

Department of Electronics and Communication Engineering Value Added Course on ELECTRIC VEHICLE TECHNOLOGY <u>Course Report</u>

A five-day Value-Added course on was organised by Department of Electronics and Communication Engineering from04/04/2021 to for sixth sem ECE students.

The resource person was Dr. C G RAMACHANDRA.

Day1: The event began with a formal inaugural function attended by the principal, HODs of various departments, HOD- ECE, faculties and students.

Program started with the prayer. Welcome address, Introduction about the course and the resource person was given by Ms. Deepthi, faculty, ECE. later the session was handed over to the resource person. Resource person gave introduction about the e-mobility adoption, electric vehicles, power train and non-power train components.

Day2: Session started with the introduction of Traction battery and testing. Resource person in detail explained about the battery technology, traction battery pack and battery testing.

Day3: Session began with understanding how a battery needs to be maintained. What are the different types of battery management systems are there. How it is employed to Electric vehicle.

Day4: A small discussion about the previous day's topics covered and then the resource person explained how to select a motor, what are the techniques for it in electric vehicles and the application of motor control.

Day:5 Session started with the architecture of electric vehicle, its design analysis and grid integration. Finally, session concluded with a good quote: "*Let's drive the change together*"

Participants shared their views about the course.

The course concluded with a brief note on few key takeaways.

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Coordinator

HOD, ECE

Principal



Course Outcomes

At the end of the course, students were able to:

- · Describe the fundamental principles and components of electric vehicles.
- · Compare and contrast different types of EV powertrains and their applications.
- · Evaluate various battery technologies used in electric vehicles.
- · Discuss the environmental and sustainability aspects of electric vehicles.

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Coordinator

HOD, ECE

Anokeputa Main Road, BANGALORE - 500 981 Principal

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Department of Computer Science and Engineering

A Report on Value-Added Course on "Public Speaking and Presentation Skill"

A five-day Value Added Course on **Public Speaking skill and Presentation Skill** was organised by the Department of Computer Science and Engineering from 28/3/2022 to 1/4/2022. for Computer Science and Engineering students in the Project Laboratory. by **Ms Anagha S**, Assistant Professor, Department of PG Studies & research in Psychology, Kateel Ashok Pai Memorial College. Clinical Psychologist, Manasa Nursing Home, Shimogga was the resource person.

Day 1: Foundations of Public Speaking Morning Session:

The event began with a formal inaugural function. **Dr. H N Thippeswamy, Principal CEC, Dr. Jyothi P, Vice Principal and HOD of CSE** were present during the inauguration. The program began by seeking the blessings of Almighty with invocation and lighting of lamp. Principal advised the students to utilize the benefits of the course completely. **Dr. Sowmya Naik** Welcomed the resource person and gave a course overview. Later the session was handed over to the speaker.

Session 1: Introduction to Public Speaking

Participants were introduced to the significance of public speaking, delving into understanding their audience and purpose. Strategies to overcome common fears and anxieties were discussed, fostering an environment of confidence.

Afternoon Session: Elements of Effective Communication

Verbal and non-verbal communication skills were explored, emphasizing the importance of body language and voice modulation. Participants practiced incorporating these elements to enhance their communication effectiveness.

Day 2: Crafting Compelling Messages

Morning Session: Structuring Your Speech

The day commenced with an exploration of speech structure, covering the introduction, body, and conclusion. Techniques for organizing content were shared, along with guidance on creating impactful openings and closings.

Afternoon Session: Message Clarity and Conciseness

Participants delved into crafting clear and concise messages, focusing on impactful word choice and eliminating unnecessary details. Practical exercises were conducted to refine their ability to deliver succinct messages





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Day 3: Engaging Your Audience

Morning Session:Captivating Presentation Techniques

The day centered around captivating presentation techniques, including effective use of visual aids and the art of storytelling. Participants engaged in interactive elements to refine their skills in keeping an audience's attention.

Afternoon Session: Handling Q&A Sessions

Strategies for confidently addressing questions and managing challenging queries were discussed. Participants practiced maintaining composure during Q&A sessions, ensuring a poised and responsive approach.

Day 4: Building Confidence and Overcoming Challenges

Morning Session:

Techniques for calming nerves, visualization, and positive self-talk were explored to build participants' self-confidence. Practical exercises were employed to reinforce these strategies and alleviate nervousness.

Afternoon Session: Dealing with Presentation Challenges

Participants delved into handling unexpected challenges, such as technical issues, and adapting presentations on the spot. The session focused on turning mistakes into opportunities for growth and resilience.



