

BITS & BYTES

**VOLUME IV ISSUE I
JANUARY - JUNE 2020**

**SCIENTISTS INVESTIGATE WHAT ALREADY
IS,
ENGINEERS CREATE THAT WHICH HAS
NEVER BEEN
- ALBERT EINSTEIN**

**COMPUTER SCIENCE
DEPARTMENT
E-NEWSLETTER**



VISION OF COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

To nurture the students to become employable graduates who can provide solutions to the societal issues through ICT.

MISSION OF COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

- To focus on practical approach towards learning and exposing the students on the latest ICT technologies.
- To foster logical thinking among the students to solve real-time problems using innovative approaches.
- To provide state-of-the-art resources that contributes to inculcate ethical and life-long learning environment.

ABOUT DEPARTMENT



Whenever there is technical development it is never done without the help of Computer Science Engineering. Computer Science Engineering is basically applied science and theory of computational algorithm applied to modern equipments like computer, mobile devices etc.

It gives them ability to make our work easier and faster . As a Computer Science Engineer we can work as data scientist, Mobile App Developer, Graphic Designer and many more. We can easily convert our imagination and ideas into virtual reality if we are from computer science background.

In Computer Science Engineering, normally we have to develop skills and learn different programming languages like C, C++ , Java, HTML ,R, Python, XML, etc and also have to study subjects like theory of computation, operating system etc. Computer Science Engineers also work on revolutionary technologies like artificial intelligence (AI) , cyber security, CGI and also so many simulation tools like data science, electronic and electrical system design, etc.

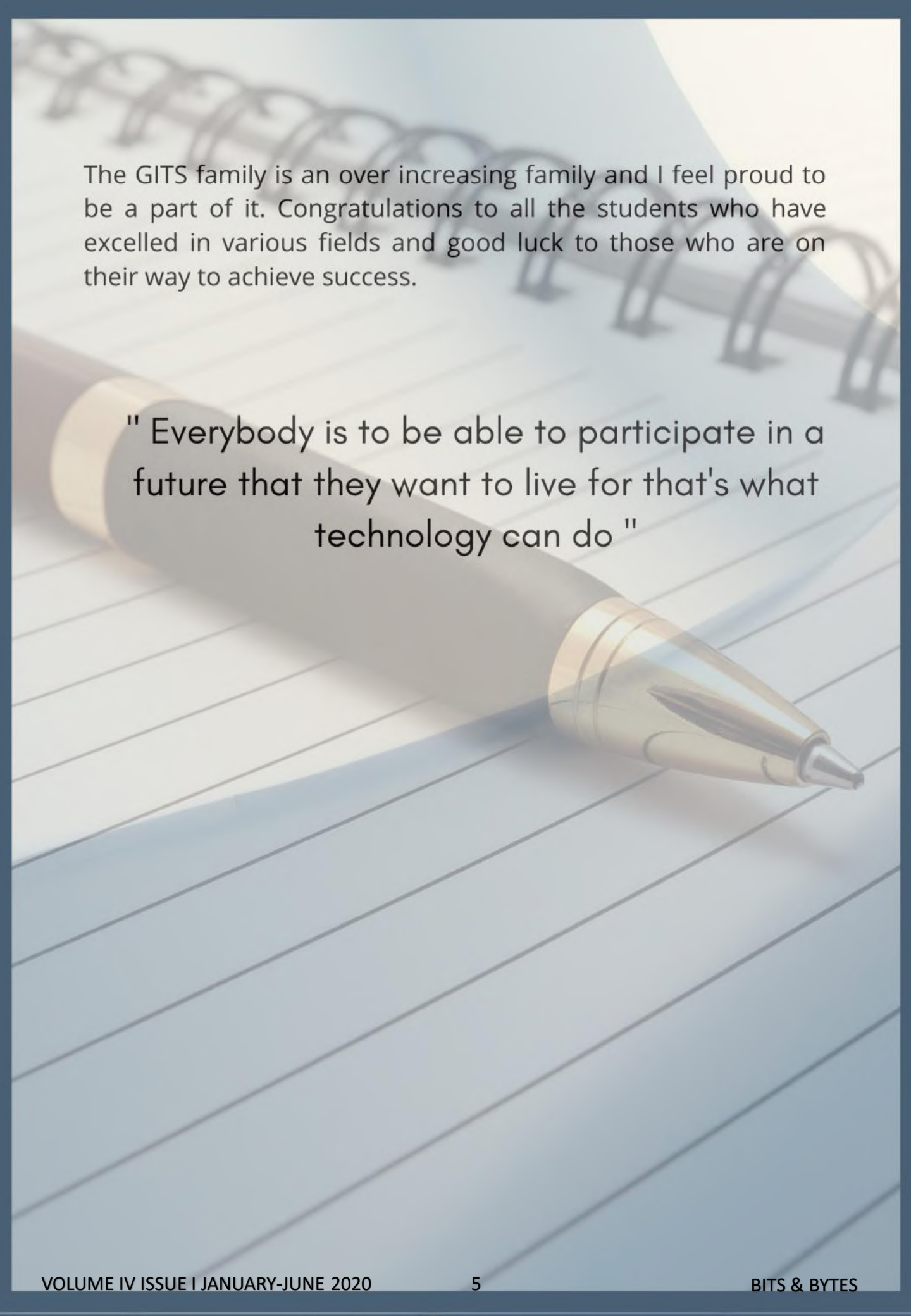
DIRECTOR'S DESK



Dr. Vikas Misra

Director, Geetanjali Institute of Technical Studies, Udaipur

I am very happy that the Computer Science and Engineering Department is releasing the 4th edition of 'Bits & Bytes' as a forerunner of department activities. It is a technical platform to bring out the hidden talents of students and faculty. We educators, being facilitators should always encourage each child to develop in their specific field of interests. I am proud to have a committed and supportive management and faculties who constantly encourage students to participate in the field they like and to give their best. It is natural to find in this ambience, the intensive use of a variety of thinking activities, strategies and group dynamics so that the classrooms become alive.

A background image of a spiral-bound notebook with a silver pen resting on its lined pages. The notebook is open, and the pen is positioned diagonally across the frame. The text is overlaid on the notebook's pages.

The GITS family is an over increasing family and I feel proud to be a part of it. Congratulations to all the students who have excelled in various fields and good luck to those who are on their way to achieve success.

" Everybody is to be able to participate in a future that they want to live for that's what technology can do "

HOD'S DESK



Dr. Mayank Patel

HOD, Department of Computer Science and Engineering

It's a great honor for me to introduce our Department of Computer Science and Engineering to you all. Leading the department of Computer Science and Engineering in GITS , which is one of the best institution in the region due to our focused approach towards holistic growth of each and every student, gives me enormous pleasure.

My vision is to develop constructive thinking and analytical capabilities of every student of Computer Science and Engineering Department. Our department is committed to provide students with a strong, broad based fundamental engineering education and prepare the students for a career in the industry, teaching and national laboratories. We also plan to develop entrepreneurial skills in students so that they would drive the spirit of growth of our economy and would be able to generate employment opportunities for other qualified and skilled people.

The department organizes a number of workshops, seminars and guest lectures by inviting reputed experts from industry and academia. Department promotes active Industry- Institute interface by taking part in sponsored research and consultancy services. The long term objective of the department is to contribute in the research and consultancy projects from Government as well as from other reputed companies. On the placement aspect, the department has done exceedingly well with students working in reputed multinationals like Wipro, TCS, Oracle, HCL, and many more.

We believe that the process of learning is extremely important in life.

What you learn, how you learn and where you learn play a crucial role in developing one's intellectual capability, besides career. The excellent infrastructure, teaching faculty of the best kind ensuring quality education such as interaction among students, parents and staff, along with a Training and Placement Cell ensures a bright future to its students. Thus we are confident that our Engineers will not only to this institution and to the organization they belong, but also to the country at large.

