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MODI INSTITUTE OF MANAGEMENT & TECHNOLOGY

**(Approved by AICTE, New Delhi, Recognized by Govt of Raj. &
Affiliated to University of Kota & Rajasthan Technical University, Kota)**

in touch NEWSLETTER

Keeping You Connected

We know your **AMBITION**
and we will help you in **ACHIEVING** it

QUICK GLANCE

प्रो. एस.के. सिंह
कुलपति
Prof. S.K. Singh
Vice Chancellor

राजस्थान तकनीकी विश्वविद्यालय, कोटा
RAJASTHAN TECHNICAL UNIVERSITY, KOTA

No:RTU/VCS/F(1)26/2022/ **Date:29-11-2022**

MESSAGE

As an education and research driven College, Modi Institute of Management & Technology, Kota subscribes to the philosophy of "modernity blends with tradition, while nurturing talent. MIMT, Kota is committed towards this philosophy and thus constantly compliments classroom learning with extracurricular activities like Seminars, Conferences, etc. I would like to congratulate Modi Institute of Management & Technology for the inaugural issue of their newsletter which will help in bringing out and honing the diverse skills and abilities among the students and its faculty members. This is Possible with the active participation of a motivated student community who is brimming with energy and is committed to walk the extra mile. I wish all the success to MIMT for their future endeavors.

(Prof. S.K. Singh) 29/11/22
Vice Chancellor

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UNIVERSITY OF KOTA
KOTA (RAJ.) 324 005, INDIA

D.O. No. :
Date : 15-12-2022

Message

I am delighted to know that Modi Institute of Management & Technology, Kota is going to publish its half yearly newsletter **"In Touch"**.

It will be the collection of articles related to Computer Science, Management, Basic Sciences and Applied Bio-science for the current industrial events. I believe this will provide a platform to the students for upgrading their writing skills, knowledge and innovative ideas. The students will also come to know about the events organized by the institute and world around.

I wish grand success for the publication of Newsletter.

(Prof. Neelima Singh)

Dr. N.K. Joshi
Director
Modi Institute of Management & Technology,
Kota (Raj.).

वर्धमान महावीर खुला विश्वविद्यालय, कोटा
VARDHMAN MAHAVEER OPEN UNIVERSITY, KOTA

डॉ. कैलाश सोडाणी
कुलपति

DR. KAILASH SODANI
VICE-CHANCELLOR

Message

I am happy to know that Modi Institute of Management & Technology, Kota (MIMT) is bringing its Newsletter – IN –TOUCH that will showcase the events and happening of the College.

My Best Wishes to MIMT for their endeavor to provide premium quality education accessible to all and an environment for the growth of over-all personality development leading to generation of "Global Professionals".

14 Dec. 2022

(Dr. Kailash Sodani)

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Chief Patron Message

Mrs. Bimla Modi
Chairperson, Modi Group

As the great Albert Einstein once said, "Education is not the learning of facts but the training of the mind to think". As the earth continues to circle the sun, MIMT will continue to grow and develop with passion and inspiration; we believe that each and every child will be transformed into global leaders of tomorrow. To elevate the overall performance and achievement level of all educators and learners, we equip them with modern learning experiences and competencies so that we enable them to become critical thinkers, socially aware, and concerned citizens. Student's individuality is of paramount importance in our institute so both traditional and modern educational values are respected and encouraged to coexist.

Our institute infrastructure, experienced and efficient administration, rigorous scholastic programs form academic to dance, theatre, music, and a variety of sports are all aimed at grooming the holistic development of a child. With these qualities, our students will certainly imbibe the knowledge to help them to reach new heights of greatness with each academic year and become responsible global citizens.

Patron Message

The rapidly changing 21st century calls for a system of education that equips our children to face the challenges of future. Apart from working on developing the students academically, socially and emotionally, it is the utmost responsibility of educational institutions to develop critical thinking skills in the children.

I feel proud to mention here that our institute has constantly endeavors to use learning opportunities and produce a learning environment that fosters critical thinking skills, making the students inquisitive, analytical and see things from a different perspective.

I am sanguine that with the collaborative efforts of a talented and dedicated team of teachers and an ever supportive management, the institute will scale new heights with the best educational practices adopted to create progressive, thinking individuals as they strive to create satisfying, purposeful and fulfilling lives.

Mr. Sushil Modi
Vice Chairman, Modi Group

Executive Director Message

Mr. Raghav Modi
Executive Director,
Modi Group

Modi Institute of Management & Technology is well equipped with all modern facilities and trains the students not only in books but also with applied methodology . Apart from Lecture Method the professors take initiatives in personally observing the development of the students by identifying their talents and encouraging them. MIMT trains the students through various methods of teaching like lecture method, case method and problem method.

Students are provided with Regular Seminars, Workshops and Expert Lectures to inculcate skills and infuse courage and confidence in the student community to face the challenges of life.

The college has a serene atmosphere with a good background for academic exercises. We have staff members who are totally committed to teaching profession with a very strong management which gives more stress on value system and discipline.

Editor Message

Dr. N.K. Joshi
Director, MIMT

Hello Everyone!

Modi Institute of Management & Technology warmly welcomes you to the first edition of its Newsletter 'In-Touch'. The beginning of the academic year is at its heart, a fantasy of newness and clean slates—of the chance to do things differently and with more attention to purpose. In reality, it's also one of the most challenging times of year for many of us. With the commencement of new academic session, new dreams, hopes, aspirations and events are also unfolding. The editorial desk is thankful to all those who contributed to this edition

We believe that every learner is unique and special and they all have the ability to learn. We believe it is our responsibility as educators to nurture and develop every learner to prepare them for life. At MIMT, the educational curriculum strives for excellence by preparing students for learning beyond their capability level and enable them to attain his/her maximum potential, both academically and socially. We appreciate your support and feedback. We hope going through this newsletter is as enjoyable for you as it is for us bringing it to you. Happy Reading...!It is indeed a great honour to be the Newsletter Editor for the Modi Institute of Management and Technology and it is an immense pleasure to launch this first edition for 2022.

