## BITS & BYTES

VOLUME III ISSUE II | JULY-DECEMBER 2019

"SCIENCE IS ABOUT KNOWING; ENGINEERING IS ABOUT DOING."

Henry Petroski

# COMPUTER SCIENCE DEPARTMENT

E-Newsletter

#### ABOUT DEPARTMENT

The Department of Computer Science and Engineering educates and conducts research covering wide areas of information science, from fundamental technologies such object oriented software design, programming, architecture, database system, computer mathematics, and Internet technologies, which support highly information-oriented of infrastructures the society, to applied and advanced technologies including multimedia, robotics, computer vision, data mining, interface bio-informatics, design, human-machine science, life computational science. distributed computing, and theoretical computer science. To achieve our mission, we provide attractive educational programs for students to learn from the basics to technologies related to computer science and engineering. Through our educational programs students are expected to become leading engineers and researchers who are highly motivated and have practical, creative, management skills to drive an advanced next-generation information society in all industrial fields.

### **DIRECTOR'S DESK**

Dr. Vikas Mishra

"DON'T WAIT FOR OPPORTUNITY. CREATE IT."



I am very happy that Computer Science Department is releasing 3rd 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. The major strength of the department is a team of well qualified and dedicated faculties who are continuously supporting the students for their academic excellence. We have arranged several industrial visits and workshops for our 2nd, 3rd and 4th year students in this semester. The seminars held have been enlightening for both the students and the The workshops have made our professionally competent with huge moral values, ethics and leadership qualities that would enable them to serve the society in the best possible manner. The GITS family is an ever 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.

## HOD'S DESK

Dr. Mayank Patel

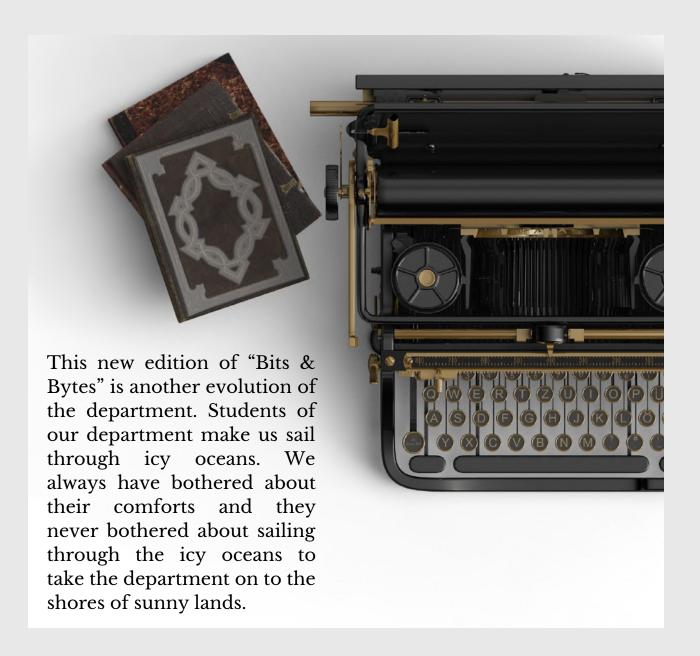
"WHO YOU ARE TOMORROW BEGINS WITH WHAT YOU DO TODAY."



It gives me immense pleasure to lead the department of CSE .Our college is one of the premier institutions in the region, unique like a prism reflecting the manifold shades of learning and co-curricular activities. Geetanjali Institute of Technical Studies is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence. The very motto of our department is to provide quality education. 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 ones 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 assets not only to this Engineers will emerge as institution and to the organization they belong, but also to the country at large.

## **EDITORIAL BOARD**

Sailing the Icy Oceans...



#### EDITOR:

CHARU KAVADIA
(ASSISTANT PROFESSOR, DEPARTMENT OF CSE)

#### STUDENT EDITORS:

CHINMAY JAIN (III YEAR, CSE)
GAURI SHRIMALI (III YEAR, CSE)

## **TABLE OF CONTENTS**

WORKSHOPS **SEMINARS TRAININGS** 19 TEACHER'S DAY CELEBRATION 26 STUDENT CLUB NPTEL STUDENT ACADEMIC TOPPERS ARTICLE 1 - USING COMPUTERS TO VIEW THE UNSEEN ARTICLE 2 - TOWARDS MORE EFFICIENT COMPUTING, WITH MAGNETIC WAVES **PLACEMENTS** UNTIL NEXT TIME ...

## WORKSHOPS

**EXCHANGING IDEAS** 

#### 2 DAYS HANDS ON DSA AND COMPETITIVE PROGRAMMING WORKSHOP

DATED: 22ND JULY - 23RD JULY 2019

Department of Computer Science and Engineering organized 2 Days Hands on DSA & Competitive Programming sessions for 2nd, 3rd and 4th year students, on 22-23 July 2019. Around 120 students participated in the sessions. The aim of the workshop was to develop basic understanding of programming in students, also they can write and develop effective algorithms for problem solving. Resource person were Mr. Raamaa G Shrinivas. He is a freelancer training expert from Richman Freeland firm Hyderabad.





Mr. Raamaa G Srinivas conducting the Workshop



Students attending Competitive Programming Workshop

#### 6 DAYS HANDS-ON WORKSHOP ON "MOBILE APPLICATION DEVELOPMENT USING ANDROID AND KOTLIN"

DATED: 10TH SEPTEMBER - 14TH SEPTEMBER 2019

Department of CSE is organizing a 6 days intensive training over "Mobile Application Development using Android and Kotlin" (16-21 Sep 2019) for the students who want to pursue their career in this field of Mobile Application Development. The workshop is for B. Tech CSE III year students. 120 students are participating in this training. Mr. Akshay Nandwana is the resource person for this workshop. Akshay is Mentor of change for Indian Government flagship Program AIM also he is a Community Leader at Google Developers.



#### GEETANJALI INSTITUTE OF TECHNICAL STUDIES



Department of Computer Science & Engineering

#### 6 Days National Workshop

ON

"Mobile Application Development Using Android & Kotlin"

SCHEDULE: 16th- 21st September 2019

**RESOURCE PERSON** 

**Akshay Nandwana** 

**Community Leader at Google Developers** 



Akshay Nandwana conducting the Workshop



Students attending Android Workshop

#### 5 DAYS HANDS-ON WORKSHOP ON "WORDPRESS AND DIGITAL MARKETING"

DATED: 10TH SEPTEMBER - 14TH SEPTEMBER 2019

In continuation to our mission about industry oriented learning, Department of CSE is organizing a 5 days intensive training over "Wordpress and Digital Marketing" (10-14 Sep 2019) for the students who want to pursue their career in this field. The workshop is for B. Tech CSE final year students. 50 students are participating in this training. Ms. Surbhi Jain, Founder Digification is the resource person for this workshop. Ms. Surbhi have done her post graduation from IIM Banglore and she has more than 5 years of exposure in field of Digital and Social Media Marketing.