" The best way to predict the future is
to create it "

EDITORIAL BOARD

**"Stretch your awareness
of what's possible"**



EDITOR:

CHARU KAVADIA

(Assistant Professor, Department Of CSE)

STUDENTS EDITORS:

VIPLOV JIWNANI (III Year, CSE)

PURVI AGRAWAL (III Year, CSE)

VEER BHADRA SINGH SOLANKI (III Year, CSE)

TABLE OF CONTENTS

Training	9
Workshop	13
Seminar/Webinar	16
FDP	24
Student Club's Activities	28
Academic Toppers	34
Online Courses	38
Smart India Hackathon	51
ML Lab Inauguration	55
Article1 - Blockchain	58
Article2 - AI	61
Article3 - DevOps	63

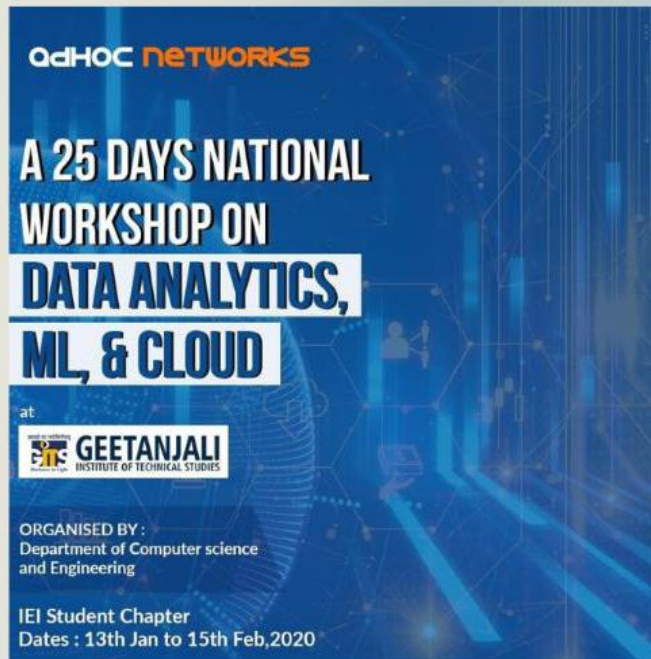
```
content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=0"
icon" href="/favicon.ico" type="image/x-icon">
f="/favicon.ico" type="image/x-icon">
s" rel="stylesheet" href="css/materialize.min.css" media="screen, projection"
eet" href="https://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css"
heet" href="css/animate.css">
heet" href="css/...
```

TRAININGS

*Training kicks in,
when luck runs out!!*

```
ner">
nav">
="nav-wrapper">
ass="container">
ef="#" class="brand-logo hide-on-med-and-up"><div style="font-weight: bold">
```


25 Days Training Program on Machine Learning, Data Science and Cloud Computing (13th January to 15th February- 2020)



In continuation to our mission about industry oriented learning, the department of CSE organized a 25 days intensive training program on Machine Learning, Data Science and Cloud Computing for both II year and III year students.

Workshop was divided into three phases :

- First phase is dedicated to cloud computing.
- Second phase is for data science using R and Python programming.
- The last phase is for Machine learning.

Machine learning is the scientific study of algorithms and statistical models that computer systems use to perform a specific task without using explicit instructions, relying on patterns and inference instead. It is seen as a subset of Artificial Intelligence.



Mr Sourabh Purohit teaching students.

Data science is an inter-disciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data. Data science is related to data mining and big data.

Cloud computing is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user. The term is generally used to describe data centers available to many users over the Internet.



Mr Ashutosh Singh with the students

80 students from II year and 100 students from III year participated in the training and learnt about these latest advancements in the fields of IT.

Resource person for the workshop were Mr. Ashutosh Singh and Mr. Sourabh Purohit from ad-HOC networks, having more than 10 years in the field of corporate training.

A photograph of a laptop keyboard on a wooden desk. A starfish and palm leaves are in the top left corner. The text 'WORKSHOP' is centered over the keyboard.

WORKSHOP

**JOYOUS, AFFIRMING AND INCREDIBLY FUN
EXPERIENCE!!**

5 Days Hands-on Workshop on Mulesoft (4th Feb- 8th Feb 2020)

Department of Computer Science and Engineering organized a 5-Days National Workshop on Mulesoft , which is one of the upcoming technology in the field of IT. This workshop was organised from 4th Feb- 8th Feb 2020.



GEETANJALI INSTITUTE OF TECHNICAL STUDIES
(Affiliate to RTU, Kota and Approved by AICTE, New Delhi)

Department of Computer Science & Engineering

**5- Days National Workshop
ON
“MuleSoft”**

 **MuleSoft**

SCHEDULE: 4th – 8th February 2020

Resource Person
Mr. Alok Agarwal
Master Instructor at Salesforce.org

MuleSoft, LLC is a software company headquartered in San Francisco, California, that provides integration software for connecting applications, data and devices. Started in 2006, the company's Anypoint Platform of integration products is designed to integrate software as a service (SaaS), on-premises software, legacy systems, and more.

Ross Mason and Dave Rosenberg founded MuleSource in 2006. The company changed the name to MuleSoft in 2009. In April 2013, the startup announced \$37 million in Series E financing in a round led by New Enterprise Associates, with participation from new strategic investor Salesforce.com, and existing investors Hummer Winblad Venture Partners, Morgenthaler Ventures, Lightspeed Venture Partners, Meritech Capital Partners, Sapphire Ventures (formerly SAP Ventures) and Bay Partners. The round brought MuleSoft's total financing, over the course of seven funding rounds, to \$259 million.

The Resource Person of workshop was Mr. Alok Agarwal. On the very first day, he demonstrated what is Integration and how it works and what are APIs and Layered approach of API designing. On the second day, students under his guidance designed system APIs using Anypoint platform and used mocking service.

On the third day, APIs were created using anypoint studio and deployed. For deployment, trainer explained the students about the flows and various terminologies used in creating APIs like event sources, triggering point and processors.

On the last two days of training, students learnt how to handle error in flows, creating sub-flows, making them communicate with each other, and how to process records in real-time scenario. Study material was provided to the 30 interested students to help them appear for their certification exam, which will help them qualify as a MuleSoft Developer.

This workshop helped students to learn mulesoft technology and also if they want to select mulesoft as a career opportunity

A man with glasses and a black polo shirt stands in a classroom, gesturing towards a large interactive screen. The screen displays a game interface with the text "Game C", "15 Responses", a "4.1 Rating" in a yellow star, and a "Feeling" section with two smiley face icons. A bar chart with green and orange bars is also visible. In the foreground, the backs of several students' heads are visible as they sit at desks. A whiteboard with some handwritten text is partially visible behind the man.

SEMINARS/ WEBINARS



INTERNATIONAL SEMINAR ON BIO- AND SOCIAL PSYCHOLOGY INSPIRED TECHNIQUES TO MAKE IOT DEVICES (10TH JANUARY 2020)

Department of computer Science and Engineering organised an International Seminar on Bio- And Social Psychology Inspired Techniques To Make IoT Devices Secure on 10th January 2020. The speaker of the seminar was Dr. Heena Rathore. She is a visiting Professor in the Department of Computer Science at Texas A&M University, Texarkana, USA. Earlier Dr. Rathore was Data Scientist and Program Manager at Hiller Measurements. Prior to that, she was a postdoctoral researcher for US-Qatar Joint Collaborative Project between Temple University, USA, University of Idaho, USA and Qatar University. She has also worked as Design Executive with Phosphate India Private Limited and academically as Guest/Assistant Professor with the University of Texas, Austin.

