



T TECH **E** RA

STUDENTS TECHNICAL MAGAZINE



**DEPARTMENT OF IT (LBRCE)
(July-December)**

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FORE WORD

Department of Information Technology involves researching, designing, developing in current trends of computing systems. It gave me great satisfaction to know that department has come up with its own magazine, "Tech- Era". The way they presented it was unique, very creative and hope it will serve as a motivational and technological source for the students to exhibit their inherent talents and improve their skills. I would like to express my appreciation to whole team members of Tech-Era including faculty coordinators who really made it possible.



Dr. K. APPA RAO
PRINCIPAL

Congratulate the department of IT, LBRCE for bringing out the prestigious bi-annual magazine, Tech-Era. I am sure that the magazine will provide a platform for students and faculty members to expand their technical knowledge and sharpen their hidden literary talent and also strengthen all round development of the students. My congratulations to the editorial board who took the responsibility for the arduous task Dr. D. Ratna Kishore most effectively.



Dr. D. Ratna Kishore
Head & Professor, IT



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(An Autonomous Institution since 2010)

Approved by AICTE, New Delhi and Permanently Affiliated to JNTUK, Kakinada

L.B. Reddy Nagar, Mylavaram, NTR District, Andhra Pradesh - 521230



VISION

To emerge as one of the most preferred department for the budding engineers, aspiring to be successful IT professionals.

MISSION

- 1. To impart quality education with a well designed curriculum, consistent with industry requirements, that equips the student to face the career challenges.**
- 2. To extend the student's learning beyond the curriculum, through workshops on cutting edge technologies.**
- 3. To strengthen creativity and team spirit of the students by providing a conducive environment, preparing them to face the challenges posed by the IT industry.**
- 4. To develop life-long learning, ethics, moral values and spirit of service so as to contribute to society through technology.**

Program Educational Objectives (PEOs):

PEO1: Pursue a successful career in the area of Information Technology or its allied fields.

PEO2: Exhibit sound knowledge in the fundamentals of Information Technology and apply practical experience with programming techniques to solve real world problems.

PEO3: Demonstrate self-learning, life-long learning and work in teams on multidisciplinary projects.

PEO4: Understand the professional code of ethics and demonstrate ethical behaviour, effective communication, team work and leadership skills in their job.

Program Outcomes (POs):

PO1 - Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 - 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.

PO3 - 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.

PO4 - 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.

PO5 - 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.

PO6 - 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.

PO7 - 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.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 - 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.

PO11 - Project Management and Finance: Demonstrate knowledge and understanding of the engineering 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.

PO12 - 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 (PSOs):

PSO1: Organize, Analyze and Interpret the data to extract meaningful conclusions.

PSO2: Design, Implement and Evaluate a computer-based system to meet desired needs.

PSO3: Develop IT application services with the help of different current engineering tools.

About the Department:

The department of Information Technology was established in the year 1999 with an intake of 40 seats in UG program. Student intake is increased from 40 to 60 in the year of 2001, 120 students in the year 2019. It is the one of the most emerging programmes in LBRCE. As IT plays a remarkable role in almost all sectors, due to this the need of Information Technology Engineers increased who could gain knowledge in recent technologies. Our department is intended to train the students in elementary courses and cutting-edge technologies like Cloud Computing, Android application, Big data, Digital marketing, Social networking and Digital communication for solving many social and business problems. The department strives to be a centre for excellence, innovation and research with dedicated faculty, highly motivated students, state-of-the-art facilities and an innovative teaching-learning environment. The department was accredited by the National Board of Accreditation (NBA) for 3 years i.e 2008 and 2019 (Under Tier-I), valid up to Academic Year: 2021-22. The department has consistently demonstrated its potential for excellent research through sponsored research projects, consultancy work, high-quality scholarly publications, text books, open-source software and other professional contributions. Several research and consultancy projects are also underway as part of various MoUs with reputed industry and academic organizations. Our students have consistently achieved 100% placements and have demonstrated a high level of success in pursuing post graduates at top universities of the world as per QS World University Rankings, like Massachusetts Institute of Technology, Carnegie Mellon University, Yale, Columbia, Purdue and in the IITs & IIMs.