Ms. Surbhi Jain conducting the Workshop



Certificate Distribution

# SEMINARS

**EXCHANGING IDEAS** 

#### INTERNATIONAL SEMINAR ON JOB OPPORTUNITIES IN SALESFORCE

DATED: 6TH JULY 2019

Department of computer Science and Engineering organized an international seminar on job opportunities in Salesforce on July Key speaker 6th 2019. was Mr. Vijay Chief Executive Officer V2 Solutions Inc. Mr. Shah talked about his journey of how he became a successful Entrepreneur. He gave a short motivational speech which inspired the audience. The seminar was attended by 70 students and 30 faculty members.



#### GEETANJALI INSTITUTE OF TECHNICAL STUDIES



Department of Computer Science and Engineering &

**Master of Computer Applications** 

International Seminar ON

Placement opportunities in Salesforce"

SCHEDULE: 6th July 2019

**RESOURCE PERSON** 

Mr. Vijay Shah

Chief Executive Officer V2 Solutions Inc.



Mr. Vijay Shah conducting the Seminar



Faculty and Students attending the Seminar

#### NATIONAL SEMINAR ON MULESOFT AS TECHNOLOGY

DATED: 12TH DECEMBER 2019

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. This seminar helps students to understand job roles associated with field of MuleSoft and how they can make their career in MuleSoft technology.





MuleSoft Seminar being conducted



Faculty and Students attending the Seminar

# TRAININGS

FOR EVERYTHING DIGITAL

#### 30 DAYS TRAINING PROGRAM ON "PYTHON PROGRAMMING"

DATED: 23RD SEPTEMBER - 23RD OCTOBER 2019

In continuation to our mission about industry oriented learning, Department of CSE organized a 30 days intensive training over "Python Programming" (scheduled 23rd September- 23rd October 2019) for B.Tech II year students, who want to pursue their career in this field of software development. More than 110 students of CSE participated in this training. The workshop was delivered by Mr. Ganesh Suthar, Technical Head, Aptech, Udaipur. Mr. Suthar is having more that 10 years experience in corporate trainings.



#### **GEETANJALI INSTITUTE OF TECHNICAL STUDIES**

Department of Computer Science & Engineering



25 Days National Workshop
ON

"Python Programming"



SCHEDULE: 23 September- 24 October 2019

RESOURCE PERSON

Mr. Ganesh Suthar Aptech, Udaipur



Mr. Ganesh Suthar conducting Python Training



#### 21 DAYS HANDS ON C++ AND DSA TRAINING

DATED: 1ST OCTOBER - 23RD OCTOBER 2019

Department of Computer Science and Engineering organized 21 Days hands on C++ and DSA sessions for 4th year 7th semester students, from 1st - 23rd October 2019. Around 52 students participate in the sessions. The aim of this training was to provide in-depth knowledge to students about Object Oriented Programming concepts required in IT industry. This training also helped the students to better prepare themselves for placement drives. Resource person was Mr. Mohammed Sikander, Sr. Training Associate Cranes Software Bengaluru. Mr. Sikander has been providing trainings to industrial professionals from last 13 years.



#### GEETANJALI INSTITUTE OF TECHNICAL STUDIES



Department of Computer Science & Engineering

20 Days National Workshop ON

"Data structures & CPP Programming"

SCHEDULE: 1-20 October 2019



#### RESOURCE PERSON

Mr. Mohammed Sikander Cranes Software, Bengaluru



Mr. Mohammed Sikander conducting the Workshop

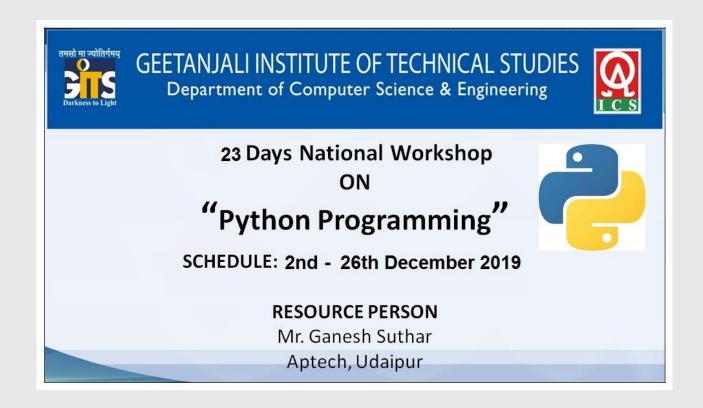


Students attending the Workshop

#### 23 DAYS TRAINING PROGRAM ON "PYTHON PROGRAMMING"

DATED: 2ND DECEMBER - 26TH DECEMBER 2019

In continuation to our mission about industry oriented learning, Department of CSE organized a 23 days intensive training over "Python Programming" (2nd December – 26th December 2019) for B.Tech III year students, who want to pursue their career in this field of software development. 115 students of CSE participated in this training program. The workshop was delivered by Mr. Ganesh Suthar, Technical Head, Aptech, Udaipur. Mr. Suthar is having more that 10 years experience in corporate trainings.





Mr. Ganesh Suthar conducting Python Training



Students with Resource Person

# TEACHER'S DAY CELEBRATION

# "TEACHERS AFFECT ETERNITY. NO ONE CAN TELL WHERE THEIR INFLUENCE STOPS"

DATED: 5TH SEPTEMBER 2019

To mark the great Teacher & Philosophyist, Dr Sarvapalli Radhakrishnan's Birthday, Teachers Day was observed and celebrated by CSE Department of Geetanjali Institute of Technical Studies on September 05, 2019. Both the students & staff of gathered joyfully for the celebration.



The students conducted lectures in place of the faculty. The lectures were followed bv cultural activities organized by the CSE students. Their was an atmosphere of bonding and day brought fun. This students together teachers who spent the day well together creating new memories reminisce to afterwards.



Teacher's Day Celebration

# STUDENT CLUB

**BEYOND THE CLASSROOMS** 



Providing an outlet and a stage for the creative juices of young minds, this club organizes technical and non-technical activities weekly.

Apart from the technical curriculum, it is important for the students to engage in extra-curricular activities. This Student Club organizes technical as well as non-technical activities on a weekly basis.

Recently there were two activities held by The Student Club. They were:

- 1.) Message Passing
- 2.) Tic Tac Toe





Students who participated in Message Passing Activity



Students who participated in Tic Tac Toe Activity

# NPTEL

# NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING

#### ABOUT NPTEL



The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003. Five core disciplines were identified, namely, civil engineering, computer science and engineering, electrical engineering, electronics and communication engineering and mechanical engineering courses in web/video format were developed in this phase. The main goal of NPTEL Phase II (2009-14) was to build on the engineering and core science courses launched previously in NPTEL Phase I. An additional 600 web and video courses were created in all major branches of engineering, physical sciences at the undergraduate and postgraduate levels management courses at the postgraduate level. Several improvements such as indexing of all video and web courses and keyword search were implemented. Many students as well as faculties completed various NPTEL courses and passed with flying colors.