It is our endevour to provide students a platform to showcase their knowledge and writing skills. Through the newsletter "In-Touch" all the students will learn various happenings of the institute as well as current updates about the world around. A huge thank you to all the persons who contributed writing the wonderful and inspiring articles, without which there wouldn't have been this newsletter issue. Last but not least, I would like to thank the local board members for their everlasting support throughout the creation of this edition.

Happy Reading!!!

Future Vision

If students are to play an active part in all dimensions of life, they will need to navigate through uncertainty, across a wide variety of contexts: in time (past, present, future), in social space (family, community, region, nation and world) and in digital space.

They will also need to engage with the natural world, to appreciate its fragility, complexity and value. Building three further categories of competencies, the "Transformative Competencies", that together address the growing need for young people to be innovative, responsible and aware:

- Creating new value
- Reconciling tensions and dilemmas
- Taking responsibility

Need for a broad set of knowledge, skills, attitudes and values in action Students who are best prepared for the future are change agents. They can have a positive impact on the world.

We will planning to build a whole eco system for preparing employable, adaptable to uncertainty of world in coming 10 years.

FutureVision

ADMINISTRATION

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Published by MIMT, Dadabari, Ext., Kota

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Visitant's Perspective

Moore's Law and Innovation in Chip Packaging Technologies

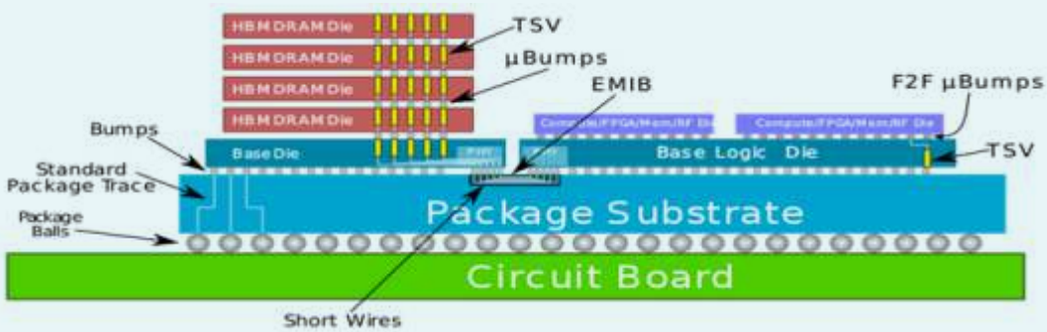
Mr. Manish Khamesra
Silicon Architect,
Intel, Bangluru

Dear Students, you might have read about Moore's Law,an observation shared by Gordon Moore co-founder of Intel. In 1975 he forecasted doubling of the number of components per integrated circuit in every two years. This observation continued till now (almost 50 years) and thus known as the Moore's law.

However, in recent times technology companies are feeling the heat as technology has reached levels where further shrinking the technology might not be economically viable. Does it end Moore's law? No. It only means that the companies now need to think of alternative solution to pack more devices in the same Integrated circuit. Companies like Intel takes a leap in coming up with newer Packaging solutions.

So unlike in the past where one package had one wafer in it (monolithic ICs) the trend is towards disaggregation. What does disaggregation mean – It means several wafers in a single package where dies would be communicating with each other in horizontal direction (eMIB–embedded multi-die interconnected bridge) or through FDI (Foveros Die Interconnect) in vertical direction. The advantages are multi-folds. Individual Chips can be smaller in size improving the yield – the defect density. Its not needed that all chips need to be fabricated on the latest technology – it is important as the memory chips generally does not scale similar to the digital logic, and it provides flexibility to the system architects. It also means that if you want to change the product, you don't necessarily have to touch all the tiles.

The stacking of dies one above the other in the below picture and the interconnection is through FDI – Foveros Die Interconnect. So communication between Base die and Base logic die is through eMIB and between Base die and HBM DRAM die in vertical direction is through FDI Technology.



Employee Engagement and Organization's Productivity

Dr. Priyanka Shrivastava
Faculty Management
Indra Inst. of Mgmt., Dewas

In recent 2 decades, employee engagement has generally accepted as an indicator of business performance. Employees Engagement permeates through the employee-customer boundary, where revenue, corporate goodwill, brand image are also at stake. Actively engaged employees are strongly aligned with the organization's objectives, vision and enthusiast about the company's success.

An organization's productivity should be quantified as employee engagement rather than employee satisfaction. Employees are said to be engaged when they perceive a positive attitude towards the organization and retain commitment to work with the organization. It can be seen as a combination of commitment to the organization and its values plus a willingness to help out colleagues (organizational citizenship). It's not simply motivation, it goes beyond job satisfaction.

Engagement is consistently appeared as something given to the employee, who can benefit the organization through commitment, adherence, campaign, deliberate effort, using endowment bounding and being subordinating the organization's goals and values. Engaged employees are more likely to retain with the organization, perform 20 per cent better than their colleagues and act as advocates of the business. Engagement can enhance bottom-line profit and enable organization's esteem agility and improved efficiency in driving change initiatives. Engaged individuals invest themselves fully in their work, with increased self-efficacy and a positive impact upon health and well-being, which in turn evokes increased employee support for the organization.

We may sum up that the premier objective of management should be to bring about optimal financial performance with a fully engaged workforce. Along with the employee's willingness to work hard and connect with the company, good leadership is also vital. All managers and supervisors should become a part of the change process, with the goal being a true cultural modification that heightens employee engagement and improves organizational performance and the bottom line. It should be part of an organization's continuous improvement process not a one time event.

In the end, the need for enhanced employee engagement in the present contemporary scenario can be understood as that it will pay real dividends for the organization. It will favorably impact achievement of the organization's mission and goals and holds strong promise for helping the organization to retain good employees, build high performance teams, and compete most successfully. Keeping in mind needs of employees for being connected with the organization will result in a better working environment and will achieve great results in the area of profits, satisfaction and learning.

