Ramanujan succeeding in solving 5000 theorems from a book on pure and applied mathematics that carried theorems without proof.

The Department of Mathematics, DSU, in association with the Karnataka State Council for Science and Technology, held events in January as an ode to Ramanujan's work and legacy. Lectures by four eminent mathematicians followed by competitions were held.

Particiapnts recalled how with little formal training in mathematics, Ramanujan published his first paper in the Journal of Indian Mathematical Society in 1911.

Prof. Vittal Rao, former professor of mathematics at, Indian Institute of Science said, "No matter how good a mathematician you are or how hard you try, you will not understand the working of Ramanujan's mind".

Prof. Rao's talk gave a simple introduction to Ramanujan's amazing contributions in some of the areas such as partitions, congruence properties of partitions, continued fractions and modular forms in a way even the innumerate would understand.

Dr. Rathish Kumar from IIT Kanpur spoke on how mathematical applications were exploring new frontiers. "The gradual invasion of the fields of Biology and medicine by mathematicians is yielding several benefits. From a mathematician's standpoint, these two areas represent a cornucopia of challenging problems," he said.

On day two, Dr. G P Raja Sekhar, Prof. in Department of Mathematics, IIT Kharagpur spoke on *Mathematical Models for Tumor Growth Dynamics.* He introduced ideas on tumors, their growth with the basic structure of tumors and fundamental modeling aspects of tumor growth.

"Let us imagine how cricket and mathematics go hand in hand!" said Dr. Srinivas Bhogle, Honorary Scientist, CSIR, Fourth Paradigm Institute, beginning his session on Mathematical Modelling in Sports. With the publication of Moneyball that used analytics to win baseball tournaments at a modest cost, there has been a rise in the use of analytics in sport.

Dr. Bhogle concentrated on cricket analytics with passing references to football and tennis.
He also discussed the much-hated Duckworth-Lewis-Stern method in limited-overs cricket with other examples of cricket analytics.

The competitive events challenged students to build a strong mathematical foundation for their careers.

The main objective of this program was to seed and inspire the young students' community with the life history of Dr. Srinivasa Ramanujan, to motivate teachers to take up high-end research in the field of Mathematics, to cultivate the ability to think and deal with problems those arise in the physical environment, to provide career opportunities in various branches of Mathematics and to enhance the logical thinking of young minds.

Along with these lectures, virtual debate competitions were held for both P.G. and U.G. students. The event was coordinated by Dr. Abeda S Dodamani and Dr. Deepika T on January 11. Students debated about the use of maths since the installation of calculators on smartphones and so on. Karthik Pai and Rishi Sood won the competition with Shambhavi Chavan coming in second and Swati Priya coming in third.

The first round of the mathematics quiz competition was held on the same day. Around 360 students had registered for UG Quiz with 160 students participating in it. The winners of the UG competition were Nihal Yenkana, DSU with Rishab Sidenur, DSU coming in second and Nivetha V, PSGR Krishnammal College for Women coming in third. Meghashyam
from DSU won the PG competition.

The Poster Presentation event, co-ordinated by Dr. Abeda S Dodamani and Dr. Deepika T for PG and Dr. Anuradha B and Dr. Komala B for UG was held on January 12. The topic for the event was **"Recent Development and Application of Mathematics".** Krishna Priya Lokanath won the event with Chandana Shree B.S. coming in second and Geethika Mehta coming in third.

Cortisol Release to Study Covid Stress

PUBLIC HEALTH

The novel coronavirus, in addition to infecting and killing millions, has opened a door to a range of mental health problems worldwide.

From stress, anxiety, depression, denial, anger, insomnia, and fear, this underlying effect of the virus has most prominently been seen in women across India.

Students, Harshitha N and Mahalakshmi V., under the guidance of Dr, Sunil More, Dr. Farhan Zameer, Dr. Roshan Pais, all from the School of Basic and Applied Sciences (SBAS), collaborated with Dr.Ravish of NIMHANS and conducted research on evaluating and

reducing stress levels in Indian women, post-lockdown. With the help of Ms. Aishwarya (M.Sc., Biochem) and Mr. Anirudh Gururaj Patil while conducting the research and Prof. Rakesh S. Katarey (CJMC) in designing the questionnaire, the students have come up with invaluable insights.

According to a report in *The Hindu*, 90% of Indian women do domestic work at home compared to just 27% of men. Out of which, 22% are employed women who manage both work and household chores.

In pandemic women had to manage both work from home and familial responsibilities 24/7, which showed an increase in (PTSD) cases.

The report also indicated that employed women take much longer to return to resting levels of neuroendocrine and cardiovascular functioning compared to employed men.
This shows that employed women have a higher total workload than employed men because men are
traditionally protected from domestic demands. Tiredness, frustration, and reduced productivity are commonly seen and with the spike in the number of positive cases, mental health has continued to worsen in women. Therefore, a proper assessment of stress levels to provide coping mechanisms must be introduced.

One such assessment is based on the evaluation of cortisol, a hormone released in response to stress from the adrenal cortex increasing glucose levels to cope with the body's energy requirements.

