Chrono Bytz

THE NEWSLETTER OF THE
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
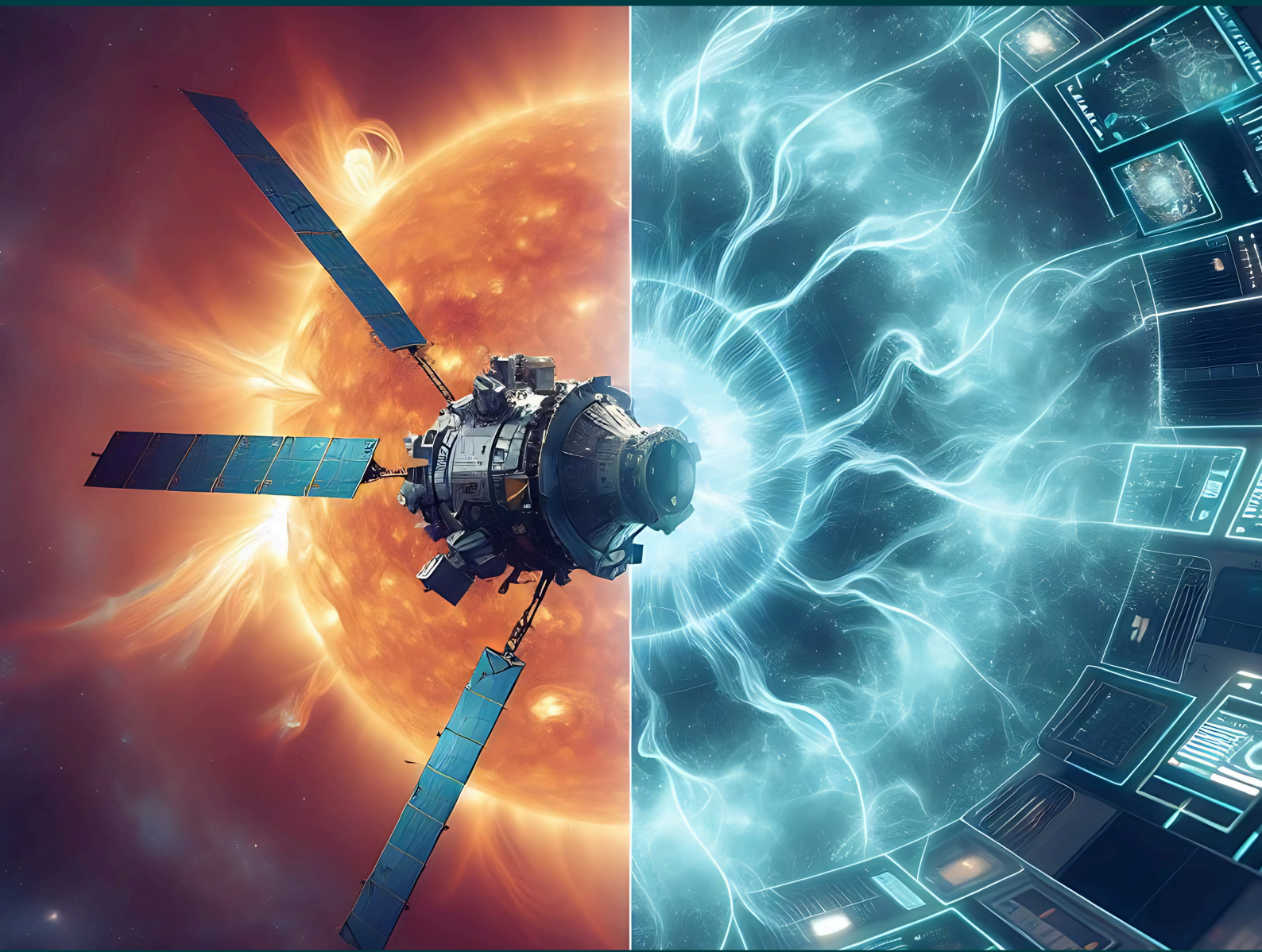
Be alone; that is when ideas are born.

- Dr. Nikola Tesla

**Chrono Bytz
CSE230910OSV01I02**

INSIDE THIS ISSUE :

Chrono BYTZ

ANNAMALAI UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Insights & Inspiration

The greatest enemy of knowledge
is not ignorance; it is the illusion
of Knowledge.

