

Andhra Christian college

(Day, Evening and PG)

NOTICE

Date: 09-03-2023

This is to inform you that there will be a seminar on "**DIGITAL ELECTRONICS**" tomorrow, i.e., on 10-03-2023 to be conducted by the department of physics, at 11 AM.

M. Venu Babu, Lecturer Department of Physics, R.V.V.N College, Dharani Kota Will be address the seminar. All the students of III B.Sc. are instructed to attend the programme without fail.




Principal
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Andhra Christian College::Guntur

Department of Physics

Seminar Report on "Digital Electronics"

Organized by: Department of Physics, Andhra Christian College, Guntur

Date: 10th March 2023

Time: 11:00 AM

Venue: Department of Physics, Andhra Christian College, Guntur

Resource Person: Mr. M. Venu Babu, Lecturer in Physics, R. V. V. N. College, Dharanikota

Participants: B.Sc. students, Faculty: Dr. M. Ratna Raju (Head), Dr. P. M. Vinaya Teja (Senior Lecturer), Mr. V. Ravi Kumar (Lecturer), Mr. D. Srinivasa Rao (Lecturer)

1. Introduction

The Department of Physics, Andhra Christian College, Guntur, organized a seminar on the topic "Digital Electronics" on 10th March 2023. This seminar was aimed at providing B.Sc. students with a comprehensive understanding of digital electronics, a fundamental aspect of modern technology. The seminar was conducted by Mr. M. Venu Babu, an experienced Lecturer in Physics from R. V. V. N. College, Dharanikota, who shared his expertise on the subject.

2. Objectives of the Seminar

The seminar was designed with the following key objectives:

- **To introduce the fundamentals of digital electronics:** The seminar aimed to explain the basic principles and components of digital electronics, including logic gates, binary arithmetic, and digital circuits.
- **To explore the applications of digital electronics:** Participants were introduced to the practical applications of digital electronics in various fields, such as computing, telecommunications, and consumer electronics.
- **To explain the design and function of digital circuits:** The seminar sought to provide students with an understanding of how digital circuits are designed and how they function in different electronic devices.
- **To discuss the role of digital electronics in modern technology:** The seminar aimed to highlight the importance of digital electronics in the development and functioning of modern technological systems.
- **To encourage practical experimentation and research:** The seminar aimed to inspire students to engage in practical experimentation with digital electronics and to explore research opportunities in this rapidly evolving field.

3. Summary of the Seminar

The seminar began with an introductory address by Dr. M. Ratna Raju, Head of the Department of Physics, who welcomed the resource person, Mr. M. Venu Babu, and the participants. Dr. Raju emphasized the importance of understanding digital electronics in the

context of contemporary technology and encouraged students to actively participate in the session.

Mr. M. Venu Babu commenced the seminar by providing an overview of digital electronics, explaining its significance as the foundation of all modern electronic devices. He began with a discussion on the binary number system, the basic language of digital electronics, and explained how binary arithmetic forms the core of digital computing.

The seminar then moved on to the study of logic gates, the building blocks of digital circuits. Mr. Venu explained the different types of logic gates (AND, OR, NOT, NAND, NOR, XOR, XNOR) and their functions, using truth tables and circuit diagrams to illustrate how they process binary inputs to produce specific outputs. He also demonstrated how these logic gates are combined to create more complex digital circuits, such as adders, flip-flops, and multiplexers.

A significant portion of the seminar was dedicated to the practical applications of digital electronics. Mr. Venu discussed how digital circuits are used in various devices, from simple calculators to advanced computers and communication systems. He highlighted the role of digital electronics in data processing, storage, and transmission, as well as in the development of microprocessors and embedded systems.

In the final part of the seminar, Mr. Venu Babu addressed the design and implementation of digital circuits. He provided insights into the tools and techniques used in digital circuit design, including the use of software for simulation and testing. He also discussed the importance of understanding the hardware aspects of digital electronics, such as integrated circuits and programmable logic devices.

Throughout the seminar, students actively engaged in discussions, asking questions about the practical aspects of digital electronics and its relevance to their studies and future careers. The interactive nature of the session helped to clarify complex concepts and foster a deeper understanding of the subject matter.