Blood and urine samples can be used to detect signs or recent/acute stress (less than 36hrs), but it does not show signs of chronic stress. Recent findings by SBAS students suggest that cortisol levels in a specific hair segment can provide a measure of cortisol secretion over the period of hair growth. This will provide data to access cortisol levels over longer periods of time to detect chronically induced stress.

Pharma Students Turn Corona Warriors

“I was placed in the Red-Zone as a floor operations manager. I worked alongside healthcare professionals to keep COVID-19 patients as comfortable and safe as possible," said M Santhosh.

Work involved collecting patients's medical and medication history, administering medications, performing patient assessment for medication-related factors.

Identifying drug to drug interactions and Adverse-Drug-Reactions (ADRs), if any and reporting the same was part of their work profile.

“I was scared of working in the COVID-19 ward but the support of my family, friends, and colleagues helped me overcome my fear," said Mendu Hanisha Nirmala.

Four final year, Doctor of Pharmacy (Pharm.D.), interns from College of Pharmaceutical Sciences, DSU, provided pharmaceutical care and interventions to Covid patients at Sagar Hospital, Kumaraswamy Layout, Bengaluru.

These “Corona Warriors”worked in PPEs for hours reducing the anxiety and stress of infected patients and their families. The interns also participated in providing primary care to COVID-19 patients.

"It was not easy to accept this internship because my family and I were concerned about getting infected. I lived every moment of my internship inside the wards and had the pleasure of serving people," said Anirudha P.V.

Distinguished Speaker Series on Leadership, Innovation and Global Trade

The School of Commerce and Management launched a Distinguished Speaker series for the students, in which Rostow Ravanan (technology entrepreneur), Ramkumar Narayanan (technology and managing director at VMware, India) and Dr.Richard A Ajayi (associate professor of finance, University of Central Florida) were the keynote speakers.

Held on different days, each webinar drew more than 200 students and focused on leadership, innovation, ever-changing market needs, technology and the global scope of trading.

Toxic or Therapeutic?

SCIENCE

Why do humans want to explore life on other planets when 65% of our own living world remains undiscovered. With more than five million species to be unearthed, and thousands of mysteries waiting to be solved, nature is home to the unexpected, the unexplored and the underestimated. One of its mysterious inhabitants is venom.

A biologically secreted toxin, venom is a complex mixture of biomolecules (mainly proteins and polypeptides) which act together to bring out deleterious effects.

Despite its dangerous nature, it is one of nature's gifts for the survival of exotic species.

However, recent findings have shown that these biological toxins were used in ancient medical systems to treat various diseases.

As members of the scientific community started to study the composition, genomics and proteomics of different venoms to come up with antidotes, they also started exploring its healing potential.

Venom was shown to have properties to treat diseases like alzheimers, parkinsons, cancer, strokes, bleeding disorders etc.

Even act as painkillers or prevent aging of skin.

Over the years, research in venom and its properties led to the expansion of the field of Toxinology which involves anatomy,biochemistry, molecular biology and pharmacology.

Even if 0.01% of venomous compounds have been identified and characterized, there are successful snake venom based drugs in market like:

Captopril ® (Enalapril)- for lowering blood pressure.

Aggrastat ® (Tirofiban) and Integrilin ® (Eptifibatide)- to prevent blood clots or heart attacks in people with chest pain.

Exenatide obtained from Gila Monster (a reptile) is used in treating type II diabetes.

Venom's bioactive nature has helped scientists use it instead of synthetic molecules in drug formulation.

Although the pandemic brought the world to a standstill, it also brought new dimensions to research, in Toxinology. Toxicologists (chemical experts) at Monash University in the United States, found that a peptide obtained from Bothrops asper (a pit viper) could help in the fight against COVID-19.

They observed that the peptide of their interest could attach to the same binding site as that of the COVID-19 virus'. In simpler terms, it could be a cure! A toxinology researcher and professor, Wayne Hodgson, said "We still have a poor understanding of the effects of many venoms, including that of snakes, fishes, and spiders". But hopefully, the years to come will give a better understanding of venom's role in biochemical beings, therefore developing a better health care system.

And where better to find venom than in the old, dark, and dangerous jungles of India?

- DR.SUNIL MORE / DR.VINEETHA

ISPOR Student Chapter at CoPS

The College of Pharmaceutical Sciences (COPS) has initiated a collaboration with The International Society for Pharmacoeconomics and Outcomes Research (ISPOR).

ISPOR is a non-profit society for Pharmacoeconomics that is dedicated to advancing Health Economics and Outcomes Research (HEOR) to improve health decisions worldwide.

ISPOR Student Network

A major part of ISPOR's community is the "Student Chapter" that helps to develop future student leaders in the field of HEOR. The ISPOR student network comprises more than a 100 student chapters representing 31 countries across the world.

A student Chapter committee is formed every year with open posts of President, Vice-President, Secretary, Treasurer and other committee members along with a faculty advisor.

Students who engage in the ISPOR activities develop future leadership skills in the field of pharmacoeconomics, and enjoy the following benefits:

- Free participation in international Pharmacoeconomics webinars
- Travel grants to participate in the international conferences
- Winning International awards
- Recognition of student chapter by publishing the chapter activities in international newsletter
- Collaborating and networking with other students and international experts
- Access to HEOR courses.