## The following is the list of students and faculty members who participated in NPTEL and achieved great results:

2 Ethical Hacking - Online SOMIA CHOUDHARY Student Litterpersonal Skills GAUR SHRIMALI Student Interpersonal Skills GAUR SHRIMALI Student Interpersonal Skills GAUR SHRIMALI Student Elite-Silver Interpersonal Skills GAUR SHRIMALI Student Elite-Silver Interpersonal Skills SHEETAL SHARMA STUDENT Elite-Silver Elite-Silver Interpersonal Skills SHEETAL SHARMA STUDENT Elite-Silver Elite	S.no	Course Name	Name	Role	Certificate Type
Settical Hacking - Online	1	Ethical Hacking - Online	CHINMAY JAIN	Student	Elite+gold (Topper of 5% in this course)
Interpersonal Skills	2	Ethical Hacking - Online	KRISHNAVEER SINGH	Student	Elite
Simple   Student   Elite+Silver   Elite+Silver   Elite+Silver   Interpersonal Skills   SHEETAL SHARMA   Student   Elite+Silver   Interpersonal Skills   ANISHA SHARTAMAT   Student   Elite-Silver   Elite-Silver   Elite-Silver   Interpersonal Skills   ANISHA SHARTAMAT   Student   Elite	3	Ethical Hacking - Online	SOMIA CHOUDHARY	Student	Successfully completed
Fig.	4	Interpersonal Skills	GAURI SHRIMALI	Student	Elite+Silver
Interpersonal Skills	5	Interpersonal Skills	KAJAL SINGHVI	Student	Elite+Silver
Binterpersonal Skills	6	Interpersonal Skills	SHEETAL SHARMA	Student	Elite+Silver
District	7	Interpersonal Skills	ANISHA SHAKTAWAT	Student	Elite+Silver
Introduction to Internet of Things - Online	8	Interpersonal Skills	LAKSHIT CHOUBISA	Student	Elite
Introduction to Internet of Things - Online   LAKSHYARAJ SINGH   Student   Elite	9	Interpersonal Skills	RAVI PALIWAL	Student	Elite
Introduction to Internet of Things - Online   LOVISHA JAIN   Student   Elite	10	Introduction to Internet of Things - Online	BHOWMICK VYAS	Student	Elite
13 Introduction to Internet of Things - Online 14 Introduction to Internet of Things - Online 15 Introduction to Internet of Things - Online 16 Introduction to Internet of Things - Online 16 Introduction to Operating Systems 17 Operating System Fundamentals - Online 18 Operating System Fundamentals - Online 19 Problem Solving through Programming in C - Online 20 Problem Solving through Programming in C - Online 21 Problem Solving through Programming in C - Online 22 Problem Solving through Programming in C - Online 23 Problem Solving through Programming in C - Online 24 Programming in C++ 25 Programming in C++ 26 Programming in C++ 27 Programming in C++ 28 Programming in C++ 29 Programming in C++ 29 Programming in C++ 20 Programming in C++ 21 Programming in C++ 22 Programming in C++ 23 Programming in C++ 24 Programming in C++ 25 Programming in C++ 26 Programming in C++ 27 Programming in C++ 28 Programming in C++ 29 Programming in C++ 30 Programming in C++ 31 Programming in C++ 32 Programming in C++ 33 Programming in Dava - Online 34 Programming in Dava - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Pronline 31 Programming in Dava - Online 32 Programming in Dava - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Programming In Dava - Online 32 Programming In Dava - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skil	11	Introduction to Internet of Things - Online	LAKSHYARAJ SINGH	Student	Elite
Introduction to Internet of Things - Online   HEENA KUMAWAT   Student   Is Introduction to Internet of Things - Online   DEVENDRA KUMAWAT   Student   Is Introduction to Operating Systems   GAURI SHRIMALI   Student   Successfully completed   Successfully completed   Successfully completed   Introduction to Operating System Fundamentals - Online   RHYTHM BHINWANI   Student   Elite   Successfully completed   Is   Operating System Fundamentals - Online   ZENAB WAGLA WALA   Student   Student   Successfully completed   Is   Operating System Fundamentals - Online   ZENAB WAGLA WALA   Student   Student   Successfully completed   Successfully co	12	Introduction to Internet of Things - Online	LOVISHA JAIN	Student	Elite
Introduction to Internet of Things - Online   DEVENDRA KUMAWAT   Student   Introduction to Operating Systems   GAURI SHRIMALI   Student   Student   Student   Student   Elite   Successfully completed   17   Operating System Fundamentals - Online   RHYTHM BHIWANI   Student   Elite   Successfully completed   18   Operating System Fundamentals - Online   ZENAB WAGLA WALA   Student   Elite   Successfully completed   Successfully completed   Problem Solving through Programming in C - Online   DAKSH RAJ SINGH SOLANKI   Student   Successfully completed   Successfully com	13	Introduction to Internet of Things - Online	DIVYA SONI	Student	Elite
Introduction to Operating Systems	14	Introduction to Internet of Things - Online	HEENA KUMAWAT	Student	Elite
17 Operating System Fundamentals - Online	15	Introduction to Internet of Things - Online	DEVENDRA KUMAWAT	Student	Elite
18 Operating System Fundamentals - Online 2ENAB WAGLA WALA Student 19 Problem Solving through Programming in C - Online 20 Problem Solving through Programming in C - Online 21 Problem Solving through Programming in C - Online 22 Problem Solving through Programming in C - Online 32 Problem Solving through Programming in C - Online 33 Problem Solving through Programming in C - Online 34 Problem Solving through Programming in C - Online 35 Programming in C++  86 RITIA SINGH 16 Programming in C++  87 RITIA MANAWATI 17 Student 18 Elite 19 Programming in C++  88 RITIA NANAWATI 19 Programming in C++  89 Programming in C++  80 Programming in Dava - Online  80 Programming in Dava - Online  80 Programming in Dava - Online  81 Programming in Dava - Online  81 Programming in Dava - Online  82 Programming in Dava - Online  83 Python for Data Science - Online  84 Soft skills - Online  85 Soft skills - Online  86 Soft skills - Online  87 Soft skills - Online  88 PRANJUL NAINAWATEE  89 Student  80 Elite	16	Introduction to Operating Systems	GAURI SHRIMALI	Student	Successfully completed
19 Problem Solving through Programming in C - Online DAKSH RAJ SINGH SOLANKI Student Problem Solving through Programming in C - Online KAPIL RAIPAL Student Successfully completed Student	17	Operating System Fundamentals - Online	RHYTHM BHIWANI	Student	Elite
20 Problem Solving through Programming in C - Online 21 Problem Solving through Programming in C - Online 22 Problem Solving through Programming in C - Online 23 Problem Solving through Programming in C - Online 24 Programming in C++ 25 Programming in C++ 26 Programming in C++ 27 Programming in C++ 28 Programming in C++ 29 Programming in C++ 29 Programming in C++ 29 Programming in C++ 30 Programming in C++ 31 Student 32 Programming in C++ 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - On	18	Operating System Fundamentals - Online	ZENAB WAGLA WALA	Student	Successfully completed
21 Problem Solving through Programming in C - Online KAPIL RAJPAL Student Successfully completed 22 Problem Solving through Programming in C - Online KUSHAL RAJPAL Student Successfully completed 23 Problem Solving through Programming in C - Online CHESTHA SINGH Student Successfully completed 24 Programming in C++ RIYA AGARWAL Student Elite 25 Programming in C++ RITIK NANAWATI Student Elite 26 Programming in C++ PURVA DINESH VIJAYVARGIYA Student Elite 27 Programming in C++ PURVA DINESH VIJAYVARGIYA Student Elite 28 Programming in C++ SHUBHAM SONI Student Elite 29 Programming in C++ RONAK ISRANI Student Elite 30 Programming In Java - Online MAYANK KATARIA Student Elite 31 Programming In Java - Online MAYANK KATARIA Student Elite+Silver Elite+Silver 32 Programming, Data Structures And Algorithms Using Python CHINMAY JAIN Student Elite+Silver 33 Python for Data Science - Online MANISH TIWARI Faculty 34 Soft skills - Online MASOOMA JUCKERWALA Student 35 Soft skills - Online MASOOMA JUCKERWALA Student 36 Soft skills - Online RANJUL NAINAWATEE Student 37 Soft skills - Online ROHIT SONI Student Elite 38 Soft skills - Online ROHIT SONI Student 39 Soft skills - Online NIDHI MANTRI Student Elite 40 Soft skills - Online SANAH MATHUR Student Elite 40 Soft skills - Online SANAH MATHUR Student Elite 41 Soft skills - Online SANAH MATHUR Student Elite 42 Successfully completed	19	Problem Solving through Programming in C - Online	HARSH SONI	Student	Elite
22Problem Solving through Programming in C - OnlineKUSHAL RAJPALStudentSuccessfully completed23Problem Solving through Programming in C - OnlineCHESTHA SINGHStudentSuccessfully completed24Programming in C++RIYA AGARWALStudentElite25Programming in C++KRITARTH KUMAR JHAStudentElite26Programming in C++RITIK NANAWATIStudentElite27Programming in C++PURVA DINESH VIJAYVARGIYAStudentElite28Programming in C++SHUBHAM SONIStudentElite29Programming in C++RONAK ISRANIStudentElite30Programming In Java - OnlineMAYANK KATARIAStudentElite+gold (Topper of 2% in this cour31Programming In Java - OnlinePANKHURI SHARMAStudentElite+Silver32Programming, Data Structures And Algorithms Using PythonCHINMAY JAINStudentElite+Silver33Python for Data Science - OnlineMANISH TIWARIFacultyElite34Soft skills - OnlineMASOOMA JUCKERWALAStudentElite+Silver (Topper of 5% in this cour35Soft skills - OnlineKHUSHI LODHAStudentElite36Soft skills - OnlineROHIT SONIStudentElite37Soft skills - OnlineROHIT SONIStudentElite38Soft skills - OnlineSANAH MATHURStudentElite39Soft skills - OnlineSANAH MATHURStudent <t< td=""><td>20</td><td>Problem Solving through Programming in C - Online</td><td>DAKSH RAJ SINGH SOLANKI</td><td>Student</td><td>Successfully completed</td></t<>	20	Problem Solving through Programming in C - Online	DAKSH RAJ SINGH SOLANKI	Student	Successfully completed
23 Problem Solving through Programming in C - Online  CHESTHA SINGH  Student  Elite  Programming in C++  RIYA AGARWAL  Student  Elite  Programming in C++  RITIK NANAWATI  Student  Elite  Programming in C++  RITIK NANAWATI  Student  Elite  Programming in C++  RITIK NANAWATI  Student  Elite  Programming in C++  PURVA DINESH VIJAYVARGIYA  Student  Elite  Programming in C++  RONAK ISRANI  Programming in C++  RONAK ISRANI  Programming In Java - Online  MAYANK KATARIA  Programming In Java - Online  PANKHURI SHARMA  Student  Elite+Silver  ANSOOMA JUCKERWALA  Student  Elite  Elite  ASOft skills - Online  ROHIT SONI  Student  Elite  Student  Elite  Student  Elite  Student  Elite  Soft skills - Online  ROHIT SONI  Student  Elite  Studen	21	Problem Solving through Programming in C - Online	KAPIL RAJPAL	Student	Successfully completed
