IT TRUMPET

Newsletter
Department of Information Technology
Government Polytechnic for Girls,Ahmedabad

Dec 2022: Volume 9 (June 2022 to Nov 2022)

Our Vision

To be a centre of excellence for girls in Information Technology by preparing them to be efficient problem solvers, innovators and entrepreneurs in the era of dynamic IT field as well as to empower women by providing roadmaps that foster professionalism, humanism and social responsibility.

Our Mission

- **To provide excellent field related technical knowledge and skills.**
- **To foster interpersonal and leadership skills through co-curricular and extracurricular activities and thus develop a thirst for lifelong learning among students.**
- **To create a vibrant and an intellectually stimulating environment for students to empower them for real world problem solving.**

Message from HOD

Dear Readers,

We at Information Technology Department, creating a supportive and inclusive environment where our students are encouraged to explore their potential and achieve their personal best in all aspects of their college life.

With the rise of Ahmedabad city and Gujarat state on international level, we strive to nurture global capabilities in young students by instilling in the young minds importance of skill along with trust and ethics. I firmly believe that future will build on the firm foundation focussing on the quality of college life.

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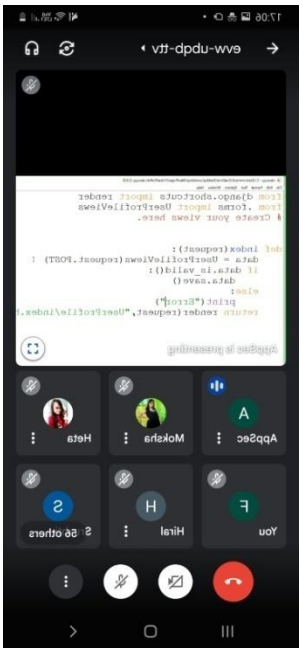
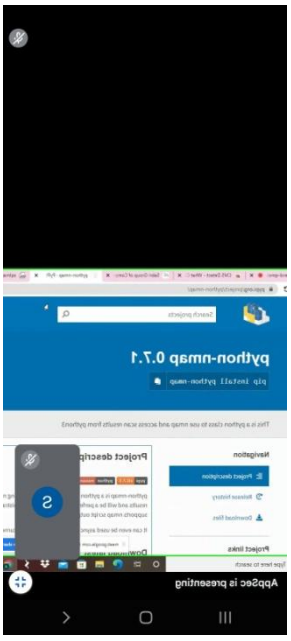
I have joined this institute during September 2022 and from very first day, I intend to speed up our accreditation process. Because accreditation will give this generation a global recognition. I really appreciate faculty members and students for helping and adjusting in their own way for shifting department at completely new place. Faculties have put up lots of hard work even during holidays. Wishing this new building and space will embark on a journey of success.

Mr. Nandu A. Fatak

DEPARTMENT ACTIVTIES

Sr. No	Activities	Date
	Seminar	
1	Hands on session on Advanced PYTHON	16-06-2022, 18-06-2022
2	Application of PYTHON	05-07-2022
3	Angular and .NET	18-10-2022
4	Computer Network	18-111-2022
	Industrial Visit	
1	TOPS Technology	02-06-2022





Hands on session on Advanced PYTHON

Industrial visit at TOPS Technology

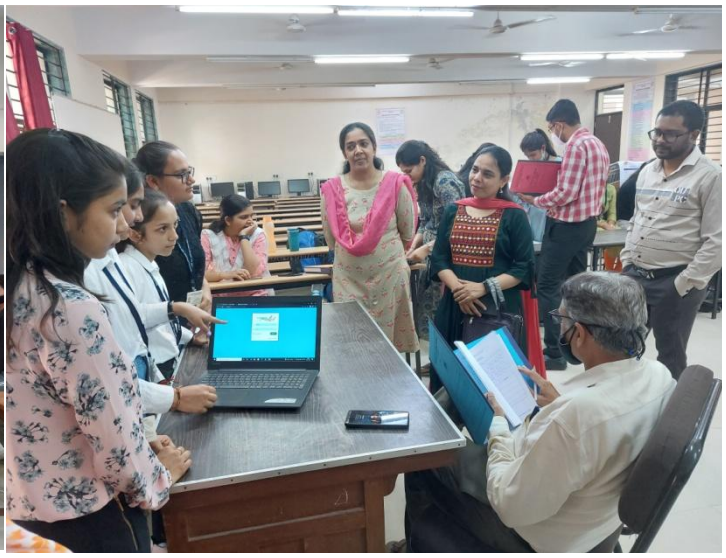
Our Top Rankers in Institute and University (Summer 2022)