Canteen: The dreamy place for brewing love stories!

SUJAY SUDHARSHAN

LEISURE

It's almost a year since online classes have begun, thanks to the pandemic.

For students, going to college was a completely different experience - from chatting, meeting friends, bunking and of course having crushes.

Our campus has rather a lot to offer catering to all these factors; from the talkative bleachers to silence silences of the rock garden. There seems to be interesting stories brewing everywhere given these alligning factors.

But what seems intriguing is the stories that spectators like me curiously observe at the canteen.

Luckily, we have two of them with absolutely different diversities of people dominating the Adda. The *NRI Canteen* and *Indian Canteen* - famously vented.

As people profoundly say "It's an emotion." The canteen has always been the first thought to go to when there are free hours; during lunch or after classes.

Some students fall in love with the atmosphere here; some students fall in love with the food and hot beverages served.

While others try their best to find love here while some found love spending time here.

"I feel active at the canteens, it's not just going to eat there but also seeing many new faces that naturally guarantees my pretentious good behavior", says *Arushi Srivastava,* a Journalism and Mass Com student.

We directly may never see most of the things happening. There is always something unconditional that is beyond the name and purpose it serves. Books with brew; love and gossip; cravings; time moving so quickly! And many other things that happen at the eateries.

Remember if you are free or have bunked classes, do not know where to go or confused? Just
go to the canteens first and then decide calmly.

Plant-derived Molecules to Dissolve Kidney Stones?

PUBLIC HEALTH

Kidney stones are one of the most common and painful diseases of the urinary tract.

Approximately, 12% of the world's population suffer from kidney stones (men being more prone to it than women due to greater alcohol intake). Its prevention and cure are a crucial part of everyday medicine. In India, though Kidney stones are a common occurrence, pharmaco-therapy is neglected and there are no highly effective drugs for them either.

Research scholars from SBAS, DSU, Aishwarya S. and Anirudh Gururaj Patil have embarked on a study on using naturally occurring plant-derived molecules to dissolve kidney stones. The project's motto is "Food as medicine" since the project uses edible plants.

Prof. Sunil S. More, Dr. Farhan Zameer, and Dr. Roshan Pais (SBAS) and Prof. Rakesh S. Katarey (College of Journalism and Mass Communication) are guiding the students.

Kidney stones (mainly found in three colors: brown, yellow and red) occur when there is a high amount of minerals, oxalate, uric acid, and calcium that combine together to form a stone.

Around 2 million people in India are diagnosed with kidney stones every year.

Some regions of our country are named as the stone belt because of the higher number of kidney stones cases.

This includes Gujarat, Maharashtra, Punjab, Rajasthan, Delhi, Haryana, and a few north-astern states like Manipur. Urinary stones are prevalent among people who don't drink enough water, have a bad diet, are obese, hyperparathyroidic, along with biological factors, kidney stones are also caused factors like age, sex, climate and lifestyle. Depending on the type of stone, a certain diet can be maintained to prevent further stone formation. The common element in all the diets is a reduced intake of sodium.

Canned or commercially processed foods, restaurant meals and fast foods and should therefore be avoided. Health care providers recommend 2-3 litres of water intake per day. The more, the better. As summer approaches, the cases are bound to increase due to excessive sweating. All we have to do is keep calm and drink water! To prevent occurrence of uric acid kidney stones, it is necessary to cut down high-purine foods like red meat, poultry, eggs and seafood. High purine intake leads to a higher production of uric acid that accumulates as stones in the kidneys. Follow a healthy diet containing vegetables, fruits, whole grains, and low-fat dairy products, and cut down on sweets.

Design Thinking Workshop Held

Dayananda Sagar University (Hosur road) conducted a one-day paid workshop for MBA faculty and industry members on Design Thinking. The design thinking methodology is a practical and modern-day approach for managers and leaders to identify and solve problems quickly. The methodology focuses on concept development, applied creativity, prototyping, experimentation and identifying consumer needs. The aim of the workshop was to train the participants so that their businesses could see improved revenue generation, organisational productivity and consumer and employee satisfaction.

Session with top economists

An immersive session with some of the experts in the field of economics, entrepreneurship, finance and wealth management. The speakers were Prof Sunil Bhumralkar (CA, former senior partner), Dr. Sashi Siva Ramakrishna (professor, entrepreneur, and director of FAIR), Mr. Vijay Kumar (wealth management consultant and Former VP of Right Horizons), and Mr. Saketh BV (founder of Perpule, which was recently acquired by Amazon).

Collaborative Workshop with Coursera Conducted

The School of Commerce and Management has collaborated with Coursera in an initiative to keep the students up to date in their skills on various topics in each of their semesters. Students can choose any course of their liking on Coursera and certificates will be provided on the successful completion. This helps students keep their resumes updated with the latest skills that many companies are seeking from potential employees

Strides Pharma and DSU tie-up for a new BVoc

COLLABORATIONS

Students from Strides Pharma registered for the Bachelor of Vocational Course (B.Voc) in Pharmaceutical Manufacturing Technology and will undergo three years of training at Dayananda Sagar University (DSU).