24 Programming in C++ 25 Programming in C++ 26 Programming in C++ 27 Programming in C++ 28 Programming in C++ 29 Programming in C++ 29 Programming in C++ 30 Programming in C++ 30 Programming in In Java - Online 31 Programming In Java - Online 32 Programming In Java - Online 33 Python for Data Science - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 31 Student 32 Programming In Java - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 39 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online	22	Problem Solving through Programming in C - Online	KUSHAL RAJPAL	Student	Successfully completed
25 Programming in C++  26 Programming in C++  RITIK NANAWATI  Student  RITIK NANAWATI  Student  Student  Elite  27 Programming in C++  PURVA DINESH VIJAYVARGIYA  Student  Elite  28 Programming in C++  SHUBHAM SONI  Student  Elite  29 Programming in C++  RONAK ISRANI  Student  Elite  29 Programming in C++  RONAK ISRANI  Student  Elite  30 Programming In Java - Online  MAYANK KATARIA  Student  Elite+gold (Topper of 2% in this cour  Student  Elite+Silver  Elite+Elite+Elite+Elite  Elite  Elite+Silver  Elite+Elite+Elite+Elite  Elite+Elite+Elite+Elite  Elite+E	23	Problem Solving through Programming in C - Online	CHESTHA SINGH	Student	Successfully completed
26 Programming in C++  27 Programming in C++  28 Programming in C++  29 Programming in C++  30 Programming In Java - Online  31 Programming In Java - Online  32 Programming, Data Structures And Algorithms Using Python  33 Python for Data Science - Online  34 Soft skills - Online  35 Soft skills - Online  36 Soft skills - Online  37 Soft skills - Online  38 Soft skills - Online  39 Soft skills - Online  30 Soft skills - Online  31 Programming In Java - Online  32 Programming, Data Structures And Algorithms Using Python  33 Python for Data Science - Online  34 Soft skills - Online  35 Soft skills - Online  36 Soft skills - Online  37 Soft skills - Online  38 Soft skills - Online  39 Soft skills - Online  39 Soft skills - Online  39 Soft skills - Online  30 Soft skills - Online  30 Soft skills - Online  31 Programming in C++  32 Soft skills - Online  33 Python for Data Science - Online  34 Soft skills - Online  55 Soft skills - Online  57 Soft skills - Online  58 Soft skills - Online  58 Soft skills - Online  59 Soft skills - Online  50 Soft skills - Online	24	Programming in C++	RIYA AGARWAL	Student	Elite
27 Programming in C++ 28 Programming in C++ 30 Programming in C++ 31 Programming In Java - Online 31 Programming, Data Structures And Algorithms Using Python 32 Programming, Data Structures And Algorithms Using Python 33 Python for Data Science - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online 31 Soft skills - Online 32 Soft skills - Online 33 Soft skills - Online 34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 30 Soft skills - Online	25	Programming in C++	KRITARTH KUMAR JHA	Student	Elite
28 Programming in C++ 29 Programming in C++ RONAK ISRANI Student Elite 29 Programming In Java - Online MAYANK KATARIA Student Elite+gold (Topper of 2% in this cour 31 Programming In Java - Online PANKHURI SHARMA Student Elite+gold (Topper of 2% in this cour 32 Programming, Data Structures And Algorithms Using Python CHINMAY JAIN Student Elite+Silver Elite+Silver Elite Elite+Silver  MANISH TIWARI Faculty Elite  Soft skills - Online MASOOMA JUCKERWALA Student Elite+Silver (Topper of 5% in this cour Elite Soft skills - Online ROHIT SONI Student Elite Elit	26	Programming in C++	RITIK NANAWATI	Student	Elite
29 Programming in C++  30 Programming In Java - Online  31 Programming In Java - Online  32 Programming In Java - Online  33 Python for Data Science - Online  34 Soft skills - Online  35 Soft skills - Online  36 Soft skills - Online  37 Soft skills - Online  38 Soft skills - Online  39 Soft skills - Online  39 Soft skills - Online  30 Programming in C++  RONAK ISRANI  MAYANK KATARIA  Student  Elite+Silver  Elite+Silver  Faculty  Elite  Student  Elite+Silver  Faculty  Elite  Student  Elite+Silver (Topper of 5% in this council and the cou	27	Programming in C++	PURVA DINESH VIJAYVARGIYA	Student	Elite
30 Programming In Java - Online MAYANK KATARIA Student 31 Programming In Java - Online PANKHURI SHARMA Student 32 Programming, Data Structures And Algorithms Using Python CHINMAY JAIN Student Elite+Silver Elite Silver Elite Silver Faculty Elite Soft skills - Online MASOOMA JUCKERWALA Student Elite+Silver (Topper of 5% in this courant Student Student Elite Silver (Topper of 5% in this courant Student Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Student Elite Silver (Topper of 5% in this courant Student Elite Student Elite Silver (Topper of 5% in this courant Student Elite Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Elite Silver (Topper of 5% in this courant Student Student Silver (Topper of 5% in this courant Student Student Silver (Topper of 5% in this courant Student S	28	Programming in C++	SHUBHAM SONI	Student	Elite
31 Programming In Java - Online  PANKHURI SHARMA  Student  Student Elite+Silver  Elite+Silver  Student Elite+Silver  Elite+Silver  Bite  Pank Hurri Sharma  Student Elite+Silver  Elite+Silver  Elite+Silver  Elite  Bite+Silver  Elite  Faculty  Elite  Faculty  Elite  Student Elite+Silver (Topper of 5% in this council and the student Elite  Faculty  Elite  Faculty  Elite  Faculty  Elite  Elite+Silver (Topper of 5% in this council and the student Elite  Elite  Student Elite  Faculty  Elite  Elite  Elite  Faculty  Elite  Elite  Faculty  Elite  Elite  Faculty  Elite  Elite  Faculty  Elite  Elite  Elite  Faculty  Faculty  Elite  Faculty  Faculty  Elite  Faculty  Elite  Faculty  Elite  Faculty  Faculty  Elite  Faculty  Elite  Faculty  Elite  Faculty  Faculty  Elite  Faculty  Faculty  Elite  Faculty  Elite  Faculty  Elite  Faculty  Elite  Faculty  Elite  Faculty  Elite  Faculty  Faculty  Faculty  Elite  Faculty  Facu	29	Programming in C++	RONAK ISRANI	Student	Elite
32 Programming, Data Structures And Algorithms Using Python  33 Python for Data Science - Online  34 Soft skills - Online  35 Soft skills - Online  36 Soft skills - Online  37 Soft skills - Online  38 Soft skills - Online  39 Soft skills - Online  30 Soft skills - Online  30 Soft skills - Online  31 Soft skills - Online  32 Soft skills - Online  33 Soft skills - Online  34 Soft skills - Online  35 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  41 Soft skills - Online  42 Soft skills - Online  43 Soft skills - Online  44 Soft skills - Online  45 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online  41 Soft skills - Online  42 Soft skills - Online  43 Soft skills - Online  44 Soft skills - Online  45 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online	30	Programming In Java - Online	MAYANK KATARIA	Student	Elite+gold (Topper of 2% in this course)
33 Python for Data Science - Online  34 Soft skills - Online  35 Soft skills - Online  36 Soft skills - Online  37 Soft skills - Online  38 Soft skills - Online  39 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  41 Soft skills - Online  42 Soft skills - Online  43 Soft skills - Online  44 Soft skills - Online  45 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  41 Soft skills - Online  42 Soft skills - Online  43 Soft skills - Online  44 Soft skills - Online  45 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  41 Soft skills - Online  42 Soft skills - Online	31	Programming In Java - Online	PANKHURI SHARMA	Student	Elite+Silver
34 Soft skills - Online 35 Soft skills - Online 36 Soft skills - Online 37 Soft skills - Online 38 Soft skills - Online 39 Soft skills - Online 40 Soft skills - Online 40 Soft skills - Online 41 Soft skills - Online 42 Soft skills - Online 43 Soft skills - Online 44 Soft skills - Online 45 Soft skills - Online 46 Soft skills - Online 47 Soft skills - Online 48 Soft skills - Online 49 Soft skills - Online 50 Soft skills - Online	32	Programming, Data Structures And Algorithms Using Python	CHINMAY JAIN	Student	Elite+Silver
35 Soft skills - Online  36 Soft skills - Online  37 Soft skills - Online  38 Soft skills - Online  39 Soft skills - Online  39 Soft skills - Online  30 Soft skills - Online  31 Soft skills - Online  32 Soft skills - Online  33 Soft skills - Online  34 Soft skills - Online  35 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  40 Soft skills - Online  41 Soft skills - Online  42 Soft skills - Online  43 Soft skills - Online  44 Soft skills - Online  45 Soft skills - Online  46 Soft skills - Online  47 Soft skills - Online  48 Soft skills - Online  49 Soft skills - Online  40 Soft skills - Online	33	Python for Data Science - Online	MANISH TIWARI	Faculty	Elite
36 Soft skills - Online PRANJUL NAINAWATEE Student Elite 37 Soft skills - Online ROHIT SONI Student Elite 38 Soft skills - Online NIDHI MANTRI Student Elite 39 Soft skills - Online SANAH MATHUR Student Elite 40 Soft skills - Online SAKSHI SANADHYA Student Successfully completed 41 Soft skills - Online KASHISH JOSHI Student Successfully completed	34	Soft skills - Online	MASOOMA JUCKERWALA	Student	Elite+Silver (Topper of 5% in this course)
37 Soft skills - Online ROHIT SONI Student Elite 38 Soft skills - Online NIDHI MANTRI Student Elite 39 Soft skills - Online SANAH MATHUR Student Elite 40 Soft skills - Online SAKSHI SANADHYA Student Successfully completed 41 Soft skills - Online KASHISH JOSHI Student Successfully completed	35	Soft skills - Online	KHUSHI LODHA	Student	Elite
38Soft skills - OnlineNIDHI MANTRIStudentElite39Soft skills - OnlineSANAH MATHURStudentElite40Soft skills - OnlineSAKSHI SANADHYAStudentSuccessfully completed41Soft skills - OnlineKASHISH JOSHIStudentSuccessfully completed	36	Soft skills - Online	PRANJUL NAINAWATEE	Student	Elite
38Soft skills - OnlineNIDHI MANTRIStudentElite39Soft skills - OnlineSANAH MATHURStudentElite40Soft skills - OnlineSAKSHI SANADHYAStudentSuccessfully completed41Soft skills - OnlineKASHISH JOSHIStudentSuccessfully completed	37	Soft skills - Online	ROHIT SONI	Student	Elite
39Soft skills - OnlineSANAH MATHURStudentElite40Soft skills - OnlineSAKSHI SANADHYAStudentSuccessfully completed41Soft skills - OnlineKASHISH JOSHIStudentSuccessfully completed					
40 Soft skills - Online SAKSHI SANADHYA Student Successfully completed 41 Soft skills - Online KASHISH JOSHI Student Successfully completed					
41 Soft skills - Online KASHISH JOSHI Student Successfully completed					
					·
43 Soft skills - Online MAYANK JOSHI Student Successfully completed					· ·
44 Soft skills - Online HARSH SONI Student Successfully completed					·