This seminar helped participants to understand that as massive amounts of Internet of Things (IoT) connected devices are approaching to change our lives, security in these devices is crucial. The security threats from traditional Internet are also applicable to such IoT devices as these devices are connected to the network. In fact, some of these attacks are easier on IoT devices due to the limited computing and memory resources of IoT devices. These threats can be introduced in IoT devices through various means, where the ongoing data transmissions can be tampered with or the devices can be altered to behave in an unpredictable manner. Biologically inspired solutions, to solve engineering problems, are opening new doors of research opportunities to overcome this challenge. These solutions are more efficient, effective, and economical than the current methods. Biology is offering solutions to engineering problems that were not thought before by the scientists. The conversation also covered biological inspirations and aspects from machine learning and social psychology for improving security in IoT devices. Examples of types of approaches discussed were ant, bee, bird colony optimization, artificial immune system, social psychology, and diverse set of machine learning approaches.

In all, 150 members, including students and faculty members attended the seminar.

Seminar on " Welcome To The World Of Data Science" (3rd March 2020)

Department of Computer Science and Engineering in collaboration with Workgroup Python and Data Science under the guidance of Coordinator Ms.Charu Kavadia, Assistant Professor, CSE , organised a Seminar on 3/3/2020. The topic of seminar was "Welcome To The World Of Data Science" Resource Person for the seminar was Mr.Nilesh Paliwal. Seminar was organised for Second Year CSE students.



WELCOME TO THE WORLD
OF DATA SCIENCE

WITH NILESH PALIWAL





Nilesh paliwal, speaking about data science!

The seminar was to prepare students for a career or further learning that involves more advanced topics in Data Science and the various kinds of activities that a Data Scientist performs. The Seminar made the learners understand the various open source tools like Jupyter notebooks, spyder used by Data Scientists and methodology involved in tackling data science problems.

50 Students of IV Semester CSE attended the seminar.



Students of IV sem and faculty incharges with Nilesh Paliwal

Webinar on Cloud Computing (AZURE) on 18th April 2020

Department of computer Science and Engineering organised a Webinar on **Cloud Computing (AZURE)** on 18th April 2020.




www.gits.ac.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ORGANIZES
WEBINAR
ON
CLOUD COMPUTING (AZURE)

Resource Person
Mr. Amit Kapoor
(Webtek Pvt. Ltd.)

APRIL 18, 2020
3:00-5:00 PM

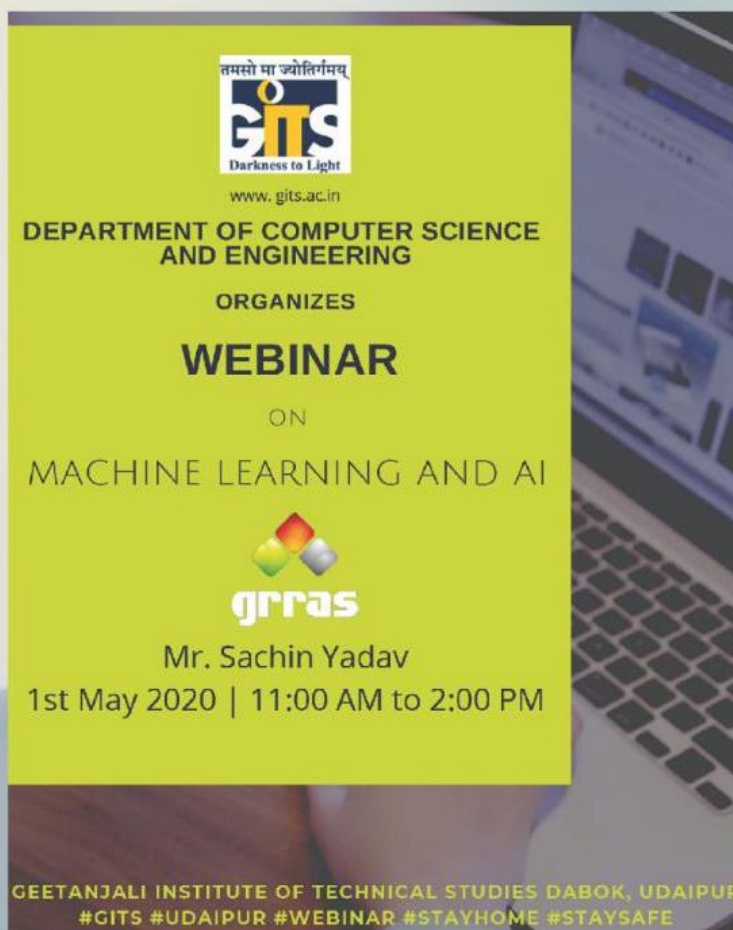

Azure

GEETANJALI INSTITUTE OF TECHNICAL STUDIES DABOK, UDAIPUR
#CITS #UDAIPUR #WEBINAR #STAYHOME #STAYSAFE

The speaker of the Webinar was Mr. Amit Kumar (Webtek Pvt. Ltd.). Cloud computing is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user. The term is generally used to describe data centers available to many users over the Internet. 100 students from II year and III year participated in the Webinar and learnt about Cloud Computing and Microsoft Azure, an ever expanding set of cloud services.

Webinar on Machine Learning and AI on 1st May 2020

Department of computer Science and Engineering organised a Webinar on **Machine Learning and AI** on 1st May 2020.

A yellow rectangular poster with text and logos. At the top is the GIT logo with the motto 'तमसो मा ज्योतिर्गमय' and 'Darkness to Light', and the website 'www.gits.ac.in'. Below this is the text 'DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ORGANIZES WEBINAR ON MACHINE LEARNING AND AI'. In the center is the 'grras' logo, which consists of three overlapping colored squares (red, green, blue) above the word 'grras'. Below the logo is the name 'Mr. Sachin Yadav' and the date and time '1st May 2020 | 11:00 AM to 2:00 PM'. At the bottom, in smaller text, is 'GEETANJALI INSTITUTE OF TECHNICAL STUDIES DABOK, UDAIPUR' followed by the hashtags '#GITS #UDAIPUR #WEBINAR #STAYHOME #STAYSAFE'. The poster is overlaid on a background image of a laptop screen and a person's hand.

तमसो मा ज्योतिर्गमय
Darkness to Light
www.gits.ac.in

DEPARTMENT OF COMPUTER SCIENCE
AND ENGINEERING
ORGANIZES
WEBINAR
ON
MACHINE LEARNING AND AI

grras

Mr. Sachin Yadav
1st May 2020 | 11:00 AM to 2:00 PM

GEETANJALI INSTITUTE OF TECHNICAL STUDIES DABOK, UDAIPUR
#GITS #UDAIPUR #WEBINAR #STAYHOME #STAYSAFE

150 students from II year and III year participated in the Webinar and learnt about the importance of Machine Learning and AI and ever expanding set of its new principles and technologies.

The speaker of the Webinar was Mr. Sachin Yadav(grras). He described that how much the concept of Machine Learning and AI can influence and can have a great impact on our lives. He discussed that if the humans can train the machines the task will be completed 3 times faster as compared to human approach.

He also briefly introduced the fact that every age has its scientific discoveries and inventions . But today's scientific advancement can impact globally in very short time. Such is the progress made in the field of Artificial Intelligence or AI . AI is going to be useful in context of user's daily life. People will be able to interact with it naturally than ever before. It will help users in more meaningful ways. Machine Learning gives us the opportunity to stretch our horizons and provide more value to the customers.

A photograph of a classroom scene. A female teacher, wearing a patterned dress, is kneeling on the floor, interacting with two young boys seated at their desks. The boy in the foreground is wearing an orange tank top. The classroom has a map of the United Kingdom on the wall, a whiteboard, and various educational materials. The text "FACULTY DEVELOPMENT PROGRAMME" is overlaid in large, bold, black letters.

FACULTY DEVELOPMENT PROGRAMME

THERE IS NO AGE TO LEARN!

3 Days FDP on ML and its practical approach (11 June - 13 June 2020)

Department of Computer Science and Engineering, GITS organized a 3-days hands on FDP on Machine Learning and its practical approach.

