

Biomed

A Newsletter of Biomedical Engineering Department at Government Polytechnic for Girls, Ahmedabad

Department of biomedical engineering at government polytechnic for girls, Ahmedabad, organized an expert lecture on “Orthopedic Implants” on 7th march, 2020, from 11:00 am to 1:00 pm. The other expert lecture on “Laparoscopic Endoscopy” on the same day, was delivered by Mr. Rasik Patel from Olympus Medical Systems India Pvt. Ltd., at 1:30 am to 3:30 pm. Both the speakers gave extensive details on their areas of work with the help of practical demonstrations of the devices. Total 40 students of BM dept. benefited from the event.

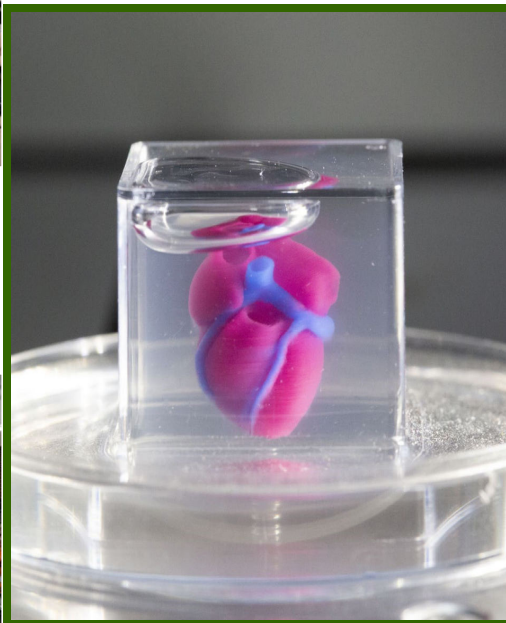
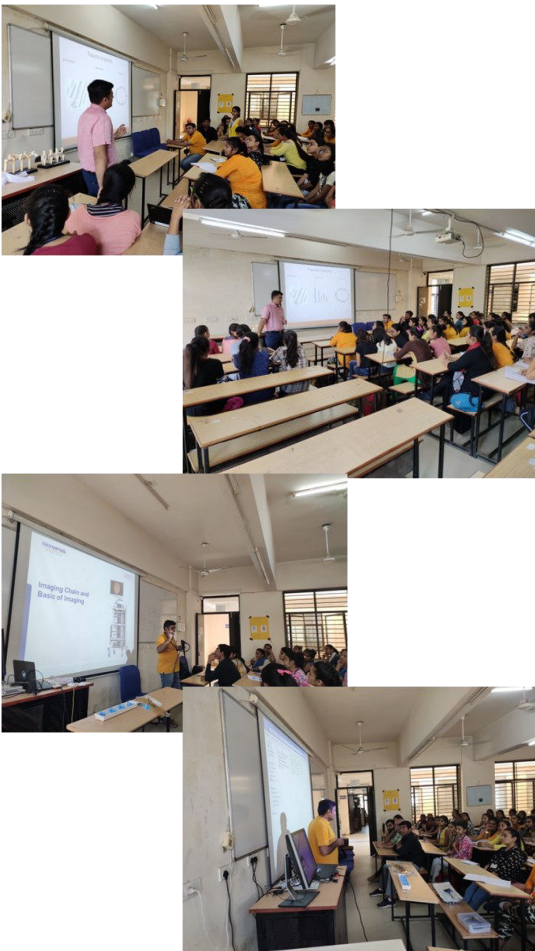
The students of semester IV and semester VI participated as audience in “IDEAthon2020” held at GTU chandkheda on 6th march, 2020, by ATAL INCUBATION CENTER, GTU. In this event, the project ideas were demonstrated by the participants. The focus areas were medical devices and allied areas, applications of IT, IOT and AI in healthcare and biotechnology & lifesciences. Total 28 students from semester IV and 26 students from semester VI accompanied by two faculty members Ms. J.H.Suthar and Ms. A.R.Dalwadi participated in the event.

Issued: April, 2020



Special points of interest:

- Mr. Rakesh D. Motka, lecturer and incharge head of the department, have completed 1 week training to validate Cos Pos PEOs and their mapping for biomedical engineering diploma course in the month of January, 2020.