45	Technical english for engineers	BHOWMICK VYAS	Student	Elite+Silver
46	Technical english for engineers	LOVISHA JAIN	Student	Elite+Silver
47	Technical english for engineers	PURVI AGRAWAL	Student	Elite+Silver
48	Technical english for engineers	LAKSHYARAJ SINGH	Student	Elite
49	Technical english for engineers	DIVYA SONI	Student	Elite
50	Technical english for engineers	ARYAN DADHICH	Student	Elite
51	Technical english for engineers	GEETIKA AGARWAL	Student	Elite
52	The Joy of Computing using Python - Online	MAYANK PATEL	Faculty	Elite+gold (Topper of 5% in this course)
53	The Joy of Computing using Python - Online	DALPAT I	Student	Elite+gold (Topper of 5% in this course)
54	The Joy of Computing using Python - Online	PANKHURI SHARMA	Student	Elite+Silver
55	The Joy of Computing using Python - Online	HIMANSHI RATHORE	Student	Elite+Silver
56	The Joy of Computing using Python - Online	HEENA KUMAWAT	Student	Elite+Silver
57	The Joy of Computing using Python - Online	CHESTHA SINGH	Student	Elite+Silver
58	The Joy of Computing using Python - Online	VEER BHADRA SINGH SOLANKI	Student	Elite+Silver
59	The Joy of Computing using Python - Online	MAYANK KATARIA	Student	Elite+Silver
60	The Joy of Computing using Python - Online	YASH RAJ SINGH CHOUHAN	Student	Elite+Silver
61	The Joy of Computing using Python - Online	PALAK INTODIA	Student	Elite+Silver
62	The Joy of Computing using Python - Online	DAKSH RAJ SINGH SOLANKI	Student	Elite+Silver
63	The Joy of Computing using Python - Online	DEVENDRA KUMAWAT	Student	Elite+Silver
64	The Joy of Computing using Python - Online	SURBHI KHOKHAWAT	Student	Elite+Silver
65	The Joy of Computing using Python - Online	HIMANSHI AJARIA	Student	Elite+Silver
66	The Joy of Computing using Python - Online	SAKSHI SHARMA	Student	Elite+Silver
67	The Joy of Computing using Python - Online	GEETIKA AGARWAL	Student	Elite+Silver
68	The Joy of Computing using Python - Online	KOMAL SUTHAR	Student	Elite+Silver
69	The Joy of Computing using Python - Online	PRIYASH GARG	Student	Elite+Silver
70	The Joy of Computing using Python - Online	ASHISH SINGH BHATI	Student	Elite+Silver
71	The Joy of Computing using Python - Online	HONEY MATHUR	Student	Elite
72	The Joy of Computing using Python - Online	Nehasoni	Student	Elite
73	The Joy of Computing using Python - Online	MOHMMED SOHEL	Student	Elite
74	The Joy of Computing using Python - Online	VEENU MAHESHWARI	Student	Elite
75	The Joy of Computing using Python - Online	AMRITESH SAINI	Student	Elite
76	The Joy of Computing using Python - Online	GOURAV PURI GOSWAMI	Student	Elite
77	The Joy of Computing using Python - Online	KALPIT MALVIYA	Student	Elite
78	The Joy of Computing using Python - Online	SOMIA CHOUDHARY	Student	Elite
79	The Joy of Computing using Python - Online	ZENAB WAGLA WALA	Student	Elite