Our future Software Engineers, Entrepreneurs, and Researchers are encouraged with inventive approach. We have an excellent infrastructure and advanced labs to expedite our students. The department facilitates innovative practices such as student internships, mini and major projects to meet the requirements of employment, teaching-learning process and entrepreneurship. To upgrade the knowledge of students, department offers many tools and Software applications. The LBRCE-CSI students' chapter has been actively organizing events like Technical Seminars, Workshops and Guest lecturers.

ONE WEEK MASTERING PROBLEM SOLVING

USING C A Hands-on Approach

Month: July

Event Type: One Week Workshop

Date(s) : 03-07-2025 to 10-07-2025

Venue : CISCO lab, Second Floor ,First Block.

Resource Persons: Mrs.D.Sirisha, Trainee Software Engineer, SFS Solutions, Vijayawada, A.P.

Name of the coordinators :

1. Dr.B.SrinivasaRao, Prof, Dept. of IT
2. Mr.K.Lakshmi Devi, Assistant Professor, Dept. of IT
3. Mrs.P.Padmini, Assistant Professor, Dept. of IT

Objective of the event: This workshop aims to equip participants with the skills to analyze and solve computational problems through programming. It focuses on developing logical thinking, enhancing algorithmic skills, and improving coding proficiency through hands-on practice. Participants will also learn debugging and optimization techniques, engage in collaborative problem-solving, and prepare for coding competitions or technical interviews.

Description:

03 July 2025:

- Resource Person Mrs.D.Sirisha started workshop and discussed the Basics of computer fundamentals Levels of languages and translators, ASCII code and numbering system format, Conversions of decimal , octal, hexa decimal, algorithms and flow charts.

Day1: Introduction Session with Basics of C

- Basic Fundamentals of C
- Levels of Languages:
 - o Low Level Language
 - o High Level Language
 - o Assembly Level Language
- ASCII Code and Numbering System:
 - o Characters and Binary, Decimal, Octal, Hexa decimal Systems
 - o Number System Conversion
- Memory Management System in C
 - o Company specific MCQS Solving
 - o Bitwise Operations for Interviews
- Algorithm, Flowchart, Pseudo code (with examples)
- Basics of C Language (What, why, History, etc.....)
- Character Set in C (Most asked Executable Characters Explained)
- Tokens in C: Constants, Variables, Keywords, Data Types, Qualifiers

- New Format Specifier Concepts

Hacker Rank Practice: Registration+Solve2problems

Day2: Problem Solving on Operators

- Mini Project: Math Quiz Game in C
- Using Code:: Blocks:
 - o Create New Folder
 - o Start a New C Project (Ctrl+ Shift+N)
 - o Save(Ctrl +S)
- Basic Programs using Operators Examples (Basic Level, Intermediate Level, Tricky Level)

Hacker Rank Practice: Gained1Star, Level Up

Day 3: Conditional Statements

Conditional Programming Examples:

Data Flow and Looping:

- if, else-if ladder, nested if-else
- switch, nested switch
- while, for, do-while loops
- nested loops • infinite loops using break

Basic Level(1–5)

1. Positive or Negative Check
2. Even or Odd Check
3. Eligible to Vote Check
4. Greatest of Two Numbers
5. Vowel or Consonant Check Intermediate Level(6–15)

Intermediate Level(6–15)

6. Multiple of 5
7. Divisible by 3 and 7
8. Uppercase or Lowercase
9. Alphabet Check
10. Grade Calculation
11. Largest of Three Numbers
12. Leap Year Check
13. Three-Digit Number Check \
14. Same Last Digit Check
15. Positive, Negative, Zero Check Tricky

Logical Level (16–20)

16. Sum > 100 Check
17. Number Between 50 and 100
18. Special Character Check
19. Absolute Difference

Day4: Looping and Nested Loops Pattern Printing (21–35)

21. Right-Angled Triangle
22. Inverted Triangle
23. Square of Stars
24. Pyramid of Stars
25. Diamond Pattern
26. Number Triangle
27. Reverse Number Triangle
28. Alphabet Triangle

- 29. Floyd's Triangle
- 30. Pascal's Triangle
- 31. Hollow Square

Looping Conditional Programs:

Basic Looping(1–20)