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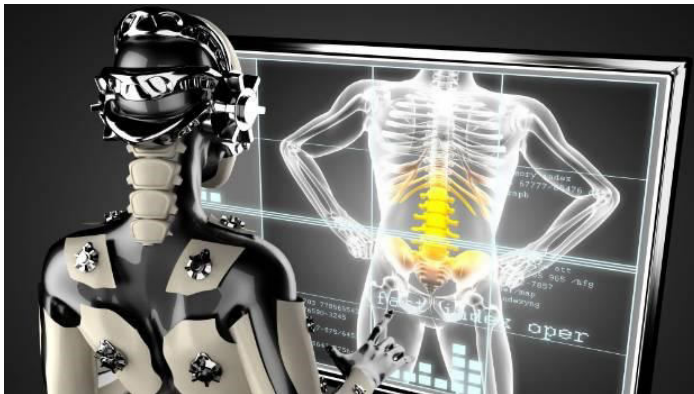
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In the picture: The first ever 3-D bioprinted heart at the university of Tel Aviv, Israel, A 3D heart printed by Matricelf, whose founder, Tal Dvir, says, “I think that within 10 to 15 years, we’ll be able to print for every patient the personalized organ or tissue they need.”

Year 2019 top 3 innovations in biomedical engineering field worldwide :

1. Alternative Therapy for Pain: Fighting the Opioid Crisis

The opioid crisis has been declared a public health emergency. Today, chronic pain is the leading cause of opioid prescription. Though several clinically validated alternative therapies for chronic pain exist, none have curtailed the crisis. Now, innovation and potential for hope comes by way of pharmacogenomic testing, which uses a patient's genetic makeup to predict an individual's metabolism of drugs, including some opiate-based drug.

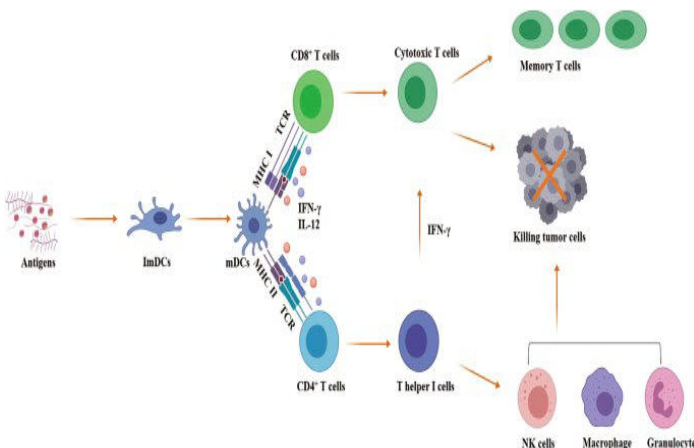
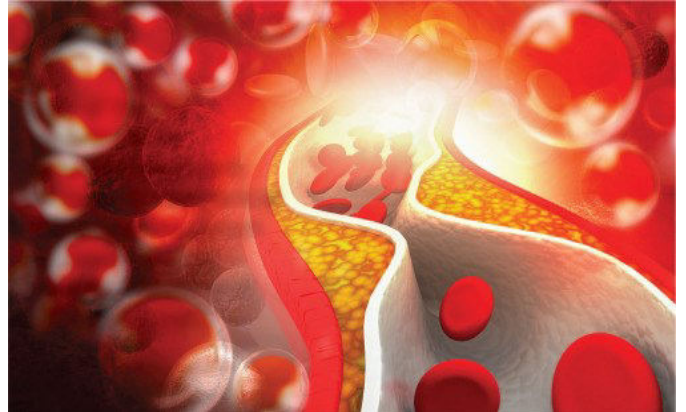


2. The advent of AI in healthcare

Once thought as a futuristic threat to humankind, artificial intelligence is now a part of everyday life. In healthcare, AI is changing the game with its applications in decision support, image analysis and patient triage. Today, artificial intelligence is helping physicians make smarter decisions at the point of care, improving the ease and accuracy of viewing patient scans and reducing physician burnout. For instance, machine learning algorithms have the ability to highlight problem areas on images, aiding in the screening process and quickly making sense of the mountains of data within a physician's EMR sys-

3. Expanded window for acute stroke intervention

When it comes to stroke intervention, a timely response is critical. Prolonged lack of blood flow following a stroke can cause irreversible destruction, often resulting in disability. In many cases of stroke, intervention methods can be deployed to save tissue. But until now, intervention of a stroke has only been recommended within a limited window of time. Released this past year, new guidelines suggest an expanded window for treatment. This lengthened timeframe is anticipated to lower the risk of disability and provide opportunity for recovery to an increased number of future stroke patients.



3. Advances in Immunotherapy for Cancer Treatment

Cancer immunotherapy, or biologic therapy, is a technique that uses the body's own immune system to fight cancer. While immunotherapies for cancer have existed for some time, the worldwide work toward a cure for cancer continues to highlight new and novel immunotherapeutic targets. Scientists are creating life-changing new cancer treatments through the concepts of joint therapy and engineered T-cells. With the near daily discovery of new immunotherapeutic targets and biomarkers, it is the hope that effective therapies will soon exist for all tumor profiles.