Day 5: Advanced Techniques and Individual Feedback

Morning Session: Advanced Public Speaking Techniques

The day's content revolved around advanced techniques like persuasion, influencing skills, and effective use of humor. Participants gained insights into adapting their approach to different audience types.

Afternoon Session: Individual Speech Presentations and Feedback

In the final session, participants delivered individual speeches, receiving constructive feedback from instructors and peers. This personalized feedback provided tailored tips for improvement, rounding off the course with practical application and growth.

This comprehensive 5-day public speaking and communication skills course provided participants with a transformative journey, instilling essential foundations on day one and progressively advancing to advanced techniques by the course's culmination. Through a combination of theory and hands-on practice, participants honed their ability to structure compelling messages, engage diverse audiences, and confidently navigate challenging Q&A sessions. The focus on building confidence and overcoming presentation challenges empowered individuals to embrace nervousness and transform setbacks into opportunities for growth. The course's finale, featuring individual speech presentations and personalized feedback, showcased the participants' remarkable progress, emphasizing the practical application of acquired skills. As a result, each participant departed with not only enhanced public speaking proficiency but also a newfound confidence to communicate effectively in various professional and personal settings.

Coordinator Mr. Girisha G A



Mr. Vivekavardhana Reddy HOD

Dr. H N Thippeswamy PRINCIPAL



Department of Computer Science and Engineering

Value Added Course on Public Speaking and Presentation Skills

Course Outcome

Participants will possess a solid theoretical foundation in public speaking principles, enhancing their overall understanding of effective communication.

- 1. Participants will demonstrate proficiency in advanced communication techniques, incorporating persuasion, influencing skills, and humour effectively.
- 2. Participants will exhibit increased confidence in public speaking and the ability to adapt to unexpected challenges, fostering resilience in professional settings.
- 3. Participants will be adept at applying theoretical knowledge in practical scenarios, honing their ability to communicate effectively in diverse situations.
- 4. Participants will develop a mindset for continuous improvement, utilizing personalized feedback to refine their communication skills over time.

Coordinator Mr. Girisha G A



Mr. Vivekavardhana Reddy HOD



Department of Computer Science and Engineering

A Report on Add-on Course "Blockchain Basics"

A five-day Add on Course on **Block Chain Basics** was organised by the Department of Computer Science and Engineering from 17/01/2022 to 21/01/2022 for Computer Science and Engineering students in the Project Laboratory. **Dr SWETHA.P**, Associate Professor, Computer Science and Engineering, Global Academy of Technology **Bangalore** was the resource person. The event was coordinated by Archana Bhat, Assistant Professor, CSE and Tejaswini, Assistant Professor, CSE.

Day 1: Understanding the Basics Morning Session:

The event began with a formal inaugural function. **Dr. H N Thippeswamy, Principal CEC and Mr. Vivekavardhana Reddy ,HOD of CSE** were present during the inauguration. The program began by seeking the blessings of Almighty with invocation and lighting of lamp. Principal advised the students to utilize the benefits of the course completely.

The topics covered on Day 1 are

This session provided an introduction to blockchain technology, covering key concepts such as blocks, chains, and decentralization. Participants gained insights into the evolution from centralized to decentralized systems.

Afternoon Session:

Participants delved into the world of cryptocurrencies, starting with an overview. The session covered Bitcoin as the pioneer, explored various altcoins and tokens, and discussed their roles in the blockchain ecosystem.

Day 2: How Blockchain Works

Morning Session: Blockchain Architecture

This session focused on the components of blockchain architecture, explaining consensus mechanisms like proof of work and proof of stake. Participants also learned about smart contracts and decentralized applications (DApps).

Afternoon Session: Mining and Validation

The second session covered the process of mining in blockchain, node validation, and the importance of consensus. It also touched upon forks and network upgrades in blockchain systems

Day 3: Ethereum and Smart Contracts

Morning Session:

Participants were introduced to Ethereum, exploring its key features, the native cryptocurrency Ether (ETH), and the Ethereum Virtual Machine (EVM).

Afternoon Session:

This session focused on the concept of smart contracts, explaining how to write and deploy them. Practical use cases for smart contracts were discussed to showcase their real-world applications.





FIG 3: RESOURCE PERSON ADDRESSING THE



FIG 4: RESOURCE PERSON ADDRESSING THE STAKE HOLDERS



Day 4: Blockchain Security

Morning Session:

Day 4 started with a session on the importance of security in blockchain. It covered common threats and vulnerabilities, emphasizing the role of private and public key cryptography in securing transactions.

Afternoon Session:

The second session discussed best practices for smart contract development, including auditing and testing. Participants learned how to ensure the security of their blockchain applications.

