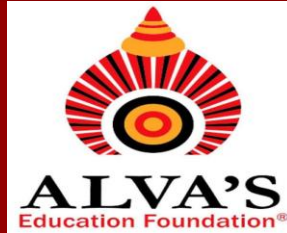# Alva's Institute of Engineering & Technology

Shobhavana Campus, Mijar, Moodbidri, D.K – 574225

(Affiliated to VTU, Belagavi and Approved by AICTE, New Delhi& Govt of Karnataka)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

(Accredited by National Board of Accreditation(NBA),New Delhi 2019 – 2022)

"BITS and BYTES": E-NEWS LETTER

Volume-3, Issue-2

2019-20 EVEN

SPECIAL POINT OF INTEREST

- New Branch-AIML
- MESSAGE FROM PRINCIPAL

IN THIS ISSUE

- ➢ Technical Talks
- ➢ FDPs/Workshops
- ➢ Online Activity
- ➢ Forum Activity
- ➢ Staff Achievements
- ➢ Pre-placement training
- ➢ Placement News

DEPARTMENT VISION

"Engendering competent, excellent professionals by transforming the knowledge and computing skills to individuals through modern innovative tools and techniques"

DEPARTMENT MISSION

- To produce skilled, creative software developers through rigorous training.
- To conduct specific technical courses to keep abreast to the latest technological developments and transformations in the domain.
- To establish Industry-Institute Interaction programs to enhance the skills of employability and entrepreneurship.
- To implement the ideas of research and innovations in interdisciplinary domains

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EDITORIAL BOARD: "BITS and BYTES"

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Computer Science & Engineering Accredited by National Board of Accreditation(NBA), New Delhi

MESSAGE FROM PRINCIPAL

-Dr. PETER FERNANDES

It is great pleasure to inform that Computer Science & Engineering intake has been enhanced 120 to 180 from the Academic Year 2020-21 onwards. Also, we are going to start a new Department in our campus that **"Artificial Intelligence & Machine** *My hearty congratulations to HOD & Staff members of the department for this splendid performance. It is collective effort & hence I deserve my appreciation to all staff. Also, 1 wish editorial team of* **BITS and BYTES** *for bringing 3rd Volume of E-magazine of the department.*

MESSAGE FROM HEAD OF DEPARTMENT

-Dr. MANJUNATH KOTARI

Congratulations to all the stake holders of the Computer Science & Engineering department for adopting Online Teaching/Learning platform in our traditional teaching learning activities.

During the lock-down period all the students and faculty members have been completed many online certification programs in association with AIEt Education partners that includes, Coursera, Udemy, ISRO, ICT Academy, TCS iON, Oracle, UiPath Automation, VMWare and Palo Alto Network etc.

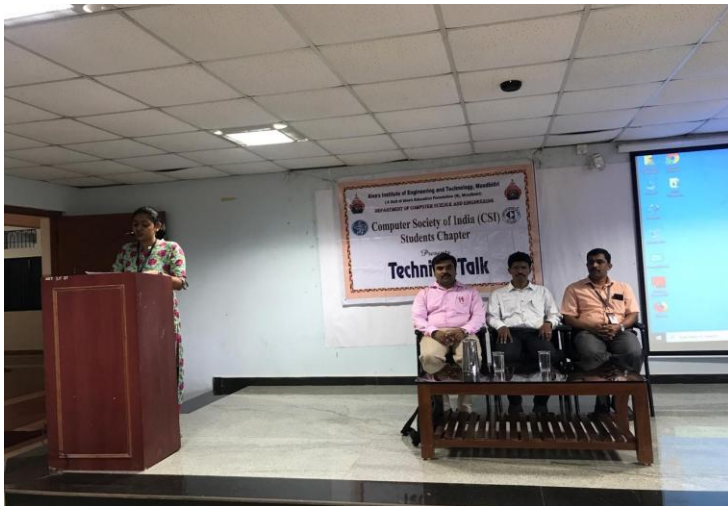*Bit & Bytes editorial team is bringing this all such news in this newsletter. I wish them all very success.*

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TECHNICAL TALKS

"Edge Computing"

Date & venue: *15th February 2020, ENGINEERING SEMINAR HALL*

Resource person: :**Dr. Annappa**, Professor, Dept of CSE, NITK Suratkal

Dr. Annappa explained about the Edge computing and its importance. Initially explained about Cloud computing.Cloud computing is perhaps the most flamboyant technological innovation of the 21st century. Cloud computing is not just for organizations and businesses; it's also useful for the average person as well. It enables us to run software programs without installing them on our computers; it enables us to store and access our multimedia content via the internet, it enables us to develop and test programs without necessarily having servers and so on.

