

IEEE - MVSR STUDENT BRANCH

Student Branch Code: 12161, School Code: 41329276



GUEST LECTURE SESSION ON LOGIC FAMILIES

IEEE MVSR SB Circuits and Systems Society Student Chapter organized a Guest Lecture on 12th April 2022 about Logic Families for the students studying in the Second year. The objective of this event was to enhance the knowledge of the attendees by giving a detailed explanation of logic gates and how the logic gates can be realized using different semiconductor devices.

Student Branch Mentor:

Dr. Atul Negi, Professor, School of CIS, University of Hyderabad

Student Branch Advisor:

Dr. G. Kanaka Durga Principal and Professor, **MVSR Engineering College.**

Student Branch Counsellor:

Dr. D. Hari Krishna. Associate Professor, EEE Dept., **MVSR Engineering College.**

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WIE Student Branch Advisor:

Mrs. A. Vijava Vahini Assistant Professor, IT Dept, **MVSR Engineering College.**

PES Advisor:

Dr. D. Hari Krishna, Associate Professor, EEE Dept., **MVSR Engineering College.**

CS student branch advisor:

Mrs. B. Saritha Associate Professor, CSE Dept., **MVSR Engineering College.**

CASS Student Branch Advisor:

Mrs. S. Aruna Assistant Professor, ECE Dept., **MVSR Engineering College.**

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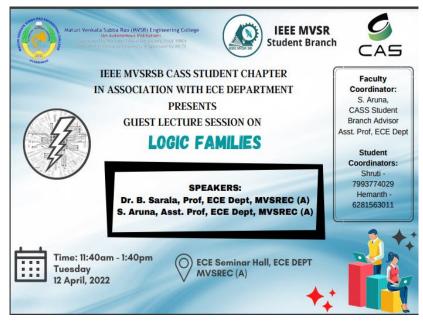
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Session Details: Date: 12th April 2022 Timings: 11:40AM – 1:40 PM No. of Attendees: 120

Speakers:

- 1) **Dr. B. Sarala** is currently working as a professor at MVSREC (An Autonomous Institution), in ECE Department. Dr. B Sarala has 6 years of industrial experience and 23 years of teaching experience and was awarded Ph.D. in 2015 by JNTU Hyderabad.
- 2) Mrs. S. Aruna is currently working as an Assistant Professor at MVSREC (An Autonomous Institution), in ECE Department. Mrs. S. Aruna is currently contributing as IEEE MVSR SB CASS Student Chapter advisor for 3 years. Mrs. S. Aruna has teaching experience of 18 years and currently pursuing a Ph.D. at JNTU Kakinada.

The event started as Ms. P. Shruti, Chairperson, IEEE MVSR SB CASS Student Chapter, addressed the gathering and welcomed the speakers and attendees, to the session. Then, an idea about the event and its importance was given to the students by her. Later, Ms. P. Shruti introduced the first speaker of the session, Dr B. Sarala, Professor, ECE Department, MVSR Engineering college and handed over the session to her.



Event Poster

The lecture commenced as Dr B. Sarala gave a brief introduction about logic families, integrated circuits, and the topics that will be covered.



Dr. B. Sarala, Prof. ECE Dept. MVSREC (A), explaining Integrated Circuits

Subsequently, she gave a detailed explanation of Integrated Circuits (ICs) and also different types of IC fabrication such as; Small Scale Integration (SSI), Medium Scale Integration (MSI), Large Scale Integration (LSI), Very Large-Scale Integration (VLSI), Ultra Large-Scale Integration (ULSI).



Picture of students attending the lecture

In such a way, the lecture of Dr B. Sarala, concluded with a detailed explanation of Integrated Circuits. Then, Mr. N. Bhargava Saketh, Vice-Chairperson, IEEE MVSR SB CASS Student Chapter, thanked Dr B. Sarala, for her valuable lecture and introduced about the next speaker of the session, Mrs. S. Aruna, Assistant Professor, ECE Department, MVSR Engineering College.

Thereafter, Mrs. S. Aruna, Student Chapter Advisor, IEEE MVSR SB CASS Student Chapter, came onto the stage and continued the lecture. This second half of the lecture commenced with Mrs. S. Aruna, gave a thorough description of the different ways in which the logic families can be realized.



Mrs. S. Aruna, Asst. Prof. ECE Dept. MVSREC (A), explaining about Logic Families

The key points involved in the lecture were; different types of electronic components can be used for the realization of logic families, such as diodes, transistors, and MOSFETs. Different configurations using which the logic families can be realized, such as the Pull-up Configuration, Pull-down Configuration, Pull-down Configuration, and Totem-pole Configuration.



Picture of students attending the lecture

In this way, the lecture given by Mrs. S. Aruna, came to an end after a detailed explanation of all the important concepts of Logic Families. In the end, all the doubts of the students were clarified by the speaker.



Photo with IEEE MVSR SB CASS ExCom Members

Finally, the Guest lecture session concluded successfully as Mr. Hemanth Kollapudi, Secretary, IEEE MVSR SB CASS Student Chapter, gave the vote of thanks.

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