Day 5: Blockchain in Industry and Future Trends

Morning Session:

This session explored various use cases of blockchain in different industries, including finance, healthcare, and supply chain. Real-world examples and case studies were presented to illustrate the practical applications of blockchain technology.

Afternoon Session:

Day 5 concluded with a session on future trends in blockchain. It covered scalability solutions, interoperability between blockchains, and emerging trends like non-fungible tokens (NFTs) and the future of digital assets. The final session provided an opportunity for participants to recap the course, ask questions, and engage in open discussions. It aimed to reinforce key concepts and allowed for a deeper understanding of blockchain technology.

Throughout this 5-day blockchain basics course, participants gained a comprehensive understanding of the foundational concepts, practical applications, and security considerations within the blockchain ecosystem. The journey began with an exploration of the core principles, transitioned to hands-on sessions on Ethereum and smart contracts, delved into security protocols, and concluded by examining real-world use cases and emerging trends. With a focus on interactive learning and discussions, attendees left equipped with the knowledge to navigate the dynamic landscape of blockchain technology.

Coordinator Mr Ramesh B



Mr. Vivekavardhana Reddy HOD

Dr. H N Thippeswamy PRINCIPAL



Department of Computer Science and Engineering Add-on Course "Blockchain Basics"

Course Outcomes

- 1. Comprehensive Knowledge of Blockchain Technology: Participants will have a thorough understanding of blockchain technology and its foundational concepts.
- 2. Proficiency in Blockchain Architecture: Participants will be proficient in blockchain architecture, consensus mechanisms, and mining processes.
- 3. Capability to Develop and Deploy Smart Contracts: Participants will be able to write, deploy, and utilize smart contracts on the Ethereum platform.
- 4. Enhanced Security Awareness and Practices: Participants will be knowledgeable about blockchain security threats, vulnerabilities, and best practices.
- 5. Insight into Industry Applications and Trends: Participants will gain insight into various industry applications of blockchain technology and future trends.

Coordinator Mr Ramesh B

Mr. Vivekavardhana Reddy HOD



Department of Basic Science

Report on Value Added course "Entrepreneurship and innovation"

A five-day Value-Added Course on Entrepreneurship and innovation was organised by the Department of Basic Science from 14th to 18th Dec 2021 for First year students in the seminar hall by **Dr. Mohammed Mathenulla Shariff.** The schedule for a five-day Value-Added Course on Entrepreneurship and innovation for Personal & Professional Productivity covered key topics.

Day 1: Morning Session:

The event began with a formal inaugural function. Principal CEC and HOD's of Basic Science were present during the inauguration. The program began by seeking the blessings of Almighty with invocation and lighting of lamp. Principal advised the students to utilize the benefits of the course completely. Mrs. Sunitha N Welcomed the resource person and gave a course overview. Later the session was handed over to the speaker.

The first day introduces students to the fundamentals of entrepreneurship and its significant role in economic growth. Through lectures and discussions, students explore how new businesses stimulate economic activity and create wealth. The day includes brainstorming sessions for business ideas and insights from a local entrepreneur, providing a foundational understanding of entrepreneurship's impact on the economy.

Day 2:

On the second day, the focus shifts to how entrepreneurship generates job opportunities and drives market competition. Students learn about the employment impact of new ventures and the strategies businesses use to remain competitive. Activities include developing business models and a panel discussion with industry experts, concluding with a guest speaker discussing the importance of HR in startups.

Day 3:

Day three emphasizes the role of innovation in addressing societal challenges. Students delve into various types of innovation and their significance in solving pressing issues. Through group activities and design thinking workshops, they identify societal needs and propose innovative solutions. The day features a social entrepreneur guest speaker who shares experiences of creating impactful solutions.

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Day 4:

The fourth day explores how technological advancements enhance productivity and quality of life. Students learn about the integration of technology in businesses and analyze case studies of tech-driven startups. Workshops provide hands-on experience in applying technology to business ideas, complemented by insights from a tech entrepreneur on the opportunities and challenges in tech entrepreneurship.

Day 5:

The final day focuses on fostering a culture of risk-taking, resilience, and continuous improvement. Students examine risk management, analyze failures to learn from common pitfalls, and discuss strategies for building resilience. Activities include applying continuous improvement techniques to business ideas, with a serial entrepreneur sharing experiences of overcoming challenges and achieving success. The day wraps up with a recap of the week's key learnings.