Intellectual Property Rights

Dr. (Mrs.) Vijay Devra
Asso. Prof. (Chemistry)
Janki Devi Bajaj Govt.
Girls Sci. PG College, Kota

Modi Institute of Management & technology organized guest lecture on Innovation and Intellectual property rights IPR on 08, August 2022 by Dr. Vijay Devra, Associate Professor, JDB Government Girls College, Kota. The purpose of this event was to introduce Intellectual Property Rights and its roles. Dr. Vijay Devra, gave an informative talk on the topic "Innovation and IPRs". Her speech highlighted the vulnerable status of India in terms of patent applications filed. Intellectual property rights are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time. Intellectual property rights include patents, copyright, industrial design rights, trademarks, plant variety rights, trade dress, geographical indications, and in some jurisdictions trade secrets. Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. A patent is an exclusive right granted for an invention. A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. An industrial design constitutes the ornamental or aesthetic aspect of an article. Trade secrets are IP rights on confidential information which may be sold or licensed. Geographical indication includes the name of the place of origin of the goods. IP Policy for the State of Rajasthan 2021-2026 is a major initiative by the Government of Rajasthan to transform the State into a globally recognized IP hub. This will not only harness creation and protection of Intellectual Property, but also attract foreign investors and entrepreneurs in the State of Rajasthan.

Placement - Some Glimpses

S.No.	NAME	PLACE	JOB PROFILE	PACKAGE	COURSE
1	Pranay Gautam	Byjus, Jaipur	Business Development Officer	10 lac	MBA
2	Govind Maheshwari	ASASO Tech. Pvt. Ltd., Jaipur	Business Development Officer	7 lac	MBA
3	Girish Talreja	Accenture Sol. Pvt. Ltd., Hyderabad	Security Delivery Associates	4.5 lac	MCA
4	Gary Jude Bouvard	Full Specturm, Pune	Human Resource (IT)	4.08 lac	MCA
5	Kshitiz Kumar Bagla	CEG Test House, Jaipur	Food Analyst	4 lac	M.Sc.
6	Ritu Chawla	Inspira Enterprise India Limited, Jaipur	Cyber Security Analyst	4 lac	MCA
7	Etisha Vijay	Exide Life Insurance, Bengaluru	Business Development Officer	3.75 lac	MBA
8	Bhavya Bhatia	Infosys Limited, Bengaluru	System Engineer	3.6 lac	MCA
9	Ayushi Saronja	IndusInd Bank, Kota	Front Office Executive	3.5 lac	MBA
10	Tanwar Singh Chouhan	Duke Jhonson, Hyderebad	Technical Assistant	3.5 lac	M.Sc.
11	Nitesh Kumar	ALOHA Technology Pvt. Ltd., Pune	Software Developer	3 lac	MCA
12	Himanshu Jain	Duke Jhonson, Hyderebad	Technical Assistant	3 lac	M.Sc.
13	Vikas Pareta	Asian Paints, Kota	Customer Care Associate	2.7 lac	MBA
14	Kanupriya Kohli	Allen Institute, Kota	Academic Associate	2.5 lac	MBA
15	Kuldeep Pareta	Shyama Industries, Bisleri, Jaipur	Quality Control	2.5 lac	M.Sc.
16	Ankita Sharma	Simfa Lab, Indore	Quality Control	2.5 lac	M.Sc.
17	Abdul Raza	Aura Emananting Tech.Pvt. Ltd., Noida	ICT Engineer	2.4 lac	MCA
18	Milan Goswami	ADVY Chemical Pvt. Ltd., Thane	Business Development Executive	2.25 lac	MBA
19	Ankit Vijay	Urban Improvement Trust (UIT), Kota	IT Expert	2.20 lac	MCA
20	Rahul Sharma	Maheshwari Public School, Kota	PGT Teacher	1.8 lac	MCA

Association Activities

Achievement : The Hon'ble Vice Chairman Sh Sushil Modi Sir awarded by Hon'ble Lok-Sabha Speaker- SHRI OM BIRLA JI and Hon'ble Minister of Education, Government of India- SHRI DHARMENDRA PRADHAN JI. The award is presented for remarkable contribution by MODI GROUP in the field of Education to build the Nation on 6 September 2022.

Science Exhibition 2022 : Modi Group Institutions organized Science Exhibition 2022 on 12 November, 2022 in Dadabari campus. In this exhibition more than 120 models were presented by the students of various school and colleges. Winners of the science exhibition were awarded with cash prize of Rs 10000/- in both categories.

Honourable IG Sir of Kota Range inaugurated the science exhibition. Honourable V.C. Prof Neelima Singh was the chief guest of Science Exhibition held in closing ceremony. She awarded cash prize to the winners.

Modi Funfest 2022 was organized by Modi Group of Educational Institutions, Kota on 13 November, 2022. Shahar Kaji Moulana Jubair Ahamad was the Chief Guest. There were more than 75+ different stalls of food items and games. Students Modi Group of Educational Institutions presented the cultural performances with rmap walk by various students of modi college.

Youth Cultural Festival - 2023 was organised by MIMT and University of Kota on 30 November 2022. The Competition was organized in two category "Group song (Indian music) and Solo song (Indian music)". In this festival, 40+ students of different colleges participated. Dr Roshan Bharati, Associate Professor JDB College, Kota was the observer from University of Kota.

Robotics: Dept of Computer Applications organized an exhibition on "Robotics" in association with RTU. In this exhibition 17 different models of robotics were demonstrated by Tech Group of RTU, Kota on 03 December 2022 held at MIMT.

Expert Lecture : Department of Computer Applications organized Expert lecture on "Information Protection Security and Government Initiatives" on 16 December 2022. The Lecture was conducted by Prof. Reena Dadhich, Director Research, University of Kota, Kota.

