



# Birla Vishvakarma Mahavidyalaya

&

## CSI Student Branch

### Computer Engineering Department

**Annual Report 2018-2021**

CSI Student Branch, Birla Vishvakarma Mahavidyalaya

## Charutar Vidyamandal

CVM was established in the year 1945 by Shri Bhaikaka and Shri Bhikhubhai as a charitable trust with the prime objective of rural development through education to bring about the social awakening, social uplift, and enrichment. In the 1990s when, Dr. C L Patel took over the reign of CVM as the chairman, the country was facing a major economic and ideological change paving the way for globalization and liberalization and through his dynamic leadership, missionary zeal and visionary outlook. CVM rejuvenated the ongoing education system but added a modern education campus at new Vallabh Vidyanagar.

Recently, Er. Bhikhubhai Patel took the charge. He is a visionary personality with a goal to enhance the quality of education using recent technological advancements. It runs 48 institutions from kindergarten to post doctorate, almost in all branches of education and catering more than 50, 000 students from 21 states and 12 countries across the world.

## Birla Vishvakarma Mahavidyalaya College

Birla Vishvakarma Mahavidyalaya Engineering College was established in 1948 from donations made by the Birla Education Trust on the behest of Sardar Vallabhbhai Patel, the first home minister of independent India. The college was inaugurated by Lord Mountbatten, the governor general of India on 14 June 1948, and rose to prominence under the stewardship of Prof. Junarkar and Prof. K.M. Dholakia. It was one of the first few colleges in India that adopted the progressive credit system of relative grading. The college has awarded degrees to over 17,000 graduates, and has its alumni spread across the globe.

## Computer Engineering Department

Computer engineering program commenced in 1991. Department of Computer Engineering is progressing at a rapid pace with the development in terms of infra-structure facilities, upgraded curriculum and learned faculty. Besides offering undergraduate (B. Tech. in Computer Engineering) it also offers Post Graduation in Computer Engineering. The department is privileged to have a highly experienced faculties.

BVM Engineering College has been granted academic autonomy by UGC with effect from academic year 2015-16. With the involvement of experienced academicians, industry

experts and alumni, Computer Engineering Department has designed a new curriculum to meet the current industry needs.

The department has well-equipped laboratories comprising of computers with latest configuration and dedicated class rooms. The whole campus is fully networked with fiber backbone and Wi-Fi.

Department organizes remedial classes for academically weak students, various expert talks and workshops on emerging technologies like PHP, Mobile Application development, Python programming, IoT, Cloud Computing, Big Data Analytics etc. Regular and rigorous mentoring of students is done by faculty members.

## Computer Society of India (CSI)

Computer Society of India (CSI) is the first and largest body of computer professionals in India. It was started on 6 March 1965 by a few computer professionals.

The Computer Society of India is a non-profit professional society and meet to exchange views and information, learn and share ideas. The wide spectrum of members is committed to the advancement of theory and practice of Computer Engineering and Technology Systems, Science and Engineering, Information Processing and related Arts and Sciences.

## List of Events under CSI

Sr. No	Title	Date	Total Participants
1	Inaugural function of Student Branch of CSI at BVM Engineering College, Vallabh Vidhyanagar followed by an Expert talk on “Distributed System”	07-07-2018	75
2	Workshop on Software Defined Networks (SDN)	21-07-2018	35
3	Animation workshop on Blender	25-07-2018 28-07-2018	30 Students from 2nd & 3rd year CP
4	Workshop on System Design using Machine Learning Techniques	05-01-2019	50 Students from 2nd & 3rd year CP
5	Network Administration using Cisco Packet Tracer	09-02-2019	40
6	Workshop on Android App Development	16-02-2019	30
7	CSI expert talk on Arduino and Raspberry PI	09-03-2019	55 Students from 1st Level CP
8	CSI workshop on Bigdata Analysis (under CSI & Teqip III)	29-06-2019	36 Students from 2nd & 3rd year CP
9	CSI ‘Blender Workshop’ Sponsored by TEQIP-III (1st Session)	06-07-2019	21 Students from 2nd year CP
10	CSI ‘Blender Workshop’ Sponsored by TEQIP-III (2nd Session)	13-07-2019	21 Students from 2nd year CP
11	CSI ‘Code Crunch’ Competition	20-07-2019	40 Students from 2nd & 3rd level CP & IT
12	CSI ‘Code Crunch Competition’ on hackerearth platform	11-12-09-2019	41 Students from 2nd & 3rd Level CP & IT
13	CSI Workshop ‘ Database Design: A Practical Approach’ Sponsored by TEQIP-III	14-09-2019	32 Students from 2nd level CP

14	CSI Four Day Workshop on “Graphics Application Development using UNITY”	16-09-2019 to 19-09-2019	30 students of 3rd level IT
15	AWS Educate Centre, BVM & CSI Workshop on ‘ Cloud Computing using AWS’	18-09-2019	30 Students from 3rd level CP
16	CSI & ISTE Workshop on “ Design of Digital System”	12-10-2019	80 Students from CP & EL
17	CSI one day workshop on “ Machine Learning & its Applications”	28-12-2019	27 Students from 3rd level CP
18	Webinar on Python with Django (Jointly organized by CSI and CP Dept.)	18-04-2020	42 Students from 2nd & 3rd Level CP
19	CSI ‘Code Crunch Competition’ on hackerearth platform	25-04-2020	70 Students from 2nd & 3rd Level CP & IT
20	National Level Webinar on ASP.NET Core (Jointly organized by CSI and CP Dept.)	07-06-2020	70+ students and faculty members from 7 states including Gujarat
21	Webinar on How to Create 3D Games Using Unity (Jointly organized by CSI and CP Dept.)	10-06-2020	182 students and faculty members from different states of India
22	Webinar on Android (Jointly organized by CSI and CP Dept.)	06-07-2020	33 Students from 4th Level CP
23	Expert talk on Cryptography & Firewall (Jointly organized by CSI and CP Dept.)	12-09-2020	50+ Students from 3rd Level CP
24	Expert lecture for GATE 2021 Preparation on Data Structure and Algorithms under CSI	12-13-09-2020 & 24-27-09-2020	40 Students from 4th Level CP
25	Coding Competition named 'Code-Rage' (on online Platform - HackerEarth) jointly organized by BYTE Club of Computer Eng. Dept. and CSI Students Chapter	20-09-2020	54 Students from 2nd Level CP
26	Expert lecture for GATE 2021 Preparation on Operating System under CSI	24-25-09-2020	20 + Students from 4th year CP

27	Expert lecture for GATE 2021 Preparation on Database Management System under CSI	26-27-09-2020	25 + Students from 4th year CP
28	Webinar on ANN & its Applications (Jointly organized by CSI and CP Dept.)	23-01-2021	53 Students from 2nd,3rd and 4th Level CP
29	Webinar on React JS (Jointly organized by CSI and CP Dept.)	27-02-2021	40 Students from 2nd and 3rd Level CP
30	Webinar on Importance of Software Engineering (Jointly organized by CSI and CP Dept.)	06-03-2021	55 Students from 3rd Level CP

# CSI Events

From 1<sup>st</sup> July 2018 to 28<sup>th</sup> Feb 2019

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6	Workshop on Android App Development	16-02-2019	30

## Event: Inauguration Ceremony of CSI student branch and Expert Talk

Date: 7<sup>th</sup> July, 2018

Venue: BVM Engineering College

Brief:



Inaugural function of Student Branch of CSI at BVM Engineering College, Vallabh Vidhyanagar an initiative of Computer engineering department followed by an Expert talk on “Distributed System” was held on 7th July, 2018. In the Inauguration Function, Dr. I. N. Patel, Principal, BVM Engineering College, presided over the function. Dr. D. B. Choksi, Professor, Post Graduate department of computer science, Sardar Patel University was the chief guest and expert speaker. The other members on the dias were Dr. S. D. Dhiman, TEQIP III Coordinator, Dr. D G Thakore , Head of Computer engg dept and Dr N M Patel, student branch counsellor. The ceremony initiated with a small welcome to all the dignitaries, faculties and students attending the event.