- 1. Print 1 to 10
- 2. Print First N NaturalNumbers
- 3. PrintEvenNumbers1to N
- 4. PrintOddNumbers1to N
- 5. Reverse Print N to 1
- 6. Sum of First N Numbers
- 7. Factorial of a Number
- 8. Multiplication Table
- 9. Count Digits
- 10. Sum of Digits
- 11. Reverse a Number
- 12. Palindrome Check
- 13. Power of a Number (x^n)
- 14. Product of Digits
- 15. First N Even Numbers
- 16. First N Odd Numbers
- 17. Prime Number Check
- 18. GCD of TwoNumbers
- 19. LCM of Two Numbers

20. Fibonacci Series

CODE CHEF: Registration +Solve problems +MCQs...etc

Day4: Looping and Nested Loops

Pattern Printing (21–35)

21. Right-Angled Triangle

22. Inverted Triangle

23. Square of Stars

24. Pyramid of Stars

25. Diamond Pattern

26. Number Triangle

27. Reverse Number Triangle

28. Alphabet Triangle

29. Floyd's Triangle

30. Pascal's Triangle

31. Hollow Square

32. Hollow Right Triangle

33. X-Pattern

34. Butterfly Pattern

35. Number Diamond

Mathematical/Logical Loops(36–45)

36. Armstrong Number

37. Perfect Number

38. Strong Number

39. Primes in Range

40. Smallest Divisor

41. Sum of Factorials

42. Sum of Reciprocals

43. Harshad Number

44. Prime Digits Count

45. Automorphic Number

Tricky Loop Questions(46–50)

46. Swap First and Last Digit

47. Binary to Decimal

48. Decimal to Binary

49. HCF& LCM without Functions

50. Sum of Alternate Digits

Story-Based Logical Question (Company Specific):

- Check Armstrong-like Magical Number (Sum of Cubes=Number)

Hacker Rank Practice: Levels Up

• Day5: Math and random Function, Strings and Character Functions

Math Function: pow(), sqrt(), fabs()....Etc

Random Function: rand(), srand()

Time function: time()...etc

String Functions Overview(<string.h>):

- strlen(), strcpy(), strcat(), strcmp(), strchr(), strstr(), strncpy(), strncat(), strncmp()

Character Functions (<ctype.h>):

- is alpha(), is digit(), is upper(), is lower(), to upper(), to lower(), isalnum(), is space(), is punct()

Assignments:

Character Function Questions (Beginner to Advanced)

- Alphabet Check
- Digit Check
- Upper/Lower Check
- Case Conversion

Password Validation

- Custom to upper/to lower
- Remove Non-Alphabetic Characters
- Caesar Cipher
- Identifier Validation

String Function Questions

- Length, Copy, Concatenate, Compare
- Reverse String, Palindrome
- Vowel/ Consonant Count
- Word Count
- Remove White Spaces
- Frequency Count

Tokenize with strtok()

- Highest Frequency Character

Mini Project: Password Strength Meter

Hacker Rank Practice: Levels

UPDay6: Arrays and Searching Elements

Memory Representation of Arrays

- Array Declaration & Initialization

- 1D,2D, Multi-dimensional Arrays
- Linear & Binary Search
- Advantages and Disadvantages

1D Array Problems (15 Questions)

- Input/Output, Sum, Average, Max/Min
- Even/Odd Counts, Reverse, Search
- Second Largest, Positive/ Negative Counts
- Sort Ascending/Descending
- Merge Arrays, Remove Duplicates

Intermediate (1D & 2D) Problems (20 Questions)

- Binary Search
- Rotate Arrays
- Median Calculation
- Palindrome Array
- Even-Odd Separation
- Common Elements
- Matrix Operations: Sum, Transpose, Addition, Multiplication

Spiral Print, Saddle Point, Wave Print

Day 7: Sorting and Functions

- Sorting Techniques:
 - o Bubble Sort
 - o Selection Sort
 - o Insertion Sort
 - o Quick Sort

- o Merge Sort

- Functions:

- o What is function? Why? Characteristics?

