



# CS MAIL

## NEWSLETTER VOLUME 10, ISSUE II, AUG 2022

**Dear Readers,**

It is with great pleasure that we bring you **Volume 10, Issue II** of our department newsletter "**CS MAIL**". The current newsletter highlights the activities of the department, achievements of faculty and students during the past six months. It also features workshop organized and attended, paper publication details and other social activity undertaken from CS Department. Your valuable comments and suggestions are appreciated.

*We wish all the readers an enjoyable reading.*

### VISION OF THE DEPARTMENT

- To develop highly talented individuals in Computer Science and Engineering to deal with real world challenges in industry, education, research and society.

### MISSION OF THE DEPARTMENT

- To inculcate professional behavior, Strong ethical values, innovative research capabilities and leadership abilities in the young minds & to provide a teaching environment that emphasizes depth, originality and critical thinking.
- Motivate students to put their thoughts and ideas adoptable by industry or to pursue higher studies leading to research.

### PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)

- Empower students with a strong basis in the mathematical, scientific and engineering fundamentals to solve computational problems and to prepare them for employment, higher learning and R&D.
- Gain technical knowledge, skills and awareness of current technologies of computer science engineering and to develop an ability to design and provide novel engineering solutions for software/hardware problems through entrepreneurial skills.
- Exposure to emerging technologies and work in teams on interdisciplinary projects with effective communication skills and leadership qualities.
- Ability to function ethically and responsibly in a rapidly changing environment by applying innovative ideas in the latest technology, to become effective professionals in Computer Science to bear a life-long career in related areas.

### PROGRAM SPECIFIC OUTCOMES (PSO'S)

- Ability to apply skills in the field of algorithms, database design, web design, cloud computing and data analytics.
- Apply knowledge in the field of computer networks for building network and internet based applications.

## Message From Principal

ATMECE has emerged as a prominent institute offering quality education. All round continuous changes in infrastructure and academics standard have helped us to build a brand name. It gives me immense pleasure to introduce the **Volume 10, Issue II OF THE HALF YEARLY NEWSLETTER “CS MAIL”** of Computer Science Department. I am pleased to know that the newsletter will showcase the activities and credentials of CS&E department. I hope this will become a platform for students and staff to exhibit their talents in science and technology. On behalf of management, I appreciate the newsletter committee for their efforts in bringing out this edition.



**I wish the editorial all success!!!**

**Regards**  
**Dr L Basavaraj**  
**Principal, ATMECE**

**DON'T WAIT FOR OPPORTUNITY CREATE IT**

## Message From Chief Editor



**Dr. Puttegowda D**  
**HoD, CS&E**

Department of Computer Science & Engineering commits to work towards developing dedicated professional with a rich blend of competent, technical, managerial and social skills to contribute nation building. I am happy to inform that our department newsletter “**CS MAIL**” is being released in the month of Aug 2022. The newsletter encourage departments technical activities and also motivate students to bring out their innovative ideas , hidden talents and also provide a common platform to share their knowledge, in turn gain technical knowledge.

**I wish all the readers an enjoyable reading!!!**

## EDITORIAL TEAM

**Chairman**  
**Dr L Basavaraj**  
Prinicpal, ATMECE

**Chief Editor**  
**Dr Puttegowda D**  
HOD, CS&E

**Editor**  
**Ms. Lavanya N**  
Assistant Professor, CS&E

**Student Cordinators**  
**Ashish Prasad**  
**Vaishnavi**

**A DREAM BECOMES A GOAL WHEN ACTION IS TAKEN TOWARD ITS ACHIEVEMENT**

## DEPARTMENT ACTIVITIES

**Report on one day workshop on Awareness on Virtual Lab & Its Utilization for 3<sup>rd</sup>  
Semester Computer Science & Engineering Students**

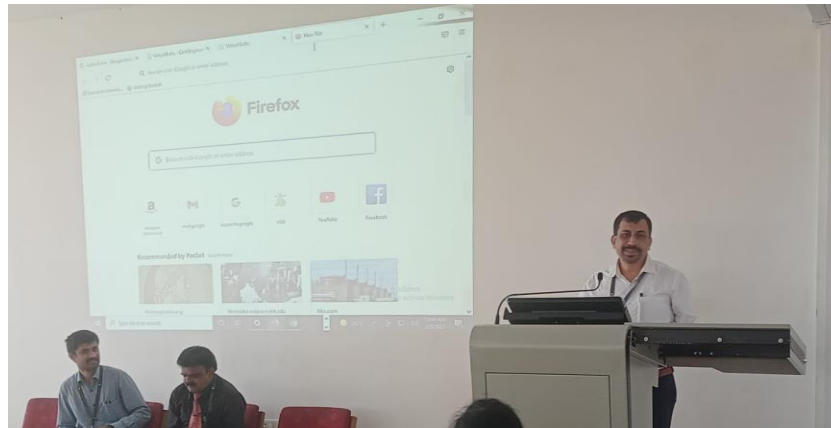
A one-day workshop on “Awareness on Virtual Lab and its utilization” was organized for the 3<sup>rd</sup> Semester Students of Computer Science & Engineering Students on 05/03/2022.