The event was taken forward with a Prayer and Lamp Lighting conducted by the dignitaries. Following this, there was a small talk by Dr. S. D. Dhiman complementing the idea of starting the CSI Chapter. Attending the function as the guest of honor, Dr. D. B. Choksi narrated the history and the working of the CSI Chapter stating its various activites, magazines, publications, conventions and more. It was followed by a Presidential address by the Dr. I. N. Patel.

The event then extended towards the Expert Talk on DISTRIBUTED SYSTEM by the chief guest Dr. D. B. Choksi. The talk covered various aspects briefing about the real concept of a distributed system, various principles and paradigms behind it, it's characteristics, strength and weaknesses, Hardware architecture etc., through a series of real life example giving a glass clear explaination to all the attendants of the event.

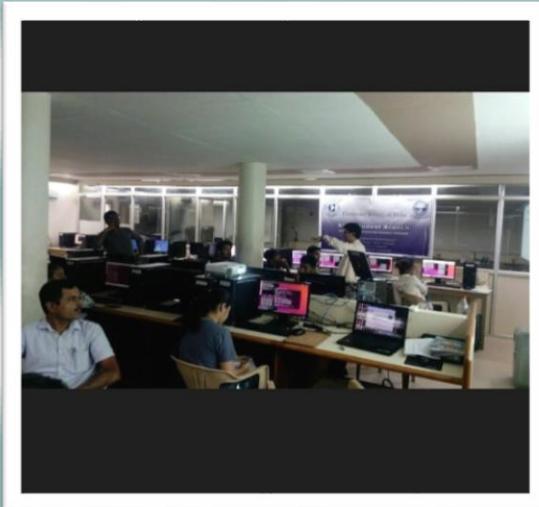
**Expert:** Dr. D. B. Choksi, Sardar Patel University.

## Event: Workshop on Software Defined Networks (SDN)

Date: 21<sup>st</sup> July, 2018

Venue: BVM Engineering College

Brief:



A Session/Workshop on Software Defined Networks (SDN) had been organized by CSI Student Branch, BVM Engineering College on 21st July, 2018 Saturday. The event was conducted by Dr. Ritesh Patel, professor at CSPIT, Charusat and was coordinated by Dr Mayur Vegad, Professor, BVM Engineering College. CISCO Packet Tracer, a cross-platform visual simulation tool was used to create network topologies and imitate computer networks during the session. The event took place in two sessions.

Overall it was an interactive session where along with theoretical aspects practical implementation was also carried out which helped the attendants in understanding the network architecture in dept. The session was ended with a vote of thanks by Dr. Mayur Vegad.

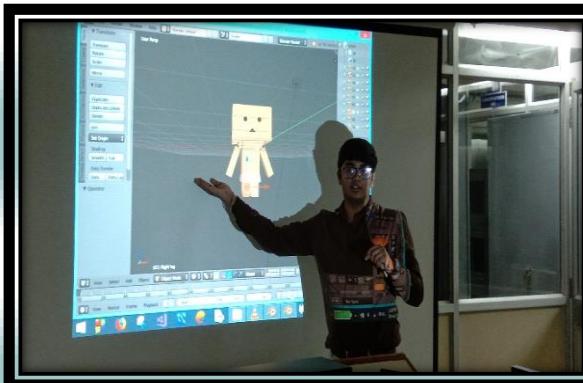
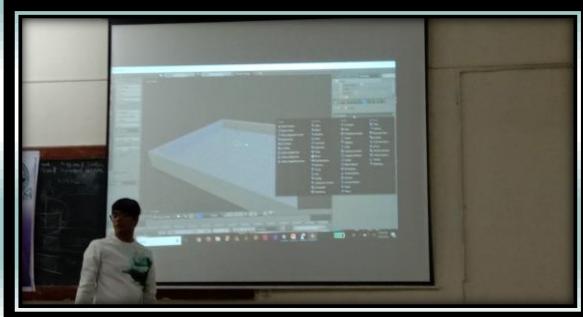
**Expert:** Dr. Ritesh Patel, CSPIT, Charusat.

## Event: Animation workshop on Blender

Date: 25<sup>th</sup> July, 2018 & 28<sup>th</sup> July, 2018

Venue: BVM Engineering College

Brief:



BVM CSI Student Chapter had organized the first session of Animation workshop on 25th July, 2018 for introducing Blender, a 3D computer graphics software toolset for the students of 2nd and 3rd year Computer Branch. The session was conducted by Abhishek Shingadiya, Student Coordinator and was coordinated by Dr. N. M. Patel, CSI Student Branch Counselor. The session initiated with a small presentation on the various features of Blender and the type of work that can be achieved using the same, a short video clip created by the development committee at Blender. The actual interaction with the software started with some basic shortcuts for creating a new object, its scaling, rotation, translation.

A Water Tub was selected as the project to be developed during the session. Techniques for creating block structures, defining different projections, changing the dimensions and appearance of a surface, adding properties to elements, rendering etc was taught, along with a practical application of the same. Important information regarding the rendering and processing

time according to different parameters was explained. The session ended with a video clip created by the Abhishek Shingadiya as a project showing the work that can be created using the software.

BVM CSI Student Chapter had organized the second session of the Animation workshop on 28<sup>th</sup> July 2018 for introducing Blender and continuing the previous session, for the students of 2nd and 3rd year Computer Branch.

The session started with an overview of the previous session work and solution of student's doubts. A Pair of Falling Dice was decided as the project for the session. Techniques for creating dice structures, working with its different projections and changing the dimensions for proper appearance, adjusting the position of camera frame for a perfect view, adding properties to enhance the movement of the dice, defining different surface attributes within the same structure and working with its properties, lamp and its position etc., was taught in the session.

In all the students showed huge interest in the entire workshop and were always ready to explore new things and thus showed a positive feedback to the same.

**Expert:** Abhishek Shingadiya, Student, BVM Engineering College.

## Event: Workshop on “System Design using Machine Learning”

Date: 5<sup>th</sup> January, 2019

Venue: BVM Engineering College

Brief:



The CSI Student Chapter of BVM Engineering College, Vallabh Vidhyanagar had organized a One Day Workshop on System Design using Machine Learning Techniques on 5th January, 2019. Dr. S. D. Dhiman, TEQIP III Coordinator, BVM Engineering College had graced the occasion as the chief guest. The workshop was conducted by a Guest Lecturer Dr. Priyank B Thakkar, Associate Professor, Nirma University. The event was initiated with a small welcome to all the dignitaries, faculties and students. It was followed by a brief introduction of the Expert Lecturer Dr. Priyank B Thakkar and was welcomed by Dr N. M. Patel, CSI Student Branch Counselor, BVM Engineering College. Followed by an introduction of the chief guest Dr. S. D. Dhiman, he was welcomed by Dr. D. G. Thakore, Head of Department, Computer Branch, BVM Engineering College. A glimpse of all the different activities that were done by the Computer Department under TEQIP-III, with an aim of fulfilling the department's vision was given by Dr. D. G. Thakore. It was followed by a short address by Dr. S. D. Dhiman. The event was then handed over to the Guest Lecturer Dr Priyank B Thakkar.

The workshop started with an Introduction of Machine Learning and Deep Learning. The event ended with a vote of thanks by Dr. N. M. Patel. Overall it was an interesting workshop that helped students in choosing their projects and showed paths for working in the field of Artificial Intelligence.

**Expert:** Dr. Priyank B Thakkar, Nirma University.

## Event: One Day Workshop on “Network Administration using Cisco Packet Tracer”

Date: 9<sup>th</sup> February, 2019

Venue: BVM Engineering College

Brief:



The CSI Student Chapter of BVM Engineering College, Vallabh Vidhyanagar had organized a One Day Workshop on Network Administration using Cisco Packet Tracer on 9th February, 2019. The workshop was coordinated by Prof. Kirti Sharma and was conducted by Prof. Priyang Bhatt, Assistant Professor, G. H. Patel college of Engineering and Technology.