Certificate Distribution



Certificate Distribution



NPTEL Felicitation Ceremony being conducted



Student receiving prize money cheque



NPTEL Ambassadors for year 2019



Students with NPTEL certificates

### BEST DEPARTMENT AWARD

Computer Science Department of GITS always focuses on getting better by working diligently each day. This hard work paid off, as CSE department was rewarded with the title of "BEST DEPARTMENT" of this academic year. And this only doubles the efforts put forward by the students and the faculty members.



CSE Department being rewarded "Best Department Award"

# STUDENT ACADEMIC TOPPERS

BY TAKING THE TIME TO STOP AND APPRECIATE WHO YOU ARE AND WHAT YOU'VE ACHIEVED - AND PERHAPS LEARNED THROUGH A FEW MISTAKES, STUMBLES AND LOSSES - YOU ACTUALLY CAN ENHANCE EVERYTHING ABOUT YOU. SELF-ACKNOWLEDGMENT AND APPRECIATION ARE WHAT GIVE YOU THE INSIGHTS AND AWARENESS TO MOVE FORWARD TOWARD HIGHER GOALS AND ACCOMPLISHMENTS

### ~HOD (CSE)~

It's that time of the year again when we announce the names of the students who've excelled in the RTU examinations! Many try to climb the mountain of excellence but only a few are able to reach the summit.

Computer Science Department of GITS is very proud of every student who in one way or other add value and grace to the institute. The faculty members and the students together are the torch bearers who make a way towards excellence.

We hereby announce the names of toppers who've proved themselves in the field of academics.