The main Aim of the workshop is to bring the awareness on the Virtual Lab and utilization in the regular curriculum. The workshop was inaugurated by **Dr. Govinde Gowda M S**, Dean Academics, ATME College of Engineering, Mysuru. **Dr. Puttegowda D**, Prof. & Head Department of Computer Science & Engineering, ATME College of Engineering, Mysuru presided over the function.



*Dr. Govinde Gowda M S addressing the students during the workshop*

In his inaugural address, sir spoke about the importance of learning and how virtual lab is contributing has a blended learning tool by enhancing the better understanding of the concepts learnt. Sir also insisted the students to go through the experiments of the V-labs before actually conducting the experiment in the physical lab. This will bring a better understanding and the deep learning among the concepts learnt. Sir also informed the students to use the virtual labs not only for the lab component but also this can be used to substitute the theory concepts learnt in the few of the courses in the regular curriculum.



*Dr. Puttegowda D addressing the students during the workshop*

Later the session was addressed by **Dr. Puttegowda D, Dept. of Computer Science & Engineering, ATMECE, Mysuru**. In his address he motivated the students to make utilization of the platform provided through Virtual Labs and explore the technology. He also appreciated the interest shown by the student of Dept. of CSE for their active participation in the event.



*Prof. Thejkumar J addressing the students during the workshop*

**Prof. Thejkumar J, Nodal Centre Coordinator, V- Labs, ATMECE, Mysuru** addressed the student by briefing about the idea behind the coming out of the concept of Virtual labs and the initiatives taken by

the ATME college of Engineering in implementation of V-labs in the regular curriculum.

Also, the students were taken to hands on session on the Virtual lab portal, where they were guided about how to use the web portal, search for experiments, choosing the experiment to conduct and its simulation.



*Prof. Sushma V, demonstrating the experiments during the workshop*

**Prof. Sushma V, Department Coordinator, V – Labs, Dept. of CSE, ATMECE, Mysuru** taken over the second session. She demonstrated the program and simulations on merge sort under the data structures lab. She also elaborated on the programming logic and flow that was designed in Virtual Labs and motivated the students to utilize Virtual Lab platform in their regular curriculum subjects.

Students worked on the Virtual lab platform and had hands on experience in conducting experiments and learnt the navigation in Virtual lab Platform.

## **Three Day Workshop on Basics of Object Oriented Programming using C++ for IV Sem Students**

Department of Computer Science and Engineering, ATME College of Engineering,

Mysore organized Three Day Workshop on **Basics of Object Oriented Programming using C++** for IV Sem Students from 19<sup>th</sup> May 2022 to 21<sup>st</sup> May 2022.

### **Workshop Objective:**

1. Differentiate between object oriented programming and procedure oriented programming.
2. The basic programming and OOPs concepts
3. Develop the skills of designing and developing C++ programs using OOP features.
4. Disseminate the importance of Object oriented programming
5. Arranging same data systematically with arrays
6. Tokens, expressions and control structures in C++

7. Creating C++ programs
8. Define and Describe Classes, objects, constructors, destructors, inheritance, operator overloading, and Polymorphism, Template and exception handling.

## **Workshop Context:**

### **Introduction to Object Oriented Programming**



- Concept of OOP
- Features of OOP
- Introduction of 'C++'
- Structure of 'C++' program
- Executing and Debugging a 'C++' Program

### **C++ Tokens and Type Casting**

- Keywords and Identifiers
- Operators
- Constants
- Variables
- Data Types
- Precedence of Operators
- Scope and Lifetime of Variables

### **Classes & Objects**

- Classes & Object Specifier
- Defining data members and member functions
- Array of objects
- Managing console I/O
- 'C++' stream classes
- Formatted and unformatted console I/O
- Usage of manipulators

### **Function in C++**

- Call by reference, Return by reference
- Function overloading and default arguments
- Inline function
- Static class members
- Friend functions
- Virtual Functions

## **Constructors and Destructor**

- Concept of Constructor
- Types of Constructors
- Memory allocation (new and delete)
- Usage of destructor

## **Operator Overloading**

- Overloading Unary and Binary operators
- Overloading using friend function

## **Inheritance**

- Types of inheritance
- Virtual base classes and abstract base classes
- Constructor and destructor in derived class
- Working with files

## **File operations**

- File pointer and their manipulation
- File updation with random access

## **Exception Handling**

- Various Exception Handling classes
- Implementing try and catch block
- Use of throw keyword

## **Workshop Methodology:**

Interactive action learning methodology included in the workshop:

- Presentation
- Quiz
- Test, Exercises
- Individual feedbacks
- MS Power Point for their presentation and discussion throughout the workshop.