- Dr. Stephen W Hawking
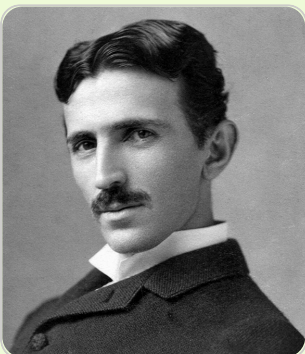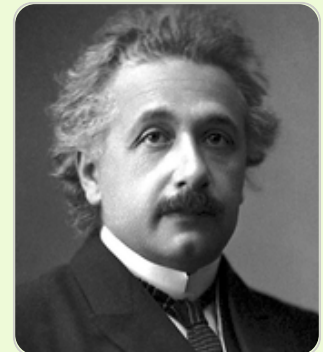
Ask the right questions and nature
will open the door to her secrets.

- Sir C. V. Raman

Two things are infinite: The Universe,
Human Stupidity and I'm not sure
about the universe.

- Dr. Albert Einstein

The action of even the smallest
creature leads to changes in the
entire world.

- Dr. Nikola Tesla

CONTENTS

ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering was established in 1984 to meet the increasing demand for skilled computer professionals.

- The department utilizes a Flexible Choice based Credit System and adopts a Student Centric Teaching Methodology.
- Several Associations and Clubs host academic events all year round to improve students' leadership and organizational abilities.
- Apart from academic endeavors, students engage in activities that foster service and teamwork, with the department's library holding over 7500 books.
- It features two advanced research laboratories equipped with NVIDIA GeForce RTX 3080 Graphics Cards for research in Speech, Image/Video Processing and Data Analytics.
- Additionally, there are six Computer Laboratories with 300 systems, an IoT Laboratory and three seminar halls equipped with ICT facilities for conferences, seminars and placement activities.

NATIONAL LEVEL WORKSHOP ON EMERGING TRENDS IN WEB APPLICATION

A Two Day National Level Hands-on Training Workshop on Emerging Trends in Web Application Development was conducted on 1st and 2nd September 2023 by the Staff Coordinators **Dr. A. Punitha,** Associate Professor, **Dr. S. Sathiya,** Assistant Professor, **Dr. V. Radhikarani**, Assistant Professor, **Dr. K. T. Meena Abarna**, Assistant Professor at **Phoenix'99 Hall**, Department of Computer Science and Engineering.

The Workshop Sessions handled by the Resource persons **Mr. Rajesh Kannan,** Assistant Professor, CBIT-Hyderabad and **Ms. A. Srilakshmi,** ETL Developer, USM-Hyderabad. The workshop started with an **Inaugural Address** by **Dr. C. Karthikeyan, Dean of the Faculty**, setting an inspiring tone. A **Keynote Address** by **Dr. Basker Senguttuvan, AVP at Cognizant,** shared insightful perspectives and wisdom with the audience.

Dr. R. Bhavani, *Head of the Department of Computer Science and Engineering,* welcomed the faculties, staffs and students by **Presidential Address** to the workshop. **Dr. V. Rathikarani,** Assistant Professor, extended warm welcome to the workshop participants. The session focused on hands-on training and project management principles such as planning, execution, monitoring, communication, teamwork and adaptability for successful project outcomes. The attendees left feeling motivated and well-prepared for project management responsibilities.

LINUX UNLEASHED: YOUR GATEWAY TO TECH FREEDOM

Hello all, when pondering operating systems for PCs, do you automatically link the term OS with "Windows" or "MacOS"? Have you ever explored other options beyond these two prominent choices in mainstream computing? Consider a system that provides power, productivity, flexibility, customization and notably is free. This is where GNU/Linux comes into play...
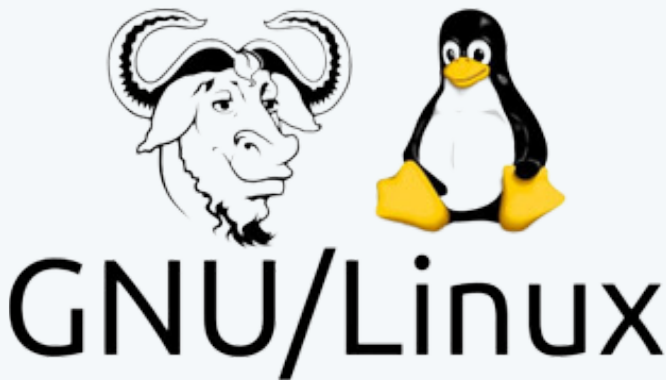
What is Linux ?

Linux or GNU/Linux is a family of open-source Unix-like operating systems based the Linux Kernel. Whoa, that's a lot of technical terms let me break it down for you.