The workshop gave a brief about designing, configuring and troubleshooting real time network device. Various topics were covered during the workshop like, Introduction to different network simulators, basics of computer networking, introduction to CCNA, exams related to Cisco Packet Tracer and opportunities available with the same, basics of Cisco Packet Tracer, live demonstration on testing the reachability of a host etc.

It was the perfect time for the workshop as students had some theoretical knowledge about network devices as a part of their curriculum. It is well said that an image is better than thousand words so is the case with workshop i.e. live demonstration of real time network devices, their configuration and their troubleshooting is better than learning it by just imagining it. This workshop really helped students to clear their concept about computer networks.

**Expert:** Prof. Priyang Bhatt, G. H. Patel college of Engineering and Technology.

## Event: Workshop on “Android App Development”

Date: 16<sup>th</sup> February, 2019

Venue: BVM Engineering College

Brief:



The CSI Student Chapter of BVM Engineering College, Vallabh Vidhyanagar had organized a One Day Workshop on Android App Development on 16th February 2019. The workshop was coordinated by Prof. H. D. Vasava, Assistant Professor, BVM Engineering College. Mr. Shreyansh Bhavsar, Rishab Software and Mr. Parth Patel, Shareware were the experts for the event. The event started with a brief Inauguration. Dr. I. N. Patel, Principle, BVM Engineering College and Dr. D. G. Thakore, Head of Computer department, BVM Engineering College were present for the same. They inspired the students with their motivating words. It was followed by the welcoming of the experts. The workshop covered the basics of an Android app and how to create one using Android Studio.

Overall the event had a good response from the students. It created a strong base for the students to work further in the field of Android App development. The event ended with Prof. H. D. Vasava thanking both the experts for sharing their time and knowledge by offering them certificates as a token of thanks.

**Expert:** Mr. Shreyansh Bhavsar, Rishab Software and Mr. Parth Patel, Shareware.

# CSI Events

From 1<sup>st</sup> March 2019 to 30<sup>th</sup> April 2020

Sr. No	Title	Date	Total Participants
1	CSI expert talk on Arduino and Raspberry PI	09-03-2019	55 Students from 1st Level CP
2	CSI workshop on Bigdata Analysis (under CSI & Teqip III)	29-06-2019	36 Students from 2nd & 3rd year CP
3	CSI 'Blender Workshop' Sponsored by TEQIP-III (1st Session)	06-07-2019	21 Students from 2nd year CP
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5	CSI 'Code Crunch' Competition	20-07-2019	40 Students from 2nd & 3rd level CP & IT
6	CSI 'Code Crunch Competition' on hackerearth platform	11-12-09-2019	41 Students from 2nd & 3rd Level CP & IT
7	CSI Workshop ' Database Design: A Practical Approach' Sponsored by TEQIP-III	14-09-2019	32 Students from 2nd level CP
8	CSI Four Day Workshop on "Graphics Application Development using UNITY"	16-09-2019 to 19-09-2019	30 students of 3rd level IT

9	AWS Educate Centre, BVM & CSI Workshop on ' Cloud Computing using AWS'	18-09-2019	30 Students from 3rd level CP
10	CSI & ISTE Workshop on " Design of Digital System"	12-10-2019	80 Students from CP & EL
11	CSI one day workshop on " Machine Learning & its Applications"	28-12-2019	27 Students from 3rd level CP
12	CSI 'Code Crunch Competition' on hackerearth platform	25-04-2020	70 Students from 2nd & 3rd Level CP & IT

## Event: Workshop on “Arduino and Raspberry pi”

Date: 9<sup>th</sup> March 2019

Venue: Computer Engineering Department

Brief:



Computer Engineering Department & The CSI Student Branch of BVM Engineering College, Vallabh Vidhyanagar had organized a **One Day Workshop on Arduino And Raspberry PI** on 9<sup>th</sup> March 2019. The workshop was coordinated by Dr. M.M.Vegad, BVM Engineering College. **Prof. Jignesh Patoliya** were the experts for the event. Topics covered during workshop were Introduction to embedded systems, working with embedded systems, Introduction to Arduino, NOD MCU, ESP13, Raspberry Pi and programming with Arduino. Overall the event had a good response from the students. It created a strong base for the students to work further in the field of Embedded System design using Arduino and Raspberry Pi

**Expert:** Prof. Jignesh Patoliya, Charotar University of Science and Technology.

## Event: CSI Workshop on “BIG DATA & Its Applications”

Date: 29<sup>th</sup> June, 2019

Venue: Computer Engineering Department

Brief:



The CSI Student Branch of BVM Engineering College, Vallabh Vidhyanagar had organized a One Day Workshop on Big Data & its applications on 29th June, 2019. The workshop was conducted by the Prof. Hetal Gaudani, GCET. The start of lecture, was done by her by giving the overall idea about Big Data like “What is Big Data?”, “What is need of Big Data?”, “What is difference between our usual Relational Data Bases like MySQL, Oracle, PostgreSQL and the Big Data?”. She also mentioned the advantages of the Big Data over the other Data Bases which works only in structured data and on the other hand Big Data can work with structured, semi-structured, non-structured data.

**Expert:** Prof. Hetal Gaudani, GCET.

## Event: CSI Workshop on “Blender Animation Tool”

Date: 6<sup>th</sup> July, 2019 and 13<sup>th</sup> July, 2019

Venue: Computer Engineering Department

Brief:



The CSI Student Chapter of BVM Engineering College, Vallabh Vidhyanagar had organized a Workshop on Blender Animation Tool two sessions on 6th July, 2019 and 13th July, 2019. The workshop was conducted by one of our student Vedang Jotaniya and Dr. N.M. Patel, Student branch counsellor has graced the occasion by giving his motivating speech.

In the beginning of the event Dr. N.M Patel Sir gave brief overview about “What is Computer Graphics” and how it works. After that He talked about scopes in the field of the Computer Graphics. He focused on How 3D works, what is Projection, Displaying Image on the Screen. He gave brief introduction about Rendering and its techniques. How to make a model and how to animate it was also covered by the Sir. After that Mr. Vedang introduced himself and lecture started. The start of lecture was done by him giving the overall idea about Blender Animation Tool like How to Animate, Modelling, Texturing. He also mentioned the advantage of Blender Tool over other Paid Animation Tools. He explained all things very nicely by giving the real time example of how we can make 3D objects surrounded near us.

He illuminated the students about various tools in Blender and how it works.

**Expert:** Vedang Jotaniya, Student, BVM Engineering College.

## Event: CSI Competition “Code Crunch”

Date: 20<sup>th</sup> July, 2019

Venue: Computer Engineering Department

Brief:



CSI Student Branch and Teqip-III organized a **coding competition** on 20th July, 2019. Dr. N.M.Patel Sir, Student Branch Counsellor raised the initiative to organize this event as it will help the students to sharpen their programming skills.

Students from 2nd and 3rd year of Computer as well as IT department participated with great enthusiasm. Three programming problems were given to them and they need to code them within 3 hours. The level of programming was maintained among 2nd and 3rd year. Students were deeply involved in the competition and tried their level best to complete all 3 programming problems. Prize was given to 1<sup>st</sup> and 2<sup>nd</sup> ranked students.

## Event: CSI Online Competition “Code Crunch”

Date: 11<sup>th</sup> -12<sup>th</sup> September, 2019

Venue: Computer Engineering Department

Brief:

**CSI Student Branch** organized a **coding competition online** on 11th -12th September, 2019. Online test was taken as it was convenient for the students. Dr N.M.Patel, Student Branch Counsellor raised the initiative to organize this event as it was high time to check the coding acumen of students. In this round there was 48 hours contest window where each participant was given 3 hours of time to solve. Total participants were 41. The level of programming was maintained among 2nd and 3rd year.

## Event: CSI Workshop on “Database Design: A practical approach”

Date: 14<sup>th</sup> September, 2019

Venue: Computer Engineering Department

Brief:



Computer society of India supported and TEQIP3 sponsored Workshop on Database Design: A practical approach, organized by computer Engineering department.