- o Types of functions

- Built-in Functions

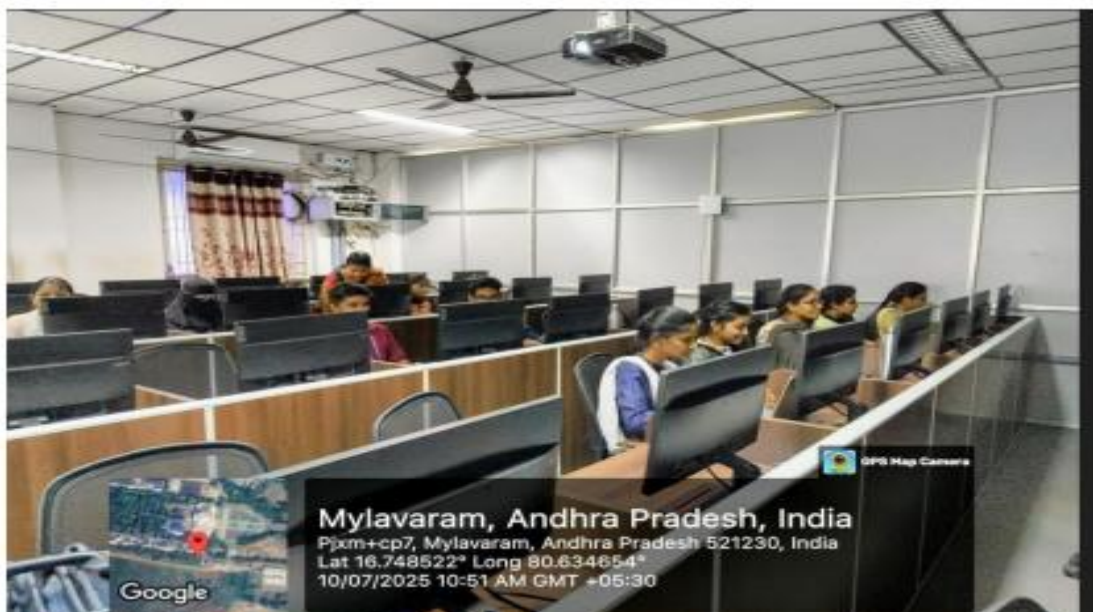
- User defined functions

- Function definition and calling

- o Recursion

- Example Programs (Basic level, intermediate Level, Tricky Level)

Hacker rank Practice: LevelsUp+4 start







Six Days Workshop on “User Interface Design Using Flutter

Month : July

Type of Event: Workshop

Date/ Duration: 21-07-2025 to 26-7-2025 / 06 Days

Resource Person(s): Mr. Raghuveer M, Senior Full stack Trainer, DATA VALLEY

Name Of Coordinators: Mrs. D. Vijaya Sree, Dept of IT Mr. Rajasekhar, Dept of IT Mr. Vijay Kumar, Dept of IT

Objective of the event: The Department of Information Technology, LBRCE, has organized a User Interface Design Using Flutter for a duration of 6 days i.e., from 21-07-2025 to 26-7-2025 The Third-year students are the target audience.

The main objective of this event is

- Implement Flutter Widgets and Layouts effectively to construct user interfaces.
- Design and develop responsive UI that adapts seamlessly to various screen sizes and orientations.
- Navigate between different screens within a Flutter application using various routing mechanisms.
- Understand and apply state management techniques for building dynamic and scalable applications.
- Create and customize widgets for specific UI elements, enhancing application aesthetics and functionality through themes.
- Incorporate animations to enrich user experience and fetch and display data from external APIs.
- Write unit tests for UI components and utilize Flutter's debugging tools to identify and resolve issues efficiently.

The program was inaugurated by Dr. K. Appa Rao, principal, LBRCE Dr. D. Ratna Kishore, HOD, Dept. of IT and Dr. S. Naganjaneyulu, Dept. of IT, LBRCE. The core objective of a Flutter workshop is to equip participants with the essential knowledge and hands-on skills required to build cross-platform mobile applications using Flutter and Dart. Which are attended by Third-year students.

Description :

Schedule of the event: Day wise schedule was given below and each and every day the related concepts are applied through conducting practical implementation sessions.

Day 1: Flutter Fundamentals & UI Basics

Objective: To set up the Flutter development environment and gain a foundational understanding of Dart programming and basic Flutter widgets and layout structures.

- Introduction to Flutter & Dart
- What is Flutter? Why Flutter?
- Overview of Dart programming language.
- Setting up Flutter and Dart SDK
- Dart Language Basics
- Introduction to Flutter Widgets
- Row and Column Layouts
- Stack Layouts & Widget Nesting
- Practical Application & Q&A

Day 2: Advanced Layouts & Responsiveness

Objective: To master advanced layout techniques and implement responsive UI designs that adapt to various screen sizes.