GNU – It is stands for **"GNU's Not Unix"**. It is a collection of free software. By free software I mean really software that are so free you have access of their source code. These software are called FOSS (free and open source) software.

Open Source – These are software that are truly free software you can use, modify, redistribute with no legal hassles.

Unix – Unix is a family of multitasking, multi-user operating system that was developed from 1960s.

Originally developed by AT&T, Linux transitioned from closed to open source. Widely used in smartphones and by developers, it's the third most popular desktop OS. Known for tech freedom, it's recommended for developers and tech enthusiasts to try due to its advantages.

What can you get with Linux ?

As I said there are advantages and disadvantages using this. Let me list it out for you.

Pros

- **Light weight**: It doesn't have unnecessary software, so it is lightweight and fast
- **Terminal**: You get a amazing tool to work with Terminal. You will know why if you use it.
- **Customization:** Have you ever bored with how not customizable windows and mac are. Linux is not one of them. I mean, look at them, you can have these or even better.
- **FREE:** It is free no paid license, so does almost every software comes with it.

petak, 03 studenoga 2023

13° BROKEN CLOUDS

Local time in Samobor is 09:04. Today, temperature feels like 13°C with wind speed 1.54m/s and 95% humidity

CPU >> 1%   RAM >> 33%

No music played

Cons

- **Limited Choices:** Familiar proprietary software options might be scarce.
- **Greater Control:** Linux empowers you with more control, but requires care.
- **Steep Learning Curve:** Learning Linux takes effort, but rewards with deep OS knowledge.

Getting Started with Linux

Linux offers a free and customizable operating system, but it can be a different experience from Windows or Mac. Here's a quick guide to get you started, Trying it Out:

- **Virtual Machine:** Use software like VirtualBox or VMware to run Linux within your current OS. This is a safe way to experiment without affecting your main system.

Installation Options:

- **Dual Boot:** Install Linux alongside your existing OS, allowing you to choose which one to boot at startup.

Full Installation: Completely replace your current OS with Linux. Back up your data first!

Choosing a Distro:

- A distro, or Linux distribution, is a complete operating system built on the Linux kernel. There are many options, but most fall under two categories: Debian and Arch.
- **Debian-based:** Beginner-friendly, with Ubuntu being the most popular choice.
- **Arch-based:** For advanced users who enjoy customization.

Recommendations:

- **Beginners:** Start with Ubuntu or another Debian-based distro.
- **Advanced Users:** Consider Arch-based distros later.

The Adventure Begins! This is just the first step. Welcome to the exciting world of Linux! There's a lot to learn, but the journey can be rewarding.

By
Mr. R. Amirthanathan
Joint Secretary, CSI

TREE PLANTING EVENT IN CELEBRATION OF TEACHER'S DAY

The Annamalai University (FEAT), Department of Computer Science and Engineering, celebrated "Teachers' Day" on September 5, 2023, with a unique and environmentally conscious event titled as **"Planting Trees on Teachers' Day".** This event aimed to honor our educators and contribute to a greener future by planting trees in the University campus.

Participants, including the Head of the Department, Staff Advisors, Faculties and Students, actively took part in planting trees around the University campus. This symbolic act of nurturing new life underscored our commitment to environmental sustainability.

DID YOU KNOW

The first ever website, info.cern.ch, went live on August 6, 1991. It was dedicated to providing information about the World Wide Web project and how to use web browsers and servers.

" Most good programmers do programming not because they expect to get paid or get adulation by the public, but because it is fun to program. "

— **LINUS TORVALDS** —

ARTISTRY

BY
Ms. T. G. Swedha
B.E. (CSE) III Year

ENGINEERS' DAY CELEBRATION

The Institution of Engineers (India) - IE(I), Department of Computer Science and Engineering at Annamalai University celebrated Engineer's Day on September 15, 2023, at Phoenix'99 Hall to recognize engineers' contributions and inspire future generations.

WARNING: ENGINEERS MAY CAUSE SPONTANEOUS OUTBREAKS OF CREATIVITY

The event began with prayers, highlighting the importance of Engineer's Day and the impactful role of engineers in society.

Mr. R. Gowdham, the President of IE(I), greeted the esteemed guests warmly, with **Welcome Address** bringing enthusiasm to the event and establishing a positive atmosphere for the rest of the proceedings.

Keynote Address by Dr. V. Balasubramanian

Certificate Distribution

The Chief Guest **Dr. V. Balasubramanian**, *Professor and Director of the CEMAJOR Department of Manufacturing Engineering,* gave an inspiring **Keynote Address** at the Engineer's Day Celebration. He highlighted engineering advancements and the role of engineers in shaping the world.

