



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

EDITORIAL MESSAGE

In today's scenario, we need to maintain quality education along with the overall development.

Transparency is important for our working so as to retain quality of education.

Maintaining that we bring forward the half yearly detailed report of all the activities that has taken place in the department.

The department is dedicated to imparting quality education to its students and bringing out good Computer science Engineers.

The Students are given both theoretical and practical knowledge so that their basic concept is clear and the result of these efforts are showcase in this "NEWSLETER".

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VISION, MISSION & PEO'S

VISION

To be renowned for excellence in Computer Science & Engineering By providing a nurturing environment for producing competent engineers having ethical understanding with social and environmental concerns.

MISSION

To impart quality education, meeting the latest industry requirements, futuristic research & developments in Computer Science & Engineering.

PROGRAMME EDUCATIONAL OBJECTIVE

- **PEO-1:** Develop graduates in Computer Science & Engineering having strong background of mathematics and Engineering to satisfy the needs of the IT Companies and society.
- PEO-2: Develop graduates who can demonstrate technical dexterity in the field of Computer Science & Engineering by designing ,developing & maintaining projects in numerous verticals.
- **PEO-3:** Develop graduates who will engage in lifelong learning and can work as an Individual /team to fulfill the goals with a sense of ethical responsibility.

DEPARTMENTAL ARTICLE

DETECTION FROM ATTACKS ON WEB APPLICATION USING IDS APPROACHESATTACKS ON WEB APPLICATIONUSING IDS APPROACHES

The total no of hacking and invasion increase by one year whenever any new technology come into existence. Guaranteeing the dimension exceptionally high security and dependable correspondence of data between various associations is turning into a significant issue. Therefore, the IDS has transformed into a basic portion in PC and framework security. An IDS is a contraption or programming thing that separates the moving toward traffic on the framework for a wrong development (or interruption) and triggers a ready when harmful attack is distinguished. The inspiration driving IDS is the usage of unlawful and furthermore ill-advised framework by unapproved customers through the control of framework traffic and control data. A harmful attack can be described as a movement of exercises that endeavour to affirm the trustworthiness, mystery, or availability of advantages on the framework. Respectability: Data honesty infers that data has not been improperly adjusted amid the movement or limit. Mindful measures contain the physical appearance of the systems just as the servers which don't enable the entrance to the information alongside its upkeep more extensive availability practice. Classification: Confidential information is the information which isn't effectively open or approved to unapproved clients. Accessibility: Availability affirms that the frameworks are diminished in like manner also advertisement the clients are drafted on schedule, (for example, when clients required). Something contrary to accessibility is the refusal of administration, where clients don't approach the assets, they as of now have. IDS offer two Methods to investigate the incorporation traffic: disappointment system and peculiarity strategy. Damaging IDs pursue well-characterized examples(or marks), which can normally be found by fitting examples to gathered types of preparing information. This cut offpoint's false positives, which ordinarily not all. With infection scanners, misuse-based IDs can't decide director in system which can't think about them (le New Attack). For maltreatment IDS which is helpful, its marks must guarantee the consistency refreshed. IDS centre around inconsistencies contains surveys of typical framework client peculiarities. They are found by making an ordinary profile of the PC being controlled and perceiving significant transformations from that profile. Since, IDS setup contains a tight clarification of ordinary on an irregularity premise, it additionally produces a tremendous measure of false positives. The segment investigates the potential components of beginning profound learning with intrude on disclosure programs. Our methodology deep penetrates the factual substance and implemented, since the entire methodology to peak about what we talk for example rough data is set in a framework specific an irregular loss of state. In this way, that there will be no commitment clients to choose specialists and develop propelled names for readiness.

Interruption Detection Approaches

The four significant IDS name-HIDS, NIDS, MIDS, AB IDS. Each get-away methodology deals with the actualities of specific standards. The present area quickly portrays the motorization of every discovery group just as the related difficulties. Facilitated based IDS (HIDS): Host-put together IDS

thinks about information with respect to has as hosts side. The host-based system engineering is specialist based.

This expresses each host facilitated by the PC is relegated a S/W operator. A HIDS just checks the gadget's inbound and outbound bundles and cautions the client or supervisor of suspicious action. System based IDS (NIDS): Intrusion discovery depends on the system in light of the fact that the framework is utilized to investigate organize parcels.

This is instead of host-based intrusion disclosure, which frames data that is made on the PC itself, for example, event and bit logs. Framework groups are commonly shut some place close to the framework, notwithstanding the way that they can be hindered by the yield of switches and switches. The most usually used show is TCP/IP. Framework resources are stand-out in that they are accessible to unauthenticated clients or outer clients.