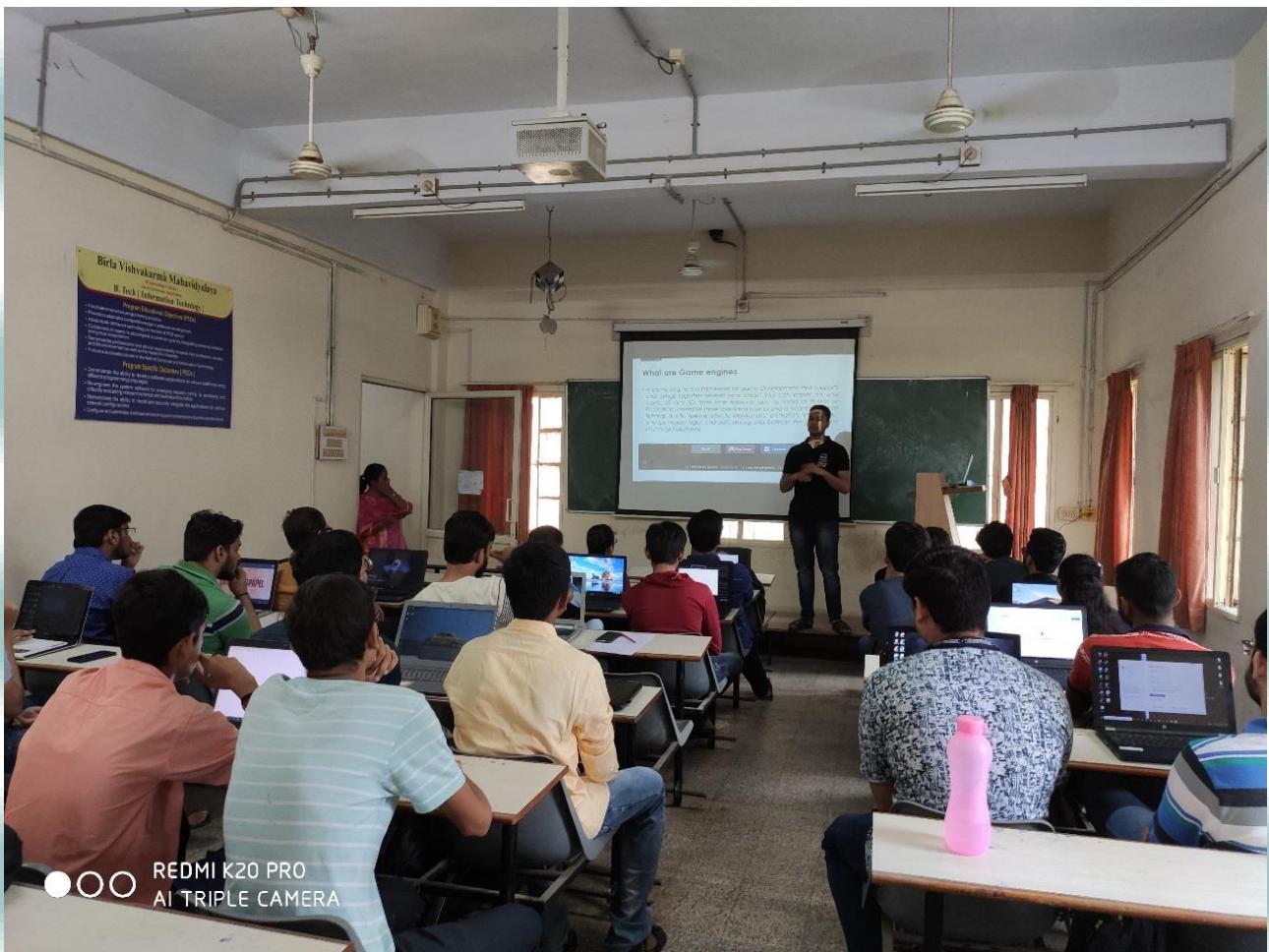
**Expert:** Ghanshyam Solanki, senior system architect, Vadodara.

## Event: CSI Four Day Workshop on “Graphics Application Development using UNITY”

Date: 16<sup>th</sup> September, 2019 to 19<sup>th</sup> September, 2019

Venue: Information Technology Department

Brief:



As a part of Peer-to-Peer Learning activity, Information Technology Department had organized Four Day workshop on **“Graphics Application Development using UNITY”** from 16th September to 19th September, 2019 during 08:30 am to 10:15 am under the banner of CSI Student Chapter.

30 students of 3rd year IT actively participated in sessions. The sessions were conducted by **Mr. Fardeen Khan**, 4th year IT student and coordinated by **Dr. Zankhana Shah**.

Following concepts were explained with hands on training:

- Introduction to Game Engines and Unity
- Installation of Unity Hub (Project manager) and Editor (actual Game engine)
- Getting familiar with the software's interface and options
- Introduction to Assets, Scenes (Levels), in game hierarchy of objects, Scripting for game logic, rendering and position of objects, input from keyboard and mouse
- Full scale tutorial on designing a Flappy Bird like endless 2D game. Topics covered: 2D image assets, physics and motion scripting, GUI menu design, Animations
- Introduction to AR and Vuforia AR library
- Using Image targets displayed a 3D character model on an Image through camera

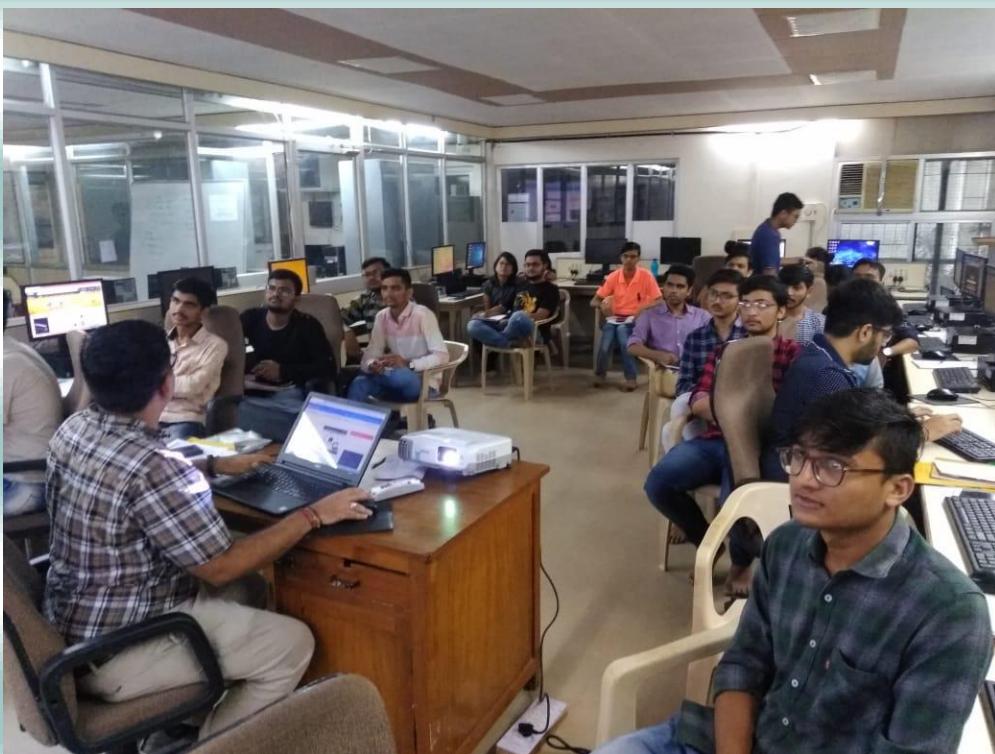
**Expert:** Mr. Fardeen Khan.

## Event: AWS Educate Centre, BVM & CSI Workshop on “Cloud computing using AWS”

Date: 18<sup>th</sup> September, 2019

Venue: Computer Engineering Department

Brief:



Following topics were covered in the workshop:

- What is Cloud Computing?
- Virtualization and Web 2.0 Basic
- AWS Dashboard and understand service given by AWS
- How to work with AWS Educate?
- Create Virtual machine and Deploy web application.