4. Outcomes of the Seminar

The seminar successfully met its objectives, leading to the following outcomes:

- **Enhanced understanding of digital electronics:** Participants gained a thorough understanding of the fundamental principles of digital electronics, including the functioning of logic gates and digital circuits.
- **Practical knowledge of digital circuit design:** Students were introduced to the design and implementation of digital circuits, providing them with practical skills that are essential for further studies and careers in electronics and related fields.
- **Awareness of the applications of digital electronics:** The seminar highlighted the critical role of digital electronics in modern technology, broadening students' perspectives on its applications in various industries.
- **Increased interest in practical experimentation:** The seminar encouraged students to engage in hands-on experimentation with digital electronics, fostering a practical approach to learning and research.

- **Strengthened faculty-student interaction:** The seminar provided an opportunity for closer interaction between students and faculty members, promoting a collaborative academic environment that supports further inquiry and discussion.

5. Conclusion

The seminar on "Digital Electronics" organized by the Department of Physics, Andhra Christian College, Guntur, was a highly informative and successful event. Mr. M. Venu Babu delivered a comprehensive and engaging presentation that effectively covered both theoretical and practical aspects of digital electronics. The seminar achieved its objectives, providing participants with valuable knowledge and insights that will inspire further academic exploration and practical experimentation in the field of digital electronics.



Andhra Christian College, Guntur

Department of Physics

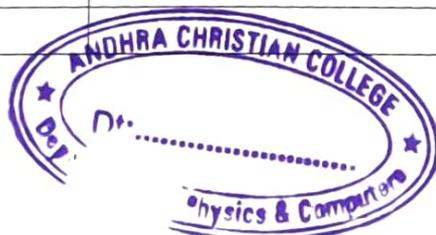
List of Students Attended for SEMINAR CLASS

TOPIC: Digital Electronics

Date: 10.03.2023

Class: IIIrd B.Sc

| S. No. | Class No | Name of the Students | Signature |
|--------|----------|--------------------------|--------------------------|
| 1. | 1401 | P. Thomas | P. Thomas |
| 2. | 1402 | K. Guravaiah | K. Guravaiah |
| 3. | 1403 | G. Kinsingh | G. Kinsingh |
| 4. | 1404 | M. Koteswar Rao | M. Koteswar Rao |
| 5. | 1405 | B. Kim Koushik | B. Kim Koushik |
| 6. | 1407 | B. John Pal | B. John Pal |
| 7. | 1408 | P. Sammera | P. Sammera |
| 8. | 1409 | A. Ravi Kumar | A. Ravi Kumar |
| 9. | 1410 | D. Harshini | D. Harshini |
| 10. | 1411 | S. Santhosh Kumar | S. Santhosh Kumar |
| 11. | 1412 | B. Yestheru Babu | B. Yestheru Babu |
| 12. | 1415 | N. Maheswar Reddy | N. Maheswar Reddy |
| 13. | 1416 | K. Devi Harshini | K. Devi Harshini |
| 14. | 1417 | K. Vyshnavi | K. Vyshnavi |
| 15. | 1418 | D. Durga Rao | D. Durga Rao |
| 16. | 1419 | V. Mahesh Babu | V. Mahesh Babu |
| 17. | 1420 | G. Srinu | G. Srinu |
| 18. | 1421 | T. Charan Tejeswar Reddy | T. Charan Tejeswar Reddy |
| 19. | 1423 | K. John Wesley | K. John Wesley |
| 20. | 1424 | M. Gopi Chand | M. Gopi Chand |
| 21. | 1423 | V. Pushparaju | V. Pushparaju |
| 22. | G04 | B. Naresh | B. Naresh |
| 23. | G06 | N. Gopi Naik | N. Gopi Naik |
| 24. | G09 | S. Revanth Siva | S. Revanth Siva |
| 25. | G13 | SK. Abid Hussain | SK. Abid Hussain |
| 26. | G18 | K. Murali | K. Murali |
| 27. | G21 | SK. Meeravali | SK. Meeravali |
| 28. | G23 | K. Chaitanya | K. Chaitanya |
| 29. | | | |
| 30. | | | |



[Signature]
 Department of Physics
 I.A.C. College, Guntur.