Sr. No	Enrolment No	Name	Semester	Rank
1	216140316023	Rathod Smita jagdishbhai	2	1st Rank in Institute
2	216140316107	Varma Tisha hiteshbhai	2	2nd Rank in Institute
4	216140316040	Jadon Sweta dineshsingh	2	4th Rank in Institute
5	216140316033	Vaja Binal nareshkumar	2	5th Rank in Institute
7	216140316024	Thakor Nneha manubhai	2	7th Rank in Institute
8	216140316055	Prajapati Princy manish	2	8th Rank in Institute
9	206140316011	Maheshwari Ritika Jitendra kumar	4	1st Rank in GTU TOP 10
10	206140316011	Maheshwari Ritika Jitendra kumar	4	1st Rank in Institute
11	206140316017	Patel tisa Jigneshkumar	4	6th Rank in Institute
12	206140316102	Aachal Agarwal	4	10th Rank in Institute
13	196140316091	Patel honey Manilal	6	2nd Rank in Institute
14	196140316006	Bhatt Astha arpit	6	4th Rank in Institute
15	196140316085	Patel Diya chiragbhai	6	8th Rank in Institute

Project Fair Techno SARITA 2022

A Project Fair named "Techno Sarita" was held on 08/04/2022, Friday at NB-002 (New Building). Participants of the project fair started to arrive at 11:30 AM in NB-002. Participants started their work with setting up their banner and arranging their project work in space given to them.

All Internal Guides suggested their best project for Project Fair which was held on 08/04/2022. From that, total 12 Projects were selected for project Fair. For Evaluation of Project in Project Fair, 2 Experts were invited by HOD, IT Department. One was Prof. Mehul Parikh from LD Engineering college-Ahmedabad, Academic Expert and second was Mr. Chintan Nagrecha from Infolabz, Industry Expert. Both experts evaluated all groups and selected below projects and ranked them as per marks. All winners were awarded with Shield and certificate. All participants were given certificate of appreciation