- Expanded and Flexible Widgets
- Padding, Align, and Center Widgets
- Introduction to Responsive UI
- Implementing Media Queries
- Breakpoints and LayoutBuilder
- Responsive Design Best Practices & Q&A

Day 3: Navigation & State Management Introduction

Objective: To implement navigation between screens and understand the fundamentals of state management in Flutter.

- Basic Navigation with Navigator
- Passing Data Between Screens
- Named Routes
- Route Generation & On Generate Route
- Introduction to State Management
- Basic Provider State Management
- Advanced Provider Concepts
- State Management Best Practices & Alternatives

Day 4: State Management Deep Dive, Customization, Forms

Objective: To delve deeper into advanced state management techniques using Provider and learn to create custom widgets and apply theming and to design and implement interactive forms with validation

- Creating Custom Widgets
- Custom Widget with State
- Introduction to Theming
- Advanced Theming & Custom Styles
- Basic Form Elements
- Form Validation
- Form Widget and Global Key

Day 5: Data Interaction, Animations, Data Fetching &

Debugging

Objective: To add dynamic animations to UI elements, fetch data from external APIs, and learn effective debugging and testing strategies and learn how to interact with local data.

- Handling User Input & Focus
- Introduction to Local Data Storage
- Practical shared preferences
- Basic Animations
- Different Types of Animations
- Fetching Data from REST API
- Displaying Fetched Data
- Unit Testing UI Components
- Debugging & Performance Tool

Day 6: Hackathon

Objective: To encourage participants to apply Flutter and Dart skills to build innovative, functional, and responsive mobile applications within a limited time, fostering creativity, collaboration, and practical problem-solving.

Inauguration pictures of workshop:

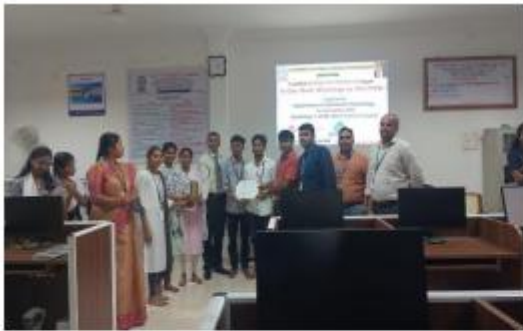


Conclusion

This 6-day intensive Flutter workshop provides a solid foundation for building robust and engaging mobile applications. By combining theoretical knowledge with hands-on experiments, participants will gain practical skills and confidence in their Flutter development journey. The schedule is designed to maximize learning within the given timeframe, ensuring coverage of all essential concepts and experiments. Further exploration of advanced topics and continuous practice are encouraged for continued growth in Flutter development.

Hackathon and Validatory pictures of workshop:





Photographs and Press clippings:



Mylavaram, Andhra Pradesh, India
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21/07/2025 10:01 AM GMT +05:30



Mylavaram, Andhra Pradesh, India
Place+cc: Mylavaram, Andhra Pradesh 521230, India
Lat 16.74991° Long 80.633702°
21/07/2025 09:59 AM GMT +05:30



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Lat 16.749918° Long 80.633703°
21/07/2025 09:54 AM GMT +05:30

**ఐ.టి విభాగం
ఆధ్వర్యంలో 'ఫ్లటర్ ఫ్రేమ్ వర్క్'**

ఏడు రోజులు పాటు విద్యార్థులకు ట్రైనింగ్



ఫైనల్ రౌండ్ 21 (ఫైనల్ మ్యాచ్)