Dr. R. Bhavani, Professor and Head of the Department of Computer Science and Engineering, delivered a motivating **Presidential Address,** emphasizing pride and purpose for the department. A presentation competition **"Innovative Ideas to Develop the Future India"** was held on September 14, 2023, where students presented their ideas enthusiastically.

These certificates were officially distributed during the Engineer's Day Celebration on September 15, 2023, symbolizing the acknowledgment of students' hard work and dedication.

Vote of Thanks by Mr. S. Keerthivasan

The Engineers Day event wrapped up successfully with a **Vote of Thanks** delivered by **Mr. S. Keerthivasan, Vice President of IE(I).** He expressed gratitude to everyone involved, including Staff Advisors, attendees, guests and participants.

கவிப்பேழை

வாழ்க்கை

ஏன் பிறந்ததோம் என்று எண்ணாதே ....
சாதிக்க பிறந்தோம் நாம் !!
ஏன் வாழ்கிறோம் என்று வாடாதே ....
வாழ்ந்து பார்ப்பதே புது அனுபவம் !!
துன்பங்களை கண்டு துவழாதே !!
இன்பங்களை கண்டு மகிழாதே !!
துன்பத்திற்கு பின் இன்பமும்..
இன்பத்திற்கு பின் துன்பமும்..
வருவதே வாழ்க்கையின் இயற்கை !!
வெற்றியை கண்டு ஆடாதே !!
தோல்வியை கண்டு ஓடாதே !!
தோல்வி தாண்டி வரும் ....
வெற்றிக்கனியை நீ ருசிப்பாய் !!
பிறர்சொல் கேட்காதே !!
பிறர் துணை தேடாதே !!
நீயே உனக்கு துணை..
நயவஞ்சகர்கள் வாழும் கூட்டத்தில்....
நல்லவர்களை கண்டு பழகிக்கொள் !!
நிமிர்ந்து நிற்க கற்றுக்கொள்!!
யாரும் நாம் நிமிர்ந்து நிற்க உதவுவதில்லை ....
பிறந்துவிட்டோம் என்று வாழாதே !!
சோதனைகளை சாதனைகளாய் மாற்றி....
வாழ்க்கை எனும் நெல்லிக்கனியை சுவைத்திடு !!!!!

ஆக்கம்
செ. ஜனனி
இளநிலை கணினி
அறிவியல் மற்றும் பொறியியல்
மூன்றாம் ஆண்டு

CENTENARY WOW (WEEKLY ONE WORKSHOP)

Celebrate the Centenary WoW with *Padmashri Dr. Mylswamy Annadurai* on September 21, 2023, during the at GJR Hall. Learn from his expertise and experience in the *Chandrayaan I* Mission.

RESONATE AND RISE : MASTERFUL RESUME BLUEPRINT 1.0

On September 22, 2023, **The Institution of Engineers (india) - IE(I),** Department of Computer Science and Engineering at Annamalai University conducted the **Student Development Programme '24 Phase-1,** titled **"Resonate & Rise Masterful Resume Blueprint 1.0."**

Mr. Meenakshisundareswaran Ravichandran, a **Full Stack Developer at Amazescodes Pvt Ltd**, was the guest speaker for the event. The program aimed to provide valuable insights into crafting an effective resume and enhancing the employability of students.
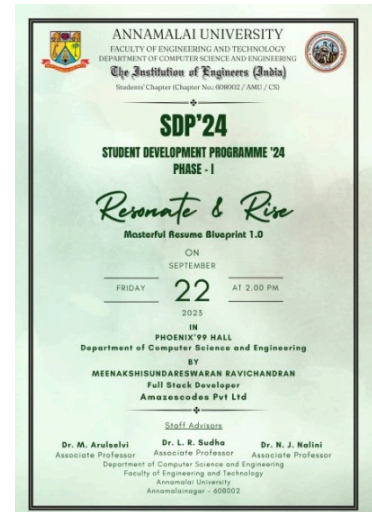

Event Invitation

The event featured registration, an introduction to the SDP'24 Phase-1 program and a resume crafting session by Mr. Meenakshisundareswaran. Attendees engaged in an interactive workshop to enhance their resumes with personalized guidance and feedback. A Q&A session provided further insights on resume building and career development.