Technical Article

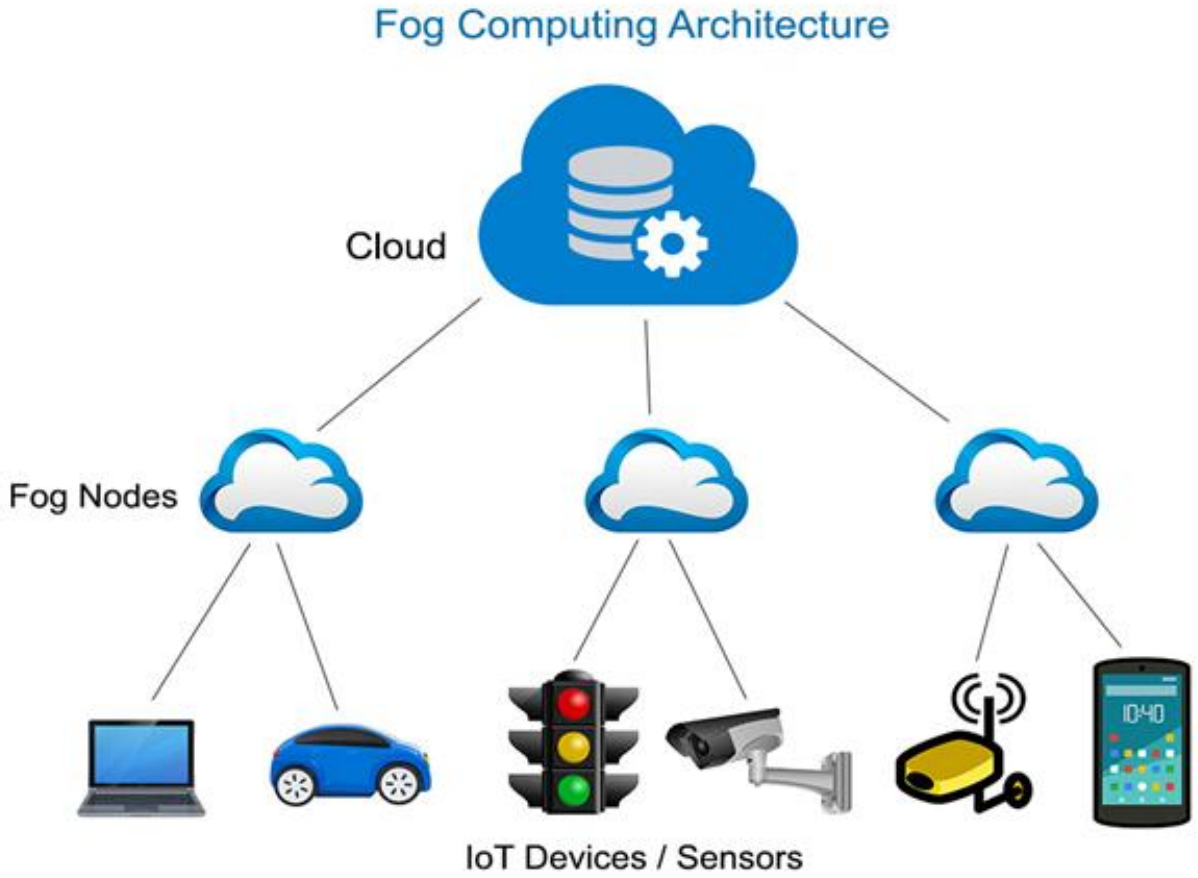
What is Fog computing?

Fog computing is a distributed computing model acting as an intermediate layer between Cloud datacentres and IoT devices/sensors offering storage facilities ,compute, networking so that Cloud-based services can be extended closer to the IoT devices/sensors. The concept of Fog computing was first introduced by Cisco in 2012 to address the challenges of IoT applications in conventional Cloud computing.

Environment of Fog computing is comprised of traditional networking components such as switches, proxy servers ,routers, set top boxes, Base Stations, etc. and can be located nearer to IoT devices/sensors as shown in Figure which are provided with different storage, networking ,computing capabilities. The components of Fog computing enables to create huge Cloud-based services geographically, additionally it provides facility for scalability ,location awareness, mobility support , interoperability, real-time interactions.

Fog computing performs efficiently in network traffic, capital and operational expenses, service latency, content distribution ,power consumption etc. and hence it proves better than simply usage of cloud services only . Extension of cloud is named as ‘Fog’, which produces and act on IoT data. These devices are known as fog nodes that can be used anywhere in network connection such as alongside a railway track, on a factory floor, in a vehicle, on top of a power pole or on an oil rig. Thus, fog node is a device that can compute, store

and has a network connectivity such as video surveillance cameras, industrial controllers, switches, embedded servers, routers. Cloud and Fog are connected using Fog nodes with cloud platform.

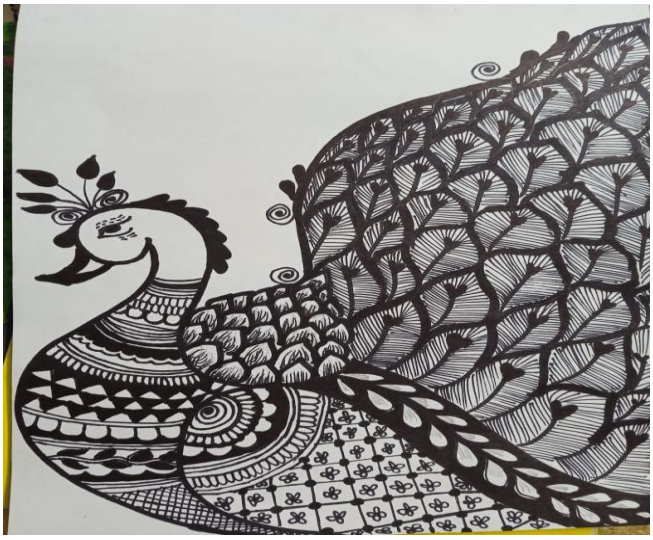


Source:
IEEE journal Paper (Pooja V. Garach, Lecturer in IT)