They are set up to empower the availability and withdrawal of administrations from the system. Misuse based IDS: Abuse-based IDS are additionally alluded to as signature-based IDS. Each occurrence in a record is set apart as should be expected or fizzled, and a learning issue calculation is prepared on the featured information.

These procedures can naturally change interruption danger models into various info information, which are new sorts of harmful attacks. For whatever length of time that they are checked as needs be. This technique explicitly utilizes known examples of unapproved conduct to give and epitomize consequent visits. These particular examples are called appropriations. For host-based revelation discovery, three fizzled logins are a case of a mark.

For system section ID, an imprint can be as direct as a particular model that organizes a portion of a framework parcel. For example, group or bundle content imprints or potentially header content imprints may exhibit unapproved exercises, for instance, invalid FTP exercises. The characteristic of an imprint can mean an unapproved get to which is normally visited. Contingent upon the maintainability and seriousness of the marked signature, a few cautions, answers or notices should be sent to the proper experts. They have an abnormal state of value in recognizing known harmful attacks and their variations. Their impediment is that they can't find obscure interlopers and search for endowments that are deferred by open undertakings.

Peculiarity based IDS: Anomaly-based IDSs have been created to create surprising examples of conduct. The IDS characterizes a standard of the general client ace and anything that is wide because of its width is set apart as a conceivable impression. What might be considered as irregularities may vary, however we as a rule consider an abnormality of all events that go amiss from the factual standard by pretty much than two standard frequencies. It recognizes variations from the norm as irregular conduct and consequently identifies a dismissal of the banner, the last one just as the confided in one. Not at all like endorsement based IDSs, these methods recognize new kinds of impressions and deviations from typical use. It's an extremely amazing and novel apparatus, however a potential moment is the exceptionally false alert.

Already obscure (yet genuine) framework controls can likewise be perceived as abnormalities and

therefore set apart as checked. SQL Injection (SQLI) SQLI is a code infusion technique that maintains a strategic distance from security vulnerabilities in an application's database. It would appear that a harmful attack SQL catchphrase is being utilized as the information fragment. It works because of erroneous or poor verification of the info information.

In the event that you can utilize SQLI, wrong clients can increase unapproved rights to the database and play out the database control. Tragically, infusion harmful attacks can be isolated into three sorts. In first-request harmful attack, mappings or sub-SQL questions are gone into existing statements. In second-request harmful attacks, the shopping centre code is constantly put away in the database. The aggressor endeavours to discover inner application clients, framework clients who use income, web search tools, etc. In Laterin Injection, the PL/SQL system can deal with harmful attacks so that even client input does not happen. It goes about as a variable that relates the information type or number with the SQL explanation content.

On the off chance that the flawed client finds an information cell, diverse SQLI types are utilized to execute harmful attacks of various kinds.

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DEPARTMENTAL ACTIVITIES

Smart India Internal Hackathon by SISTec

Smart India Hackathon (SIH) 2020 is a prestigious event of Govt. of India in which problem statements are given by Central & State govt. ministries, public sector organizations and Private sector companies from across various domains.

As a part of this, an Internal Hackathon was organized by the institute on 21st and 22nd Jan, 2020 to shortlist teams for the national event.

The event started with the inauguration ceremony followed by Round-1 where every team presented its problem statement, discussed solution strategy with the Jury members and started implementation.

In the last session of Hackathon, Jury members assessed work done by every team and shortlisted 7 teams for the National Hackathon (Software Edition and Hardware Edition).

Hackathon ends with certificate distribution.