Result

Top 5 students (semester I)

RANK	ENROLLMENT NO	NAME	SPI
1	196140303074	ZINZUWADIA YATRI DHIRENBHAI	8.77
2	196140303039	PATEL ANJALIBEN NARENDRABHAI	8.73
3	196140303033	PANCHAL SHIVANGI JAYESHBHAI	8.23
4	196140303019	KAPLE SHRADDHA	7.77
5	196140303016	KAMADIYA KRUPALI RAJESHBHAI	7.6

Top 5 students (semester III)

RANK	ENROLLMENT NO	NAME	SPI
1	186140303058	VARMA PAYAL GOVIND PRASAD	8.4
2	186140303026	MANSI PATEL	8.33
3	186140303016	ENJAMURI AISHWARYA SRINIVASARAO	8.17
4	186140303049	RAULJI SHRUTI KIRITSINH	7.9
5	186140303034	PARMAR MEGHNABEN GOVINDSINH	7.83

Top 5 students (semester V)

RANK	ENROLLMENT NO.	NAME	SPI
1	176140303032	PANCHAL RITU HIRENBHAI	9.2
2	176140303030	MODI VEDANSHI YOGESHKUMAR	9
2	176140303025	JOSHI MARGI HITESH	9
2	176140303005	BHAVSAR AAYUSHI SUNILKUMAR	9
2	176140303006	BHAVSAR ZEEL DILIPKUMAR	9
3	176140303015	DEVINA CHAUHAN	8.6
4	176140303017	DUBEY AAYASI PRAFUL	8
5	176140303011	CHAUDHARI MANISHAKUMARI MAHESHBHAI	7.8

SSIP (Student Start-up and Innovation Policy) project details

SR. NO.	ENROLLMENT NO.	NAME OF STUDENT	TITLE OF PROJECT	AMOUNT OF GRANT RECEIVED UNDER SSIP
1	176140303005	BHAVSAR AYUSHI S.	AUTOMATIC MEDICATION DISPENSER	11,800/-
2	176140303025	JOSHI MARGI H.		
3	176140303033	PANCHAL SHWETA S.		

Faculty Training Details

Sr. No.	Name of Faculty Member	Date	Title of Training	Duration
1	Rakesh D. Motka	13/01/20 20 to 17/01/2020	Validating Cos Pos PEOs and their mapping	1 week

Co-curricular activities

Sr. no.	Date	Event	Organization	Area of study	No. of students
1	7/3/2020	Expert Lecture	Mr. Rachit Shah from Johnson & Johnson	“ORTHOPEDIC IMPLANTS”	40
2	7/3/2020	Expert Lecture	Mr. Rasik Patel from Olympus	“LAPAROSCOPIC ENDOCOPY”	40
3	6/3/2020	Project demonstration	Organized at GTU CHANDKHEDA	“IDEAthon2020”	54

Let's play and learn...

Lets find out the below mentioned words in this crossword...!!

G M S Z J B G K M J Q M P G N N A H N V O M C B
 N F H Y X G F E X A F J C K P D E L B N J I V M
 I M G F B K Z H R O U W F M F I C V W L P N H V
 R L Y G M O S V H H C N U P I H A L G V J G U M
 E Y T U Z M O K I O C O X I M W P D D L P U U W
 E C B D Y W L O P O S I I D P E I Q V O X C A T
 N P E N T E R I C T S T B O T B L M B I K W D W
 I D T B P W D N K S Z S N Y D U L J E A Y X A A
 G H I M F X M G C A A E N M N P A N P B S J P T
 N K U R J X T M S S B G J R A A R L U C B M T V
 E L V A E U Q A L P B I G H W D Y L V R O N I W
 L V Q N G H T S Y N C D R Z J O J K J K D O V Y
 A L L I N I O R X A G R E Y V O W N S M F I E U
 C J X M H P C M V T C C T E L J O U O A O T T T
 I N O U V A H C J Z L Y E K M W S Y I K I A E A
 D O T T Z K R L V B D R H X N O G N F O H T C Q
 E I T N E T S O H L F E T C M Y T R A E H U H P
 M T X L X S U D D H W T A M Q A N I E V P P N Y
 O A D N P G B M L G G R C H D Y W D T D N M O V
 I L F P X W V V L V F A M H N A C T B K P A L Q
 B U I C I T E H T S O R P W E J D Y P Y Y I O Z
 M M A X A J X A Q V S I S E H T O R P W K T G X
 V I F O F O M E S O K J V J R L Q S J U K F Y E
 S S R I Q W H M B U U L Z H V Q M M F M L P U M

Digestion Enteric Simulation Stent Plaque Catheter Heart Capillary Vein Artery
 Prosthetic Prosthesis Amputation Adaptive Technology Biomedical Engineering