One Day National Workshop : Department of Science organized a one day national workshop on "Molecular and Microbiological Techniques- A Vision towards Scientific Approach" on 23 December 2022. The Keynote Speaker was Dr. Jagdish Saini, Assistant Professor, Allahabad University.

Students Visit in Parliament House : MIMT Students visited Parliament House on the occasion of birth anniversary of Late PM Atal Bihari Vajpai ji on 25 December 2022. Students met with the Prime Minister Shri Narendra Modi JI and Lok Sabh Speaker Shri Om Birla ji. After the session Lok Sabh Speaker Shri Om Birla ji invited to our students at his residence for dinner.

Student's View

Fine Art

Nidihi Rathore
B.A. Part-II

The best artists are never afraid to tell the truth. Let us cultivate fine arts in this modern world. Art is not about what you see, but about what you make others see. My mind is like a parachute; it works only when it is open. Art is a physical manifestation of emotion.

Doing art allows him to be a more effective engineer because it allows him to develop two-dimensional representations of three-dimensional objects; see details he might otherwise have missed; use sketches to communicate, particularly in design, and on a chalkboard when teaching; compose presentations; and develop projects. "Observation is critical to diagnosis, and art can teach students to slow down and really look," said a co-author of the study, a bioethicist and medical anthropologist

.A kind of art that is primarily practiced for its aesthetic value and beauty (also known as "art for art's sake") as opposed to its practical value is referred to as "fine art." Drawings and design-based artworks like painting, printing, and sculpture are the foundation of fine art. It is frequently contrasted with "applied art" and "crafts," which are both typically thought of as practical pursuits. Photography and architecture are two other non-design-based aspire that are regarded as fine arts, but the latter is better understood as an applied art. Fine art is constantly expanding to include new activities that emerge as a result of new technology or artistic invention. Acrylic painting, silkscreen printing, and giclee prints are examples of the former; mixed-media artworks using collage, decollage, photomontage, or "found-art" are examples of the latter. It is nearly impossible to define or fix a meaning for fine art because of this gradual broadening process

Music is a component of fine art, and it plays an important role in human life. According to psychology, sad music makes people feel sad, implying that music can influence mood swings. When we are feeling down, for example, listening to upbeat music can make us feel much better. Music connects history and culture. Charan was a Hindu caste of hereditary genealogists, bards, and storytellers based in Gujarat state in western India. Charan's poetry has made inestimable contributions to the advancement of Rajasthani literature. CHARAN poetry evolved in Rajasthan during both the ancient and mediaeval periods.

Manners Make up a Character

Ayushi Saronja
MBA VI Sem.

Manners , Manners, Manners!

Manners play an important role in our lives because they make our character:

By character I mean our habits; hobbies, the way we sit, stand, walk, etc. Manners also help us to build our personality. The manners which we learn from our home are that we should wish our guests when they visit us by saying 'Hello' and we say 'Goodbye, visit us again' when they leave.

When someone offers us something we should say 'Thank you'. These gestures symbolize respect to our guests.

Now comes the college, which plays an important role in shaping our character. Here we are taught and guided to be disciplined and honest student. We also inculcate good qualities such as Qualities like integrity, commitment, strong communication skills, courage, teamwork, work ethics, risk-taking, positive attitude, problem-solving abilities, quality of future vision, and responsibility, which will go a long way in improving the tone and tenor of the country,". Your time at college will shape you a person and you will be nothing like the student who walked in, when you walk out of college after getting your degree. The things learnt at college go beyond the chosen course and become an essential part of your personality.In college, distractions will be many and money will be less and that will teach you self control. You will have to choose your enjoyments because indulging in all the fun activities will not be possible. Doing this will make you learn money management because that is only way you will be able to sustain yourself in college. You might also want to take up an internship or a part time job to keep earn more money. Part time jobs require a lot of commitment because working for someone after a day filled with classes is not the most alluring activity one can think of. If you go for one, keeping targets and in check will seem like a task. But, doing so will obviously teach you time management and professionalism. Prior to your college days, you were cocooned in a safe environment at school and home. Therefore, manners lay the foundation in building our character and in turn make us better human beings.

RNA Interference

Eva Sharma
M.Sc. (Microbio.) I Sem.

INTRODUCTION : RNA interference (RNAi) is a natural biological process where double stranded RNA inhibits the expression of genes. This process was discovered by two American scientists Andrew Z. Fire and Craig C. Mello in 1998.

MECHANISM : The RNA may be may be formed by transcription of nuclear DNA or introduced in the cell through viruses. The RNA is processed into small interfering RNAs by an enzyme Dicer. These small RNA molecules connect to RNA-induced silencing complex (RISC). It then binds to the target messenger RNA (mRNA) and prevents the synthesis of proteins and mark that mRNA for destruction.

APPLICATIONS : RNA interference has wide range of potential applications in biotechnology. It is used to study the function of proteins without altering the nuclear genes. This method is called gene knockdown.

In plants, it can be used for the control of pests and diseases or introducing a new trait. For example – reduction of nicotine levels in tobacco leaves by RNAi. It can also be applied to develop treatments for genetic diseases, viral infections, cancers and Alzheimer's disease. The first therapy based on RNA interference called Patisiran was approved by US Food and Drug Administration in 2018.

Victoty Over Death will Make a Person "MRITUNJAY"

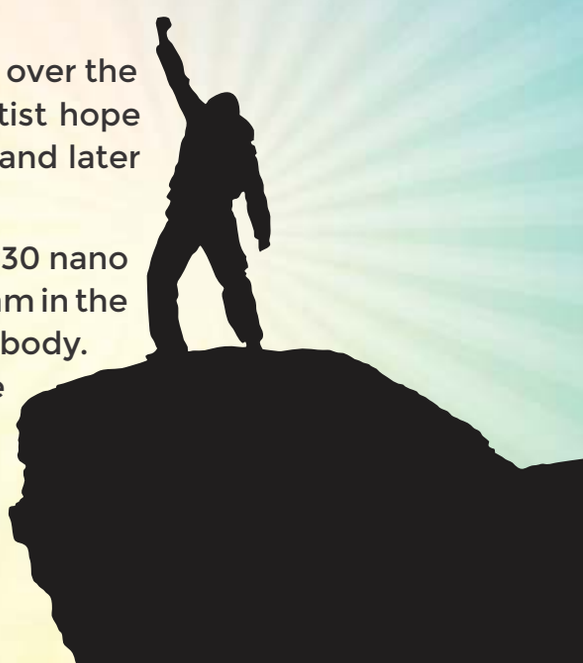
Abhishek Sharma
M.Sc. (Chem.) IV Sem.