The course will help students build on important skills and provide value to their careers.

"Talent, attitude, knowledge, skill, capacity and capability are the key factors to success and the new B.Voc. students will acquire all of them here at DSU." said Dr. KNB Murthy, vice chancellor, during the inaugural ceremony for the employees of Strides Pharma.

FDP on Econometrics at SCMS

The Faculty Development Programme (FDP) conducted by Dr. Satish P, School of Commerce and Management Science (SCMS) on Econometrics, is the requirement of the hour for the organizational benefits in policy decision making for predicting the economic variables.

Econometrics is the application of statistical methods to economic data in order to give empirical content to economic relationships. With the advent of growing technology, a combination of theory and a hand on session shall enable the appropriate usage of this technique.

As data collection and research prove to be crucial elements for any business investment; the workshop focusing on the theme and highlighting its features provided a gateway to an overview pertaining to the basics for analyzing data in social science research. It also provided insights on the purpose and selection of statistical tests based on the objective that were highly appreciated by the faculty and participants in the workshop and requested for more of such initiatives.

Seniors' virtual welcome to juniors at SCMS

Who says a party can't happen without disco lights?

The School of Commerce and Management Science (SCMS) took the virtual route to host and enjoy freshers' party during the pandemic.

When it comes to students of SCMS, it just takes willingness, enthusiasm and creative ideas to do something. Recently, senior students of the college conducted a digital party, freshers 2021, named MUKULA (meaning Bud) - 'seniors meet and greet juniors.'

The virtual event saw a lot of young talents perform without any hesitation. Performances were given by the students of both the years keeping it engaging and entertaining. New students were highly enthusiastic about the event and actively participated and showcased their talent.

The event marked the joyous introduction of one another in a non-traditional manner welcoming the new batch of students.

The virtual program ended with the freshers' thanking their seniors for organizing an event online like this making everyone happy and comfortable.

Collaborations that matter!

College of Pharmaceutical Sciences (COPS), Dayananda Sagar University (DSU), Bengaluru, drove away Tuesday blues with an interactive session on 'Home-based Primary Healthcare Program on Physician-Clinical Pharmacist Partnership.' The session included panellists with healthcare pharmaceutical backgrounds who spoke about the theme of the webinar as mentioned. Dr. Ashoojit Kaur Anand, Clinical Director, Patient Centred Medical Home (PCMH) restore health, AVEKSHA, along with Dr. Prathamesh S Sawant, Clinical Pharmacist Practitioner, PCMH restore health, AVEKSHA, spoke about the importance of a Clinical Pharmacist in a team as they are responsible for medication therapy using their comprehensive knowledge and to be accountable for the patient outcomes. Having worked together they also highlighted the services provided by their organization, AVEKSHA - a home-based primary care program.

CoPS Volunteers for Largest Pulse Polio Drive

Pharmacy students from the College of Pharmaceutical Sciences, Dayananda Sagar University, volunteered in the largest national polio vaccination drive called 'Pulse Polio'. It was held from 31st Jan. to 3rd Feb. 2021 by the Department of Health, Government of Karnataka.

This activity was part of International Society of Pharmacoeconomics and Outcomes Research (ISPOR) student chapter program. The vaccination programme was divided in two activities:

The first activity was conducted on DAY 1 i.e., 31st Jan. which was scheduled as 'Booth Activity' where parents were asked to get their children to the nearest vaccination center for the vaccination.

Second activity was conducted from Day 2 to Day 4 where student volunteers visited every house in the assigned locality to make sure children below the age of 5 years have been vaccinated.

The vaccine campaign was led by ISPOR student chapter President, Syed Kamran Abbas and ISPOR faculty advisors Dr. K V Ramanath, HOD - Pharmacy Practice, and Dr. Vaishnavi Naik, Assistant Professor.

Participants received certificates from the Chief Medical Officer, Kumaraswamy Layout, Bengaluru, at the commencement of the four- day program.

'Anti-Drug Drive' and 'Lockdown Learnings' at SCMS

The invitation circulated by the School of Commerce and Management Science (SCMS), on life experiences and opinions on "Anti-Drug Drive' and 'Lockdown Learnings' had an overwhelming participation that elicited sentiments and warmth through poems, essays, articles, photos, videos and other write-ups.

Through this platform, many shared their episodes of difficulties and how they dealt with certain encounters in the 'Anti-Drug Drive' category that emphasized on how important health is and to seek help.

Reading these real time experiences should lesson people exposed to unwanted habits. The write-ups received from different parts of the world concreted on the idea of saying no to drugs no matter which time.

The organizers of the event were ecstatic about the creativity and positive messages that flew in from several people of different age groups under the 'Lockdown Learnings' category. From drawings and representations of Indianness drinking Kashayas - fighting COVID and understanding how spending time with family heals stress was the major takeaway. This optimism invoked a common thought among everyone - 'This too shall pass' and made them appreciate this activity of hope sprouting.

CJMC News Programme Wins High Praise

South Matters, the news programme produced by the students of the College of Journalism and Mass Communication (CJMC), DSU, using mobile phones during the first phase of Corona is winning high praise from seasoned media professionals and senior professors alike.