This workshop helped faculty members to understand Swarm Intelligence and approach of machine learning in various fields. More than 350 faculties from all over India participated in this. Sessions were taken on digital platform google meet.



The poster is for a 'Three Days Online Faculty Development Program on Machine Learning & Its Practical Approach'. It features a blue and white color scheme with a central graphic of a human head with circuitry and a gear. Logos for GITS, GEETANJALI, and GITS are present at the top. The text provides details about the dates (11-13 June 2020), time (11:00 AM-01:00 PM), organizers (Department of Computer Science & Engineering, GITS), and resource persons (Dr. Harish Sharma and Mr. Ganesh Suthar). It also lists the coordinator, convener, and patron, along with a registration link and a note that registration is free.

Three Days Online Faculty Development Program on Machine Learning & Its Practical Approach

11-13 JUNE 2020
11:00 AM-01:00 PM

Organized by
Department of Computer Science & Engineering
In Association with
IEI Student Chapter, Udaipur

RESOURCE PERSON

Dr. Harish Sharma
Associate Professor
Computer Science & Engineering Deptt., RTU, Kota.
Associate Editor: Int. J. of Swarm Intelligence (IJSI),
Inderscience Publishers
Secretary: Soft Computing Research Society, India

Mr. Ganesh Suthar
Data Science Expert
Corporate Trainer since 10+ Year.

Coordinator
Mr. Ritesh Kumar Jain
Department of CSE

Convener
Dr. Mayank Patel
HOD & Associate Professor

Patron
Prof. Dr. Vikas Misra
Director, GITS

Register Yourself on:
<https://forms.gle/V6joZ1DsGsDUJmws6>

*Note: Registration is Free

www.gits.ac.in

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Global Leader Phase" from the "SMO Algorithm". The slide content includes:

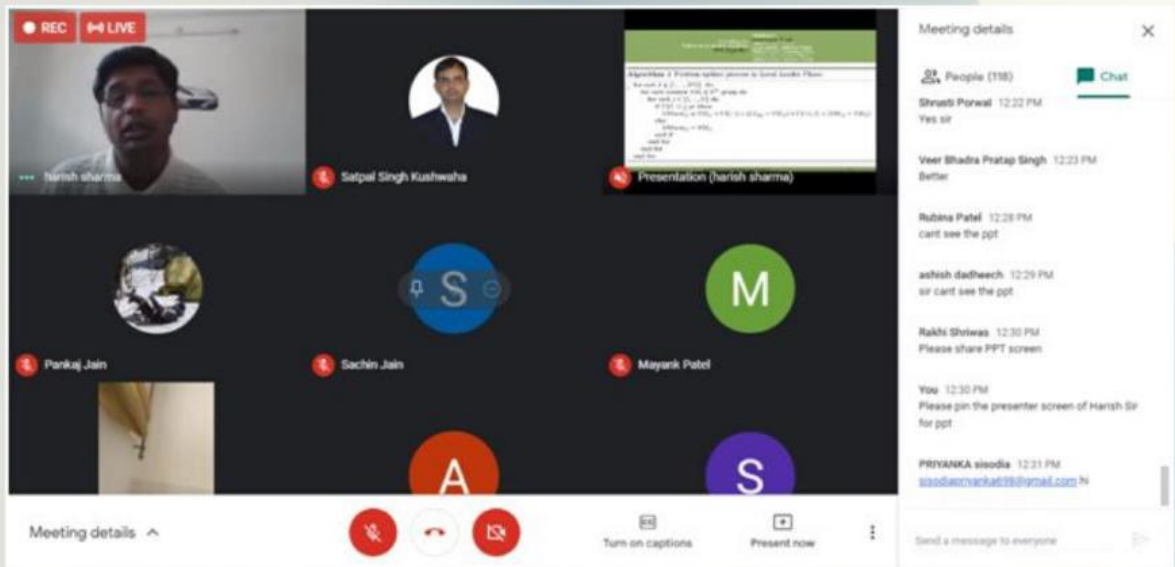
- Global Leader Phase**
- Solutions update their positions based on probability which is a function of fitness.
$$prob_i = 0.9 * \frac{fit_i}{\max_fit} + 0.1 \quad \dots\dots\dots (3)$$
- To update the position, SM uses knowledge of global leader, experience of neighboring SM and its own persistence. The position update equation is as follows:
$$SM_{new_{ij}} = SM_{ij} + U(0,1) \times (GL_j - SM_{ij}) + U(-1,1) \times (SM_{rj} - SM_{ij}) \quad \dots\dots\dots (4)$$
- Where, GL_j is the position of group leader in j^{th} dimension and $j \in \{1, 2, 3, \dots, D\}$ is the randomly chosen index.

The right sidebar shows "Meeting details" for a meeting with 116 people. The chat window is active, showing messages from participants like Shrutika Porwal, Veer Bhadra Pratap Singh, Rubina Patel, ashish dadheech, Rakhi Shrivastava, and Yipu.

Screenshot from in between the FDP.

Resource persons for this FDP were:

- Dr. Harish Sharma, Associate Professor, Department of Computer Science and Engineering, Rajasthan Technical University, Kota. He is an Associate Editor of International Journal of Swarm Intelligence. He is the Secretary of Soft Computing Research Society, India. He has more than 120 research papers and articles published in various National and International Journals.
- Mr. Ganesh Suthar, Data Science Expert and a Corporate Trainer with an experience of more than 10 Years.



Stills from in between the session.

A stylized illustration of a group of students in school uniforms. The students are depicted from the waist up, wearing blue sweaters over white collared shirts. They have various hair colors including blonde, red, brown, and grey. The background is a light blue gradient. The title 'STUDENT CLUB'S ACTIVITIES' is prominently displayed in the center in a large, bold, black font with a double underline.

STUDENT CLUB'S ACTIVITIES

TRYING IS WINNING IN THE MOMENT!



Extracurriculars are an important part of our lives. College days are one of the best opportunities where a student will get to explore new activities , and can easily find out in which field they are passionate about.

Keeping this in mind, the Student Club ,CSE, organised its first event on 03/03/2020, Tuesday.

In this event, the students of II year, CSE were divided into two teams , A and B . The students were very excited as they were getting an opportunity to apply their academic skills in a real-world context . There were 30 students in each team.



Ongoing activities of students

The student club members of III year initiated a technical quiz based on C and C++ Programming language to check out the knowledge of students . For each question they were given 4 options. The questions included Basics of programming and some questions related to coding.

There was great competition between the two teams . Both the teams participated with full enthusiasm and interest.

The event was well coordinated and properly organised.

The winner of the " TECH QUIZ " were II year Sec B students.

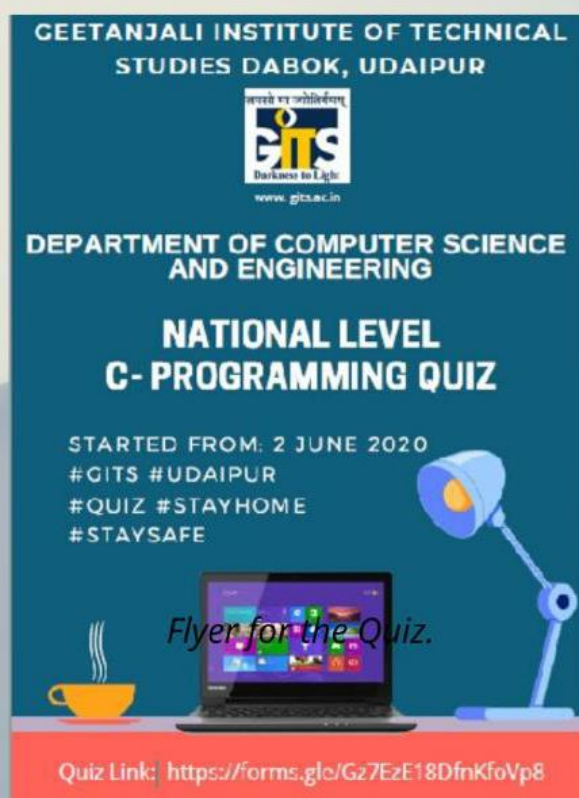


Picture perfect!!