## II SEMESTER

S.No	Roll No.	Name of Student	Marks Obtained	SGPA	Photograph
1	18EGICS046	KRISHNAPAL SINGH DEVRA	863	9.51	
2	18EGICS052	LOVISHA JAIN	856	9.41	
3	18EGICS051	LOKESH BHATT	837	9.12	
4	18EGICS027	DIVYA SONI	830	9.0	A
5	18EGICS011	ANJALI VYAS	789	8.98	

## IV SEMESTER

S.No	Roll No.	Name of Student	Marks Obtained	%	Photograph
1	17EGICS124	ZENAB WAGLA WALA	940	80	
2	17EGICS092	RIYA SONI	900	76.6	
3	17EGICS038	HIMANI JAIN	894	76.1	
4	17EGICS031	GEETIKA AGARWAL	891	75.8	
5	17EGICS052	KAJAL SINGHVI	886	75.4	27

## VI SEMESTER

S.No	Roll No.	Name of Student	Marks Obtained	%	Photograph
1	16EGICS021	DHARINI SHARMA	808	80.8	
2	16EGICS045	JYOTI <mark>SINGH</mark>	806	80.6	
3	16EGICS115	UTSAV KUMARI	802	80.2	21
4	16EGICS017	BATUL ASGERALI CHIKHLY	<mark>78</mark> 9	78.9	
5	16EGICS010	APEKSHA JAIN	788	78.8	

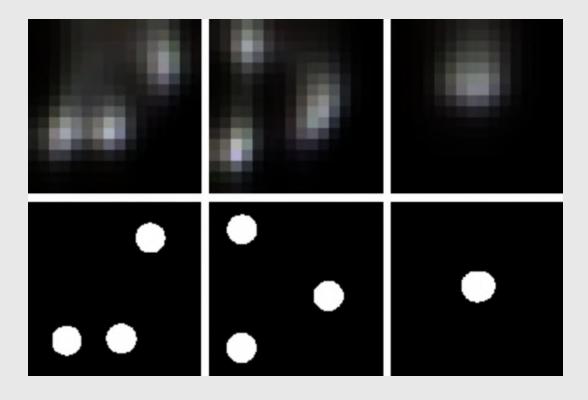
## VIII SEMESTER

S.No	Name	Marks Obtained	Marks Obtained	%	Photograph
1	15EGICS015	AYUSHI BAIRAGI	867	86.7	
2	15EGICS088	SWATI BHATI	866	86.6	
3	15EGICS010	ARPIT KUMAWAT	852	85.2	
4	15EGICS039	LAKSHITA PALIWAL	850	85	
5	15EGICS079	SHEFFALI JAIN	840	84	

# ARTICLES

# USING COMPUTERS TO VIEW THE UNSEEN

- Chinmay Jain



Based on shadows that an out-of-view video casts on nearby objects, researchers can estimate the contents of the unseen video.

Cameras and computers together can conquer some seriously stunning feats. Giving computers vision has helped us fight wildfires in California, understand complex and treacherous roads — and even see around corners. Specifically, seven years ago a group of MIT researchers created a new imaging system that used floors, doors, and walls as "mirrors" to understand information about scenes outside a normal line of sight. Using special lasers to produce recognizable 3D images, the work opened up a realm of possibilities in letting us better understand what we can't see.

Recently, a different group of scientists from MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) has built off of this work, but this time with no special equipment needed: They developed a method that can reconstruct hidden video from just the subtle shadows and reflections on an observed pile of clutter. This means that, with a video camera turned on in a room, they can reconstruct a video of an unseen corner of the room, even if it falls outside the camera's field of view.

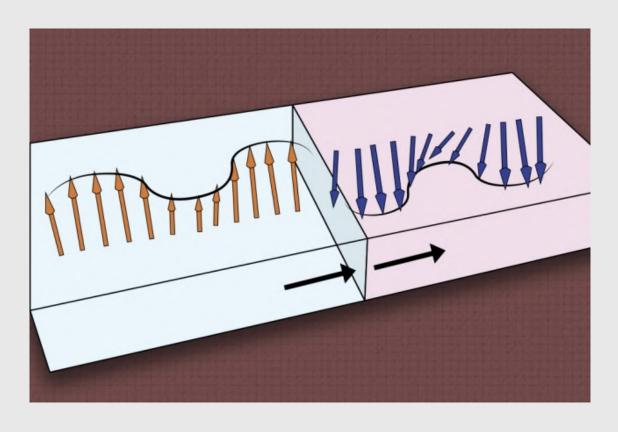
This type of image reconstruction could one day benefit many facets of society: Self-driving cars could better understand what's emerging from behind corners, eldercare centers could enhance safety for their residents, and search-and-rescue teams could even improve their ability to navigate dangerous or obstructed areas.

The technique, which is "passive," meaning there are no lasers or other interventions to the scene, still currently takes about two hours to process, but the researchers say it could eventually be helpful in reconstructing scenes not in the traditional line of sight for the aforementioned applications.

In the future, the team hopes to improve the overall resolution of the system, and eventually test the technique in an uncontrolled environment.

# TOWARD MORE EFFICIENT COMPUTING, WITH MAGNETIC WAVES

- Gauri Shrimali



An MIT-invented circuit uses only a nanometer-wide "magnetic domain wall" to modulate the phase and magnitude of a spin wave, which could enable practical magnetic-based computing — using little to no electricity.

computers rely Classical massive on amounts electricity for computing and data storage, and generate a lot of wasted heat. In search of more efficient alternatives, researchers have designing started magnetic-based "spintronic" devices, which relatively little electricity and generate practically no heat. Spintronic devices leverage the "spin wave" - a quantum property of electrons - in magnetic materials a lattice structure. This approach involves modulating the spin wave properties to produce some measurable output that can be correlated computation.

The MIT researchers developed a circuit architecture that uses only a nanometer-wide domain wall in layered nanofilms of magnetic material to modulate a passing spin wave, without any extra components or electrical current. In turn, the spin wave can be tuned to control the location of the wall, as needed. This provides precise control of two changing spin wave states, which correspond to the 1s and 0s used in classical computing

In the future, pairs of spin waves could be fed into the circuit through dual channels, modulated for different properties, and combined to generate some measurable quantum interference — similar to how photon wave interference is used for quantum computing. Researchers hypothesize that such interference-based spintronic devices, like quantum computers, could execute highly complex tasks that conventional computers struggle with."

People are beginning to look for computing beyond silicon. Wave computing is a promising alternative," says Luqiao Liu, a professor in the Department of Electrical Engineering and Computer Science (EECS) and principal investigator of the Spintronic Material and Device Group in the Research Laboratory of Electronics. "By using this narrow domain wall, we can modulate the spin wave and create these two separate states, without any real energy costs. We just rely on spin waves and intrinsic magnetic material."