స్థానిక ఐటిఐ కాలనీస్ ఇంజనీరింగ్ కళాశాల లో ఆధ్వర్యంలో టెక్నాలజీ విభాగం ఆధ్వర్యంలో, శ్రీశైల సచివశ్రీల విద్యార్థులకు " ఫ్లటర్ ఫ్రేమ్ వర్క్ " పై దారు రోజుల పాటు 'ఫ్లటర్ ఫ్రేమ్' ను నిర్వహించబడ్డాయి . ఈ పర్వోత్సవం, యువ . రమణీ , ట్రైనింగ్ , రోజువారీ రోజువారీ పర్వోత్సవం . ఈ సందర్భంగా అయిన మాజీ మాజీ విద్యార్థులకు ఫ్లటర్ వార్తా అంశాలు ముందు ఉపన్యసించి ఉపన్యసించి యువకులకు రూపొందించబడ్డాయి. వీరి వంటి బుచ్చి ఇంటిగ్రేట్ చేయడం, పోల్ రోల్డ్ వార్తా వేగంగా రోల్డ్ మాజీలు చేయడం, రిస్ యూజ్ డిజైన్ చేయడం పై అవగాహన కల్పించారు. ఈ వారు రోజుల వర్క్ షాప్ లో ఓన్ రోజువారీ అవగాహన మరియు ఉపన్యసించడం ఏలా రూపొందించాలి ప్రాజెక్ట్ కేసు అవగాహన అయితే, పూర్వ మొదటి యాక్స్ రెవల్యూషన్ పర్వోత్సవం పోల్డ్, ఫ్లటర్ ఉపన్యసించు ఏలా ఉపన్యసించు ప్రాజెక్ట్ అధికారంగా విద్యార్థులకు వివరించబడింది. ప్రాజెక్టు ప్రారంభం నుంచి డిజైనింగును వీరికి ఏలా చేయాలి వివరించారు. కళాశాల ప్రెస్టేజిల్ డా.కె.అర్చనాపై మాజీ మాజీలు అభివృద్ధి అవకాశాలుగా కాక, మాజీ మాజీలుగా పరిగణించాలి. ఫ్లటర్ ఫ్రేమ్, ఈ ఏంజీ డి పాయింట్స్ మరియు పూర్వోత్సవం లో పాల్గొనడానికి అవి ఓన్ రోజువారీ ఉన్నాయి. పూర్వోత్సవం విద్యార్థులకు క్రియేటివ్, కాంక్రీట్, యూజ్ డిజైన్ వంటి నైపుణ్యాలను పెంచుతాయి చెప్పారు. ఈ సందర్భంగా ఉపన్యసించిన డా.డి. రమణీ కీషోర్ మాజీ మాజీలు విద్యార్థులకు కేసుల అభివృద్ధి పరంగానే కాక, పరిశ్రమ వర్క్ లో కూడా ఉపన్యసించాలి. కాల్గోల్డ్ స్టాయిల్ అవసరమయ్యే విద్యార్థులకు నేర్పుకోవడానికి ఉపన్యసించాలి. సోల్స్ ను వివరించారు. పూర్వోత్సవం వంటి బుచ్చి వార్తా విద్యార్థులకు అందజేస్తే - వీరి ఆక్స్ కేసులకు నేర్పుకోవడానికి సామర్థ్యాన్ని అభివృద్ధి చేసేవారని, అన్నారు. ఈ కార్యక్రమంలో, యువ . యువ . కుమార్ లో ఆధ్వర్యంలో గా పూర్వోత్సవం.



Glimpse of the Event

ఈనాడు
epaper.eenadu.net

హాకథాన్ పోటీల్లో విద్యార్థుల ప్రతిభ



బహుమతులు అందుకున్న వారితో అధ్యాపకులు

మైలవరం, న్యూస్టుడే: స్థానిక లకిరెడ్డి బాలి రెడ్డి ఇంజనీరింగ్ కళాశాలలో ఐటీ విభాగం ఆధ్వర్యంలో నిర్వహించిన ఆరు రోజుల కార్యక్రమంలో భాగంగా శనివారం హాకథాన్ నిర్వహించారు. విద్యార్థులను 28 బృందాలుగా విభజించి నిర్వహించిన పోటీల్లో ఉత్తమమైన మొదటి మూడు ప్రాజెక్టుల బృందాలను విజేతలుగా ఎంపిక చేసి, బహుమతులు, జ్ఞాపికలు అందజేశారు. ఐటీ విభాగాధిపతి డి. రత్నకృష్ణారెడ్డి, కోఆర్డినేటర్లు విజయలక్ష్మి, రాజశేఖర్ తదితరులు పాల్గొన్నారు.

Date : 27/07/2025 EditionName : ANDHRA
PRADESH PageNo :

Press News



A Three-Day Workshop on Web Application Designing (YouTube Summarizer)-Built with AI” by L4G Solutions

Month: September

Dates: 03rd – 05th September 2025

Venue: Department of IT Laboratories and Smart Classroom

Participants: 140 students from III Year IT

Resource Persons:

- Mr. Gunakar Polaki, Software Engineer, L4G Solutions, Vijayawada.
- Mr. Polisetti Rakesh, Software Engineer, L4G Solutions, Vijayawada.