**Expert:** Prof. Kirtikumar J. Sharma, BVM Engineering College.

## Event: CSI & ISTE Workshop on “Design of Digital System”

Date: 12<sup>th</sup> October, 2019

Venue: Computer Engineering Department

Brief:



Workshop on “Design of Digital System” was conducted by Department of Electronics Engineering and Department of Computer Engineering, Expert from Perfect VIPS **Mr. Parthav Vyas**, Manager ASIC team invited at BVM Engineering on 12th October, 2019. The session was very interactive. All the aspects of sequential logic discussed and show the demonstration of FPGA Kit. He also cover some of the basic aspects of the Verilog HDL programming. Mr. Parthav Vyas also talk about current opportunities in this field and what is the expectations of industry from the students. The Expert talk will be very helpful in campus recruitment of students in the company working in VLSI field like Perfect VIP and Einfochips. Mr. Parthav Vyas was also discussed the future opportunities in VLSI field.

**Expert:** Mr. Parthav Vyas, Perfect VIPS.

## Event: CSI one day workshop on “Machine Learning & its Applications”

Date: 28<sup>th</sup> December, 2019

Venue: Computer Engineering Department

Brief:



The CSI Student Chapter and Computer Engineering Department of BVM Engineering College, Vallabh Vidhyanagar had jointly organized a One day Workshop on “Machine Learning & its Applications” on 28th December, 2019 Saturday. The workshop was conducted by an academic experts speakers Dr. Priyank B. Thakkar, NIRMA University, Ahmedabad. Then event was then handed over to the expert speakers. The workshop started with a machine learning from scratch where following topics where covered:

- Introduction to Machine Learning
- Deep Learning
- Supervised & Reinforcement Learning
- Principal component analysis of data modelling
- Neural Networks
- Training Data Sets

- Computer Vision
- GAN
- ML Applications, etc.

Overall it was an interesting workshop that helped students in choosing their projects and showed paths for working in the area of machine learning.

**Expert:** Dr. Priyank B. Thakkar, NIRMA University.

## Event: CSI Online Competition “Code Crunch”

Date: 25<sup>th</sup> April, 2020

Venue: Computer Engineering Department

Brief:

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## Event: WEBINAR on “PYTHON WITH DJANGO”

Date: 18<sup>th</sup> April, 2020

Venue: Online Mode (BVM Engineering College)

Brief:

In the era of high demand of coding skills in technical as well as many other sectors of industry, coding skills should flow in the veins of today's generation. So, the students must be aware about the applications of python with Django to flourish their coding skills.

CSI Student Branch organized a webinar on 18th April, 2020. Learning should not be stopped in any situation. So, webinar was conducted by Atul Jain from TOPS Technologies. Dr N.M.Patel , Student Branch Counsellor raised the initiative to organize this event.

The duration of webinar was of 1 hour. Students 3rd year of Computer department participated with great enthusiasm. Webinar was fruitful and helped the students to give a start kick on this topic.

**Expert:** Mr. Atul Jain, TOPS Technologies.

## Event: CSI Competition “Code Crunch” on hackerearth platform

Date: 25<sup>th</sup> April, 2020

Venue: Online Mode (BVM Engineering College)

Brief:

CSI Student Branch organized a coding competition online on Hacker Earth on 25th April, 2020. Online test was taken as it was convenient for the students. Dr N.M.Patel , Student Branch Counsellor raised the initiative to organize this event as it was high time to check the coding acumen of students.

In this event there was 14 hours contest window where each participant was given 3 hours of time to solve. One can choose any of the 3 hours to start the challenge and once started it can't be paused. Students from 2nd and 3rd year of Computer as well as IT department participated with great enthusiasm. Total 70 students participated in this event.

The evaluation was done on the basis of the number and correctness of problems solved by them.

## Event: National level Webinar on “ASP.NET Core”

Date: 7<sup>th</sup> June, 2020

Venue: Online Mode (BVM Engineering College)

Brief:



Computer department of Birla Vishvakarma Mahavidyalaya and CSI BVM student branch organized a National level webinar on ASP.NET CORE on 7th June, 2020. Platform for national level webinar was Google Meet as well as YouTube Live.

The webinar was addressed by the Principal Dr Indrajit Patel Sir and Head of Computer Department, Dr Darshak Thakore with their words of encouragement and appreciation for all attendees. They emphasized the importance of such webinars for the upliftment of the students, especially during the lockdown. Overall 70+ participants from across India attended the webinar. The webinar was attended by students as well as faculties.

Firstly, the agenda of webinar was made clear to attendees. Then our expert Mr. Mitesh Patel enlightened the students with the importance of ASP.NET Core and difference between ASP.NET and ASP.NET Core. Then a hands on how to setup start development was carried. He also focused on topics like MVC Architecture, Middleware Pipeline, and Dependency Injection. Lastly the webinar ended with Q&A round.

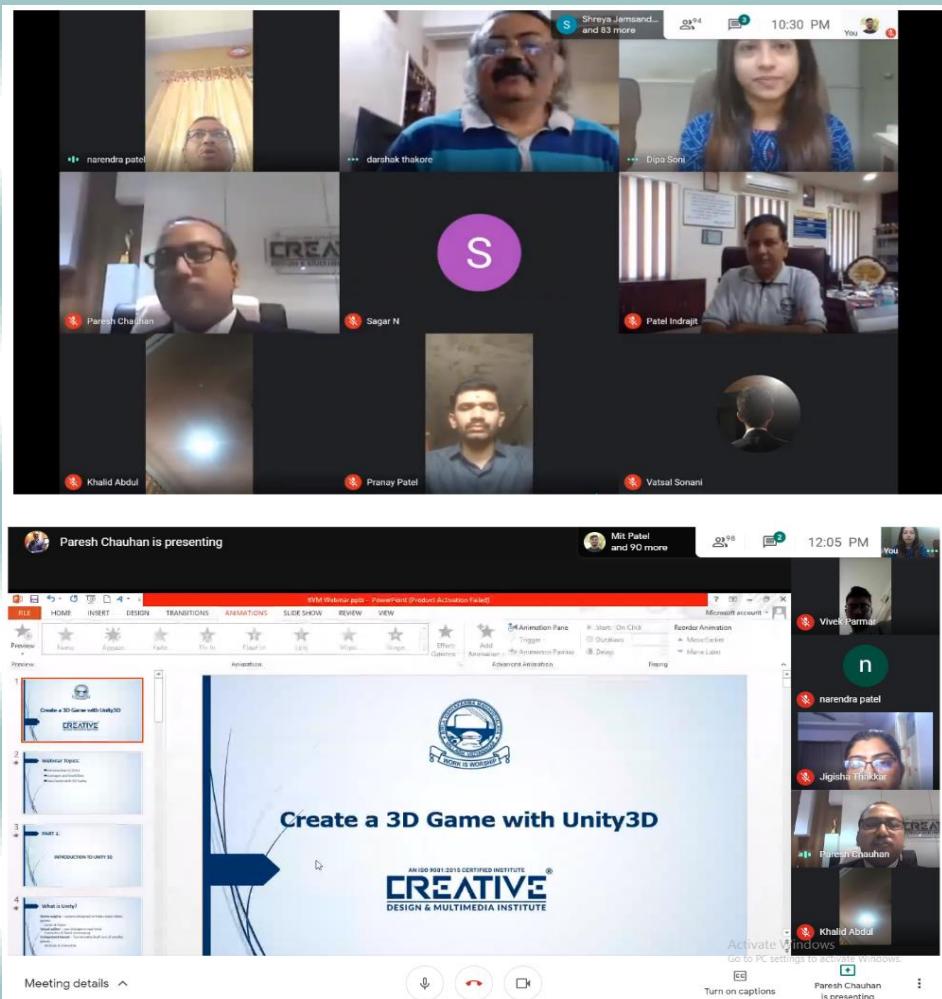
**Expert:** Mr. Mitesh Patel, 15 years of Experience in IT Industry and experienced in Microsoft technologies.