# PLACEMENTS

KNOCKING OPPORTUNITIES

### ACTIVITIES OFFERED BY GITS CSE DEPARTMENT

All final year students are exposed and trained in the following areas:

- 1] Career Awareness sessions.
- 2] Model Aptitude tests, Mock Group discussions & Interviews to excel in the Recruitment process.
- 3] Guidance sessions for higher studies.
- 4] Arranging the following:
- Industrial visits
- Projects
- Guest lectures
- Industry-Institute interaction activities

s NO	PTIL POLL NO	STUDENT NAME	GENDER	BRANCH	DATE	COMPANY NAME	PROFILE	PACKAGE
1		ALI HASNAIN BOHRA	MALE	CSE	2019-07-19	ARGUSOFT INDIA LTD.	SOFTWARE TRAINEE	4.12 LAC - 5.00 LAC
2		BATUL ASGERALI CHIKHLY	FEMALE	CSE	2019-07-19	ARGUSOFT INDIA LTD.	SOFTWARE TRAINEE	4.12 LAC - 5.00 LAC
3	16EGICS018	BHARAT KUMAR	MALE	CSE	2019-07-19	ARGUSOFT INDIA LTD.	SOFTWARE TRAINEE	4.12 LAC - 5.00 LAC
4	16EGICS007	ALI HASNAIN BOHRA	MALE	CSE	2019-08-13	APPPERFECT CORP.	SOFTWARE ENGINEER	4.00 LAC - 4.20 LAC
5	16EGICS018	BHARAT KUMAR	MALE	CSE	2019-08-13	APPPERFECT CORP.	SOFTWARE ENGINEER	4.00 LAC - 4.20 LAC
6	16EGICS095	SHEKHAR KALYANA	MALE	CSE	2019-08-13	APPPERFECT CORP.	SOFTWARE ENGINEER	4.00 LAC - 4.20 LAC
7	16EGICS018	BHARAT KUMAR	MALE	CSE	2019-08-30	INFOSYS	SOFTWARE ENGINEER	4.00 LAC - 5.00 LAC
8	16EGICS013	ARUSH BOLIA	MALE	CSE	2019-08-30	TCS	SOFTWARE ENGINEER	3.00 LAC - 3.50 LAC
9	16EGICS020	CHOUDHARY VIKRAM NARESH	MALE	CSE	2019-08-30	TCS	SOFTWARE ENGINEER	3.00 LAC - 3.50 LAC
10	16EGICS025	FAKHRUDDIN	MALE	CSE	2019-08-30	TCS	SOFTWARE ENGINEER	3.00 LAC - 3.50 LAC
11	16EGICS059	LAKSHITA SUTHAR	FEMALE	CSE	2019-08-30	TCS	SOFTWARE ENGINEER	3.00 LAC - 3.50 LAC
12	16EGICS079	POORVA PORWAL	FEMALE	CSE	2019-08-30	TCS	SOFTWARE ENGINEER	3.00 LAC - 3.50 LAC
13	16EGICS090	RONAK JAIN	MALE	CSE	2019-08-30	TCS	SOFTWARE ENGINEER	3.00 LAC - 3.50 LAC
14	16EGICS007	ALI HASNAIN BOHRA	MALE	CSE	2019-08-31	METACUBE	SOFTWARE TRAINEE	4.00 LAC - 4.50 LAC
15	16EGICS018	BHARAT KUMAR	MALE	CSE	2019-08-31	METACUBE	SOFTWARE TRAINEE	4.00 LAC - 4.50 LAC
16	16EGICS092	RUDRA MENARIA	MALE	CSE	2019-08-31	METACUBE	SOFTWARE TRAINEE	4.00 LAC - 4.50 LAC
17	16EGICS095	SHEKHAR KALYANA	MALE	CSE	2019-08-31	METACUBE	SOFTWARE TRAINEE	4.00 LAC - 4.50 LAC
18	16EGICS123	YUVRAJ HINGER	MALE	CSE	2019-08-31	METACUBE	SOFTWARE TRAINEE	4.00 LAC - 4.50 LAC
19	16EGICS019	BHAVYA JAIN	FEMALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
20	16EGICS045	JYOTI SINGH	FEMALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
21	16EGICS048	KALI PRASAD PANDEY	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
22	16EGICS059	LAKSHITA SUTHAR	FEMALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
23	16EGICS083	RAJVEER CHOUDHARY	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
24	16EGICS084	RANJEET SINGH	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
25	16EGICS099	SHUBHAM JAROLI	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC

26	16EGICS106	SOURABH SHARMA	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
27	16EGICS117	VIKALP CHAKRAVORTY	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
28	16EGICS118	VINITA ASARI	FEMALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
29	16EGICS122	YASH RAWAT	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
30	16EGICS123	YUVRAJ HINGER	MALE	CSE	2019-09-30	LA NET TEAM SOFTWARE	SOFTWARE DEVELOPER	2.40 LAC - 4.00 LAC
31	16EGICS004	ADITYA SINGH SHEKHAWAT	MALE	CSE	2019-10-18	WIPRO	PROJECT ENGINEER	3.00 LAC - 3.50 LAC
32	16EGICS023	DIKSHA KHABYA	FEMALE	CSE	2019-10-18	WIPRO	PROJECT ENGINEER	3.00 LAC - 3.50 LAC
33	16EGICS059	LAKSHITA SUTHAR	FEMALE	CSE	2019-10-18	WIPRO	PROJECT ENGINEER	3.00 LAC - 3.50 LAC
34	16EGICS118	VINITA ASARI	FEMALE	CSE	2019-10-18	WIPRO	PROJECT ENGINEER	3.00 LAC - 3.50 LAC
35	16EGICS004	ADITYA SINGH SHEKHAWAT	MALE	CSE	2019-11-07	ECONNECT	TRAINEE DEVELOPMENT	2.40 LAC
36	16EGICS023	DIKSHA KHABYA	FEMALE	CSE	2019-11-07	ECONNECT	DEVELOPER	2.00 LAC
37	16EGICS065	MEGHA KHATHURIA	FEMALE	CSE	2019-11-07	ECONNECT	DEVELOPER	2.00 LAC
38	16EGICS085	RICHA GARG	FEMALE	CSE	2019-11-07	ECONNECT	DEVELOPER	2.00 LAC
39	16EGICS113	TANU PALIWAL	FEMALE	CSE	2019-11-07	ECONNECT	QUALITY ANALYST	2.00 LAC
40	16EGICS002	ABHIMANYU SINGH RANAWAT	MALE	CSE	2019-12-04	COLLABERA	TECHNICAL RECRUITER	2.50 LAC
41	16EGICS083	RAJVEER CHOUDHARY	MALE	CSE	2019-12-12	GKM IT	FULL STACK DEVELOPER	3.00 LAC - 3.50 LAC
42	16EGICS063	MADHUBALA GOOR	FEMALE	CSE	2019-12-17	V2 SOLUTIONS	SALESFORCE DEVELOPER	3.00 LAC
43	16EGICS084	RANJEET SINGH	MALE	CSE	2019-12-17	V2 SOLUTIONS	SALESFORCE DEVELOPER	3.00 LAC

## UNTIL NEXT TIME...

#### Contact Us At:

#### Editor -

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

### Student Editors -

Chinmay Jain: chinmayrjain1@gmail.com

Gauri Shrimali : gaurishrimali20@gmail.com