Scientist desire to make NECTER (AMTRIT) in the lab SOMRUS (AMRIT) are not wine or liquor. It is a rare juice obtain from a plant named soma which was found in "AFGANISTHAN"

Scientist have a desire to make elixir inn the lab , on which an American company "ALTOS LABS" is working . ALTOS LABS doing third through cellular programming. Altos labs has joined the NOBEL PRIZE wining scientists in the field of science in this discovery.

Amezon company CEO" JEFF BEZOS" and billionaires from all over the world spend a total of 4500000 crore on this project. Scientist hope that initially they will increase the life of human by 50 years and later make humans immortal with the help of this technology.

According to a US scientist "Raymond carzwill" by the year 2030 nano robots will be made which will be released with the blood stream in the body. These robots will eliminate the virus Bacteria of the body. Cleaning the blood, will not allow clotting. It will also eliminate the tumors present in the body. This nano robots will repair the DNA of cells so that neither human will be evil nor death reach human..



Dark side of SOCIAL MEDIA

Harshdeep Singh
M.C.A. III Sem.

Social media is a vast media known almost by everyone but it has some dark sides too will tell you about the dark side of social media in my article.

1. **Data Stealing :** It is the most common problem for all who have a social media account because their data is not safe there because there are so many companies who claim that they sell users information to other companies for earning extra money. So many big companies faced data breach like Facebook.

2. **Cyberbully :** It is the darkest side of social media because social media is the place where anyone can get bullied because there are less rules nowadays cyber bullying is common because there are comparatively less rules in any of the social media platform.

3. **Spamming :** If we talk about social media, then we see that all things we saw on social media is not correct half of them are fake and finding that its fake or not is a very tough work. Fake advertisement, fake news spreads like fire in social media that's why users should not believe each and everything they see on social media platforms.

4. **No Rules :** We all know in most used social media platform works on 13+ policy then also they can easily access those content which is not good for them. If we talk about most used social media platform Instagram, then we will see that there are so many content creators who are posting adult content over there then also no action from Instagram because there are no rules this type of content should be banned.

Alkyl-Anthraquinones Inhibit Candida Albicans Biofilm via Inhibiting the formation of Matrix and Hyphae

Aagam Singh Sisodiya
M.Sc. Microbiology
IInd sem

Candida albicans can form biofilm on biotic and abiotic surfaces of medical implants to cause superficial and systemic infections under specific condition. This is also responsible for fungal infections on human skin .The formation of hyphae and matrix of C. albicans are considered as probable virulence factors2-alkyl-anthraquinones were determined to have significant anti-biofilm activities. Candida albicans is a fairly common opportunistic pathogen with the ability to cause superficial and systemic infections ,Many anthraquinone derivatives present a wide range of pharmacological effects such as antihypertensive anticancer, anti-inflammatory, antifungal, antiviral, and neuroprotective. After screening, we focused on 2-ethylanthraquinone, which owned the best anti-biofilm activity among three kinds of 2-alkyl-anthraquinones. The decreased metabolic activity affected by 2-ethylanthraquinone was determined by 2, 3-bis (2-methoxy-4-nitro-5-sulfo-phenyl)-2H-tetrazolium-5-carboxanilide (XTT) reduction assay. The extracellular matrix of C. albicans biofilm was observed and hyphal formation in liquid media was measured by light microscope.

Finally, Transcriptomic sequencing analysis and qRT-PCR experiment were performed to determine the potential pathway for 2-ethylanthraquinone to inhibit biofilm formation of C. albicans. So that how we can see 2-Alkyl-anthraquinones inhibit Candida albicans biofilm via inhibiting the formation of matrix and hyphae.

Torch Bearer

Mr. Praveen Chaurasia
M.B.A. Batch 2019
IRS Officer

Girish Talreja
M.C.A., Batch 2021
Security Delivery Associate, Accenture, Hyderabad

No Alternatives for Migrating Agricultural Labourers

India is currently facing a unique job crisis because , while fewer people are employed in agriculture today , the transformation has been slow .Those who leave farms work on construction sites and in the informal sector rather than in industries .

Population engaged in agriculture has been shrinking : The share of India's working population engaged in farming has fallen quite significantly during the last three decades Given the current share of agriculture in GDP of India and comparing with the countries in the same income bracket. This suggests that it is not totally correct that India has too many people in agriculture and the successive governments have failed to move surplus labor from farms .

Weak structural transformation : The movement of workforce from agriculture over the past decades does not qualify as what economists call " structural transformation". Such transformation (also known as Kuznets Process) would entail shifting labor from agriculture to sectors with better productivity , value addition and higher average incomes , such as manufacturing and modern services (such as IT , business process outsourcing , finance , healthcare , education , etc) .The share of manufacturing (and mining) in total employment has actually fallen along with that of agriculture .This is because , the surplus labor pulled out from the farms is being largely absorbed in construction , services (petty retailing , small eateries , domestic help etc.) and similar other low - productivity informal economic activities . This is also reflected in the low share of employment in organised enterprises (those employing 10 or more workers) .Simply put , the structural transformation process in India has been weak and deficient .

Why is India's job crisis unique ? The manufacturing sector is potentially best placed to absorb agricultural laborers. However, there is a lack of jobs in the manufacturing sector .The somewhat more educated are not qualified to be programmers or develop software programs which are essential for the IT industry . They aim to join the armed forces or to sit for the Railway Recruitment Board's NTPC (non - technical popular categories) exams .

