

An Autonomous Institution under VTU, Approved by AICTE  
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No.14, Raghuvanahalli, Kanakapura Road, Bengaluru - 560109

## Department of Computer and Communication Engineering



### Report for Technical Workshop on



### WEB DEVELOPMENT

**Date of conduction:** 22<sup>nd</sup> August t-24<sup>th</sup> August 2025

**Venue:** NB-SH-103, KSIT

**Time:** 09:45 AM to 4:00 PM

**Duration:** 3 Days

**Expert Details – with photo**

**Name:** Dhanush D.B.

**Designation:** Chief Operating Officer (COO)

**Organization:** Gonagoor Technologies

**Place:** Bangalore



#### Professional Profile – Dhanush D B

He is an entrepreneur, technology innovator, and space enthusiast actively contributing to India's private aerospace industry. As the Co-Founder and Director of Lakshya Space, He led a team dedicated to developing green propulsion systems for rockets and advanced amphibian drones for defence, in the work positions Lakshya Space at the forefront of cutting-edge deep-space technology in India.

#### His passion for engineering and education has led me to co-found several organizations:

- Code spectra Technologies: An IT startup delivering tailored software solutions to various industries.
- Astronautic Institute: An EdTech initiative focused on imparting hands-on learning in space sciences, including rocketry, CubeSat satellite technology, and telescope development.
- Lakshya Foundation India: An NGO based in Bangalore, supporting social causes and educational outreach.

#### Key Achievements:

- Led the design and successful launch of India's first 3D-printed sounding rocket.
- Pioneered CubeSat deployment via drone technology, offering new pathways for low-cost satellite launches.

- Hold nine patents in space technology, including advances in rocket propulsion and green propellant chemistry.
- Developed the “Ekalavya” Liquid Rocket Engine, aimed at increasing safety and efficiency in rocket launches.
- Built and managed diverse technical teams of over 150 members, driving projects from ideation to market readiness.
- Delivered training and mentorship to more than 2,000 students and young professionals, helping them acquire practical skills in rocketry, satellite design, and drone engineering.
- Honoured with the National MSME Award for Excellence in Product Innovation.

### **Educational and Community Outreach:**

He is committed to inspiring and equipping the next generation of scientists, engineers, and innovators. Through workshops, seminars, and outreach programs—often conducted at colleges and institutes—He shared insights into the world of aerospace, encouraged experimentation, and nurtured young talent.

The workshop was started at 9:30 AM with an inauguration program



**Fig 1: Inaugural function**

## Workshop Syllabus covered: Web Development

This workshop is designed to provide students with a comprehensive understanding of web development, covering both theoretical concepts and practical hands-on exercises. The workshop progresses from basic HTML/CSS to advanced topics like React, routing, API integration, and AI-assisted web development tools.

### 1. Basics of Web Development (Theoretical)

- Introduction to the Internet and the Web
  - How websites work – Client-Server architecture
- Frontend vs Backend development
- Web development technologies overview: HTML, CSS, JavaScript
- Understanding browsers and rendering engines • Difference between static and dynamic websites

### 2. HTML & CSS Practical – Single Page Application

- Setting up the development environment
  - HTML basics: elements, tags, attributes
  - CSS basics: selectors, properties, and values • CSS box model and positioning
- Creating a basic webpage layout
  - Adding styles for typography, colors, and spacing
- Building a single-page website using HTML & CSS

### 3. Introduction to React

- Overview of JavaScript ES6+ features used in React
- Setting up a React project using Create React App / Vite
- Understanding JSX and components
- Props and State management
- Event handling in React
- Creating a single-page application using React

### 4. Multiple Page Applications & Routing

- Introduction to React Router
- Creating multiple pages in React
- Navigating between pages
- Passing data between pages

### 5. API Integration

- Understanding REST APIs
- Fetching data using fetch() / axios
- Displaying API data in React components
- Handling errors and loading states

### 6. Basics of App Development vs Web Development

- Overview of mobile app development platforms (Android/iOS)
- Key differences in development approaches
- Responsive design for mobile compatibility

## 7. Advancements in Web Development

- Progressive Web Apps (PWAs)
- Single Page Applications (SPAs)
- Server-Side Rendering (SSR) & Static Site Generation (SSG)
- Web Assembly

## 8. Tool-Based Web Application Development

- Introduction to Wix
- Creating a website using Wix
- Introduction to AI-assisted web development tools
- Creating web pages using AI tools without coding