The Student Development Programme '24 Phase-1, Resonate & Rise Masterful Resume Blueprint 1.0 was a highly informative and beneficial event. It empowered students with the knowledge and skills needed to create compelling resumes that would set them apart in the competitive job market. The presence of Mr. Meenakshisundareswaran, an industry expert, added significant value to the program and his guidance will undoubtedly benefit the career aspirations of the attendees.
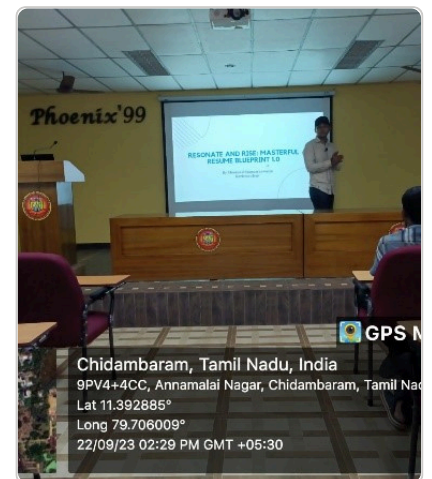
TIPS AND TRICKS

- **Target your resume:** Tailor it like a heat-seeking missile to each job description.
- **Focus on achievements**: Show results, not just responsibilities. Numbers impress!
- **Keep it concise:** One or two pages, recruiter time is precious!
- **Readability is king:** Clear font, format and bullet points for easy scannability.
- **Quantify your impact:** Numbers showcase the size of your wins!
- **Keywords are key:** Sprinkle them in, but avoid keyword stuffing.

RESUME
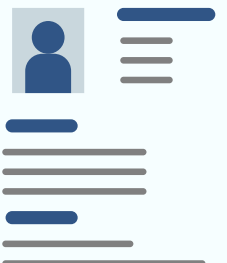
THE BATTLEGROUND OF MOBILE DEVELOPMENT: ANDROID VS. IOS

Mobile applications are essential in today's tech world, with businesses facing the choice between Android and iOS development. This decision impacts how they connect with their audience. Understanding the nuances of each platform helps in making an informed choice aligned with business goals.

Unveiling the Titans: Android and iOS

- **Android:** Developed by Google, open-source, offers flexibility and customization for various devices.
- **iOS**: Apple's proprietary system for iPhones and iPads, known for user-friendliness and strict App Store quality control.

Android vs iOS Development Landscape:

- **Programming Languages:** Android uses Java and Kotlin, iOS uses Swift. Swift is more concise.
- **Development Tools:** Android Studio for Android, Xcode for iOS (exclusive to Mac, adding cost).
- **Fragmentation vs. Homogeneity:** Android faces device fragmentation, iOS benefits from Apple's control over hardware and software.

The Battlefield: Weighing the Pros and Cons

🤖 Pros:

- **Larger Market Reach:** Captures a wider audience due to the vast number of Android devices.
- **Cost-Effective Development:** Open-source nature and lower development costs.
- **Customization and Flexibility:** Offers greater freedom for developers.

🤖 Cons:

- *Fragmentation Challenges*: Requires broader compatibility testing due to device and OS variations.
- *Security Concerns:* Increased security vulnerabilities due to the open-source nature.
- *App Approval Process:* App Store approval necessary, though less strict than iOS.

🍎 Pros:

- *Faster Development Time:* Streamlined development process and fewer compatibility concerns can lead to quicker app creation.
- *Higher Revenue Potential*: iOS users tend to spend more on apps compared to Android users, potentially leading to better monetization.
- *Stricter Quality Control:* Stringent App Store approval process ensures a high-quality user experience.

🍎 Cons:

- *Limited Market Reach*: Targets a smaller user base compared to Android.
- *Higher Development Costs:* Proprietary nature and high development costs.

- *Less Customization:* Developers have less freedom.

Choosing the right app development platform depends on your specific needs. Consider these factors:

- *Target Audience:* Who are you trying to reach?
- *Development Budget:* How much can you afford?
- *App Features:* How complex is your app?
- *Time to Market:* How quickly do you need it launched?