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Course Coordinator Mrs. Nagasree G Department of Physics

HOD Dr. K Sujatha Department of Physics

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Principal Dr. H N Thippeswamy CEC, Bamglore

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Department of Basic Science

Value Added course on Entrepreneurship and innovation

Course Objectives

The course objectives are:

- Equip students with the knowledge and skills to start and grow businesses that contribute to the economy, creating wealth and improving the overall economic landscape.
- Train future entrepreneurs to build businesses that generate employment, addressing unemployment and providing stable career opportunities.
- Encourage innovative thinking to solve pressing societal challenges, such as environmental issues, healthcare, and education, through entrepreneurial ventures.
- Teach students how to develop competitive business strategies that enhance market efficiency and provide better choices for consumers.
- Promote the use of cutting-edge technology and innovative practices to boost productivity and drive technological progress within industries.

Course Outcomes

The students will be able to:

- Entrepreneurship stimulates economic activity by creating new businesses, which in turn generate income, increase GDP, and enhance overall economic health.
- New ventures often lead to the creation of new job opportunities, reducing unemployment rates and providing livelihoods for many people.
- Innovation drives businesses to improve their products, services, and processes, leading to increased competitiveness in local and global markets.
- The introduction of innovative products and services can improve the quality of life by making goods and services more accessible, affordable, and efficient.
- Entrepreneurs often identify and address specific community needs and problems through innovative solutions, leading to social and economic improvements in local areas.

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Course Coordinator Mrs. Nagasree G

HOD Dr. K Sujatha

CITY ENGINEERING COLLEGE

Principal Dr. H N Thippeswamy

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DEPARTMENT OF CIVIL ENGINEERING

REPORT OF COURSE ON ADVANCED SURVEY INSTRUMENTS

The Department of Civil Engineering, City Engineering College, Bengaluru had organized the course on Advanced Survey Instruments from 13th to 17th December 2021 in association with Ms Lawrence and Mayo, Bangalore. Our Principal, Dr. Thippeswamy H N, inaugurated the event. He also asked the students to make best use of the course. Administrative officer Mr Sathish Hande, Vice Principal Dr Jyothi, Administrative officer Dr Rajashekar, staff and students of civil dept. were present. Mr. Vinay Kumar S N, Asst. Prof., Department of Civil Engineering introduced the speaker. The speaker explained about importance of Total station, GPS & how to operate it. Mr. Jayanth K S, Asst. Prof., Department of Civil Engineering gave vote of thanks.



Fig:1 Dr. Thippeswamy H. N., Principal & Dr. Jyothi, Vice Principal along with Resource person & students

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Fig:2 Students practicing Survey using Total Station



Fig:3 Resource person explaining about Total Station

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Mr. Vinay Kumar S N Course Coordinator Assistant Professor Department of Civil Engineering

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Dr. Thippeswamy H N HOD Department of Civil Engineering



Department of Civil Engineering

Course on Advanced Survey Instruments Course Objectives

After completion of the course, the trainees should be able to:

- 1. To make students aware with different advance surveying methodologies applied to carry out large scale survey works as modern instruments have largely changed the approach to survey works with the principles being same.
- 2. To provide knowledge of Total Station & advanced surveying instruments.
- 3. Develop skills in using Total Station & advanced surveying instruments and analyse data.
- 4. Develop ability to transform basic concept of surveying to field practice.

Course Outcomes

The students will be able to:

- 1. Use total station in the field of civil engineering land survey.
- 2. Summarize the basic principles of GPS and GIS in civil engineering.
- 3. Show effectiveness of modern surveying instruments to improve accuracy and to save time and for surveying operations.
- 4. Manage the suggested or identified constructional problems, solve in teams, in order to improve future problem-solving ability and able to present it.

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Mr. Vinay Kumar S N Course Coordinator Assistant Professor Department of Civil Engineering

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Dr. Thippeswamy H N HOD Department of Civil Engineering

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DEPARTMENT OF MECHANICAL ENGINEERING

REPORT OF COURSE ON CRDi

The Department of Mechanical Engineering, City Engineering College organized the course on "**CRDi**" by Sri Dr.Nandakumar MB, Associate professor,DSCE, Bangalore from 21th to 25th September 2021 in Seminar Hall, Department of Mechanical Engineering. Mr. Sampath HP, Asst. Prof., Department of Mechanical Engineering welcomed the speaker and audience. Dr. S.Karunakara., Prof. and Head, welcomed the speaker by presenting the medicinal plant to the speaker. Mr.Anil Kumar R, Asst. Prof., Department of Mechanical Engineering introduced the speaker.