### WORKSHOP PHOTOS:

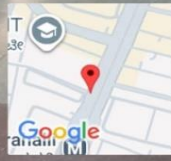




Bengaluru, Karnataka, India  
303, Layout, Raghuvanahalli, Bangalore City Municipal Corporation Layout,  
Bengaluru, Karnataka 560109, India  
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22/08/25 09:45 AM GMT +05:30



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303, Layout, Raghuvanahalli, Bangalore City Municipal Corporation Layout,  
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Bengaluru, Karnataka, India  
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GPS Map Camera

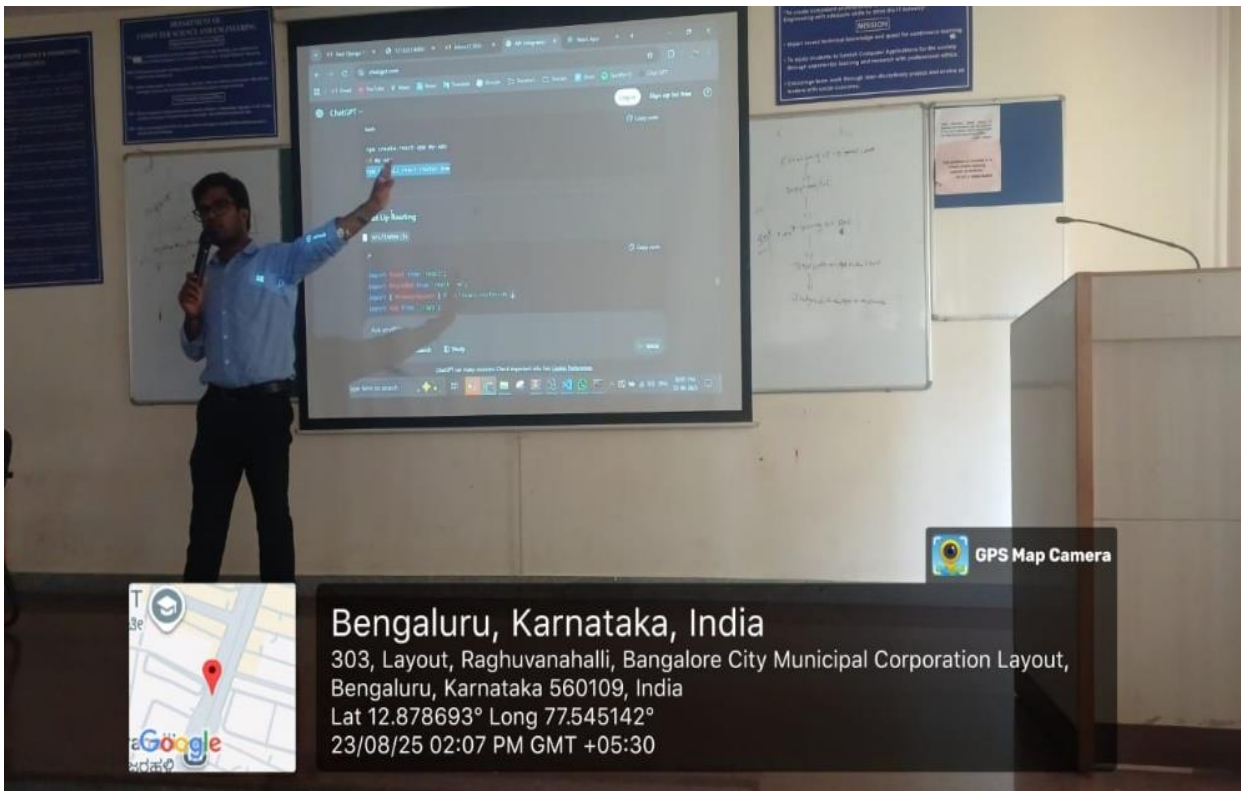


GPS Map Camera



### Bengaluru, Karnataka, India

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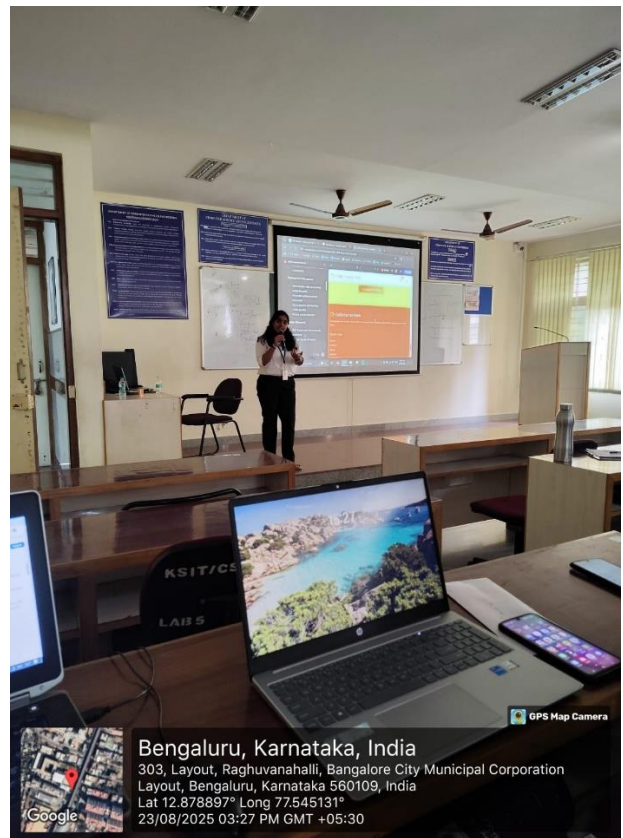
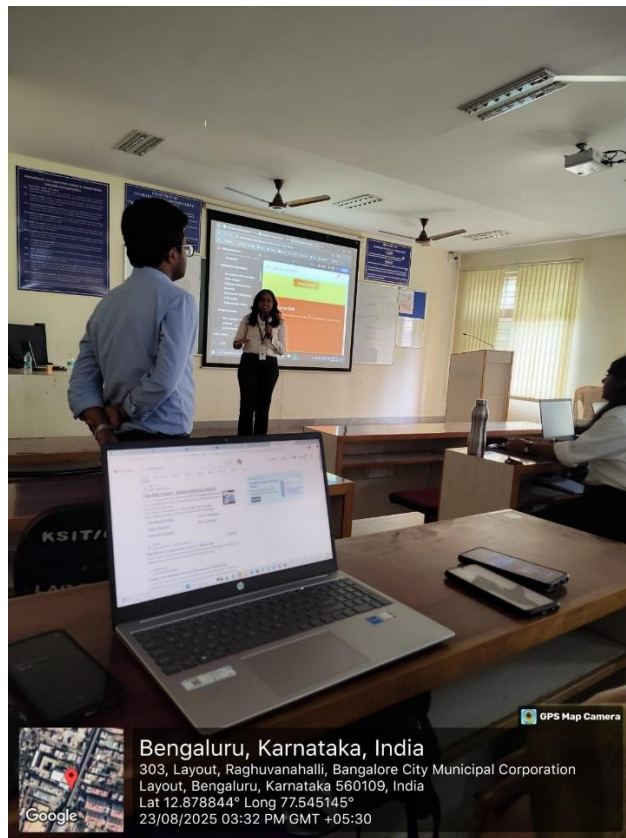


GPS Map Camera



### Bengaluru, Karnataka, India

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### **Objectives / key highlights:**

The objective of a technical workshop on WEB development is to provide participants with a comprehensive understanding of development technology, including its fundamental concepts, like application development for Client side using HTML, CSS, Java Script and Server side using React, JSX. enabling them to design and implement practical WEB development solutions through hands-on experience and exposure to current industry trends and best practices; essentially, to equip individuals with the knowledge and skills necessary to work effectively in the WEB domain.