## **Support required to conduct the workshop:**

- Class Room, Projector.
- Neck Mike for the trainer and portable mike for the students.

## **Resource Persons:**

1. Kiran B, Asst. Prof. Dept. of CSE, ATMECE, Mysuru.

### Venue:

Seminar Hall,401. Dept. of CSE, ATME Campus, Mysore

### Workshop Date & Time:

19<sup>th</sup> May 2022 to 21<sup>th</sup> May 2022 9.30 am to 4.30 pm

### Workshop Outcome:

- Describe OOPs concepts
- Differentiate between object oriented programming and procedure oriented programming.
- Use functions and pointers in your C++ program
- To demonstrate an understanding of primitive data types, tokens, control structures values, operators and expressions in C/C++
- Explain and apply fundamental syntax rules for identifiers, declarations, expressions, statements, and function
- Explain arrays and strings and create programs using them
- Define and Describe Classes, objects, constructors, destructors, inheritance, operator overloading, and Polymorphism, Template and exception handling.
- Understand and employ file management
- Demonstrate how to control errors with exception handling

## FACULTY PARTICIPATION

### CONFERENCES/ JOURNALS

Sl. No.	Authors Name (As in the journal)	Title of the Paper	Journal Name	Volume No / Issue No/ Pg. No	Date of Publication
1	Dr. Naveen N. M.	Development of a Framework for Ideal Water Management of a Household in a Smart City Environment	Journal of Computer Science Engineering and Software Testing	Vol-8, Issue 1	Feb-22
2	Dr. Naveen N. M.	Mobile Application Development using Flutter SDK: Development of a News Mobile Application using Flutter and NEWS API	Journal of Computer Science Engineering and Software Testing	Vol-8, Issue 1	Feb-22