Name Of Coordinators:

1. Dr G.Rajendra, Assoc. Professor
2. Mrs K.Lakshmi Devi, Asst. Professor

Objective of the event: The key objectives of the workshop were:

- To introduce students to AI-based web application development concepts.
- To provide hands-on training in designing and developing a YouTube Summarizer application.
- To familiarize students with Natural Language Processing (NLP) techniques used in text summarization.
- To enhance students’ understanding of front-end and back-end integration.
- To expose students to industry-standard tools, APIs, and frameworks used in AI-driven applications.

- To improve students' problem-solving, coding, and deployment skills.



Description: The Three-Day Workshop on “Web Application Designing (YouTube Summarizer) – Built with AI” was meticulously planned with a blend of theoretical sessions, hands-on practical activities, and interactive discussions to ensure effective learning.

Day 1: Introduction to Web Application Development and AI Basics

- Inaugural session and overview of the workshop objectives and outcomes.
- Introduction to web application architecture, including front-end, back-end, and database components.
- Fundamentals of Artificial Intelligence and Natural Language Processing (NLP).
- Overview of YouTube Data APIs and content extraction techniques.

- Hands-on session on setting up the development environment and basic web page design.
- Interactive Q&A session to clarify student queries.

Day 2: AI-Based YouTube Summarization and Backend Development

- Detailed explanation of text preprocessing and summarization techniques.
- Demonstration of AI models and APIs used for generating video summaries.
- Practical session on backend development and API integration.
- Implementation of YouTube transcript extraction and summarization logic.
- Debugging techniques and performance optimization practices.
- Group-based activities to encourage collaborative learning.

Day 3: Front-End Integration, Testing, and Deployment

- Designing an interactive user interface (UI/UX) for the YouTube Summarizer application.
- Integration of front-end with AI-powered backend services.
- Application testing, validation, and error handling.
- Deployment of the web application on a local/cloud environment.
- Demonstration of completed projects by students.
- Feedback session and discussion on career opportunities and industry trends in AI and web development.

Outcomes of the Workshop

At the end of the three-day workshop, the following outcomes were achieved:

- Students gained practical knowledge of web application design and development.
- Participants developed a clear understanding of AI and NLP concepts applied in real time applications.
- Students successfully learned how to extract, process, and summarize YouTube video content using AI models.
- Enhanced skills in UI/UX design, API integration, and application deployment.
- Improved confidence in building end-to-end AI-powered web applications.
- The workshop motivated students to pursue projects, internships, and research in AI and web technologies.





A Two-Day Workshop on “JAVA Programming: From Fundamentals to Applications”

Month : September

Dates: 08th & 9th September 2025

Venue: Department of IT Laboratories and Smart Classroom

Participants: 130 students from II Year IT

Resource Persons:

- Mr. Venkatesh, Java Developer, SandSpace Technologies Pvt. Ltd.
- Mr. Chandra Mouli, Java Developer, SandSpace Technologies Pvt. Ltd.

Name Of Coordinators : 1. Dr G.Rajendra, Assoc. Professor
2. Mrs K.Lakshmi Devi, Asst. Professor

Introduction: The Department of Information Technology, Lakireddy Bali Reddy College of Engineering organized a three-day workshop titled “Java Programming: From Fundamentals to Applications” from

8th & 9th September 2025. The event aimed to strengthen the programming skills of students and provide them with hands-on experience in developing Java-based applications using modern tools and environments.

Objectives of the Workshop

- To provide a strong foundation in Java programming concepts.
- To familiarize students with Object-Oriented Programming principles.
- To impart practical knowledge through hands-on sessions on real-time Java applications.
- To bridge the gap between academic learning and industry expectations



Description:

Day 1.FN: Java Fundamentals

- Introduction to Java
- History, features, and platform independence (JVM).
- Setting up Java (JDK, IDEs like Eclipse/IntelliJ).
- Basic Syntax & Data Types

- Variables, operators, control statements (if-else, loops).
- Data types (primitive vs. non-primitive).
- OOP Concepts
 - Classes, objects, inheritance, polymorphism, encapsulation, abstraction.
 - Constructors, method overloading, overriding.
- Exception Handling
 - Try-catch, throw, throws, custom exceptions.
- Collections Framework
 - List, Set, Map, Iterator.