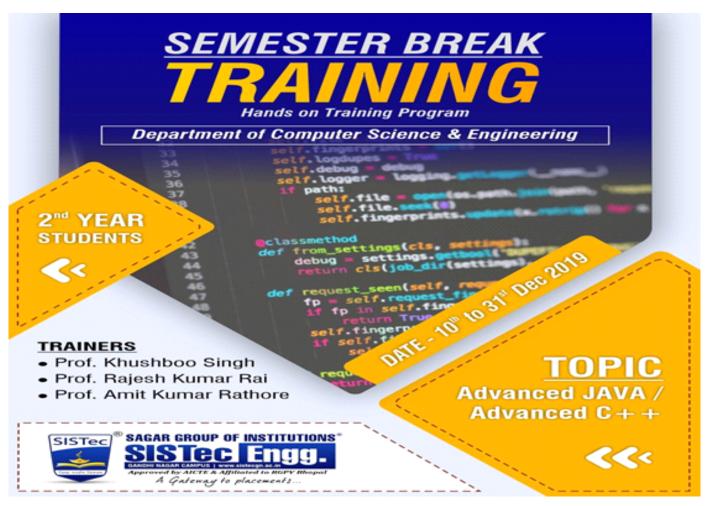






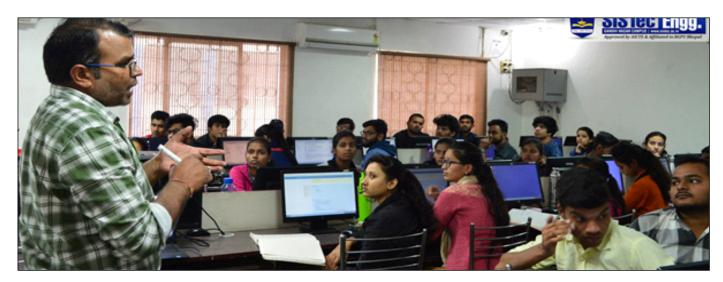
Semester Break Training on "Advanced JAVA and C++" for 2nd Year Students.

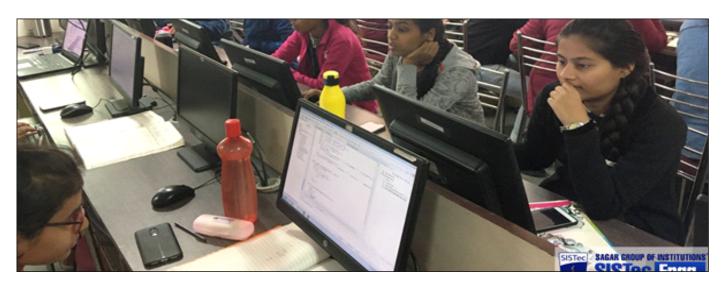
SISTec Department of Computer Science & Engineering is organizing Semester Break Training on Advanced Java and C++ for 2nd year students.





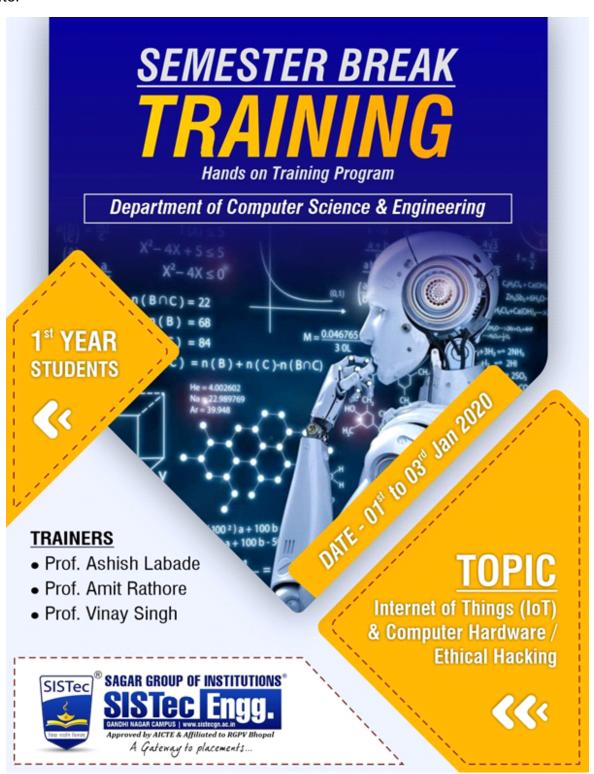






Semester Break Training for 1st year Students

SISTec Department of Computer Science & Engineering has organized an "Internet of Things (IoT) & Computer Hardware / Ethical Hacking " training program from 1st to 3rd Jan 2020 for 1st Year Students.



Expert Lecture

Department of computer science & engineering organized expert Lecture on Importance of Professionalism for Engineers" on 2nd March 2020.