Student Club, CSE organized its Second event of the session on 3/06/20, Wednesday.

It was a great initiative taken by the ,Student Club, CSE to provide the students with the best opportunity so that they can keep themselves connected with C Programming language during the COVID- 19 pandemic.

The event was “NATIONAL LEVEL ONLINE C PROGRAMMING QUIZ” for Students, faculties and IT professional. The student club members initiated the technical quiz on C Programming language where for each question 4 options were given, questions included basic of programming as well as coding questions.



The event was well coordinated and properly organized. The total registration for the quiz were 4500 from all over India and the passing criterion for the quiz was 40% of the total marks, where 3470 got cleared and received the certificate.



Certificates given by the Student Club to the participants who passed the passing criterion.

Student Club, CSE organized the third event of the session on 6 June 2020, Saturday. The event held was "NATIONAL LEVEL ONLINE PRE PLACEMENT MOCK QUIZ" for aspiring candidates of the placements. Student club members initiated the quiz where for each question 4 options were given.

Questions included basic of all programming languages with coding questions.

The event was well coordinated and properly organized. The total registration for the quiz were 500 from all over India, and the passing criterion for the quiz was 40% of the total marks, where 364 got cleared and received the certificate.



Certificate received by the participants who cleared the passing criterion.

A low-angle photograph of graduates in black gowns and stoles, throwing their mortarboards into the air. The caps are scattered across the upper half of the frame against a clear blue sky. The graduates at the bottom are looking up with joyful expressions, their arms raised.

ACADEMIC ACHIEVERS

TODAY IS YOUR DAY!!

CSE Academic Toppers III Semester



DIVYA SONI
18EGICS027
93.06%



KRISHNAPAL SINGH DEORA
18EGICS046
91.67%



18EGICS001
AAKANKSHA SAMOTA
91.59%



VIPLOV JIWNANI
18EGICS104
91.27%



LOVISHA JAIN
18EGICS052
89.80%

CSE Academic Toppers V Semester



ZENAB WAGLA WALA
17EGICS124
82.35%



HEENA KUMAWAT
17EGICS037
78.00%



GAURI SHRIMALI
17EGICS030
77.22%

PURVI DWIVEDI
17EGICS083
76.61%



RIYA SONI
17EGICS092
76.52%

CSE Academic Toppers VII Semester



LAKSHITA SUTHAR
16EGICS059
79.5%



JYOTI SINGH
16EGICS045
79%



ANKITA CHANDERIYA
16EGICS009
77.3%



KUSHAGRA GOSWAMI
16EGICS056
76.8%



APEKSHA JAIN
16EGICS010
76.7%



ONLINE COURSES

Coursera

Coursera is a world-wide online learning platform founded in 2012 by Stanford computer science professors Andrew Ng and Daphne Koller that offers massive open online courses (MOOC), specializations, and degrees.

Coursera works with universities and other organizations to offer online courses, specializations, and degrees in a variety of subjects, such as Engineering, Data Science, Machine Learning, Mathematics, Business, Computer Science, Digital Marketing, Humanities, Medicine, Biology, Social Sciences, and others.



Geetanjali Institute Of Technical Studies has provided its students and faculties the opportunity of learning from the mentors of Top Universities by making the Coursera courses free of cost for them.

Students and Teachers availed the opportunity and successfully completed their desired courses by also utilizing their time in the COVID-19 pandemic.

In all, 1435 certificates were achieved by the faculties and students of Computer Science and Engineering Department.

S.No	Full Name	No.of Coursera courses completed	Faculty/Student
1	Dr. Mayank Patel	4	Faculty
2	Ajay Kumar Sharma	6	Faculty
3	Ritesh Kumar Jain	10	Faculty
4	Ruchi Vyas	10	Faculty
5	Charu Kavadia	21	Faculty
6	Girish Ameta	6	Faculty
7	Jitendra Sharma	15	Faculty
8	Shrushti Porwal	51	Faculty
9	Bhupendra Kumar Teli	7	Faculty
10	Akhilesh Arya	22	Faculty
11	Nikita Somani	8	Faculty
12	Shipra Sharma	11	Faculty
13	Ruksar Sheikh	3	Faculty
14	Vishal Jain	1	Faculty

I Year

S.No	Full Name	No.of Coursera courses completed	Faculty/Student
1	Pratik Kanthaliya	32	Student
2	Himanshu Kaushik	11	Student
3	Tushar Nagar	8	Student
4	Tushar Gupta	7	Student
5	Hasnain Abbas Tinwala	6	Student
6	Anupam Bhatt	6	Student
7	Anisha Shaktawat	6	Student
8	Yashovardhan Jain	5	Student
9	Rishika Soni	4	Student
10	Parth Sharma	4	Student
11	Harshal Jain	4	Student
12	Rohit Suthar	4	Student
13	Eshita Mogra	4	Student
14	Shireen Bohra	4	Student
15	Manan Mathur	4	Student

16	Radhika Ladha	3	Student
17	Sanah Mathur	3	Student
18	Devanshi Minda	3	Student
19	Chekit Sharma	2	Student
20	Devam Vyas	2	Student
21	Riddhaam Paliwal	2	Student
22	Harshvardhan Singh Dulawat	2	Student
23	Amisha Sisodiya	2	Student
24	Sonali Lama	2	Student
25	Tushar Joshi	2	Student
26	Akshat Garg	1	Student
27	Manoj Dadheech	16	Student
28	Khushveer Rakhecha	1	Student
29	Nidhi Mantri	14	Student
30	Rohit Soni	12	Student
31	Divisha Lodha	10	Student
32	Gitesh Kumar Jain	7	Student
33	Tanvi Maheshwari	6	Student
34	Siddharth Singh Rajvanshi	6	Student
35	Manya Kashyap	5	Student
36	Bhavya Sukhwal	5	Student
37	Nandani Dalsaniya	4	Student
38	Khushi Lodha	4	Student
39	Hitanshi Jain	4	Student
40	Pritesh Singh Lodha	3	Student
41	Masooma Juckerwala	3	Student
42	Farhan Khan	3	Student
43	Dikshit Suthar	3	Student
44	Gaurav Sharma	3	Student
45	Jitendra Soni	1	Student
46	Bhavi Mehta	1	Student
47	Lakshit Choubisa	3	Student
48	Nitesh Kumawat	22	Student

49	Sheetal Sharma	12	Student
50	Sneha Dak	11	Student
51	Aman Soni	11	Student
52	Vidisha Vyas	7	Student
53	Kuldeep Menaria	7	Student
54	Pranjul Nainawatee	6	Student
55	Bhavy Chawda	6	Student
56	Pragya Dak	5	Student
57	Harsh Soni	4	Student
58	Gautam Anand	4	Student
59	Pooja Seth	4	Student
60	Meet Shrimal	3	Student
61	Sakshi Sanadhya	3	Student
62	Shruti Jain	3	Student
63	Yogita Sharma	3	Student
64	Yatharth Bhardwaj	3	Student
65	Garvin Sharma	3	Student
66	Mayank Joshi	3	Student
67	Jay Vardhan Singh Panwar	2	Student
68	Hemant Sharma	2	Student
69	Kartikey Bharti	1	Student
70	Tanmay Anchaliya	1	Student
71	Aniruddh Singh Ranawat	2	Student
72	Harsh Vardhan Singh	6	Student
73	Puneet Jethani	4	Student
74	Anil Kumar Lohar	2	Student
75	Divy Pagariya	2	Student
76	Himanshu Singh	1	Student
77	Dhirajlohar	1	Student
78	Akshat Maheshwari	1	Student