## Event: Webinar on “How to Create 3D Games Using Unity”

Date: 10<sup>th</sup> June, 2020

Venue: Online Mode (BVM Engineering College)

Brief:



Unity is a cross-platform game engine, used to build 2D, 3D, AR, VR games. Apart from game development it is also used in film, automotive, architecture, engineering and construction industries.

The webinar was addressed by the Principal Dr Indrajit Patel Sir with their words of encouragement and appreciation for all attendees. They emphasized the importance of such webinars for the upliftment of the students, especially during the lockdown.

Dr. Darshak Thakore, Head, Computer Department talked about the department and webinar participation. The webinar was attended by 182 participants including students and faculties across India via Google Meet. The webinar was also live streamed on CSI BVM SB YouTube channel.

The expert Mr. Paresh Chauhan started with the basics of Unity. Then he explained about setup environment for game development using Unity. He talked about concepts and architecture of the game development. He also demonstrated creation of simple 3D game using Unity. Webinar ended with Q&A with expert and vote of thanks.

**Expert:** Mr. Paresh Chauhan, CEO, Creative Design and Multimedia Institute, Surat.

## Event: Webinar on “Android”

Date: 6<sup>th</sup> July, 2020

Venue: Online Mode (BVM Engineering College)

Brief:



The webinar was attended by students from Computer Department of BVM. Firstly, the agenda of webinar was made clear to attendees. Then our expert Mr. Ankit Sodha enlightened the students with the importance of learning Android Development. Then a hands on how to setup start development was carried. Various examples regarding it were also illustrated. The students got benefited from the Technical details provided by the Expert.

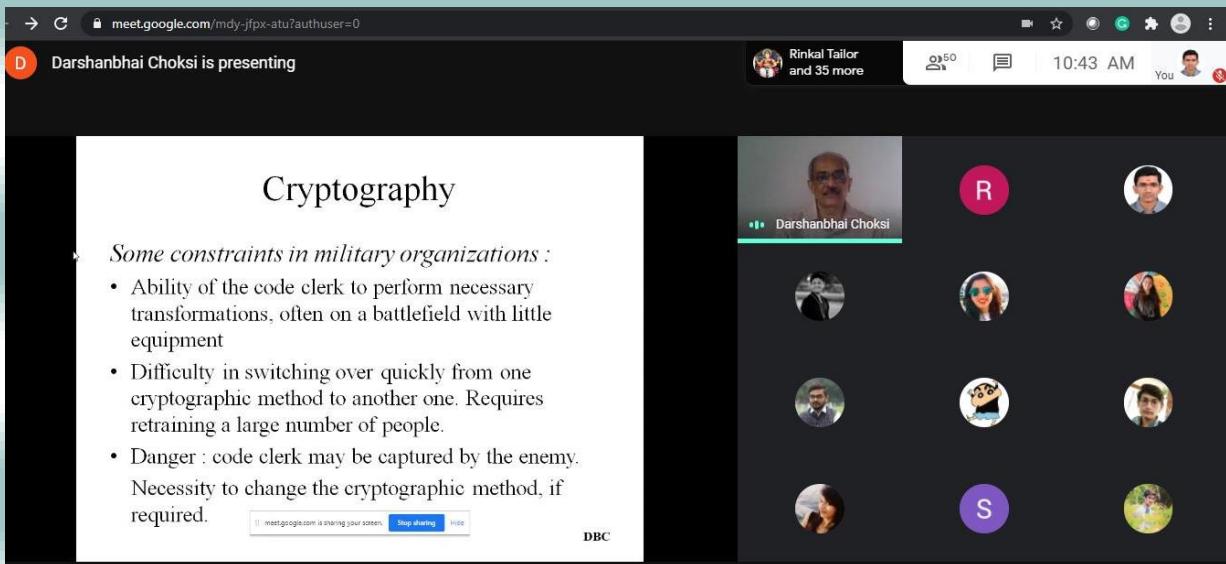
**Expert:** Mr. Ankit Sodha, Work Profile: Developer in TOPS Technologies Pvt.Ltd.

## Event: Workshop on “Cryptography & Firewall”

Date: 12<sup>th</sup> September, 2020

Venue: Online Mode (BVM Engineering College)

Brief:



Dr N M Patel, CSI BVM Student Branch Coordinator has given introduction of speaker and motivated students to attend the workshop. Dr. Darshan Choksi very well explained the topics of cryptography & firewall. Talk was concluded with vote of thanks by Prof. Pranay Patel. Overall 50+ students of 3rd year Computer Engineering department attended the talk.

**Expert:** Dr. Darshan Choksi, Professor of Post Graduate Department of Computer Science, Sardar Patel University.

## Event: Expert lecture for GATE 2021 Preparation on “Data Structure and Algorithms”

Date: 12<sup>th</sup> September, 2020 to 13<sup>th</sup> September, 2020

Venue: Online Mode (BVM Engineering College)

Brief:

The approach was to teach the fundamentals by taking the questions on particular topic. This is better as it helps to get to know about questions type and level and also helps to know the ways to deal with the questions during exam time.

Topics Discussed:-

- Overview of the subject and importance in GATE point of view.
- Marks Distribution in GATE as it covers Data Structures, Algorithms and C Programming.
- Complexity of algorithm, Asymptotic Notations.
- Methods to calculate complexity of Sequential, Iterative and Recursive Algorithms.
- Previous Year questions on complexity analysis.
- How to find complexity of Iterative loops with different conditions and Master Theorem to find Complexity of Recursive Algorithms.
- Arrays and it's Row Major and Column Major Order to store 2D array in memory.
- Linked List basics and previous year questions on it and some methods to solve it.
- Stack, how the questions are formed using stack fundamentals and how to solve it, like infix to postfix, number permutations, etc.
- Tree. Binary Tree, N-ary Tree, Binary Search Tree, its traversal and techniques to deal with the questions on tree in minimum time.
- Graph, its traversal using BFS, DFS and topological sort. Previous year questions on graphs and ways to deal with it.

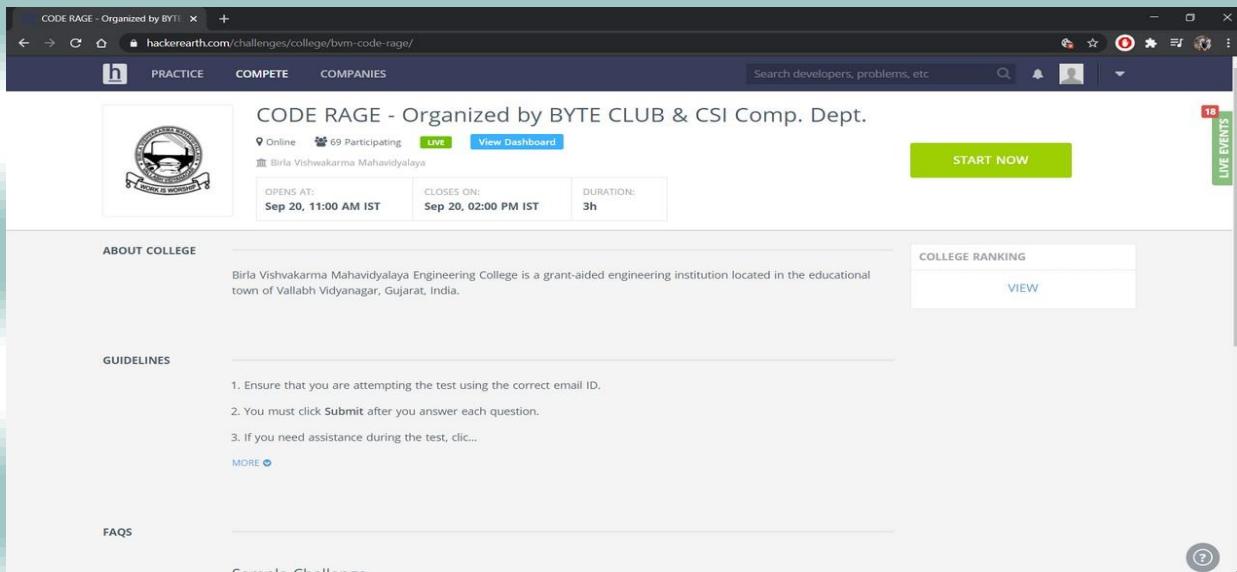
**Expert:** Mr. Ankush Saklecha, ICE Gate.