Day 1.AN: Intermediate Java

- File I/O & Serialization
 - Reading/writing files, Buffered Reader, File Input Stream.
 - Object serialization.
- Multithreading & Concurrency
 - Thread lifecycle, synchronization, Executor framework.
- Java 8+ Features
 - Lambda expressions, Stream API, Optional class.
- Networking Basics
 - Sockets, URL, HTTP requests ((link unavailable)).
- GUI Programming
 - Swing/AWT basics: Frames, panels, event handling.

Day 2:FN. Java Applications & Tools

- Database Connectivity (JDBC)
 - Connecting to MySQL/Oracle, CRUD operations.

- Building a Mini Project
 - Console-based app (e.g., Library Management, Calculator).
- Maven/Gradle
 - Dependency management, project build automation.
- Testing & Debugging
 - JUnit, logging (Log4j).
- Version Control (Git/GitHub)
 - Basic Git commands, collaboration workflows.

Day 2.AN: Advanced Topics

- Design Patterns
 - Singleton, Factory, Observer.
- JavaFX for Desktop Apps
 - UI development, FXML, CSS styling.
- Spring Boot Basics
 - REST APIs, dependency injection.
- Deployment
 - JAR/WAR files, Docker (optional).

Outcomes of the Workshop

- Participants gained practical exposure to Java programming and application development.
- Students enhanced their logical and problem-solving skills.
- The workshop motivated students to pursue Java-based projects and internships in software development.

- Faculty members also benefitted from the industry-aligned teaching techniques demonstrated by the trainers.



One day Guest Lecture on “Publishing with Precision: Strategies for successful Journal Submission”

Month : October

Event Type: A One day Guest Lecture

Date: 13th October

Time: 9:30 am to 4:00 pm

Mode: Offline

Organized by: Department of Information Technology

Resource Persons:

Dr. A.V.N Reddy, Associate Professor - VIT-AP

Coordinators: Dr. K. Phaneendra, Assoc. Professor, Dept of IT

Mr. M.Vijay Kumar, Sr Asst Prof Dept of IT

Target Audience: VIII Sem IT

Total No of students: 138

Introduction: The objective of the guest lecture “Publishing with Precision: Strategies for Successful Journal Submission” was to enhance participants’ understanding of the research publication process and scientific writing standards. The session aimed to guide students and faculty in preparing well-structured research manuscripts and selecting suitable journals for publication. It also focused on creating awareness about publication ethics, plagiarism prevention, and citation practices. The lecture-helped participants understand reviewer expectations and manuscript revision strategies.



Description :

A guest lecture titled “Publishing with Precision: Strategies for Successful Journal Submission” was organized to guide students and faculty members on effective research publication practices. The session was delivered by Dr. A.V.N Reddy, Associate Professor at VIT-AP. The speaker presented a comprehensive overview of the academic publishing ecosystem, including journal indexing systems, impact factors, manuscript structuring, and submission workflows. The lecture covered essential components of a research article such as abstract writing, literature review framing, methodology presentation, results interpretation, and conclusion drafting. Special emphasis was given to selecting suitable journals, understanding reviewer comments, and responding professionally during revision stages. The session included practical insights, real-world examples, and interactive discussions, allowing participants to clarify doubts related to publication ethics, plagiarism checks, and predatory journals.

4. Impact Analysis

The event had a significant academic and research-oriented impact on participants:

- Enhanced understanding of research paper organization and scientific writing techniques.
- Increased awareness about reputable journals and indexing databases such as Scopus and SCI.

- Improved knowledge of ethical research practices and plagiarism avoidance.
- Encouraged students to pursue research projects with publication goals.
- Strengthened faculty and student readiness for national and international journal submissions.
- Helped participants understand reviewer expectations and manuscript improvement strategies.

Overall, the lecture contributed to strengthening the research culture within the institution.

Conclusion

The guest lecture “Publishing with Precision: Strategies for Successful Journal Submission” was highly beneficial in enhancing participants’ knowledge of academic publishing and research communication. The expert guidance provided by Dr. A.V.N Reddy equipped attendees with essential skills required for preparing and submitting quality research manuscripts. The session successfully bridged the gap between research work and publication standards, inspiring students and faculty to contribute actively to scholarly research. Such initiatives play a vital role in promoting academic excellence and strengthening institutional research output.