The best platform aligns with your unique goals, there's no one-size-fits

- *Cross-platform development* (e.g.,

Flutter, React Native) allows a single codebase for both Android and iOS. This can save time and resources, but may have drawbacks:
  - Lower performance
  - Limited access to native features

To succeed in the mobile app development world, grasp Android, iOS and cross-platform options. Tailor your choice to audience, budget and goals for a thriving app.
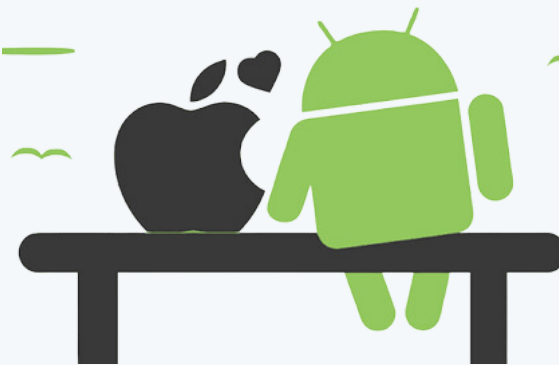
BY
Mr. S. Keerthivasan
Vice President, IE(I)

PYTHON WORKSHOP
FROM THEORY TO PRACTICE: HANDS-ON PYTHON WORKSHOP

The Python workshop conducted by **TECH CLUB** at the Faculty of Engineering and Technology, Annamalai University, from September 25, 2023 to November 2, 2023 aimed to provide participants with a comprehensive understanding of Python programming. The workshop covered a range of topics, starting with the basics and progressing to more advanced concepts were covered in this workshop, which is divided into five phases.

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Nadu 608001, India
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From Web to Space:

*" Python is used for a wide range of applications, including **web development, data science, machine learning and** even in **NASA projects!** "*

I. INTRODUCTION TO PYTHON PROGRAMMING (SEPT 25, 2023)

- Importance of Python in the tech industry
- Installation guide for Python and Visual Studio Code (VSCode)
- Introduction to pip (Python package manager)
- Overview of Jupyter Notebook for interactive coding.

INSTRUCTORS:

- *Mr. R. Gowdham,*
- *Mr. P. Muthupandi,*
- *Mr. S. Jeya Prakash,*
- *Mr. M. T. Ravi Prakasham.*

II. CORE PYTHON CONCEPTS (SEPT 26 - OCT 30, 2023)

- Understanding variables, their types and naming conventions.
- Control Flow Structures: if/elif/else statements, for and while loops (with examples and exercises).
- Introduction to Functions, including creation, parameters and return values with hands-on practice.
- Exploration of Data Structures: Lists, Tuples, Sets and Dictionaries with examples & exercises.

INSTRUCTORS:

- *Ms. A. Deva Dharshini (Variables),*
- *Ms. G. L. Dhivya (Control Flow),*
- *Mr. V. Valliappan (Functions),*
- *Ms. J. V. Vishnu Priya (Collections).*

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III. Objected-Oriented Programming (OOP) (Oct 31 & Nov 1, 2023)

- Introduction to OOP principles
- Classes and objects as fundamental concepts
- In-depth exploration of constructors, attributes, and methods within classes.
- Understanding inheritance, polymorphism, and abstraction concepts (with practical examples)

Instructors:
- **Mr. S. Aravind (OOP-I)**
- **Mr. V. L. Ashik Jenly (OOP-II)**

IV. Advanced Topics (Nov 2, 2023)

- File handling: Techniques for reading from and writing to files
- Exception handling: Strategies for handling errors and exceptions effectively
- Modules: Overview and usage of Python modules for code organization

Instructor:
- **Mr. S. Keerthivasan**

V. Final Assessment (Nov 3, 2023)

DID YOU KNOW —

Snake in Many Skins:
There are various flavors of Python **CPython** (the most common), **Jython** (runs on Java), **IronPython (.NET)** and even **browser-based Brython!**

This workshop concluded with a final evaluation to assess participants' knowledge and proficiency in Python programming. This session allowed them to showcase the skills acquired throughout the workshop.

This Python workshop offered a comprehensive learning experience for participants. They gained hands-on experience with crucial Python concepts, establishing a strong foundation for further development in the language. The workshop's success is attributed to the dedication of the Tech Club members and the expertise of the instructors.

ARTISTRY

BY
Mr. S. Samjudah
B.E. (AI & ML) II Year

TRAINING & PLACEMENT ACTIVITIES

GAMING BASED PSYCHOMETRIC ANALYSIS

The Training and Placement Cell (TPC) arranged a training session on "*Gaming-based Psychometric Analysis*," led by **Dr. R. Neelakandan,** Professor, Department of Psychology, Annamalai University. The event took place on 01-09-2023 at GJR Hall, Faculty of Engineering and Technology, specifically for students who had applied for the Schneider Electric Private Limited Recruitment Drive. A total of one hundred students attended the session and gained valuable insights.