He also explained about fog computing. Fog computing is the concept of a network fabric that stretches from the outer edges of where data is created to where it will eventually be stored, whether that's in the cloud or in a customer's data centre.

He then explained about edge computing and its importance.Edge computing is a distributed computing model in which computing takes place near the physical location where data is being collected and analyzed, rather than on a centralized server or in the cloud. This new infrastructure involves sensors to collect data and edge servers to securely process data in real-time on site, while also connecting other devices, like laptops and smartphones, to the network.Edge computing is important because it creates new and improved ways for industrial and enterprise-level businesses to maximize operational efficiency, improve performance and safety, automate all core business processes, and ensure "always on" availability. It is a leading method to achieve the digital transformation of how you do business. Finally he explained about difference between edge and fog ,cloud vs fog.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATION PROGRAMME

Apple iOS App Development using Swift C and XCode

Department of CSE organized Certification Program on "Apple iOS App Development using Swift C Language and XCode". Mrs. Seema Nair, CEO, CalibreCode Solutions Pvt. Ltd was the Resource Person for the Certification Programme. The resource person Mrs. Seema Nair trained for 30 students of 4th SEM BE CSE, AIET. Mr. Venkatesh Senior Associate Professor, Dept of CSE was the coordinator of this certification course.

The Certification Programme was conducted in 2 different slots First Phase was conducted 24th February 2020 to 01st March 2020 and Second Phase was planned during May 2020. The students developed the features of Apple iOS App development like image display, and some animations with images, Databases using SQLite, Multi tab Communication, Drawing tables, Multi window communications Network Communications etc during the First Phase of Certification Programme.

The following Apple iOS Apps have been developed during the Certification period.

Sl.No	Name of the App
1.	Hospital Daily Monitoring Checklist
2.	Oral Cancer Diagnosis
3.	Event Management
4.	Government Exams - Notifications, Schedule and Reference material
5.	Voice based Email

Technical Activities

TECHNOFIA'20

Technofia was an inter-collegiate technical fest conducted by C-Maniax forum of Computer Science & Engineering Department, AIET. Technofia gathered all the curious and engineering minds of 13 different Colleges of the various Engineering colleges of Karnataka. Technofia-20 provided the platform to showcase student's talent and technical abilities and gave them recognition.

Technofia-20 was conducted on 10th& 11thMarch 2020 AT AIET main campus. It was inaugurated by Mr Katamaiah G,Senior Solution Architect Danske IT and support services Pvt Ltd and with the presence of Mr.Vivek Alva, Mr Arun Rajpurohit ,Mr. Srajan das, Dr Peter Fernandes,Dr. Manjunath Kotari, Mr.Harish Kundar ,C-Maniax members and all the participants from the various colleges.

There were 14 events which was a collaboration of both Technical and Semi-Technical Events. Around 670 students from various colleges were took part in various events. About 85 students from 13 different colleges participated in various events.

The Event lists and Winners of Technofia'20:

SL. NO	EVENT LIST	EVENT DESCRIPTION	NO. OF PARTICIPANTS
1	INQUEST	TECHNICAL QUIZ	100 TEAMS
2	INTIMIDATORS	IT MANAGER (MARKETING)	30 TEAMS
3	PAPRIZZA	PAPER PRESENTATION	14 PARTICIPANTS
4	BEHIND THE MASK	FACE PAINTIMG	7 TEAMS
5	GEEK THE BUILDER	WEB DESIGNING	12 TEAMS
6	GAME BUZZ	GAMING: PUBG BLUR COUNTERSTRIKE	32 TEAMS 40 TEAMS 12 SOLO
7	BID BIZZ	APTITUDE BIDDING	70 TEAMS
8	TECH CHARADES	TECHNICAL DUMCHARADES	60 TEAMS
9	CLUE MINATI	TECHNICAL TREASUREHUNT	92 TEAMS
10	PANORAMA	PHOGRAPHY	90 PARTICIPANTS
11	ANY QUERIES	DBMS QUERIES	40 PARTICIPANTS
12	COMICON	WEB SERIES QUESTIONS	40 TEAMS
13	DARE TO DO	BLIND CODING	27 TEAMS
14	INTERVIEW BUDDY	MOCK INTERVIEW	40 PARTICIPANTS