### **Participant details:**

No. of participants in total:56

Faculty – Shashikala H. C. Asst Professor

--T. Naga Jyothi Asst Professor

### Outcomes/Benefits:

- **Practical Expertise** – Gain hands-on experience in working with HTML, CSS, JavaScript and Web development technologies.
- **Enhanced Problem-Solving Skills** – Learn to design, develop and debug the real-time applications.
- **WEB development Proficiency** – Develop a foundational understanding of WEB applications.
- **Project-Based Learning** – Acquire skills to build functional prototypes for innovative projects.
- **Career & Research Opportunities** – Open doors to opportunities in Client Server Implementation.

### Attachments:

1. Communication and workshop of Internet of Things.
2. Resource person Profile
3. Evaluation and Feedback.

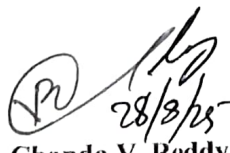
### CO/PO&PSO mapping -CCE


CO/PO& PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Event (Workshop)	-	02	02	-	02	02	-	-	02	02	-	02	02	02

**PSO1:** To understand and apply the concepts to design and develop solutions in Computer and communication Engineering.

**PSO2:** To use the inculcated experiential learning for research and develop inventive Solutions for social benefit while ensuring security with moral values and ethics.

  
Shashikala H. C.  
Event Coordinator

  
Dr. Chanda V. Reddy  
Head - CCE

  
Dr. Dilip Kumar K  
Principal, KSIT  
PRINCIPAL

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