II Year

S.No	Full Name	No.Of Coursera Courses Completed	Faculty/Student
1	Purvi Agrawal	2	Student
2	Anubhuti Jha	4	Student
3	Tanmay Mathur	7	Student
4	Kartik Agarwal	89	Student
5	Ritik Nanawati	10	Student
6	Yash Raj Singh Chouhan	8	Student
7	Hritvik Gupta	7	Student
8	Aman Thakur	7	Student
9	Riya Agarwal	5	Student
10	Nishita Rawat	4	Student
11	Veer Bhadra Singh Solanki	4	Student
12	Bhowmick Vyas	4	Student
13	Divya Soni	3	Student
14	Lakshyaraj Singh	3	Student
15	Garima Soni	2	Student
16	Priyansha Lodha	2	Student
17	Hitesh Vaghela	2	Student
18	Krishnapal Singh Deora	2	Student
19	Bhavika Rajora	2	Student
20	Gyanendra Kumar	1	Student
21	Kashish Joshi	1	Student
22	Payal	35	Student
23	Jaya Sisodiya	10	Student
24	Harshita Jain	4	Student
25	Shubham Soni	3	Student
26	Dalpat I	2	Student
27	Yashasvee Basotia	2	Student
28	Bhavya Soni	2	Student
29	Yash Raj Singh Naruka	2	Student
30	Ritvika Nair	2	Student
31	Sandhya Kunwar Sisodiya	1	Student

II Year

32	Surya Manoj	1	Student
33	Priyash Garg	1	Student
34	Ronak Rathore	1	Student
35	Harshit Paliwal	7	Student
36	Vishesh Vyas	6	Student
37	Purva Dinesh Vijayvargiya	5	Student
38	Lovisha Jain	4	Student
39	Amritesh Saini	3	Student
40	Aakanksha Samota	3	Student
41	Amisha Soni	2	Student
42	Priyanshu Jain	2	Student
43	Mohammad Adnan Sheikh	2	Student
44	Ayush Yadav	2	Student
45	Bhavuk Seth	2	Student
46	Sona Ameta	2	Student
47	Sejal Rathor	2	Student
48	Shubham Mathur	2	Student
49	Hritik Kothari	1	Student
50	Twinkle Janwa	1	Student
51	Mandeep	1	Student
52	Mokshika Kothari	1	Student
53	Jinkal Nagda	3	Student
54	Yogesh Kumar Suthar	1	Student
55	Chirag Nenwa	1	Student
56	Umesh Joshi	4	Student
57	Tushar Kumar Prajapati	4	Student
58	Viplov Jiwnani	3	Student
59	Pranjal	3	Student
60	Varsha Paliwal	3	Student
61	Akanksha Dubey	3	Student
62	Ayushmaan	2	Student
63	Vidhyanshi Khetpaliya	2	Student
64	Himanshi Paliwal	2	Student

II Year

65	Darshan Shrimali	1	Student
66	Mohit Soni	1	Student
67	Subham Soni	6	Student
68	Anjali Vyas	6	Student
69	Kunal	4	Student
70	Yash Sen	3	Student
71	Yash Soni	2	Student
72	Vikas Sharma	1	Student
73	Priyal Soni	1	Student
74	Rohan Sharma	1	Student
75	Shoaib Khan	1	Student

III Year

S.No	Full Name	No.of Coursera courses completed	Faculty/Student
1	Pranjal Jain	3	Student
2	Shifa Choudhary	18	Student
3	Ruchil Patel	7	Student
4	Shubham Devpura	4	Student
5	Raj Paliwal	3	Student
6	Harsh Vardhan Kataria	8	Student
7	Neeraj Sharma	4	Student
8	Surbhi Khokhawati	1	Student
9	Shivam Purbia	1	Student
10	Kinal Kukda	4	Student
11	Rhythm Bhiwani	19	Student
12	Pulkit Jain	14	Student
13	Kajal Singhvi	13	Student
14	Himanshi Ajaria	11	Student
15	Sakshi Acharya	11	Student
16	Chetna Khatri	9	Student
17	Daksh Raj Singh Solanki	8	Student
18	Milind Jain	6	Student
19	Sudeep Nagda	6	Student

20	Himanshi Rathore	5	Student
21	Vishal Joshi	5	Student
22	Sakshi Sharma	5	Student
23	Pankhuri Sharma	5	Student
24	Veenu Maheshwari	3	Student
25	Devendra Kumawat	3	Student
26	Himani Jain	2	Student
27	Samanta Koul	2	Student
28	Ronak Vaishnav	2	Student
29	Saket Kothari	38	Student
30	Bhanu Pratap Singh Sisodia	8	Student
31	Nikhil Suhalka	6	Student
32	Heena Kumawat	6	Student
33	Zenab Wagla Wala	5	Student
34	Gourav Puri Goswami	5	Student
35	Ashish Singh Bhati	3	Student
36	Palak Intodia	2	Student
37	Nayan Solanki	2	Student
38	Riya Soni	1	Student
39	Honey Mathur	1	Student
40	Bhavin Bayati	3	Student
41	Ketan Sharma	12	Student
42	Geetika Agarwal	9	Student
43	Komal Suthar	6	student
44	Harsh Shrimali	5	Student
45	Nehal Kalra	4	Student
46	Rushil Agarwal	4	Student
47	Purvi Dwivedi	4	Student
48	Nupoor Bomb	3	Student
49	Neha Soni	3	Student
50	Surbhi Jain	3	Student

51	Vinay Pratap Singh Solanki	3	Student
52	Priyanshee Ameta	3	Student
53	Divyansh Paliwal	3	Student
54	Saurabh Srivastava	2	Student
55	Rajveer Singh Chouhan	2	Student
56	Rajal Rathore	2	Student
57	Digvijay Singh Solanki	2	Student
58	Chinmay Jain	1	Student
59	Chandrashekhar Panwar	1	Student
60	Chestha Singh	1	Student
61	Shakuntla Prajapat	5	Student
62	Garvita Shekhar	8	Student
63	Neeraj Sharma	6	Student
64	Bharat Kumar Menaria	5	Student
65	Niharika Paliwal	5	Student
66	Saurabh Kumar	4	Student
67	Himani Purohit	4	Student
68	Devesh Tamboli	4	Student
69	Amrita Agrawal	3	Student
70	Somia Choudhary	3	Student
71	Ranveer Singh	3	Student
72	Aashish Lohar	3	Student
73	Divyanshu Sharma	3	Student
74	Busaina Mitha	3	Student
75	Chirag Verma	3	Student
76	Himank Jain	3	Student
77	Jayesh Sharma	3	Student
78	Ajay Labana	2	Student
79	Vishal Jain	2	Student
80	Jony Sethiya	2	Student
81	Ambawat Yuvaraj Patel	2	Student
82	Gopala Shrimali	2	Student
83	Upendra Jain	2	Student
84	Raman Kumar	2	Student
85	Deepak Suthar	1	Student
86	Ishita Jain	12	Student

IV Year

S.No	Full Name	No.of Coursera courses completed	Faculty/Student
1	Sudhanshu Taldar	12	Student
2	Yash Rawat	1	Student
3	Pooja Moond	2	Student
4	Khushbu Laddha	7	Student
5	Ronak Jain	6	Student
6	Vishal Paliwal	5	Student
7	Arush Bolia	8	Student
8	Lakhan Dadhich	2	Student
9	Richa Garg	5	Student
10	Rajveer Choudhary	5	Student
11	Yuvraj Hinger	1	Student
12	Vinod Joshi	7	Student
13	Priya Kunwar	5	Student
14	Ranjeet Singh	4	Student
15	Lakshita Suthar	3	Student
16	Prashant Nagar	3	Student
17	Nilesh Paliwal	2	Student
18	Pankaj Chaturvedi	2	Student
19	Rishabh Vaishnav	2	Student
20	Vikalp Chakravorty	2	Student
21	Surendra Parmar	2	Student
22	Naman Sanadhya	2	Student
23	Batul Asgerali Chikhly	1	Student
24	Jignesh Maheshwari	1	Student
25	Khushboo Talreja	1	Student
26	Sourabh Sharma	1	Student
27	Jagdish Meghwal	1	Student
28	Sumit Vaishnav	1	Student
29	Neha Pujari	1	Student
30	Poorva Porwal	1	Student
31	Rohit Sainik	1	Student

edX

edX is a massive open online course provider created by Harvard and MIT. It hosts online University-level courses in a wide range of disciplines to a worldwide student body, including some courses at no charge. It also conducts research into learning based on how people use its platform.