'I couldn't believe this was shot by undergraduates. For a news bulletin produced entirely by students, this is wonderful! There's more than news normally shown on TV. The type of content, production process and experience are great!', said Dr Richard Rego, HOD, Dept. of Communications, St. Joseph's, Bangalore.

"Very commendable. Content is always the king," said Amardeep Gogoi, who has made several successful shows for Star Plus and current MD, *Ginger Cat Worldwide*. "If every media student learns and understands production like this students will be excellent for the industry".

Despite classes going online, students worked in small news groups to produce meaningful investigative and humanitarian news features that many news organizations seldom cover. Students covered stories that examined the claims of the government relief package to migrant workers, the impact of pandemic on livelihoods and on small businesses in different cities where the students were holed up during the phase one of the crisis.

The first edition of the programme has six stories and having completed stories, more bulletins are on the assembly line.

'I've gained more than I could have imagined. I've understood the nuances of working under stressful conditions and then putting these stories together into episodes", says Pranav R. Kashyap, the programme's student producer. "This is an opportunity, given that undergraduates don't do this elsewhere. Working on *South Matters* was my happy pill".

The students were put into teams - one signature/graphics and the rest had their boots on the ground. Despite their lack of experience, the students were encouraged by Prof. Rakesh Katarey to push the boundaries.

"Rakesh Sir is very difficult to please. He is very particular about the quality of the stories and whether we were picking up the nuances. He set the bar when we actually had no self-belief, " said Pranav.

After it was posted on YouTube, several experts and academicians reviewed the work. Among the first to commend the effort was Anissa Joseph, senior producer at *Mudskipper*, the national award-winning production house.

"This has been beautifully put together. Congratulations to the students involved. Super effort," said Ad Guru Krishnaprasad Balakrishnan, Founder, *WNDMLL* and former creative director of *J. Walter Thompson Worldwide*,

https://www.youtube.com/watch?v=mQT49DSavlE&t=1024s

Meet up initiative at SCMS

A fun filled day for the students of MBA! The 2019-2021 batch met with the 2020-2022 batch for an exciting day of quizzes, talent show off, Q&A and much more!

MBA students learn at Redcross

MBA students are also cognizant of their social responsibilities. The Youth Red Cross wing of the Indian Red Cross Society organized a YRC State Level Orientation and Training Camp for three days.

The program was organized at the University of Agricultural Sciences, Bellary road, and was attended by 1st semester students.

This experience taught the students both theoretical and practical knowledge including first aid, CPR (Cardiopulmonary resuscitation), DRABC, Disaster management and volunteerism.

Other student outreach programs

Experiential learning is the order of the day. The School of Commerce and Management (SCMS) provides its students with opportunities to interact and learn from various stakeholders across the spectrum of life.

As an outreach program, a visit to Akshaya Patra Food Factory was organized on March 23 this year.

The objective of this visit was to understand the use of cutting-edge technology like Artificial Intelligence, Internet of Things and BlockChain in the managing and operating the mega kitchen. An hour workshop on “Digital Detoxification” followed the visit.