So , the Indian workforce possesses skill sets for the sectors where there is a lack of job opportunities . And sectors that generate excess jobs require particular skill sets that the majority of the Indian workforce lacexam.

As a result , the Indian economy is unable to absorb excess labor.

Overview of Application Security

What is Application Security?

Application security is a term which describes all the security measures at the application level which is required to prevent data or code within the app from being stolen or hijacked. A proper definition of application security is that it is a process of adding and testing security features in the application to secure the application from security vulnerability against different threats.

How can we secure the application from different attacks?

Firstly, applications can be web applications, desktop applications (.exe file) and mobile applications which include iOS as well as android applications, all these kinds of applications need to be secure. To prevent different types of attacks you can follow OWASP Top 10. OWASP represents an open web application security project which provides ranking and remediation guidelines for the top 10 most critical web application security risks. The risks are ranked coding to the number of discovered security defects, the severity of the vulnerability and the magnitude of their potential impacts. There is a separate list of OWASP for mobile applications, IoT, etc.

Some of the OWASP Top 10 vulnerabilities are Broken access controls, cryptographic failures, injections, security misconfiguration, etc. Dynamic Application Security Testing (DAST) is a process of analyzing a web application through the front end to find the security vulnerabilities through the front end to find the security vulnerabilities through simulated attack. Static Application Security Testing (SAST) is a process in which we scan an application's compiled source, binary or byte code. In SAST, we directly provide feedback to developers on issues which arise from the source code.

Tools used for application security:

There are some different tools used by which you can try to find different types of vulnerabilities in an application.

- List of Open Source Software: Zed Attack Proxy (ZAP), SQLMap, etc.
- List of paid software: AppScan, Checkmatx, Netsparker, etc. Terms to explore more for application security:
- OWASP Top 10
- Dynamic Application Security Testing (DAST)
- Static Application Security Testing (SAST)
- Tools for different applications (web, mobile, desktop application)
- White box testing, grey box testing and black box testing

The CRISPR-Cas System in ENTEROBACTERIACEAE

RATI SHARMA
M.Sc. Microbio
Batch 2014

INTRODUCTION : The presence of CRISPR was reported for the first time in 1987, it was observed at the 3' ends of the iap gene in Escherichia coli. The official CRISPR name was assigned in 2002, when it was observed that these sequences were associated with the cas genes. An analysis of the spacers present in the CRISPR arrays from 67 prokaryotic genomes, including Enterobacteriaceae members, demonstrated that these sequences derive from foreign genetic elements such as phages and plasmids. The study of spacers in other enterobacteria like Yersinia pestis reinforced their extrachromosomal origin and also showed that the addition of new spacers occurs in a polarized fashion, adjacent to the leader sequence

The Enterobacteriaceae include human pathogens that are the etiological cause of plague, typhoid fever and shigellosis, illnesses that are still a worldwide health problem. Other members of this family include plant pathogens that affect crops such as potato, apple and pear, causing important economic losses. Beneficial bacteria of the human intestinal microbiota also include species of this taxonomical family, which are the first microorganisms to colonize the gut of human newborns. CRISPR-Cas systems are present in 87% and 45% of archaeal and bacterial genomes, respectively and are classified into two main classes. Class 1 members all use a multisubunit crRNA-effector complex for CRISPR-Cas immunity. The members of this Class are Type I, Type III and Type IV systems, which are characterized by the presence of Cas3, Cas10 and Csf1, respectively. The Type I systems are organized in the subtypes I-A, I-B, I-C, I-D, I-E, I-F and I-U, whereas Type III comprises the subtypes III-A, III-B, III-C and III-D. No subtypes have been described for Type IV. In Class 2 systems, a single protein and a tracRNA perform the biological functions of the multi-subunit crRNA-effector complex for immunity. This class is composed by Type II, Type V and Type VI CRISPR-Cas systems, whose signature proteins are Cas9, Cpf1 (Cas12) and Cas13, respectively. Type II is divided into three subtypes (II-A, II-B and II-C), Type V contains six subtypes (V-A, V-B, V-C, V-D, V-E and V-U), and Type VI is comprised by the VI-A, VI-B1, VI-B2 and VI-C subtypes. The subtypes are defined by specific cas genes signature

Fundamental knowledge about the function, transcription, distribution and utility of the Class 1, Type I-E and I-F CRISPR-Cas has been generated for members of Enterobacteriaceae. This article presents the state of the art of the CRISPR-Cas systems in this bacterial family.

MECHANISM : phage attack is one of the most relevant stress conditions for bacteria, since phages kill between 4% and 50% of the bacteria generated daily in the sea. Mechanisms that have evolved to avoid phage infection include the clustered regularly interspaced short palindromic repeats (CRISPR) / CRISPR-associated proteins (Cas) system that provides specific heritable immunity against these invaders. It consists of a set of Cas proteins with functional domains of nucleases, helicases and polynucleotide-binding proteins. Contiguous to the cas genes there is an A/T-rich non-coding leader sequence, and downstream of this region lies the CRISPR array, composed of 30-bp direct repeats separated by similarly sized unique sequences called spacers.

CONCLUSION : In this review, the state of the art of the CRISPR-Cas system in Enterobacteriaceae has been described. However, in spite of the valuable amount of information generated so far, fundamental questions still remain, such as why only 43% of the members of this family contain this genetic system. Determining the factors that influence its loss or permanence is a matter for exciting future research. Another remarkable aspect that we need to address is whether other biological functions in the pathogenic or free-living state of Enterobacteriaceae are performed by the CRISPR-Cas systems, as well as the biological factors that influence their diversity. Better understanding of the modes of genetic regulation in different isolates should also allow for an improved comprehension in this respect. It is clear that we need to recognize that there is still a way to go before we can understand the plethora of questions and answers that the study of CRISPR-Cas in the Enterobacteriaceae family offers.