## Event: CSI Competition “Code Rage” on hackerearth platform

Date: 20<sup>th</sup> September, 2020

Venue: Online Mode (BVM Engineering College)

Brief:



The screenshot shows the Hackerearth challenge page for 'CODE RAGE - Organized by BYTE CLUB & CSI Comp. Dept.'. The page includes the event title, logo, and details: 'Online', '69 Participating', 'LIVE', 'View Dashboard'. It also shows the college information: 'Birla Vishwakarma Mahavidyalaya', 'OPENS AT: Sep 20, 11:00 AM IST', 'CLOSES ON: Sep 20, 02:00 PM IST', and 'DURATION: 3h'. A 'START NOW' button is visible. The sidebar on the right shows '18 LIVE EVENTS'.

**ABOUT COLLEGE**  
Birla Vishwakarma Mahavidyalaya Engineering College is a grant-aided engineering institution located in the educational town of Vallabh Vidyanagar, Gujarat, India.

**GUIDELINES**  
1. Ensure that you are attempting the test using the correct email ID.  
2. You must click Submit after you answer each question.  
3. If you need assistance during the test, clic...  
[MORE](#)

**FAQS**  
[Sample Challenge](#)

In this function, the master of ceremony was Mr. Vedang Jotaniya, the BYTE Club student coordinator. The faculty mentor of BYTE Club, Dr. Mayur Vegad talked briefly about the event. Dr. Narendra M Patel, the faculty mentor of the CSI students chapter at BVM presented his views on the event and informed the students about the CSI Club and various activities organized under it. The head of computer department, Dr. Darshak Thakore briefed about the journey of the BYTE club. He motivated and encouraged students to become part of such co-curricular events on regular basis. At the end of the function, the student coordinator of CSI Students chapter, Mr. Dhruvil Kotecha presented vote of thanks.

The evaluation was done by the HackerEarth platform itself on which the event was hosted. All the participants will be given participation certificates and the first three winners would also be given some token prizes.

The first three winners are:

1. Meet Shah (19IT423)
2. Aniket Singh Rawat (19IT429)
3. Khushi Patel (19CP024)

## Event: Expert lecture for GATE 2021 Preparation on “Operating System”

Date: 24<sup>th</sup> September, 2020 to 25<sup>th</sup> September, 2020

Venue: Online Mode (BVM Engineering College)

Brief:

The approach was to teach the fundamentals by taking the questions on particular topic. This is better as it helps to get to know about questions type and level and also helps to know the ways to deal with the questions during exam time.

Topics Discussed:-

- Overview of the subject and importance in GATE point of view.
- Marks Distribution in GATE as it covers CPU scheduling, Memory management and File system.
- Understanding of CPU bound and IO bound processes.
- Different CPU scheduling schemes through specific examples.
- Previous Year questions on FCFS, SJF, Round Robin, SRTF, etc.
- Previous Year Questions on CPU scheduling schemes with Pre-emptive and Non-Preemptive Approach.
- Basic Introduction to Critical Section and Mutual Exclusion.
- Handling of Critical section between processes using bounded wait.
- Introduction to Semaphores at kernel level with Examples.
- Previous year questions on Semaphores and Counting Semaphores.
- Practice Questions on Mutex.
- Different File Management Schemes like Inode, FAT, etc.
- Previous questions on Memory partition and page fitting methods like First Fit, worst Fit, Best Fit.
- Introduction to Page table with solution of selected previous year question.
- Different Approaches to store Page Table.
- Previous year questions on Single level, Multilevel and Inverted Page table schemes.

**Expert:** Mr. Pritesh Saklecha, ICE Gate.

## Event: Expert lecture for GATE 2021 Preparation on “Database Management System”

Date: 26<sup>th</sup> September, 2020 to 27<sup>th</sup> September, 2020

Venue: Online Mode (BVM Engineering College)

Brief:

The approach was to teach the fundamentals by taking the questions on particular topic. This is better as it helps to get to know about questions type and level and also helps to know the ways to deal with the questions during exam time.

Topics Discussed:-

- Overview of the subject and importance in GATE point of view.
- Marks Distribution in GATE Examination.
- Key Constraints i.e. Primary key, candidate key, super key concepts and Closure sets.
- Functional Dependencies and questions to easily tackle during exam.
- Normalization i.e. 1NF, 2NF, 3NF and BCNF.
- Minimal cover and procedure to find it optimally.
- Previous year questions on this all topics to understand the types of questions can be asked.
- Transaction and Serializability.
- ACID Property of the transaction.
- Serializable and non serializable schedules. Conflict and View serializability.
- Topological order to find different ways for serializable schedule.
- Recoverable and Irrecoverable schedules.
- Two Phase Locking Protocols. Exclusive Lock and Shared Lock.
- 2PL checking for schedule and types of 2PL.
- Deadlock Prevention.

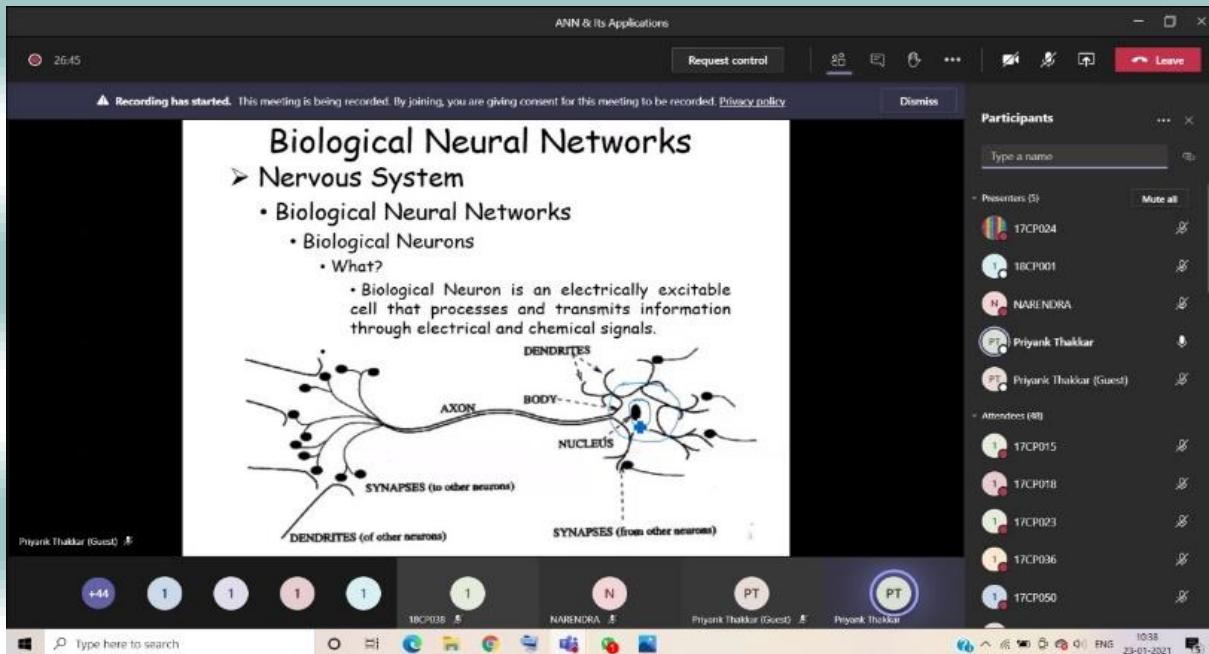
**Expert:** Mr. Pritesh Saklecha, ICE Gate.

## Event: Webinar on “ANN & its Applications”

Date: 23<sup>rd</sup> January, 2021

Venue: Online Mode (BVM Engineering College)

Brief:



The event was conducted by an expert Dr. Priyank Thakkar and co-ordinated by Dr. N. M. Patel on Microsoft Teams. During the starting of session, Dr. N.M. Patel sir introduced Dr. Priyank and welcomed him on behalf of entire department. Dr. Priyank briefly discussed about Neural Networks in this session.