Project Roshni

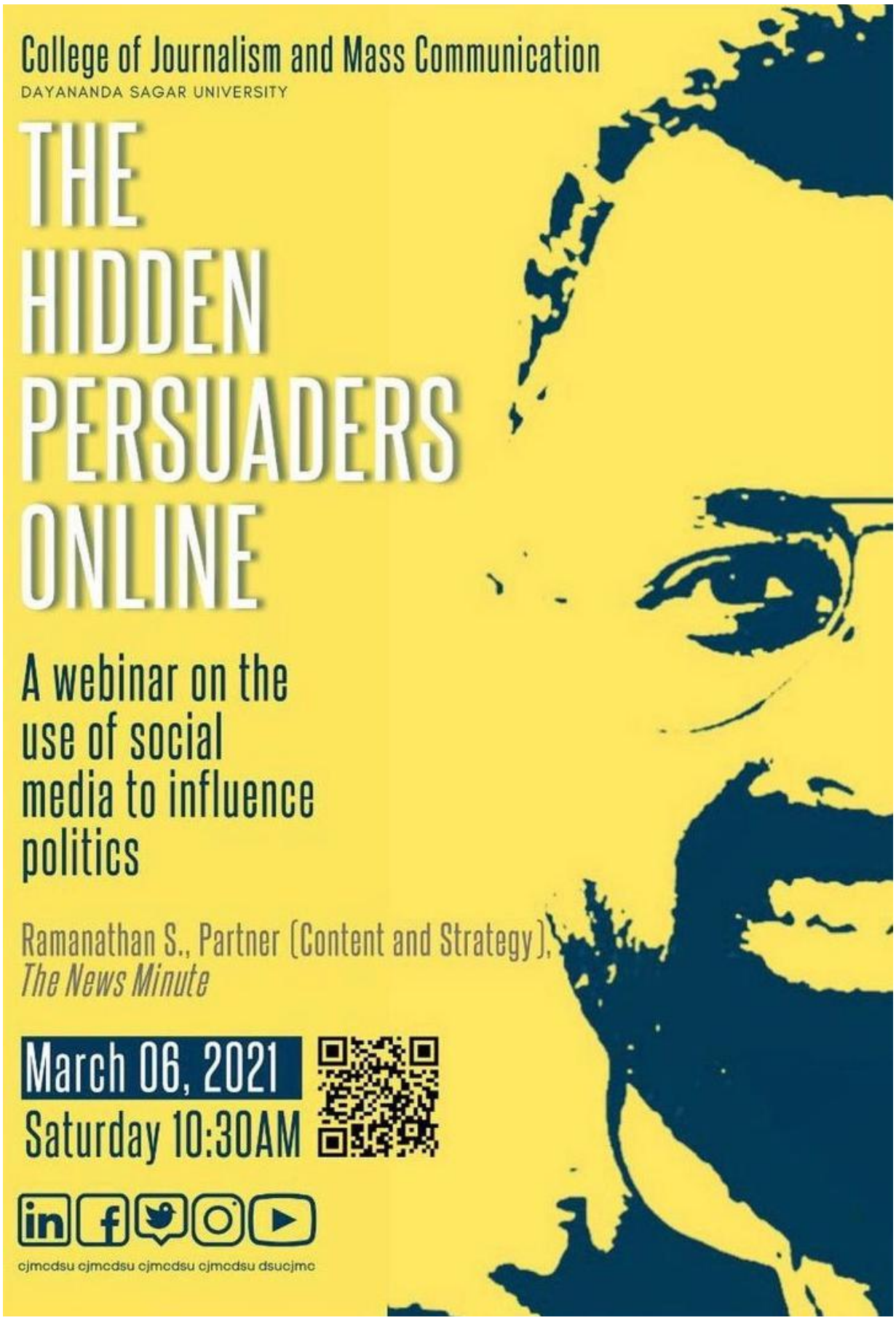
Project Roshni is an initiative by the MBA department to help students discover their inner self and make them successful in both life and their careers. The projects (involves 120 students) will take them through various aspects relevant to leading a better life and accessing sustainable careers. Shweta Tiwari (professor of marketing and HRM) was the keynote speaker and emphasized on the importance of achieving life skills along with academic accomplishments.

MBA Orientation Programme

MBA students took the Gestalt Assessment which grades students across various parameters including:
comprehension and learning ability, memory, fear of failure and examinations and IQ. The scores of the test will assist students in achieving a better academic experience and more robust career opportunities.

The MBA department witnessed their highest ever intake this year with over 200 admissions. major number of students came from the IT industry (40% being engineering graduates), 51% of them hold leadership and senior eadership positions representing over 50 marquee companies.

Online Expert Reveals Secrets of Social Media in Indian Politics



The College of Journalism and Mass Communication, DSU, held a webinar on the use of social media for political communication. Ramanathan S, Partner, *The News Minute* highlighted ways in which social media has been used by political actors and organisations. He even answered some compelling questions by the students.

He opened the webinar giving a the history of digital media. Before 2010, the most popular form of expression was through blogs, then came in the social media in the 2014 and now social media has gained institutional control.

Mr. Ramanathan explained why social media continues to grow even today: Direct contact with the audience, instant mass messaging, two-way communication and micro-targeting

Mr. Ramanathan also shared a recently leaked report that laid bare how the political actors along with journalists working on behalf of the ruling dispensation planned to control the narrative.

Mr Ramanathan also spoke about misinformation funnels. He mentioned how WhatsApp has the largest reach. There is no legitimate way to verify the information so people just believe the forwards they get.

Political organisations and actors are always on the look-out to be the topic of the conversation. Bad or good they want to be spoken about. They have five main goals, he said.

First, to grab the attention of the audience, then set the narrative, counter other narratives, intimidate opponents and to keep it noisy. They will use the strategy mentioned by the leaked report to achieve these goals.

In this way, the hidden and not so hidden persuaders on social media are directing the flow of political communication that threatens the very roots of Indian democracy today, he said.

Workshop on Virtual Labs

ENGINEERING

The Department of Electronics and Communication Engineering (ECE), SoE, and the Department of Electrical Engineering, IIT, Roorkee conducted a joint workshop on Virtual Labs on February 4.

The workshop was organized by Dr. Saara K, Nodal Coordinator, Virtual Labs, DSU along with Mrs. Anna Merine George, Assistant Professor, ECE. It was conducted on Webex and participants could also access it through YouTube live streaming.

The workshop incorporated various sessions handled by Prof. R.S. Anand, Principal Institute Coordinator, Virtual Labs, IIT Roorkee, with Mr. Chetan and Mr. Amit Kumar Sharma, Project Associates, Virtual Labs, IIT Roorkee.

They shared insights on Virtual Labs and illustrations of basic electronics, physics, digital electronics and mechanical workshop related experiments.

Virtual labs project is an initiative of the Ministry of Education (MoE) under the National Mission on Education through Information and Communication Technology (NMEICT).

It provides a complete learning management system where students can avail various tools for learning that includes web sources, video lectures, animated demonstrations and self-evaluation.

They also provide remote access to Labs in various disciplines of Science and Engineering.

