

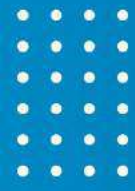


Shri Shankaracharya Institute  
of Professional Management  
and Technology



# THE NEWSLETTER

— A TECH GEEK MAGAZINE —



**CSE DEPARTMENT**

December 2021 Edition

**EDITION  
NINE**



# CYBER TRINITY

NEWSLETTER

DECEMBER 2021, VOL 9

## Array of Content

- Memorandums
- Intelligent Process Automation
- Tech Geeks
- Departmental Activities
- Placed Students
- The Team

## Vision

“To produce a value-based quality environment for scholars . Engineers with the knowledge of latest trends and research technologies to meet the developing needs of industry and society.”

## Mission

- ▶ To impart quality education in line with quality teaching-learning process.
- ▶ To provide a better environment to encourage and support innovative research and development.
- ▶ To strengthen linkage between industry - academia for overall improvement of student.

### Yogesh Kumar Rathore

Assistant Professor, CSE Dept



Intelligent Process Automation (IPA) is an arising set of new technologies that combines basic process redesign with self-operating process automation and machine learning. It's a suite of business- process advancements and coming-generation tools that assists the knowledge worker by removing repetitious, replicable, and everyday tasks. And it can radically enrich client expectations by simplifying relations and speeding up processes. It is used as a software automation tool in various industries to automate standard assignments like as data extraction and cleaning through existing user interfaces.