The organizing of Technofia'20 bought a very good bonding among all the four batches of Computer Science branch. The event was a huge success in terms of participation from AIET and other college students. In coming years many more technical and semi-technical events can be added up. Many students from the 1st, 2nd, 3rd and 4th years took the initiative to conduct the particular event with the good participation spirit and with the support of the Management, HOD and Faculties of CSE, AIET.
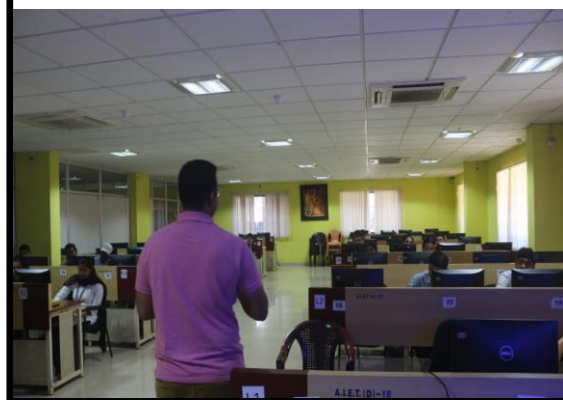
Workshops

Microcontroller and Embedded Systems

Resource Person: Dr. Mohan Kumar J, School of Information Sciences, Manipal Academy of Higher Education and Technical support Mr. Sriram, Manager, ESA Sales, Bangalore.

Alva's Institute of Engineering and Technology conducted two days Faculty Development Programme on "Microcontroller and Embedded Systems" for all external participants from various institutions (Teaching, non-teaching, research scholars) organized by Department of Computer Science and Engineering in Association with VTU Belagavi and CSI 24th and 25th Jan 2020. The FDP was inaugurated by Prof. Manjunath Kotari, H.O.D, Dept. CSE and Dr. Shivayobi B Ullagaddi, Special Officer VTU Belagavi and all The HODs of various departments and all staff members, student volunteers and all external participants from various institutes were also present during the inauguration function.

Virtual Lab Awareness Workshop

Resource person: The research scholars of NITK, Surathkal Ms. Swathi Shetty, Ms.Shresta, Ms. Anusha and Mr. Rohith Kushwaha

Department of Computer Science & Engineering organized a 2 days Workshop on "Virtual Lab Awareness" an Initiative of MHRD, Govt. of India on 8th & 9th Jan,2020. All the CSE faculty members were actively participated in usage of various virtual labs developed by IITs and NITs.

Objective of the workshop are: To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars. To enthuse students to conduct experiments by arousing their curiosity. To provide a complete Learning Management System around the Virtual Labs

Online Workshop on

Applications of Python programming in Data analytics and Machine Learning – Research Perspective

Department of Computer Science and Engineering in Association with CSI Bangalore and IIIT Allahabad has organized a Five days online workshop on "Applications of Python programming in Data analytics and Machine Learning – Research Perspective" from 15th June 2020 to 20 June 2020. The workshop was inaugurated by Dr. Manjunath Kothari, H.O.D, department of CSE. Also HODs of various departments , all staff members and Organizers were present during the inauguration function along with the resource persons Dr. S. Mohideen Badhusha/Professor,CSE and Dr. Mohammed Javed IIIT-A.