edX courses consist of weekly learning sequences. Each learning sequence is composed of short videos interspersed with interactive learning exercises, where students can immediately practice the concepts from the videos. The courses often include tutorial videos that are similar to small on-campus discussion groups, an online textbook, and an online discussion forum where students can post and review questions and comments to each other and teaching assistants.

edX offers Certificates of successful completion and some courses are credit-eligible.

edX also offers XSeries Certificates for completion of a bundled set of two to seven verified courses in a single subject (cost varies depending on the courses).

Geetanjali Institute Of Technical Studies has provided its students and faculties the opportunity of learning from the mentors of Top Universities by making the edX courses free of cost for them.

Students and Teachers availed the opportunity and successfully completed their desired courses by also utilizing their time in the COVID-19 pandemic.

S.No	Full Name	No.of eDx courses completed	Faculty/Student
1	Ritesh Kumar Jain	1	Faculty
2	Shrushti Porwal	1	Faculty
3	Charu Kavadia	1	Faculty
4	Nikita Somani	3	Faculty
5	Daksh Raj Singh	1	Student
6	Sakshi Acharya	1	Student
7	Dalpat I.	1	Student
8	Kartik Agarwal	3	Student
9	Shubham Soni	1	Student

A LEGO WALL-E robot is the central focus, holding a small plant sprout in its right arm. The robot is yellow and black, with large, expressive eyes. The background is a soft, out-of-focus blue and white. Overlaid on the robot is the text 'SMART INDIA HACKATHON [SIH]' in a bold, black, sans-serif font. The text is arranged in three lines: 'SMART INDIA' on the first line, 'HACKATHON' on the second line, and '[SIH]' on the third line. Each line is underlined with a thick black line.

SMART INDIA

HACKATHON

[SIH]

WALL·E

Internal Smart India Hackathon 2020 hosted by GITS, Udaipur

Internal Smart India Hackathon – 2020 (An Initiative by Ministry of Human Resource Development, Govt. of India and AICTE, New Delhi) for Software and Hardware Edition, was successfully hosted by Geetanjali Institute of Technical Studies, Udaipur on 18th March 2020.

Organisers

MHRD

MIC

AICTE

Poddakoti

Platinum Partner

aws

SMART INDIA HACKATHON 2020

Internal Hackathon for Smart India Hackathon 2020

GITS

Geetanjali Institute of Technical Studies
Udaipur (Raj.)

Partners

DEVNET

KPIT

Communication Partner

Suma



Team of teams of SIH.

The students in this 24-hour Smart India program provided their cooperation in the development of the country by working for the various ministries of the Indian and state governments, reputed companies and the basic problems of the country.



A team of SIH.

The Event coordinator was Dr Mayank Patel (HOD, CSE) . The total of 12 Teams including 5 hardware and 7 software participated in this Internal Hackathon. Various projects and suggestions made by the students for solving problems were observed by the judges Shri Ankit Sanadhya (Director- Prarthna Associates, Udaipur), Dr. Manish Shrimali (Associate Professor, Rajasthan Vidhyapeeth, Udaipur) and Shri Saurabh Purohit (Cloud Engineer, Adhoc Network , Jaipur). The judges selected the best 7 teams who will represent GITS in the National Level Hackathon 2020 to be held on 16th and 17th March 2020. These 7 teams will solve the potential problems of Global Ministry of Youth Affairs, Government of Uttarakhand, MHRD, ISRO and Cognizant Technology.



Dr Vikas Misra (Director,GITS) ,Dr Mayank Patel (HOD,CSE) , Faculties and the Judges.

The background of the cover is a photograph of a vintage computer console. The top part of the console has a light-colored, textured surface, possibly made of a different material or a different finish. Below this, there is a panel with several circular dials or gauges. Some of the dials have numbers on them, such as '55', '60', '55', and '58'. The overall tone of the image is muted and historical.

MACHINE **LEARNING LAB** **INNAUGURATION**

**"SUFFICIENTLY ADVANCED TECHNOLOGY IS
INDISTINGUISHABLE FROM MAGIC."**

— ARTHUR C. CLARKE,

MACHINE LEARNING LAB INNAUGURATION

Today's generation is the generation of technologies. Many technologies have been launched which have helped human beings so that they can easily work with the increasing demand of this new era.

Machine learning is one of such examples of technology. Machine learning is an application of artificial intelligence that provides the systems the ability to automatically learn and improve from experience without being explicitly programmed.

One day computers will not only replace manual labour, but also mental labour. From trivial jobs to sophisticated services , everything today is using machine learning.

For the past many years the competition power is dramatically increased so when we run deep learning on the latest competition and with access to better data we get dramatic breakthrough . The ability for computers to do these kind of tasks like voice recognition,image recognition is really hitting a great point.

So. to gear up with the latest trend and technology, Geetanjali Institute Of Technical Studies , established the Machine Learning Lab and to give exposure to its students and faculties.

The lab was innaugurated and ribbon was cut by Honourable Ms Kanika Agarwal, Director, Geetanjali Group.



Ms Kanika Agarwal cutting the ribbon.

Dr Vikas Misra (Director), Dr Mayank Patel (HOD, CSE) and the faculties of the CSE Department were present at the inauguration ceremony.



Ms Kanika Agarwal with the Director, HOD and faculties of CSE Department.

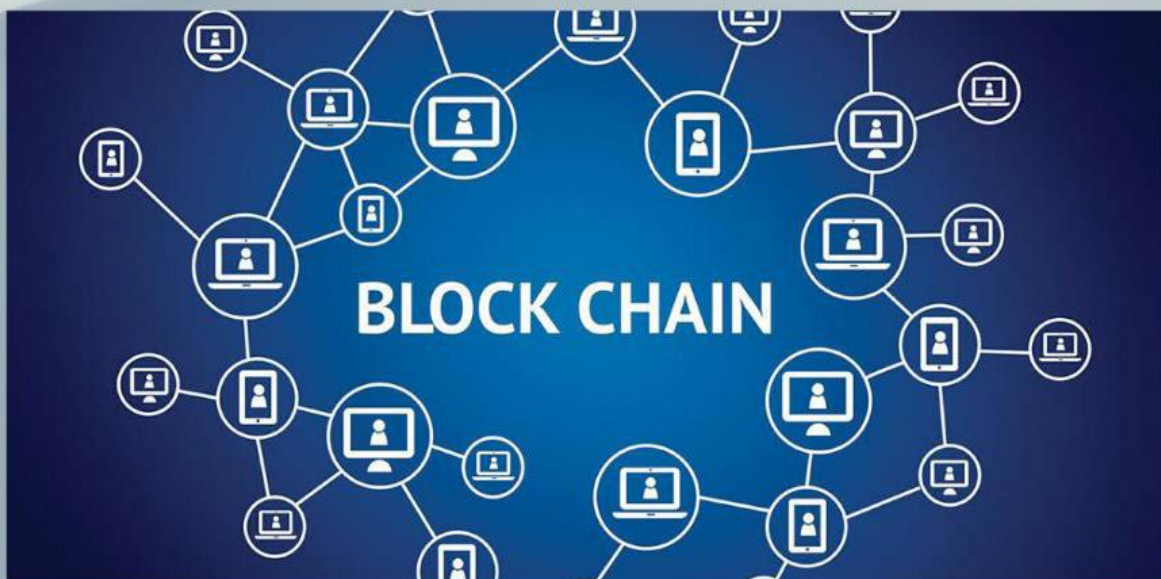
ARTICLES

BLOCKCHAIN : EVERYTHING YOU NEED TO **KNOW**

- Purvi Agrawal
II Year, IV Sem
Sec B

Although most people think of blockchain technology in relation to cryptocurrencies such as Bitcoin, blockchain offers security that is useful in many other ways. In the simplest of terms, blockchain can be described as data you can only add to, not take away from or change. Hence the term “chain” because you’re making a chain of data. Not being able to change the previous blocks is what makes it so secure. In addition, blockchains are consensus-driven, so no one entity can take control of the data.