### Dr. Kalpana Joshi

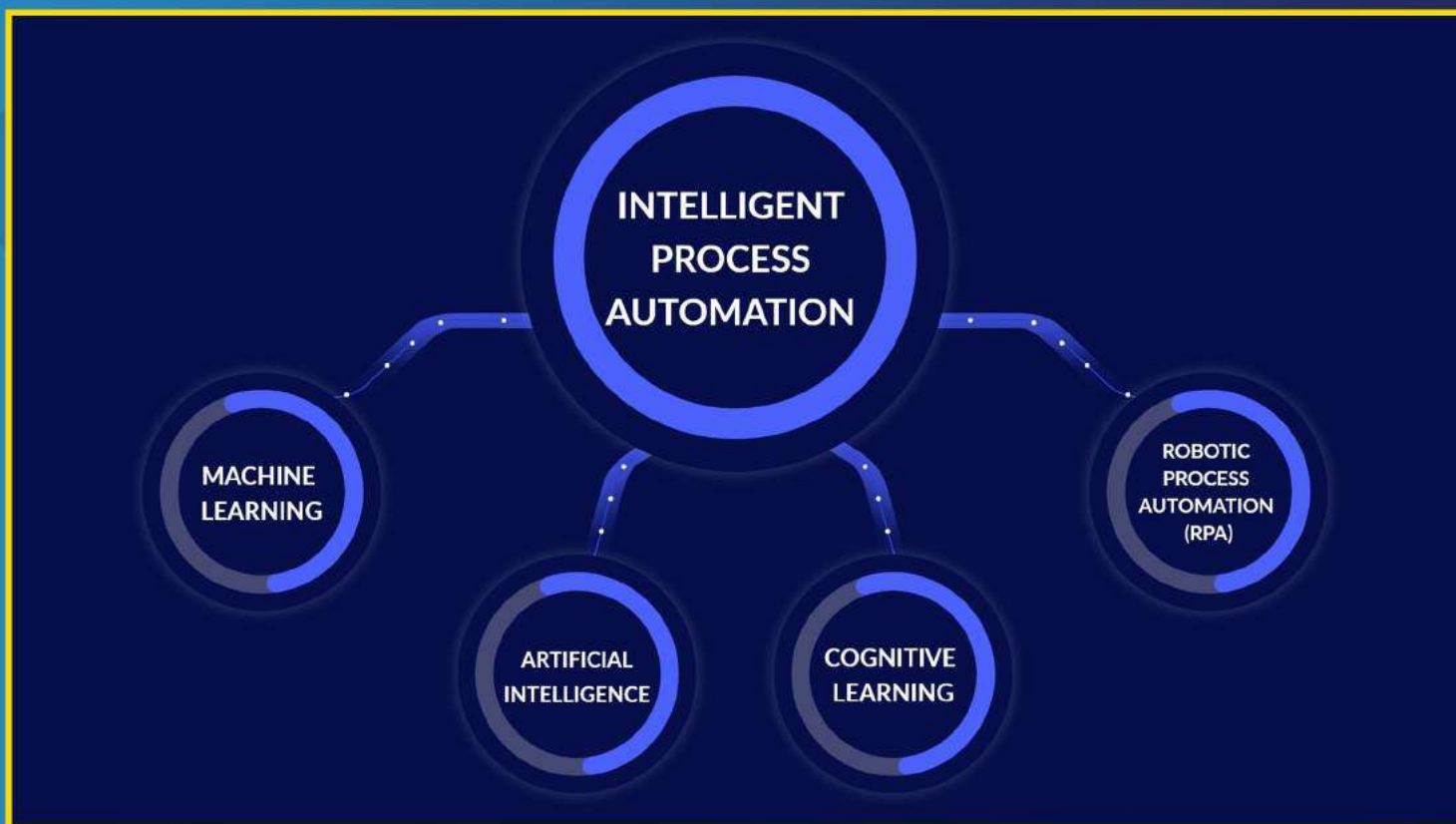
Assistant Professor, CSE Dept



IPA is an integration of automation with Artificial Intelligence (AI) related technologies such as deep machine learning, computer vision, cognitive automation, etc. Conventional automation is more about replacing repetitive tasks and minimizing human interventions. Integration of AI gives the capability of learning which helps to mimic human behavior by adopting the “do-think-learn” cycle. With AI, the efficiency and scale of automation have tremendously increased and opened up a new era of automation. Undoubtedly, IPA will become an integral part of future technologies and is incredibly useful in multiple domains such as healthcare, agriculture, transportation, etc.



# INTELLIGENT PROCESS AUTOMATION



## PREFACE

IPA stands for Intelligent Process Automation. The ground concept of IPA is to combine a human's mission-critical brain and a computer's fast and reliable processing to lay out better results. Its foremost principle is to avoid redundancy. There is a vast implementation of IPA, from automating simple manual tasks to analytic reasoning and decision making.

**Abhishek Singh (3rd B)**



## VARIANTS

1. Digital Process Automation (DPA): It utilizes digital technology for the automation process. Digital Process Automation is a way of progression for business process management to lead for multiple advancements maintaining transparency.

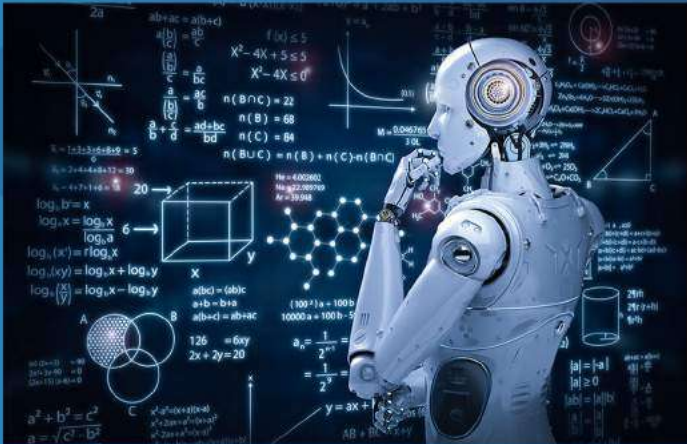
2. Robotic Process Automation (RPA): It is referred to as software robotics. RPA is a technique that works on an automation based platform to work as an interface. It bridges the gap between User Interface (UI) and APIs interactions to check on redundancy.

3. Artificial Intelligence (AI): Artificial Intelligence is an interface between human resources and machines. It focuses on stimulating human intelligence to machine automation. For instance, Alexa, Siri, Bixby and self-driven cars work on the same ideology.

**Abhishek Singh (3rd B)**



# INTELLIGENT PROCESS AUTOMATION



## TOOLS THAT IPA OPERATES ON

1. General process automation tools: This includes RPA & cognitive automation tools.
2. Business function-specific automation tools: Tools such as IT process automation (ITPA) lie under this category.
3. Workload automation platforms and low code application platforms.

## HOW IPA IS AN ASSET TO US?

Suman Baghel (3rd A)

### 1. Decreases processing time and operational cost:

IPA automates most of the manual tasks performed on regular basis. It increases efficiency by diminishing the processing time and operation cost.

### 2. Increases Accuracy:

It helps us to maintain a proper key check on errors, as it minimizes human intervention and hence improves the accuracy.