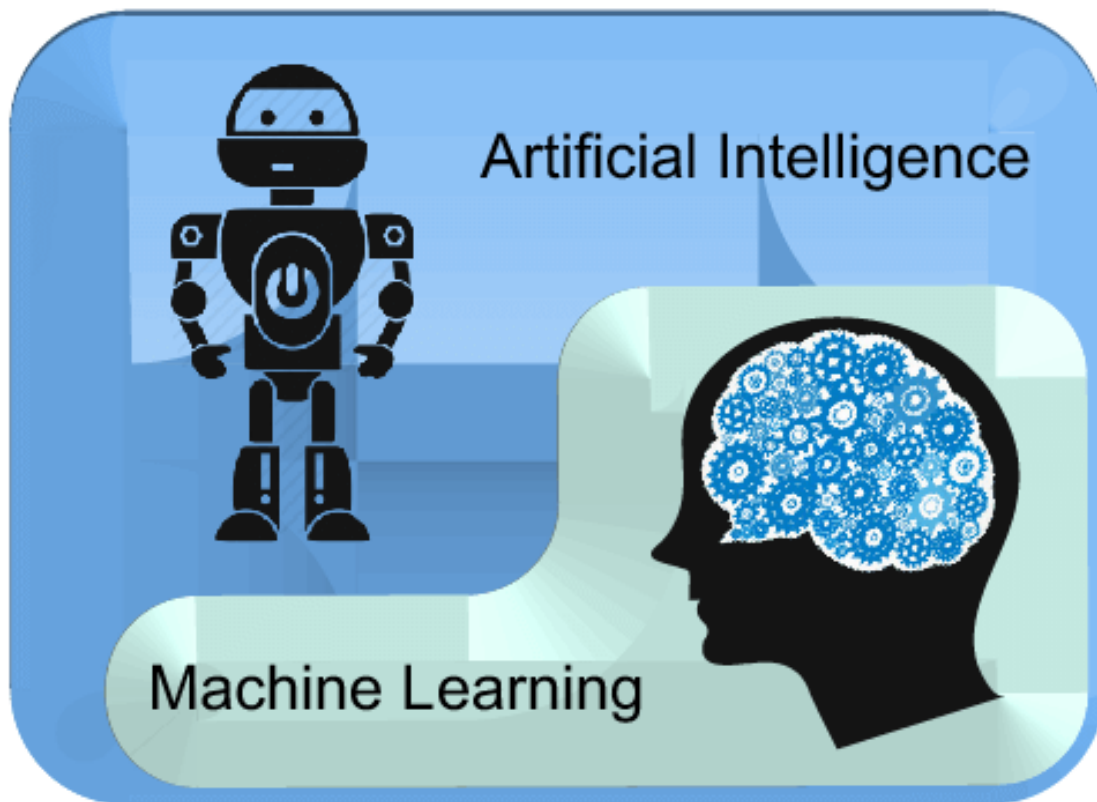


3	Mrs M S Sunitha Patel	Performance Evaluation of Support Vector Machine: Before and After Image Data Augmentation	International Journal of Engineering Trends and Technology	Volume 70 Issue 2	Feb-22
4	Mr.Anil Kumar C J	A Credit Scoring Heterogeneous Ensemble Model Using Stacking and Voting	Indian Journal of Science and Technology	Volume: 15, Issue: 7	Feb-22
5	Mrs M S Sunitha Patel Dr. Srinath S	Multi-vehicle detection in a platooning system using an image processing model with a machine learning approach	DogoRangsangResearch Journal	Volume 70 Issue 2	Feb-22
6	Dr. Naveen N. M.	Mobile Application Development using Flutter SDK: Development of a News Mobile Application using Flutter and NEWS API	Journal of Computer Science Engineering and Software Testing	Vol-8, Issue 1	Feb-22
7	Dr. Nasreen Fathima	A Signature-based Data Security and Authentication Framework for Internet of Things Applications	International Journal of Electrical and Computer Engineering (IJECE)	Vol-12, 3	Jun-22
8	Mrs.Hamsa A S	LID systems for speech processing systems	Internatinal Journal of Creative Research Thoughts (IJCRT)	Volume 10, Issue 6	Jun-22
9	Sushma V	LID systems for speech processing systems	Internatinal Journal of Creative Research Thoughts (IJCRT)	Volume 10, Issue 6	Jun-22

10	Sushma V	Collaboration of Blockchain in Healthcare 4.0	IJARCCCE	Vol. 11, Issue 6	Jun-22
11	Lavanya N	Driver Drowsiness Detection using Machine Learning and open CV	International Journal of Innovative Science and Research Technology	Volume 7, Issue 7	July – 2022
12	Roopa B	Real-Time Face Mask Detection Using Deep Learning	IJIRT	Volume 9 Issue 2	July – 2022
13	M S Sunitha Patel	Improved Spatial Invariance for Vehicle Platoon Application using New Pooling Method in Convolution Neural Network	International Journal of Advanced Computer Science and Applications	Vol. 13, No. 7	July – 2022
14	Sneha N P, Kavyashree D L, Kavya G T, Bhoomika S R, Chandana M V	A Study on Camouflaged Object Detection Methods	International Journal of creative research thoughts (IJCRT)	Vol-10, Issue 7	Jul-22
15	Adviya Saba, Ayesha Siddiqua, Bharath R, Darshan S, Hamsa AS	Video Based Moving Vehicle Detection and Speed Estimation System using Machine Learning	International Journal of Innovative Research in Computer and Communication Engineering	Vol-10, Issue 8	Jul-22
16	Dr. Deepu R., Suman K.M., S. S. Surabhi, Nischal S., Nisarga P.	Personality Analysis through Graphology	International Journal of Innovative Science and Research Technology	Volume 7, Issue 7	Jul-22

# AN ARTICLE ON IMPLEMENTATION OF AIML IN COLLEGE EDUCATION

**Abstract:** Artificial intelligence (AI) is used in many fields such as in advertising, online shopping, cars etc.,.In everyday life the AI is used such as applications like Google maps and also Waze which are used for analyzing traffic data in live and also provides the fastest route for the user to drive. Now- a-days the AI is also evolved in education. By adapting the AI, it can transform the classical way of learning and teaching to a modern way called as digital transformation. The aim of this article is to make a study on how AIML can be useful, if it is implemented in higher education such as in colleges or universities.