Student Zone

Rangoli art by Nidhi Tahkkar

Beautiful thought in to picture by Jolapara Vishwa

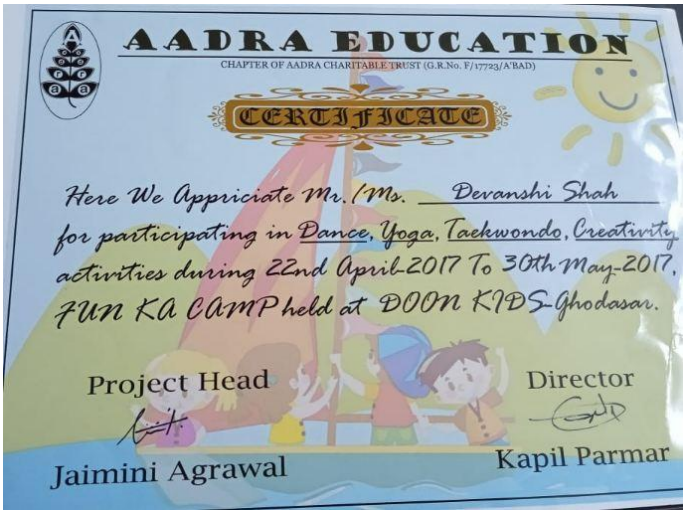


Art by Devanshi Shah

Student Achievements

Nidhi Tahkka

Shreya Chaturvedi



Devanshi shah

Things to Know

Holographic Technology

It is capable of producing a full-color 3D hologram of the human body. Three-dimensional representations of complicated organs such as the brain, heart, liver, lungs, nerves, and muscles may be viewed by students and professionals. This technology can also be used to aid with surgical planning

How Does Holographic Technology Work?

A laser light beam is split into two identical beams, one of which is targeted at the item and the other is spread throughout the recording media (illumination beam or object beam). Using mirrors, the second beam (reference beam) is deflected onto the recording device without passing through the object.

A common recording media is photographic plates. The two laser beams collide and interfere with each other at the recording medium. This interference pattern is captured on photographic plates.

A 3D picture reconstruction consists of three primary processes, which are as follows.

Sequential recording from a varied angle or multi-camera capture

The recorded data is transformed to a display-friendly format

Data from many SLMs is shown to increase the viewing angle.

For 3D projection in mid-air, a 3D object reconstruction device and aerial projection equipment are required. A three-dimensional holographic image is created by the reconstruction device. Furthermore, the aerial projection device generates a 3D hologram in mid-air.

Source:

https://www.analyticssteps.com/blogs

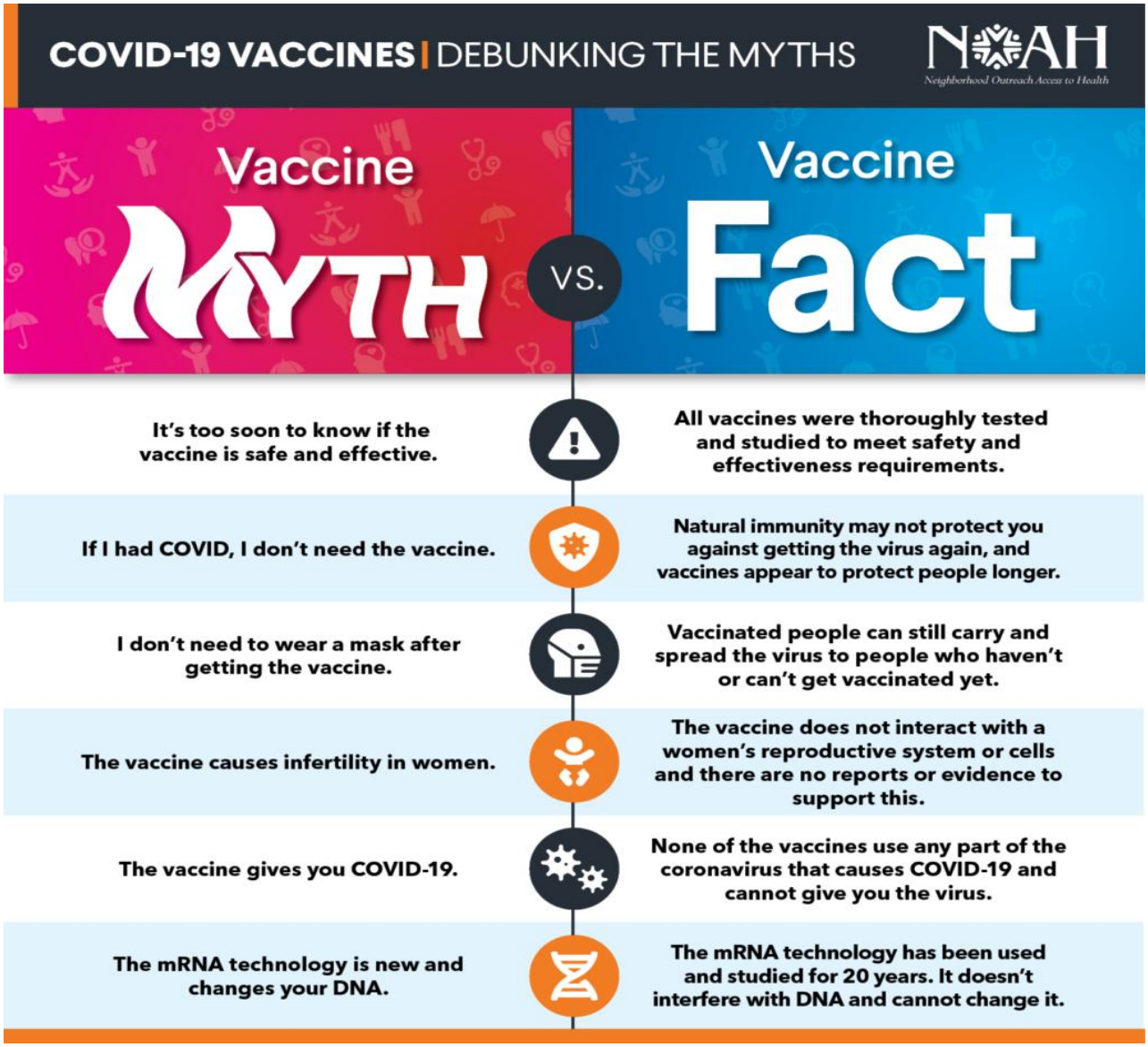
Staff Coroner

સારનાથઃ બુદ્ધે જ્યાં પહેલો બોધ આપ્યો૮

વર્તમાન બિહારના બોધ ગયામાં પીપળા નીચે ભગવાન બુદ્ધને આત્મજ્ઞાનની પ્રાપ્તિ થઈ હતી પરમ જ્ઞાન . જીવનનો પ્રથમ ઉપદેશ તેમણે જ્યાં આપ્યો◌ી તે સ્થળ . લોકો સુધી પહોંચાડવા તેમણે ઉપદેશનું માધ્ય મ લીધું આ પવિત્ર જગ્યાએ વિહ . વારાણસીની ઉત્તરે આવેલું સારનાથ હતું◌ાર બન્યાં, વિધર્મી આક્રાંતાઓ દ્વારા નષ્ટ પામ્યાંન અને ફરી ભૂગર્ભમાંથી બેઠાં થયાં આજે તેનાં અવશેષો બુદ્ધની યાદ અપાવતા પડ્યા છે.

Source:
Article by Pooja V. Garach(Lecturer IT)

Myth and Fact



Source:
https://noahhelps.org/

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