### 3. Reduces human effort:

Often data collected from different sources are unstructured and need to be filtered manually. The IPA uses ML to learn and improve and cover up all complex tasks automatically.

### 4. Improved customer satisfaction:

Using IPA, customer inquiries can be handled quickly. The best example is AI chatbots. This methodology has reduced the call centres waiting time, resulting in better customer feedbacks.

Bhumi Panjwani (3rd C)



Intelligent Process Automation

## CAREER OPPORTUNITIES

1. Industrial Automation.
2. Designing and Architecture.
3. Finance and Accounting.
4. Product development and Management.

Harshita Amlani (3rd C)



# INTELLIGENT PROCESS AUTOMATION

## IMPLEMENTATION OF IPA IN COLLEGE

1. Checking student's information, shortlisted candidates to avoid clutter and enrollment processes.
2. Managing the attendance, sending the automated notification and reports to parents and students.
3. Scheduling of meetings, timetable updating, and equipment reservations, scheduling.

Anuradha Singh (3rd B)

## FACTS ABOUT IPA

1. IPA is not similar to RPA but IPA is a combination of both RPA and AI.
2. Google, Amazon, Apple, Microsoft and every major tech company use AI and IPA.
3. In IPA, the RPA part doesn't require any programming skills.

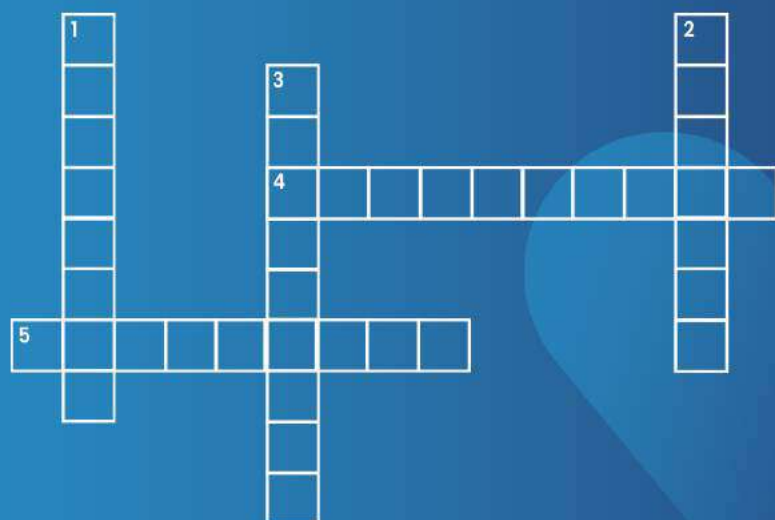
Suman Baghel (3rd A)

## FIELDS THAT WILL BE TRANSFORMED BY AUTOMATION

1. Health and Medical sector: Latest medical and surgery equipment with much better precision, minimizing the risk in general.
2. Agriculture & food service: The innovative advancements in farm tools results in less human efforts yielding much better outcomes in these sectors.
3. Transportation: This evolution upturned the complete transport system with auto driven vehicles; moreover advancements are going on, on this platform.
4. Manufacturing: Complete automation of industries increases the overall productivity by minimizing the notion of redundancy.

Shreyansh Sahu (3rd A)

## Crossword Puzzle Game



### DOWN

1. Smart \_\_\_\_\_ combines tasks solved with group of humans and machines
2. type of IPA, to check on UI and API interaction redundancy
3. Advance \_\_\_\_\_, algorithm for finding patterned in structured data

### ACROSS

4. the use of machine instead of people to do work
5. connected with processes of understanding

ANSWERS:  
1. Workflow, 2. Robotic, 3. Analytics,  
4. Automation, 5. Cognitive



# OPENAI - CODEX

## Introduction

OpenAI Codex is a new interpretation of AI that converts your instructions into runnable code and acts accordingly. It includes dozens of programming languages including Go, JavaScript, Perl, PHP, Ruby, Shell, Swift, and Typescript. It's parent company, OpenAI Inc was innovated by Elon Musk and Sam Altman on 11 Dec 2015. Codex has 159 gigabytes of python code from 54 million GitHub repositories. Codex also powers GitHub Copilot.

## The Capabilities of the Codex



### Creating a Game:

By giving instructions to codex you can make any game you want.

### Can break a calculation:

It can convert a programming language into another programming language.