YouTube Link:https://youtu.be/titpO01dDd0

ECE Professors Invited as Resource Persons

The Department of Computer Science and Engineering, Atria Institute of Technology (AIT), invited Professors of Electronics and Communication Engineering (ECE), DSU, Dr. Vaibhav A Meshram, Dr. Gayathri K M and Mrs. Mukti Chaturvedi as resource speakers for a webinar titled “Synergising Electronics and Computing.”

The topics covered were: Mission of Electronics and Computer Engineering, Need to Synergise, Targeted Applications, Industry 4.0, Analog Electronics, Digital Electronics, and Simulation Hands-on Session with TINA Software.

ECE Launches Electroblitz

Electroblitz, a student techno-cultural club was inaugurated on 18th January.

A week later the club organized the Mandala Design Competition Meghana S won the 1st prize and Sandhya Ili won the 2nd prize.

Thr club conducted a brain hacking Circuit Debugging Competition on January 30. The 1st prize went to Priya G Shastry and the second to Monica KS.

A technical quiz was also organised. Vasuprada G and V R Harika took the honours while Aryan Jain and Gopinath D K took the second spot.

The club provides a platform for students to exhibit their extra circular skills. Activities enhance the technical skills and personality development of students apart from academics.

Virtual International Meet on Data-Driven Management

ONLINE

The School of Commerce and Management Studies (SCMS) organised a two-day virtual International Conference on Digital and Data-Driven Decision-Making beginning Feb 17.

The conference featured technical presentations, panel discussion and participation of keynote speakers and the scholars.

Setting a perfect tone Data Innovation leader, Dr. Madhumitha Mukund Rao, presented the role of a data analysts and the latest additions to the field in AI,
Delegates from Russia, Malaysia, France, Canada, South Africa, UK and USA participated in the conference. Experts highlighted the need of data in the education sector how the universities are welcoming the role of technology enabled practices in technology. Fifteen research articles each on different sub-themes of marketing, HR, finance and general management were presented.

In his keynote address, Dr. Raef Lawson from IMA, United States briefed the participants about the changing role of the CFOs and the role of emerging technology in finance. He highlighted the key aspects of the Governance-to- Guidance concept.

There was a steady participation of over 250 on the first day.

Earlier. Dr. Punith Cariappa, Dean, SCMS, welcomed the participants and delegates, followed by Hon’ble Vice chancellor, Dr. K.N.B Murthy who gave the inaugural address.

ECE Bids Adieu to Batch of 2020

“The best thing about department is that they teach you to think outside the box. No problem in life is big enough as long as you have that ability. Farewell!”

Dr Vaibhav A. Meshram, Chairman

“You have gained all the knowledge, skills and wisdom you need in life. From now on, it’s all about continuous self-improvement. Happy Farewell!”

Kanmani B. S., Assistant Professor

“Farewell to the most amazing class ever. This institute will always miss you so dearly. May you be victori\ous in all spheres of your life!”

Dr.Theodore C., Associate Professor

“It’s not just memories the lessons will have great impact on our transformation and our college without a doubt has made me an independent person and tough enough to face the difficulties over time.”

Fiona Aljo, Student

“It seems like yesterday when we joined this college like reluctant caterpillars when our parents dropped us off at the college hostel. And then time just started to fly so quickly.

Tejaswani, Student

“The knowledge that you imparted to us is one of the most valuable things in our lives. This knowledge that you gave us will be our weapon for the life ahead. Respected teachers, you occupy a very high status in the life of every student.”

Abhishek S., Student

Lecture on 'Recent trends in Electrical Engineering

The Department of Electronics and Communication Engineering, SOE, organized a lecture on 'Recent trends in Electrical Engineering: Significance & Scope' by Dr. R. C Mala, Associate Professor, Department of Electrical Engineering, M.I.T Manipal on Jan 30.

Around 400 students and few faculty members attended this lecture. The lecture highlighted the power scenario in India and discussed the trends in Green Energy Sources, Energy Storage Technology, Smart Grid Technology and Electric Vehicles.

The lecture was arranged to educate the freshmen studying basic electrical engineering on the challenges and the recent advancements in electrical engineering.

Electrical engineering is a dynamic field expanding due to advancing technologies, discoveries in design techniques and existing models. The transformation and upgrading nature of technology has influenced the electrical engineering industry to work towards better ways to generate, store and use electrical energy.

Techniques and challenges of 5G explained

The Department of ECE organised a guest lecture on '5G Technique and challenges' on 13th February.

The guest speaker was Dr.V. Lingaswamy, Technical Lead and RF Engineer at HCL Technologies Ltd. He has also worked at ISRO-RESPOND Project, IGTL Saudi Arabia Limited, Riyadh, Kingdom of Saudi Arabia and GTL Limited, Chennai.

Dr. Lingaswamy spoke about the various deployment scenarios, used cases, challenges and opportunities, simulation and testing, design and testing tools.

His emphasis was also on implementing the 5G technologies in developing countries like India.

Fifth-generation wireless (5G) is the latest iteration of cellular technology engineered to greatly increase the speed and responsiveness of wireless networks.

“The session was very relevant and an eye-opener said a research scholar.