EMPLOYABILITY SKILL TRAINING PROGRAMME
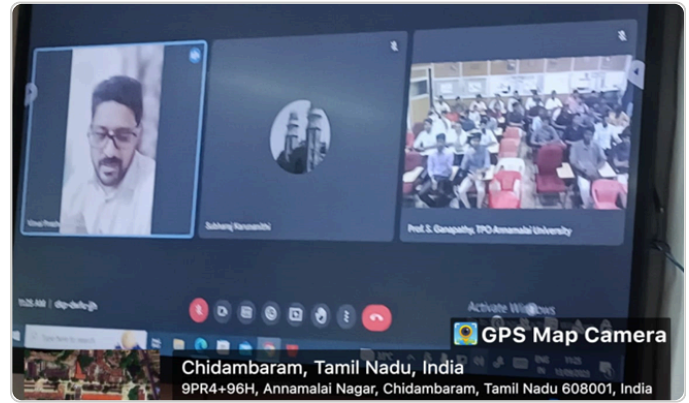
The Training and Placement Cell (TPC) hosted a day-long Employability Skill Training Programme titled "*Preparing for the Current Job Market.*" The session was conducted by **Dr. M.G. Vimal Prashanth, Vice President of Investment Banking – Finance Regulatory Projects at Barclays, Chennai,** on September 13, 2023, at the PAT Hall, TPC. Fifty students took part in the event and gained valuable insights.

DID YOU KNOW

CAPTCHA means ....

The Turing Test, which stands for *'Completely Automated Public Turing Test to Tell Computers and Humans Apart,'* is considered to have been successfully completed by the creators of the concept. This is evident as AI has already surpassed captchas long ago.
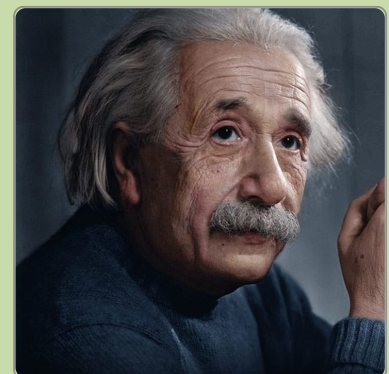
reCAPTCHA

Induction programme kick-start your placement preparation

Training and Placement Cell (TPC) organised an Induction Programme on **"Kick-Start Your Placement Preparation"** which was handled by **Dr. S. Mohan, Assistant Professor and Placement Coordinator of Computer Science and Engineering** on 15.09.2023 and 21.09.2023 at Phoenix Hall, Department of Computer Science and Engineering. First-year students from B.E. CSE (Data Science), B.E. Computer Science Engineering and Information Technology have participated and benefited.

Induction programme on developing communication skill

The Training and Placement Cell (TPC) arranged an Induction programme titled **"Enhancing Communication Skills"**. **Dr. V. Srinivasan, Professor of Information Technology,** conducted the session on 22.09.2023 at Phoenix Hall, Department of Computer Science and Engineering. The event was attended by first year students from B.E. in Computer Science and Engineering and Information Technology, who found it beneficial.

Unnati Foundation

The Training and Placement Cell (TPC) and UNNATI Foundation collaborated to host a **"Developing Employable Skills"** program by **Mr. S. Prasanth** at at CompScE'94 Hall, Department of Computer Science and Engineering, for final-year students from B.E-CSE, AI&ML and Data Science from September 25, 2023 to November 4, 2023.

❝ *Computers are incredibly fast, accurate and stupid. Human beings are incredibly slow, inaccurate and brilliant. Together they are powerful beyond imagination* ❞

— **Albert Einstein** —

REFLECTIONS OF PAST

"There's my little girl," her father said,
Looking at his not so little girl, feelings widespread.
A breeze of nostalgia hit her when she stepped into her childhood room, In the walls framed were photographs from the past,
Reminding her of her past self that didn't last.

She sees a frame, date on the back, April 2010,
Where she was playing on the beach with family, memories blend. And a snapshot captures a moment so dear, Where she received a prize, her father's eyes teary and clear.

She walks along the room, memories abound,
Finds her salangai, its jingles resound.
She found her books gathering dust, each leading her to a different world.

Yet amidst the memories, one scene stands clear,
Her sister's teasing, their laughter sincere.
Her mom stands proudly behind her,
Watching as she holds her first salary, a joyful stir.
She wasn't the same girl as before,
But a better version, her spirit soar.