### Codex is a primitive interpretation of J.A.R.V.I.S.?

Codex uses a JavaScript Microsoft Word API which allows it to change the voice of the person into Word documents.

### Data science with OpenAI codex:

OpenAI codex can accumulate data science by asking general questions like date, next month date, weather forecast, etc to high-level Data mining.

## Future aspects

### Open AI

What Does Open AI Do?



The inventors of Codex believe that it has the spark to change the future of programming though we humans are doing programming by ourselves in the new period of Artificial Intelligence, we will no longer be needed to class and to formulate whole code.

### Only AI which can beat humans in every Field?

OpenAI and Intel are working on the most advanced AI Algorithms that are starting to understand the world similar to the way we experience it. They may create a real and working Artificial General Intelligence for our future.

### The advantages of the codex as AI

1. Perfecting the relationship between humans and computers
2. Removing the boring side of programming
3. Right decision making
- 4 .Enforcing AI in parlous situations

## Codex's Quiz Questions

1. Codex was the first idea of.
2. In which language openAI codex is most effective.
3. By which API codex changes the voice of a person into a text document.
4. OpenAI is launched with the cooperation of.
5. How many GitHub depositaries does codex has.
6. GitHub copilot powered by.

ANSWERS: 1. Elon musk 2. python 3. Microsoft word API 4. GitHub 5. 54 million 6. OpenAI code

Hardik Kaushik (3rd C)



# TESLA FULL SELF-DRIVEN CAR

## Inception

Tesla, which once started as a sports car company with a borrowed body-kit from Lotus cars, is now at the forefront of self-driving cars.

Tesla was started with Autopilot in 2014.

In October 2020, Tesla introduced a full self-driving beta in private. Back then, the cars were equipped with radar along with a few cameras for street object detection.



## Details

Each Tesla currently in production is equipped with multiple sensors. There are eight 360° cameras which provide a range of 250m around the car. To support the cameras, the cars also come with twelve ultrasonic sensors which are used for object detection including humans.

## TESLA VISION

The stream of 8 cameras is first converted to a 3D vector space, which is passed through a RegNet, a BiFPN, and a Transformer

This entire procedure of Tesla vision is processed by a processor equipped in every new Tesla car, known as the FSD chip.

## Edge of Tesla.

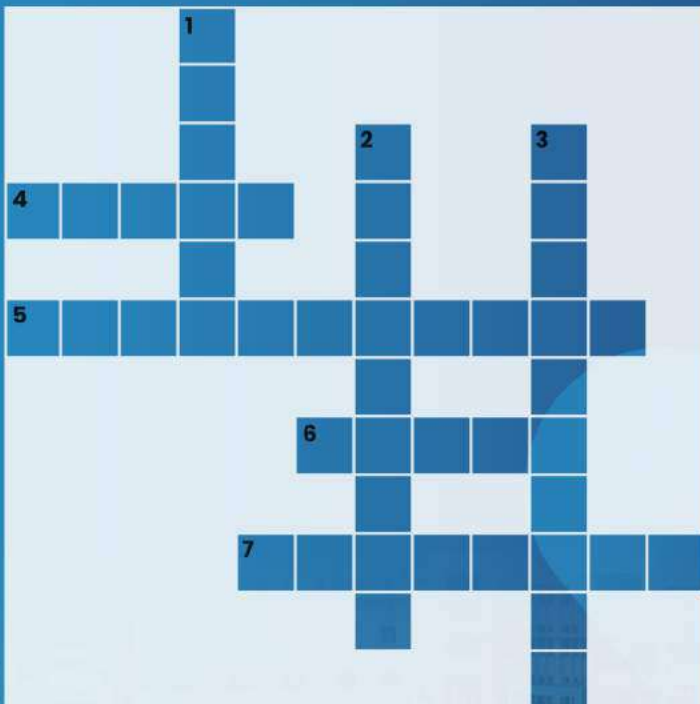
The future of vehicles is driverless, people with disabilities will be able to use these cars.

Road accidents are majorly caused by human error, well-trained self-driving cars will reduce accidents drastically.

Since the entire fleet learns from the experiences of all the cars, the car will be able to avert accidental situations with faster timing and better precision to keep the passengers safe.