Dr. Manjunath Kothari, Head Department of CSE has given a brief information about internship programme and outcomes of this programme. Workshop have been conducted in google meet and 94 external participants and 120 circuit branch students were took benefit of this workshop

Objectives of the Online Workshop are:

It imparts a fundamental knowledge in Python required for Data Analytics and Machine Learning with Jupyter Notebook The practical programming exercises assigned amidst the lecture hours enhance the interest of solving problems in Data Analytics using python. To provide hands-on training sessions which offer a basic data structures in Python. To rovide hands-on training sessions which provides the knowledge of Data analytics using the Modules Pandas and Numpy. To provide hands-on training sessions which implement data structures, Data Munging, Manipulation and Exploratory Data Analysis using Pandas and NumpyIt finally imparts the knowledge of solving different Case-Studies of Data science project and Machine Learning Model using Python Libraries such as Pandas, Numpy, SkLearn and Matplotlib with Jupyter Notebook.

Internship Programme by IIIT, Allhabad

Applications of Python programming in Data analytics and Machine Learning

A Seven days Internship Programme on "Applications of Python programming in Data analytics and Machine Learning" conducted from 22nd Jan to 30th Jan,2020 for internal participants from circuit branch students organized by Department of Computer Science and Engineering in Association with IIIT Allahabad.

A 4 Weeks Internship Program on "Data Analytics & Machine Learning" was organized by department of Computer Science & Engineering in association with IIIT Allahabad from 31st Jan to 28th Feb,2020 for the pre- final year students of circuit branches. The inaugural function was on 31st Jan 2020 by Dr. Satish K Singh, Assistant Professor from IIIT Allahabad as the chief guest. The resource persons from the IIIT, Allahabad Dr.Mohammed Javed, Prof. Shekhar Verma ,Dr. Krishna Pratap Singh and Research Scholars were trained our students on various topics of Data Analytics and Machine Learning.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PLACEMENT NEWS(Jan-March-2020)

24*7

- Manvitha Rao
- Varsha H Shetty
- Syed Rabeya Aamir
- Hanishree M S
- Sourabh Rajeev Kakade
- Afrah Saleem
- Poojashree
- Charanraj N
- AnaghaIyengar S

DXC technology

- Manish B. Shriyan
- Imran Khan
- Nayan P Joshi
- Manikya

Heraizen Technologies

- Hanishree M S
- Deeksha D Poojary
- Manoj L.
- Pragathi

Sl.No	Name of the Online Certifications	Numbers
1.	Coursera	278
2.	Udemy	134
3.	CISCO	078
4.	VMWare	056
5.	Salesforce	123
6.	Mathwork	231
7.	AWS	087
8.	Uipath- RPA	298
9.	Google	102
10.	Alison	098
11.	Great Learning	146
12.	Wordpress	167
13.	IBM Cognitive Class	069
14.	TCS iON	175
15.	TCS Career Edge	045
16.	Shaw Academy	023
17.	Harvard University	033
18.	Oracle Academy	017

INSTITUTE VISION

"Transformative education by pursuing excellence in engineering and management through enhancing skills to meet the evolving needs of the community"

INSTITUTE MISSION

- *To bestow quality technical education to imbibe knowledge, creativity and ethos to students community.*
- *To inculcate the best engineering practices through transformative education.*
- *To develop a knowledgeable individual for a dynamic industrial scenario*
- *To inculcate research, entrepreneurial skills and human values in order to cater the needs of the society.*

PROGRAM OUTCOMES (PO'S)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, Engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10.Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11.Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES

A graduate of the Computer Science and Engineering Program will exhibit:

PSO1: Professional Skills: The ability to understand & implement the computer programs in the areas of Computer Architecture, System Software, Database Management Systems, Web Design, Multimedia and Computer Networking.

PSO2: Problem-Solving Skills: The ability to solve real-world problems by suitable mathematical model with strong technological concepts in rapidly growing arena of computer technology.

PSO3: Successful Career and Entrepreneurship: Knowledge in diverse areas of Software Engineering and Management & Entrepreneurship for IT Industry, conducive in cultivating skills for successful career development.

PROGRAM EDUCATIONAL OUTCOMES(PEOs)

PEO1: To provide students with fundamental strength in core disciplines of computer engineering to solve the problems of computing world

PEO2: To ensure that graduates conquer the difficulties of emerging adaptive technological changes.

PEO3: To prepare students for successful career in the industry of international standard.