Sudoku

Fill in the numbers 1-9 exactly in every row, column and 3 x 3 region.

8	2			4			1	
		9			8	2	5	
	3			7	6	9		
4		6				8		
	1		6					
7	5		4		2	1		6
				1		3	7	
		5			7		2	9

Faculty's Eye on Trends

Role of Artificial Intelligence in Education System

Mr. Yogesh Sharma
Assistant Professor
Dept. of Computer Applications

AI has already been applied to education primarily in some tools that help develop skills and testing systems. As AI educational solutions continue to mature, the hope is that AI can help fill needs gaps in learning and teaching and allow schools and teachers to do more than ever before. AI can drive efficiency, personalization and streamline admin tasks to allow teachers the time and freedom to provide understanding and adaptability - uniquely human capabilities where machines would struggle. By leveraging the best attributes of machines and teachers, the vision for AI in education is one where they work together for the best outcome for students. Since the students of today will need to work in a future where AI is the reality, it's important that our educational institutions expose students to and use the technology.

Adjusting learning based on an individual student's particular needs has been a priority for educators for years, AI to provide learning, testing and feedback to students from intermediate to college level that gives them the challenges they are ready for, identifies gaps in knowledge and redirects to new topics when appropriate. It might be possible for a machine to read the expression that passes on a student's face that indicates they are struggling to grasp a subject and will modify a lesson to respond to that. The idea of customizing curriculum for every student's needs is not viable today, but it will be for AI-powered machines.

Artificial intelligence tools can help make global classrooms available to all including those who speak different languages or who might have visual or hearing impairments. This also opens up possibilities for students who might not be able to attend school due to illness or who require learning at a different level or on a particular subject that isn't available in their own school.

An educator spends a tremendous amount of time grading homework and tests. AI can step in and make quick work out of these tasks. AI steps in to automate admin tasks; it opens up more time for teachers to spend with each student. There is much potential for AI to create more efficient enrollment and admissions processes.

Artificial intelligence (AI) is pushing the boundaries of machine-enabled functionalities. This bleeding edge technology facilitates machines to act with a degree of autonomy, resulting in effective execution of iterative tasks.

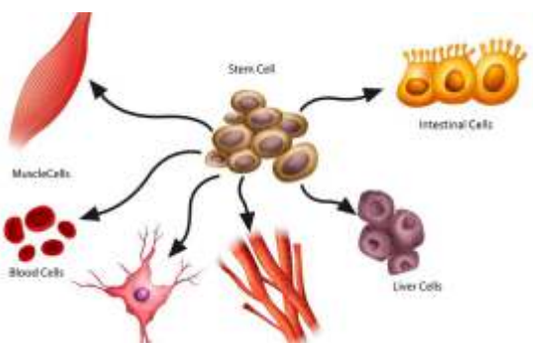
AI facilitates the creation of a next-generation workplace that thrives on seamless collaboration between enterprise system and individuals. Therefore, human resources are not made obsolete, but rather, their efforts are bolstered by emerging tech. In fact, AI provides organizations with the luxury of freeing up resources for higher-level tasks.

The following are the primary advantages of AI:

- AI drives down the time taken to perform a task. It enables multi-tasking and eases the workload for existing resources.
- AI enables the execution of hitherto complex tasks without significant cost outlays.
- AI operates 24x7 without interruption or breaks and has no downtime
- AI augments the capabilities of differently able individuals
- AI has mass market potential, it can be deployed across industries
- AI facilitates decision-making by making the process faster and smarter.

In the recent past, Artificial Intelligence has evolved from a science-fiction movie plot to an essential part of our everyday lives. Since the emergence of AI in the 1950s, we have seen exponential growth in its potential. We use AI based virtual assistants such as Siri, Cortana, and Alexa to interact with our phones and other devices; it is used to predict deadly diseases such as ALS and leukemia.

Synthetic Embryo with Stem Cells



Mrs. Pooja Sharma
Assistant Professor
Dept. of Science

For the first time in history, scientists have been able to create synthetic embryo without an egg or a sperm. With the advancement in science and technology it is now possible to develop an embryo without sperm cells. Yes this is true, currently scientists working on stem cells to develop synthetic embryo without sperm cells. Believe or not this has become possible and scientists have created an embryo with the help of stem cells. The cells were 95% naturally functional. The study provides hope to grow tissues and organs for transplantation with synthetic embryo. The cells were cultured in Petri dishes. In the study scientists attempted to develop mice cells. Now the question is how does this works? Researchers separated stem cells into three groups. One contained cells to develop into embryonic organs. Other two were pre treated for 48 hours. They were then mixed in an electronically controlled device. Scientists were able to observe the placenta and yolk sacs forming. Cells developed as if it were a natural embryo. Synthetic embryos developed for 8.5 days. They were able to see organs developed, including, beating heart, blood stem circulation, brain with well shaped folds, neural tube, intestinal tract. When compared to natural embryos, the synthetic models displayed 95% similarity. The models gave every indication of being functional.

Place of Art In Education

Mr. Amit Kumar Soni
Assistant Professor
Dept. of Arts

The purpose of art education is not to create an artist, but to develop a sense of art and artistic behaviour. For this there is no need of a separate art subject, but in the teaching of every subject, in the decoration of the school, And it is more useful to include the element of artistry in daily and annual activities. Language has a special place in all the ways man has developed for the attainment of happiness and knowledge. Various subjects of literature, philosophy, science and nature are discussed only by making language the medium. Literature gives pleasure to man, but the scope of its expression is limited. Fine arts - dance, music and other arts fill that lack. Just as literature has its own specialties of expression, so too do dance, music and fine arts. Through his senses, through the mind, he experiences the gross knowledge of all the things of the external world and experiences the feeling of their love and presents it in front of others through art. Due to the discussion of art in the field of education, both the concept and the feeling of man attains excellence and he gets the right on artistic expression. Just as the eye cannot be done by the ear, so painting,

If the aim of our education is all round development, then the place of art in our curriculum should be at par with other subjects of education. The arrangements made by the universities in our country so far are absolutely inadequate. Perhaps one of the reasons for this is that many people here believe that the art of art is only the work of professional artists, the common man has nothing to do with it. Many educated people do not feel hesitant about art because of their ignorance, let alone the common man. They do not even understand the difference between a photo and a picture. They keep looking awestruck at the Japanese children's doll as a masterpiece. Maharadi red-blue, Seeing the purple colored rappers, their eyes do not hurt in any way. To be honest, they like it. Crying for greater utility, tin cans are used. Instead of readily available earthen pots When viewed from above, the cultural progress of the countrymen is reflected in the field of education, but in the field of taste, their humility seems to be increasing in the same way.