## Crossword Puzzle Game !



### DOWN

1. feature to move car without any passengers
2. name of Tesla self-driving AI
3. name of Tesla pickup truck

### ACROSS

4. Google self-driving car company
5. type of neural network used by Tesla
6. number of cameras in a Tesla car
7. CEO of Tesla

1. Summon 2. Autopilot 3. Cybertruck 4. Waymo  
5. Transformer 6. Eight 7. Elonmusk

ANSWERS:

G shreyas (3rd C)



## FACULTY ACHIEVEMENT

<b>PATENT</b>	<b>6*</b>
<b>BOOKS PUBLISHED</b>	<b>6*</b>
<b>RESEARCH PAPERS</b>	<b>161*</b>

## STUDENT ACHIEVEMENT

### INTERNSHIPS

**Shreya Gupta** - Adobe

**Aman Kumar Gupta** - Tech Exordium

**Mohan Sahu** - Pi R Square Digital Solutions

**Vishal Rathi** - HW SAVER LLP

**Vivek Agrawal** - Google Summer of Code

**Zeenat Saba** - Career 360

**Aisha Agrawal** - Casio India Pvt Ltd

**Ashesh Kumar** - Pharmascroll

**Bhumika Pankaj Bhandar** - ISAN DATA SYSTEMS

**I Navya Kruti** - INFYNI , IITNR

**Kanha Agrawal** - Marketing Advertising solution

**Raveen Deep Singh** - EV Digital Technology

**Shreya Trivedi** - Carikture India pvt Ltd

**Vedant Soni** - FineOps

**Prathamesh Desai** - Feldroy Shop PS Feldroy LLC

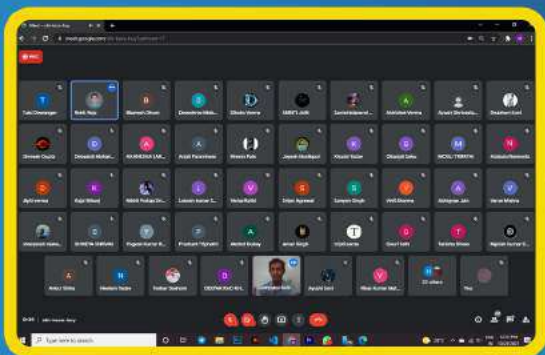
**Chahat Tekwani** - GaoTek Inc.

**Abhinandan Adhikari** - GWOC Contributor

## DEPARTMENTAL ACTIVITY

SSIPMT provides its students to upgrade their ability by introducing numerous opportunities and exploration through various exercises each year likewise, this year we had a CSI, State-level coding competition. A continual aptitude test & communication skill development program for 3rd and 5th

semester as well as Deloitte and Infosys technical mock test were conducted for 5th-semester students. Apart from technical activities SSIPMT also involves the focus of students on co-curricular activities like singing, dancing and succoring other talents. Career counseling and guidance session was organized as SSIPMT always focus on the overall development of the student throughout the year for their excellence in every field.



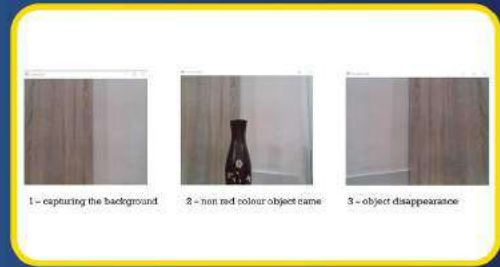




## KRISHI UDDANT PROJECT

Aman Kumar Gupta, Md. Sahil Saify, Deveshree Mishrekar, Anjali Sharma , CSE 5th SEM.

It is basically a site for farm vegetables where a farmer can auction their seller bids before harvesting.



## CAMOUFLAGING CAPE PROJECT

Kashika Parmar, CSE 5th SEM.

In this project using the color detection and segmentation technique, an invisible cloak is created using Python.