In the embrace of nostalgia and love so true,
She finds herself, strong and a new.
With memories old and dreams so bright,
She steps forward, in life's dance, taking flight.
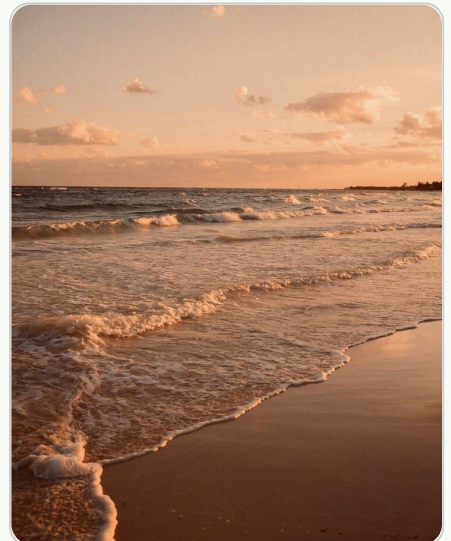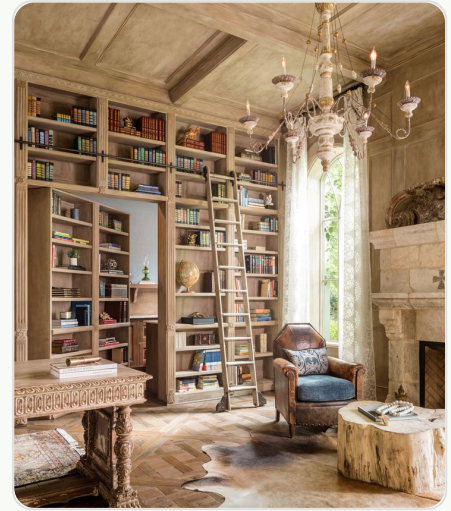
BY
**Ms. P. Narmatha Shree
B.E. (CSE) III Year**

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DEPARTMENT OF COMPUTER SCIENCE
AND ENGINEERING
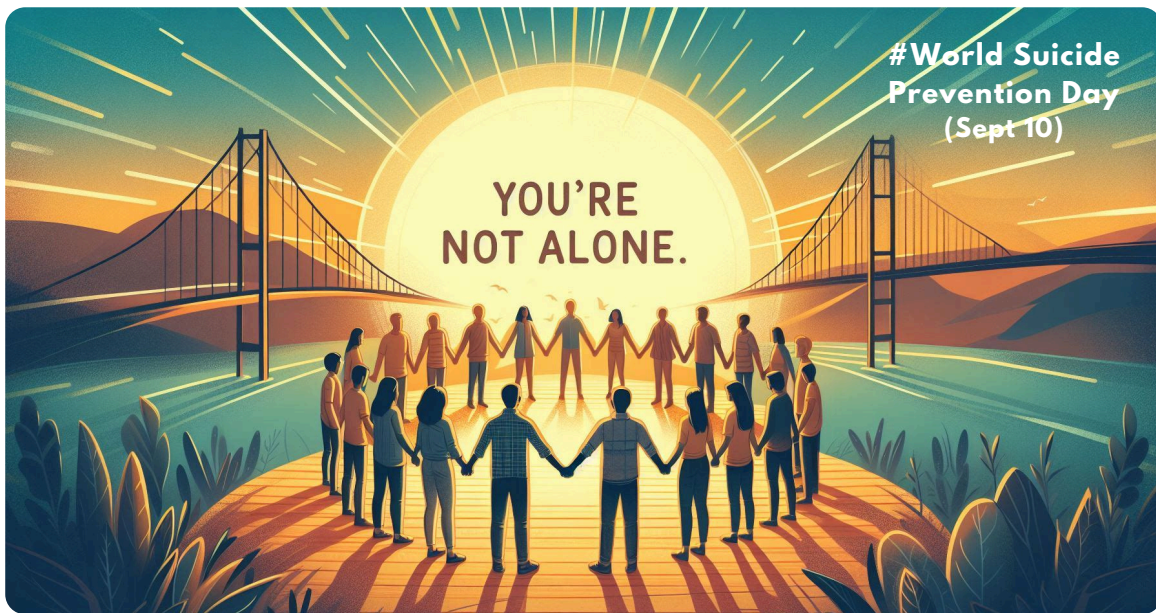
Emphasizes providing support and fostering connections for individuals dealing with suicidal ideation. The goal is to raise awareness about suicide prevention worldwide.

Department of Computer Science and Engineering

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Feedback related to the Newsletter can be sent to aucsenewsletter2023@gmail.com

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About the Cover:
Illustrated by **Mr. C. SANJAY**
Theme:
Exploring India's Aditya L1 Mission with AI. The illustration features the satellite orbiting the Sun, a holographic display on the opposite side, connected via a datastream symbolizing the significance of AI in the mission.