## I. INTRODUCTION

Now-a-days the AI software is grown rapidly not only in E-commerce, but also in other fields such as health care, manufacturing, online portals etc., For these kind of transactions NLP (Natural Language Processing), Deep learning and also Machine learning are used, so that the interface for using the software that is developed by using AI will be user friendly. In daily life, the AI is used as a personal digital assistant that are used in smartphones, in online shopping that provides platform for buying goods, in entertainment for watching movies etc., and now AI is evolved in learning and education. Many

authors and developers are performing researches to integrate AIML (Artificial Intelligence Machine Learning) for education purpose, it can be used to find out the strength and weakness of students and also it can interact with students, so that it can free up time for teachers. AIML can play an important role in future education, by personalizing the education that is, using AIML the students can access digital books, videos and guides, which creates customized environments for students and also for organization. The customized environments here refer to monitoring and evaluation tools that are created by AIML and also AR (Augmented reality) and VR (Virtual reality) based environments for personalized web based learning. Here AIML can evaluate and identify the wrong answers that are submitted by the students and also it gives the report, where the students should improve and also it helps the teachers to correct the defective side or ineffective content.



## II. IMPLEMENTATION OF AIML IN COLLEGE EDUCATION

### **AIML in administration work**

AIML can be used in admin work i.e., it can be used to prepare report cards, schedule the classes, mark attendance and also record keeping. It can also be used to schedule meeting. By using this method; it reduces the time that is spent for preparing progress report.

### **III. Creating software to calculate grades by using AIML**

Generally, the teachers collect the details of students such as their marks and their grades are calculated manually, which consumes more time for the professors or teachers. But once the AI is developed as grading software all the manual process is done in fraction of seconds. For this kind of tasks cloud based platform can be created.

#### **IV. Developing Voice Assistance(VA)**

This method can be useful for the students to learn their subjects even when they are travelling or in home. Once the VA is created it can coach the students and also it can give instance answers for some to the basic questions.

#### **Personalized education**

AIML can play an important role in future education, by personalizing the education that is, using AIML the students can access digital books, videos and guides, which creates customized environments for students and also for organization. The customized environments here refer to monitoring and evaluation tools that are created by AIML and also AR (Augmented Reality) and VR (Virtual Reality) based environments for personalized web based learning. Here AIML can evaluate and identify the wrong answers that are submitted by the students and also it gives the report, where the students should improve and also it helps the teachers to correct the defective side or ineffective content.

#### **V. LIST OF INTERNATIONAL EDUCATIONAL ORGANIZATIONS THAT PROVIDE AI SOFTWARE FOR EDUCATION.**

##### **Carnegie Learning:**

This Company is located in Pennsylvania which provides solutions for mathematics, literacy and world languages. The software MATHia and live lab was given “Best AI and Machine learning APP”, award by edvocate awards during the year 2019.

##### **Nuance:**

The head office of the company is located in Massachusetts in U.S. This is a multinational company that offers not only financial services and health care services, but also education services. This company is famous for their advanced speech recognition software that is called as Dragon speech recognition software. This software helps the limited mobility students to transcribe more than 60 words per minute. This software also provides feedback, student progress assessment and also effective lesson plans.

##### **Century tech:**

This Company is located in England. It is a AI learning and teaching platform. This platform combines in AI and Neuroscience to provide solutions for schools and college students to learn English, Maths and science in Next level. This century tech team consists of technologist, Neuroscientists and teachers. who

provide the students with personalized learning modules, so that students can understand the concepts easily.

This is a leading company for educating AI through online. This platform became famous, because of its user-friendly platform and also for advanced simulation technology. This interface is available for students to answer their queries round the clock.

## **VI. TECHNOLOGIES THAT ARE USED FOR EDUCATIONAL PURPOSE**

### **Chatbots**

This AI educational application is more helpful for the students to learn, read and understand specific topics such as reading and doing Maths. Chatbots not only help the students to learn, but also does the analysis for assessment also. In future, it can also be used to reduce the tasks assigned to teachers.

### **Virtual Reality(VR)**

It is a 3D computer generated environment where people can interact with. It helps the students to feel that they are interconnected. Students in different classrooms can also interact safely. Using VR teachers can also find a new way to engage their student.

### **Robotics**

The use of robotics in education has increased rapidly in the last few years. From the student point of view, the robots are very helpful for exploring any topic based on education in depth. It can answer the latest information in depth with human like facial expression. which is very effective and students are not bored. The robots can provide one to one time with students. From the teacher's point of view, it can be used as an instructional tool to teach lessons to the students.

**BY**  
**DEPARTMENT OF CS&E FACULTIES**

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**THINK PEACE AND LIVE GREEN...**



**“MAKE EVERY DROP OF WATER COUNT”**

Dear Readers,

Your advice or suggestions will be much appreciated and are most welcome!!!  
Please mail your articles to [csdept@atme.in](mailto:csdept@atme.in)

**BE WILLING TO BE A BEGINNER EVERY SINGLE MORNING**