PRERANA 2K21

Eight Skills a Week

"Beginning Jan 4, the School of Engineering started New Year 2021 with a bang putting students on a fast forward mode providing a unique opportunity to pick up eight emerging tech skills in a week-long workshop - Prerana-2K21.

The eight domains covered Artificial Intelligence /Machine Learning, Quantum Computing, Cloud Computing, Cyber Security, Internet of Things, Augmented Reality/ Virtual Reality, and Mobile Application Development.

Dr. Sanjay Chitnis, Chairman, CSE initiated this idea of conducting this workshop to lay a basic foundation in these emerging areas.

The workshop helped the students to imbibe first level of understanding of key emerging technologies so that students are triggered to seek upgrades through MOOCs in the future.

Besides, it was meant to carry forward their confidence from building simple group projects to undertake bigger projects on their own.

“It was awesome. It helped us explore new areas and gaining knowledge which is not only useful but develops our confidence. I

really enjoyed myself in this workshop.” said Sukrutha Rao, a participant.Domain experts and students stepped in as resource persons to share their knowledge with freshers.

Along with these technical talks, there are sessions which includes yoga, Meditation organized by Dr. Bhagya Jyothi and also motivational talks given by eminent external speakers.

“Thank you DSU, Chaaya ma’am and Sanjay Sir. This event has helped us learn new concepts. That feeling when you create something new from scratch was simply amazing and I would love to experience more of it,” summed up Karthik, a participant.

Three-week Workshop on Programming Skills

The Department of Computer Science Engineering conducted a three-week orientation workshop series on programming.

Students volunteered to lead small batches of 10. Tactically, an accelerated boot-camp was organised for these leaders who were trained in undertaking programming tasks.

Following the workshop, all the students were given programming tasks n order to enhance their programming skills.

Prof. Srinivasan L, an expert helped students exercise and improvise their programming skills.

“Srinivasan Sir is so friendly to work with. There is so much I've learnt even by looking at others’ works and trying to understand them. I'm glad to have volunteered for this course,” said Shefali Gupta who volunteered for the programme.

Unlike most teaching or learning methods, this program focused on the principle of Constructivism – where students build knowledge using their experiences and learn as they attempt more problems.

Students were given freedom to explore the concepts and learn at their own pace under the guidance of the expert and mentors. given freedom to explore the concepts and learn at their own pace under the guidance of the expert and mentors.

“The course was very useful. The questions Sir gave came in very handy and covered various topics.

The exam in the end tested our skills and gave an insight on how much more we needed to study and know where we went wrong. This can improve us further in exams and interviews,” said Rahul Sharma, who underwent the programme.

National Webinar on Graph Theory

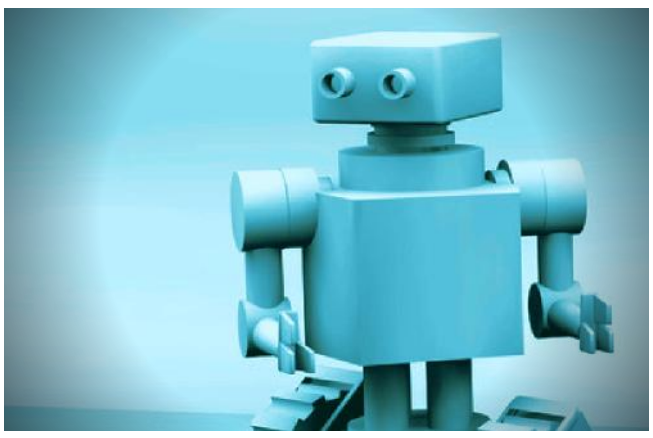
The Department of Computer Science and Engineering, Dayananda Sagar University, Bengaluru has organized two-day online webinar on “Graph Theory and Its Applications (GTIA)” on February 26 and 27.

The webinar was open to all the faculties, research scholars and students of various institutions.

It focused on research-oriented topics on graph theory which relates to social networking, data analytics, how to solve complex real-time problems such as disease spread, crime prediction by identifying the main node and its influenced node using centrality measures.

The sessions were very much interactive and informative for all the participants which have made a value-added advantage to learn new about the Graph theory and its Applications.
Around 82 participants registered for the event from various institutions all over the India, which included, Andhra Pradesh, Karnataka, Telangana, Tamil Nadu and Rajasthan.

Deep Dive into RPA



The Department of Computer Science Engineering organized a deep-dive webinar on Robotic Process Automation (RPA) technology on Feb 10 givng students a glimpse of the things to come and enhance their employability.

Basavadarshan G.N., who helped build mindshare for UiPath, and expert in the domain of RPA he addressed the faculty and students about RPA, its evolution and its importance. The event was held on Feb 10.

Robotic Process Automation (RPA) is software technology that's easy for anyone to use to automate digital tasks. With RPA, software users create software robots, or “bots”, that can learn, mimic, and then execute rules-based business processes.

Mr. Basavadarshan explaned how RPA is another step in the evolution of business processes and next logical step to significantly reduce the requirement for employees to perform rule-based activities.

Robotic Process Automation is the technology that allows anyone today to build a computer software, or a “robot” to emulate and integrate the actions of a human interacting within digital systems to execute a business process.

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