Revolution in Indian Education System 'Swadeshikaran' of Education

Introduction: National School Board is announced by BABA Ramdev and the name prescribed is "Bhartiya Shiksha Board (BSB)" is based on Vedic Education research Institute (VERI). It is an historic task to establishment of a Vedic School in India. The command of this task is given to Patanjali's Yogpeeth Trust. Basically this proposal is submitted by baba Ramdev for revamping the education system of India through BSB against Lord Macaulay's education system which was established in 1835. The proposal is submitted in 2015 and accepted by Modi government in 2019.

Implications of new education policy: In the national conference of secretaries, PM Modi bats for better education, stresses on 5 trillion USD economies. This education system focuses on "leading not only India but the whole world". BSB will be considered as first National School Board. BSB's functions will be as to prepare syllabus, affiliation and conducting exams with issuing certificates. Through all these functions BSB has right to implement core Indian traditional knowledge, it would coalesce with modern education and according to Indian tradition studies will accelerate.

Some features of BSB:

Policy proposed to start a school board to help Indianies education by offering a mix of 'archaistic education of "Maharishi Dayanand" , "Human education of Aurobindo" ,"Vedanta education of Swami Vivekananda", and modern curriculum.

Since the approval on March 9,2019, BSB has been registered as a society and set up an office in Haridwar. With the sum of Rs.71 crore as corpus fund & development fund has been deposited in its bank account and the executive Board of BSB has also been constituted of which Ramdev is the chairman.

Dr. Shilpa Sharma
Associate Professor
Dept. of Mgmt. Studies

The BSB is likely to affiliate Ramdev's Acharyaculam; Vidya Bharti schools(run by RSS); and gurukuls run by the Arya Samaj because it will allow them to sustain their model of education up to class XII.

Conclusion

The need of Bhartiya Shiksha Board is to bridge the gap between Bharat and India. We will have education oriented to Bhartiya Sanskriti and Sanskar and it will nurture the talent to serve Bhartiya manas.

Student & Alumni Feedback

It gives me immense pleasure to call myself as a part MIMT. The classes are conducted in a very systematic manner and staff do not confine only to theory books but also expose the students to give practical knowledge. Our college not just focus on the academics but on the fact that the real life requires over-all personality growth

Geetika Kapoor (MCA III Sem)

College compus of MIMT is great and class room and environment is also good and They have provided every facility that the student needs. I feel I have the best college for my studies. I am learning many new things from my teachers who are very helpful in every way they can.

Antima Mahavar (MCA I Sem)

MIMT, is a student friendly college. We believe student should have the opportunity to fulfil ones ambitious, dreams and goals. Each student has a thought process which is unique. At MIMT endeavour to bring out that intelligence quotient and thinking skills in each student which makes him stand strong in the crowd.

Umansh Kumar Sharma (BCA Part III)

The College has a very healthy and inspiring atmosphere. The teachers who teach us are very friendly and motivate us to work together so that we can achieve more.

Nishita (BBA Part I)

The faculty at MIMT is excellent and rich in their subject knowledge. They freely interact with us and willingly clarify our doubts. They also guide us with career options.

Kapil Soni (MBA I Sem)

MIMT is a place where creativity and talent is given the first priority. It is well known for the quality and impact of its teaching.

Aashi Soni (B.Com Part I)

MIMT concentrates on individual talent and interest of a student and tries to develop it. The faculty concentrates on the student individually. The test and exams are conducted every week based on the topics covered in that week. This helps the student to remember the topic easily.

Harshita Jonwal (BBA Part II)

The faculty and staff at MIMT are always behind us and cooperative. Being in college it never compromised on any extra or co-circular activities which helps the student to get refreshed.

Mohit Jain (MBA I Sem)

Faculty members are so dedicated and supportive staff, good environment and nice discipline. Labs need to improve some machines but teachers work with full-full dedication and support.

Shikha Bhadoria (B.Sc. Microbio Part III)

A college with unforgettable experiences and memories. MIMT is a perfect blend of motivation, discipline, struggles, joy and commitment.
Here teachers put their best efforts to educate children and become their support system in every possible manner. I like the faculty and It provided me the best environment for my studies. I learned from my teachers who were very helpful in every way they could help. The teacher-student interaction was superb. The teachers were very friendly and cordial in clarifying my doubts.
This college not only inspired but also supported us 24/7 in coding while I participated and represented in smart india hackathaon.

I am grateful to my college.

Himani Trivedi (MCA 2015-2018)

MIMT nourished me to attain the acceleration to reach the terminal destination. Inspiring sessions taken by faculty members ignited the passion of learning and understanding concepts.
Praveen Chaurasiya

Praveen Chaurasiya (MBA 2017-2019)

A safe, professional and friendly learning environment. High quality teaching, assessment and management of learning; All the faculties are very supportive. I have learned so many things. Research labs are in good conditions. Faculties are very responsible and concentrate on each and every student.

Vikas Bheel (M.Sc. Microbio 2011-2013)

I inspired by the way of teaching process of the college. Teaching and non-teaching staff of this college is very sincere and hardworking. Labs are good and all the chemicals are available with good instruments.

Ronak Rathore (M.Sc. Chem. 2020-2022)

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