With blockchain, you don’t need a trusted third-party to oversee or validate transactions. Several industries are involving and implementing blockchain, and as the use of blockchain technology increases, so too does the demand for skilled professionals. In that regard, we are already behind.



A blockchain developer specializes in developing and implementing architecture and solutions using blockchain technology.

Key elements of a blockchain :

Distributed ledger technology :

All network participants have access to the distributed ledger and its immutable record of transactions. With this shared ledger, transactions are recorded only once, eliminating the duplication of effort that's typical of traditional business networks.

Records are immutable :

No participant can change or tamper with a transaction after it's been recorded to the shared ledger. If a transaction record includes an error, a new transaction must be added to reverse the error, and both transactions are then visible.

Smart contracts :

To speed transactions, a set of rules – called a smart contract – is stored on the blockchain and executed automatically. A smart contract can define conditions for corporate bond transfers, include terms for travel insurance to be paid and much more.

If you are intrigued by Blockchain and its applications and want to make your career in this fast-growing industry, then this is the right time to learn Blockchain and gear up for an exciting future.

Artificial Intelligence : The Smartest Technology

-Viplov Jiwnani
II Year, IV Sem
Sec B

Artificial intelligence (AI) is the ability of a computer program or a machine to think and learn. It is also a field of study which tries to make computers "smart". They work on their own without being encoded with commands.

The easiest way to understand AI is in the context of human. AI is the broad branch of computer science. The main goal of AI is to create a system that can function intelligently and independently.



Humans can speak and listen and communicate through language. This is a field of speech recognition. Humans can read and write text in a language. This is a field of natural language processing. Humans can see with their eyes and process what they see. This is a field of computer vision. Humans can understand their environment and can move fluidly but AI is a field of robotics.

Every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it. An attempt will be made to find how to make machines use language, forms abstraction and concepts, solve kinds of problems now reserved for humans, and improve themselves.

Role of AI in covid-19 - AI is used to find the right vaccination faster by analysing prior once based on similarity measures of protein shakes. Secondly the infection and spread of the Corona virus, this area will focus on how data and AI helps to solve some of the critical questions.

Death master and treatment at the health center machines use AI. Some scanning and X-ray system can automatically detect virus using image recognition

In financial institutions, AI techniques can be used to identify which transactions are likely to be fraudulent, adopt fast and accurate credit scoring, as well as automate manually intense data management tasks.

Why Is Everyone Talking About DevOps Technology?

-Veer Bhadra Singh Solanki
II Year, IV Sem
Sec B

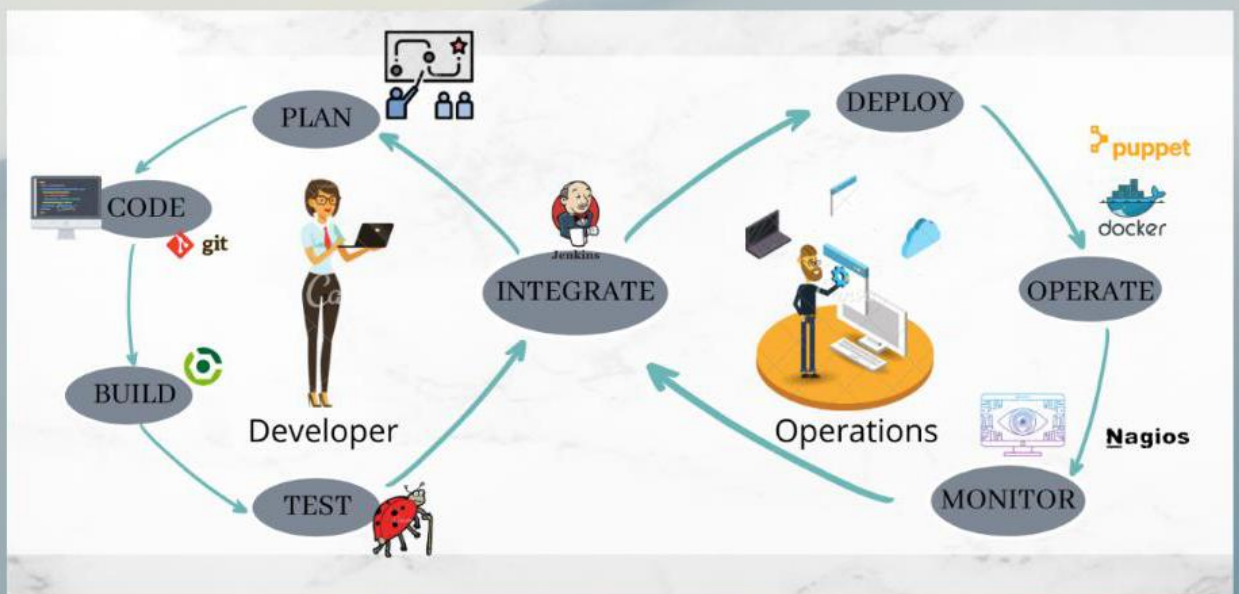
What is DevOps Technology?

DevOps is the most heard word in the technology industry. DevOps is not technology or tools or a programming language that they can learn and become a DevOps engineer but DevOps is a mindset. DevOps is a methodology of doing work or mindset to produce things from development to production. A DevOps Engineer must manage the IT infrastructure as per the requirement of the supported software code that is dedicated to a hybrid multi-tenant environment. DevOps is used in application lifecycle management and ensure that our development and operation team both work with sync and whatever work we produce is smooth.



Why the name “DevOps”?

DevOps come from two words when you bring Dev which comes from development and Ops which come from the operation and both together we get DevOps. The main goal of DevOps is to change and improve the relationship advocating better communication and collaboration between these two business units. The DevOps culture puts a focus on creating a fast and stable workflow through the development and IT operations. DevOps is to deploy features into production quickly and to detect and correct problems when they occur, without disrupting other services.



Benefit of DevOps

- 1.Improved operational support and faster fixes
- 2.Good processes across IT and teams, including automation
- 3.Increased team flexibility and agility
- 4.Happier, more engaged teams
- 5.Cross-skilling and self-improvement
- 6.Collaborative working
- 7.Respect from senior management
- 8.Fast to Market - More responsive to business needs.
- 9.Better Collaboration
- 10.Continuous Release and Deployment

Conclusion

DevOps is a culture that promotes collaboration between the Development and Operations Team to deploy code to production faster in an automated & repeatable way. Before the DevOps operation and Development team worked in completed isolation. DevOps offers Maintainability, Predictability, Greater quality cost efficiency, and time to market.

UNTIL NEXT TIME.....

CONTACT US AT:

EDITOR:

Ms. Charu Kavadia
(Assistant Professor, CSE)
charu.kavadia@gits.ac.in

STUDENT EDITORS:

Purvi Agrawal
purviagrawalup@gmail.com

Viplov Jiwnani
jiwnaniviplov@gmail.com

Veer Bhadra Singh Solanki
veerbhadrasingh123@gmail.com