## PLACED STUDENTS

**Preeti Verma** - Indus Valley Partner  
**Abbas Shakir** - Indus Valley Partner  
**Bhumika Bhandari** - SAP , Persistent  
**Dushyant Nagpure** - Nucleus Software , Persistent  
**Nirali Kansara** - SAP  
**Sharvesh Sharma** - Nucleus Software  
**Khushboo Yadav** - Nucleus Software  
**Mansi Agrawal** - Nucleus Software  
**Karan Siddhu** - Magure Software  
**Shiksha Pandey** - Nucleus Software, TCS, TEK system  
**Piyush Singhania** - TCS  
**Amrit Matharu** - TCS, WIPRO  
**Dwadari Priyamvada Rao** - TCS  
**Abhishek Kumar Giri** - TCS, WIPRO  
**Riya Lall** - TCS, WIPRO  
**Rupesh Kumar Jha** - TCS, WIPRO  
**Siddharth Sinha** - TCS, WIPRO  
**Chetna Arya** - TCS, WIPRO  
**Shubham Jain** - TCS, Nucleus Software, Tech Mahindra  
**Aryan Singh** - TCS, Nucleus Software, Tech Mahindra  
**Shrajal Shrivastava** - TCS, Nucleus Software, Tech Mahindra  
**Ayushi Sharma** - TCS, Nucleus Software, Tech Mahindra  
**Neha Methani** - TEK system  
**I Navya Kruti** - WIPRO  
**Diksha Chandrakar** - WIPRO  
**Adhireddy Praveen Kumar** - WIPRO

**Vishal Yadav** - Nucleus Software  
**Abhishek S Pillai** - Nucleus Software, WIPRO  
**Aisha Agrawal** - Nucleus Software  
**Mitali Singh** - Nucleus Software, WIPRO  
**Vaibhavi Pathak** - Nucleus Software, TCS  
**Apoorva Sushil Chourasia** - Nucleus Software, WIPRO  
**Anushka Shrivastava** - Persistent  
**Shweta Shrivastava** - Nucleus Software  
**Chahat Tekwani** - Persistent  
**Harsh Awachar** - Persistent  
**Prakashmani Awasthi** - Persistent  
**Purvi Khubchandani** - Persistent  
**Rubal Agrawal** - Persistent, TCS, WIPRO  
**Vijay Katariya** - Persistent  
**Abeer Dubey** - TCS, Persistent  
**Abhinav Dubey** - Persistent, TEK system  
**Navneet Choudhary** - TCS, Nucleus Software, Tech Mahindra  
**Sankalp Agrawal** - TCS, Nucleus Software, Tech Mahindra  
**Vedant Soni** - TCS, Nucleus Software, Tech Mahindra  
**Vikas Dwivedi** - TCS, TEK system  
**Piyush Awasthi** - TCS  
**Anish Sharan** - Magure Software  
**Varsha Yadav** - TCS  
**Tirna Mitra** - WIPRO  
**Jahid Ali** - WIPRO



# NEWSLETTER TEAM



**Mentor Taniya Jain**  
Assistant Professor, CSE

Technology is evolving at such a rapid pace that eventually, it will become exponential. Newsletter is the most effective medium for publicising the events, achievements, news and updates about the new technologies as well as it is the most efficient mode of communication between the college authority and the student-community which keeps them connected and helps them to stay up-to date with the latest news and technologies. Our newsletter keeps upgrading in each volume to acknowledge-students about the new technologies with fun and enhances their skills and knowledge in various field like designing, writing, research etc. Newsletter team provides an environment to work professionally making students future ready which ultimately help them to grab internships and placements.

## HEADS



**Aman Gupta**  
Editor in Chief



**Aayush Mishra**  
Head Moderator



**Ishita Verma**  
Head Content Writer



**Pranay Prajapati**  
Head Graphic Designer



**Srijan Agrawal**  
Head Evaluator

**Yukti Jain**  
Graphic Designer

**Praveen Sharma**  
Graphic Designer

**Ayush Patre**  
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**Amaan Inayat**  
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**Harshita Amlani**  
Content Writer

**Shreyansh Sahu**  
Content Writer

**Suman Baghel**  
Content Writer

**Abhishek Singh**  
Content Writer

**Anuradha Singh**  
Content Writer

**G Shreyas**  
Tech-Geeks

**Hardik Kaushik**  
Tech-Geeks

The cover theme for upcoming newsletter is: Neuralink. Students may submit their articles in categories such as technical trends, interesting facts, Small technical games. Deadlines of the submission will be informed soon. Please note that Cyber Trinity is a newsletter for members and not a journal for publishing full-fledged research papers. Therefore, we expect articles written at the level of the general audience. Please send your article in MS-word format to Editor in Chief Aman Kumar Gupta, in the email id [cse.newsletter@ssipmt.com](mailto:cse.newsletter@ssipmt.com) with details of the sender (name, semester, branch). Issued on behalf of the Computer Science Department.