Topics covered:

- Introduction to Biological Neural Networks
- Biological Neuron
- Artificial Neuron
- Activation Functions
- Multiple layer of neurons
- Data Separation
- Linear separation and non-linear separation
- Perceptron
- Numerical example of perceptron for linearly separable data and binary classification

At the end, faculty coordinator thanked him on behalf of CSI Student Branch, entire Computer department and BVM, and session came to an end.

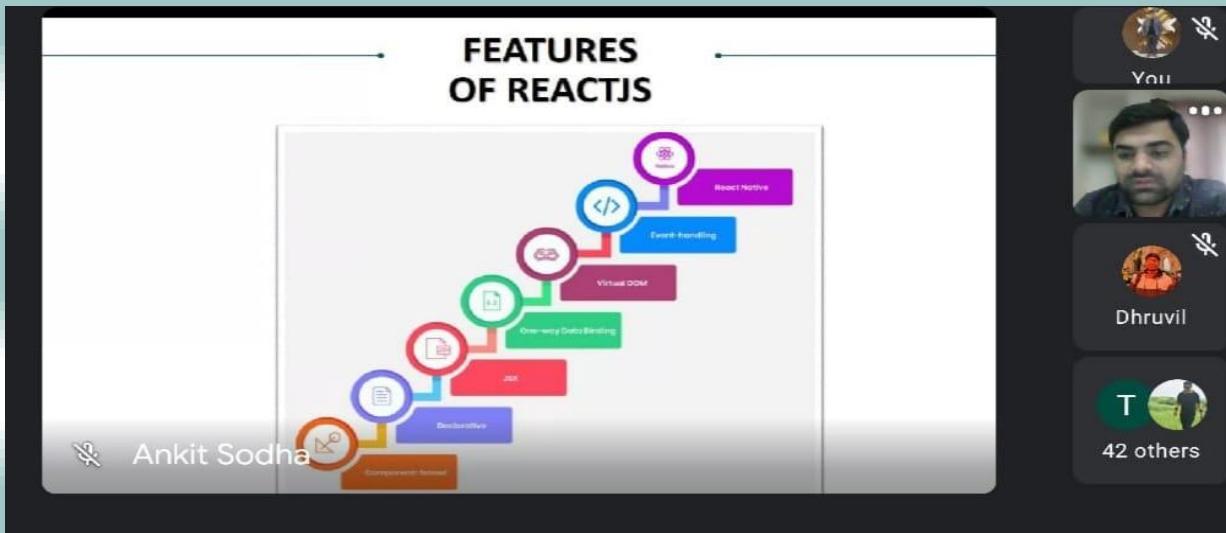
**Expert:** Dr. Priyank Thakkar, Faculty, Computer Engineering Dept., Nirma University, Ahmedabad.

## Event: Webinar on “React JS”

Date: 27<sup>th</sup> February, 2021

Venue: Online Mode (BVM Engineering College)

Brief:



A webinar on the topic “React JS” was conducted by Ankit Sodha Sir from Tops Technologies on 27th February, under Computer Society of India, Student Branch, BVM. It commenced at 1:00 PM and ended at 2:00 PM. Many students from 2nd and 3rd year attended the webinar. The event was conducted on Google Meet Platform.

The speaker, Ankit Sodha sir covered the following topics in the event:

- What is ReactJS?
- Virtual DOM vs Visual DOM
- Features of ReactJS
- Component-State-Props
- Why React is so popular these days?
- Demo project using ReactJS

It was an interactive session and the speaker continuously engaged students in questions. At the end of the session, he took time in answering the queries of student.

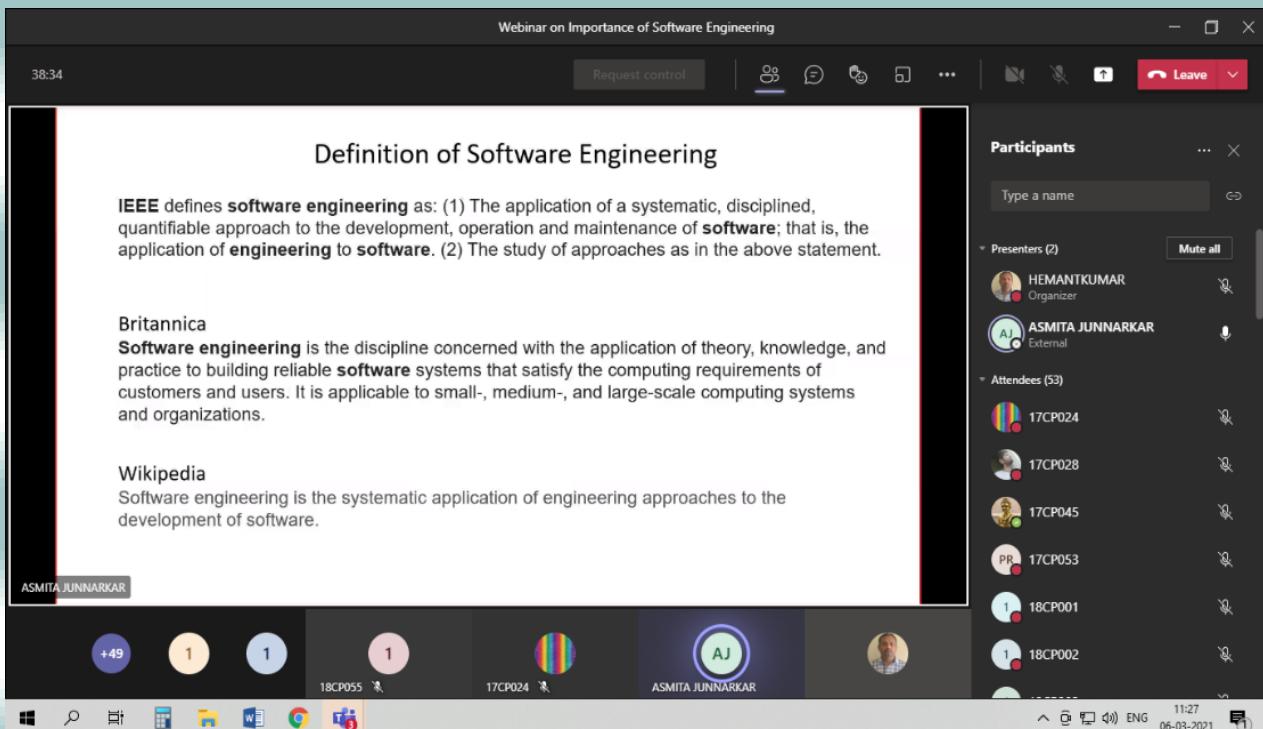
**Expert:** Mr. Ankit Sodha, Tops Technologies.

## Event: Webinar on “Importance of Software Engineering”

Date: 6<sup>th</sup> March, 2021

Venue: Online Mode (BVM Engineering College)

Brief:



The webinar was conducted by an industry expert speaker Ms. Asmita Junnarkar. Dr. N. M. Patel (CSI Student Branch Counselor, BVM) has welcomed and given an introduction of the expert. Then the event was handed over to the expert speaker. There are 55 students of 3rd level computer engineering has joined webinar. The webinar started with a software engineering from scratch the where following topics were covered:

- Introduction to Software Engineering
- Software Development Life Cycle
- Framework Activities
- Software Process Models
- Process Flow
- Software Requirement Specification

- Importance of Software Engineering Concepts and Practices in Industry to develop Application
- Software Metrics
- Software Scheduling and Estimation

The event ended with a vote of thanks by Dr. N. M. Patel (CSI Student Branch Counselor, BVM). Overall, it was an interesting webinar that helped students to perform software engineering practices for their projects and its importance. The vent was coordinated by Dr N M Patel and Dr H D Vasava.

**Expert:** Ms. Asmita Junnarkar, Salesforce Practice Director-ANZ, ASEAN, India, China, TATA Consultancy Services, Mumbai.