Fig:1 Speaker addressing Students

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Course Coordinator

Mr.Harsha Vardhan U Assistant Professor Department of Mechanical Engineering

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Dr.S.Karunakara HOD Department of Mechanical Engineering



Department of Mechanical Engineering

Course on CRDi

Objective:

- To understand the deficiencies of conventional diesel engines which were sluggish, noisy and poor in performance when implemented especially in passenger vehicles.
- Most modern engine's fuel systems use 'Common Rail Direct Injection' or CRDi which is an advanced technology. Specifically, the term 'CRDi' commonly refers to diesel engines

Course Outcomes

Upon completion of the course students should be able to:

- Apply diesel engine knowledge to diesel fuel injection systems functions and how they relate to engine operation and performance.
- Competently troubleshoot, evaluate and repair diesel fuel injection systems.
- Disassemble, test, and reassemble fuel injection components.
- Test diesel engines for fuel system malfunctions.
- Apply knowledge of diesel fuels and fuel injection systems and how they relate to engine performance.
- Research and locate repair literature.

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Course Coordinator

Mr. Harsha Vardhan U Assistant Professor Department of Mechanical Engineering

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Dr.S.Karunakara HOD Department of Mechanical Engineering



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

"Add-On course on Python using Arduino 3.0"

Course Report

A five-day Add-On Course on **Python using Arduino 3.0** was organized by the Department of Electronics & Communication Engineering from 23.08.2021 to 27.08.2021 for 3rd year B.E. Electronics & Communication Engineering students in the VLSI Laboratory. **Mr. Skanda Kumar T R, Software Engineer, BOSCH India Pvt Ltd. Bangalore** was the resource person. The event was coordinated by Prof. G S Mallikarjuna, HoD, E&CE, Dr. Shalini Prasad, Professor, E&CE, & Prof. Shylaja, Assistant Professor, E&CE.

Day 1: Introduction to Virtualization

The event began with a formal inaugural function. Dr. H N Thippeswamy, Principal, CEC, Dr. Jyothi P, Vice Principal, and Prof. Mallikarjuna G S, HoD, Dept. of E&CE were present during the inauguration. The program began by seeking the blessings of Almighty with invocation and lighting of lamp. Principal advised the students to utilize the benefits of the course completely. **Dr. Shalini Prasad** Welcomed the resource person and gave a course overview. Later the session was handed over to the speaker.

In the morning, participants were welcomed to the course, and an overview of virtualization concepts was presented. Types of virtualizations, including hardware development kit and software were discussed along with their benefits and challenges. The session continued with an exploration of various virtualization platforms like PyCharm. Participants installed Arduinodevelopment tool and created the first sample test codes.

During the afternoon session, advanced virtualization concepts were covered. This included the management of virtual machines, such as starting, stopping, and pausing. Snapshots, cloning, and resource allocation providing participants with an understanding of virtualization best practices.

Day 2: Set up the Firmata protocol on Arduino

The morning session delved further into Firmata protocol, covering topics such as Protocol and storage management within Arduino environments. Participants learned about configuring mapping the constraints settings and managing storage resources effectively.

In the afternoon, participants engaged in hands-on activities related to control and analog and digital inputs and outputs in development environments. They practiced implementing Triggernotifications techniques and explored best practices for optimizing setups.

Day 3: Introduction to Arduino sensors and switches

On the third day, the morning session began with an introduction to digital and analog components. The focus then shifted to Arduino sensors and switches, providing an overview of its services and capabilities. Participants learned how to create an higher-level apps and navigated the portal. The session concluded with an introduction to basic applications for Arduino in Python.

Afternoon, participants delved deeper into Azure, exploring the creation and managementof Virtual Machines. Topics included VM extensions, customization, & understanding of availability sets and scaling options. Participants engaged in practical exercises to reinforce their learning.



Day 4: Develop applications with Arduino and Python

The fourth day started with a continuation of Set up electronic circuits, focusing on advanced topics such as higher-level apps measuring sensors. Participants gained hands-on experience in setting up a electronic circuits using Firmata protocol.

The afternoon session shifted to Firmata protocol capabilities. Participants explored, various storage options Queue, File Storage. A hands-on lab provided practical insights into working with Arduino libraries and Databases

Day 5: Python applications and inbuilt libraries

In the morning, participants deepened their understanding of Python application on Arduino online libraries pre-programed modules. The session also covered data migration to Arduino and best practices in managing project databases.

The afternoon continued with advanced Python topics, focusing on identity and access management, and monitoring/logging in Arduino. Participants explored practical aspects of these concepts through hands-on activities.

Dr. Shalini Prasad Coordinator

G.S. Mallikarjuna HOD, ECE

CITY ENGINEERING COLLEGE Kanakapura Main Road, BANGALORE - 560 061 H N Thippeswamy Principal