ACHIEVEMENT & AWARDS

Best Research Paper Award by M.P. Council of Science and Technology Research Paper of Mr. Amit Mishra (Assistant Professor),

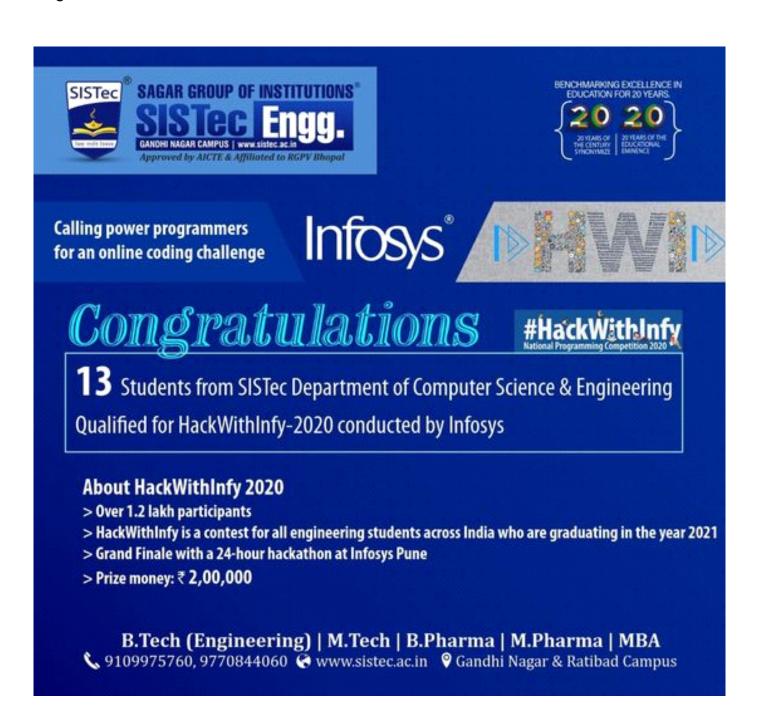
SISTec Department of Computer Science & Engineering, Gandhi Nagarwas awarded as Best Paper by M.P. Council of Science & Technology (An Autonomous Organization of Government of M.P.) in association with National Innovation Foundation, Government of India on the occasion of World Earth Day, celebrated on 22nd April, 2020.

Title of the paper: "Prediction of Corona virus disease outcomes and future forecast the trend of COVID-19 in India: Observational Study".



HackWithInfy 2020 Achievement

13. Students from SISTec Department of Computer Science & Engineering qualified for HackWithInfy- 2020 after clearing an online programming conducted by Infosys across India in which over 1.2 Lakh participants were there. Professionalism for Engineers" on 2nd March 2020.



Two teams were selected for the National Finale of Smart India Hackathon 2020 Hardware Edition.

Two teams from SISTec Department of Computer Science & Engineering were selected for the National Finale of Smart India Hackathon 2020 Hardware Edition.

Team 1 Name: TECHBEE

Idea- A hardware solution to measure quality parameters of water with an App to enable monitoring of water

Mentor: Mr. Ashish S. Labade Team Leader: Mr. Diptanshu Kumar Sinha Members-

Mr. Amaan Anwar, Ms. Geetanjali Namdev, Ms. Sonali Kharkha, Mr. Akash Dwivedi

Mr. Manas Nair



Team 2 Name: DRIFTERS

Idea- Detect all the unauthorised activities of the forest for the welfare of wild animals Mentor: Mr. Vinay Singh Team Leader: Ms. Keerti Members-

Mr. Archit Gupta, Mr. Vishwas Lodhi, Ms. Mansi Shrivastava, Ms. Preeti Singh

Mr. Sooraj Sahu



Google Code Jam Achievement 2020

64 students from SISTec Department of Computer Science & Engineering qualified for Google Code Jam 2020 after clearing a rigorous online programming round conducted by Google USA across the world in which over 96,000 participants were there.



Secured 38th position in Code Manthan.

Mr. Rahul Raikwar, a second semester student of SISTec Department of Computer Science & Engineering secured All India 38th position (out of 23,520 competitors from across India) in the prestigious online Hackathon "Code Manthan" organized by famous job portal FreshersWorld.com.



Secured position amongst top-5 startups in the 5th edition of Dream Startup Challenge.

Mr. Shivam Magarde and Mr. Kawalpreet Singh Juneja from CSE-VI semester of SISTec Department of Computer Science & Engineering secured position amongst top-5 startups in the 5th edition of Dream Startup Challenge which is an initiative by Bhopal chapter of YI (Young Indians), CII (Confederation of Indian Industries) &AIC RNTU Foundation (supported by Atal Innovation Council, NITI Aayog) to promote Entrepreneurship & Innovation in Central India.

They were awarded in the Grand Finale on 27th Jan.

Competing with 120 startups, they were in the shortlisted 20 ones and after going through 3 months mentoring program they were selected for the Grand Finale where they present their B-plan to a panel of investors, industrialists and academicians.

Shivam and Kawalpreet congratulations for this achievement and best wishes for your startup.



PLACEMENT





















































