



SRI SAIRAM ENGINEERING COLLEGE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on Guest Lecture

Event Title:

Unlocking Embedded Power with Latest ARM Processors and Architecture

SAI RAM ENGINEERING COLLEGE | **Sairam RAISE** | **Sairam EOMS** | **nirf** | **IEEE** | **CAS**

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
 EXPERT TALK ON
Unlocking Embedded power with Latest ARM processors and Architecture

Ms . T . TAMILSELVI
 Associate Professor
 Department of ECE
 Jerusalem College of Engineering

SEC2025051EEECAS04

Date : MAY 1 2025
Timing : 10 to 11.30 AM
Online Mode

Student coordinators
RAJ KUMAR D
ANURADHA S

Coordinators Dr.C.N.Savithri Ms.G.Lakshmi Ms.S.Lavanya devi Ms.P.Poornima	Dr. S Brindha IEEE MADRAS SECTION SB COUNSELOR	Dr.J.Thamil Selvi HOD/ECE	Dr. J. Raja PRINCIPAL	Dr. Sai Prakash Leomuthu CHAIRMAN & CEO Sairam Institutions
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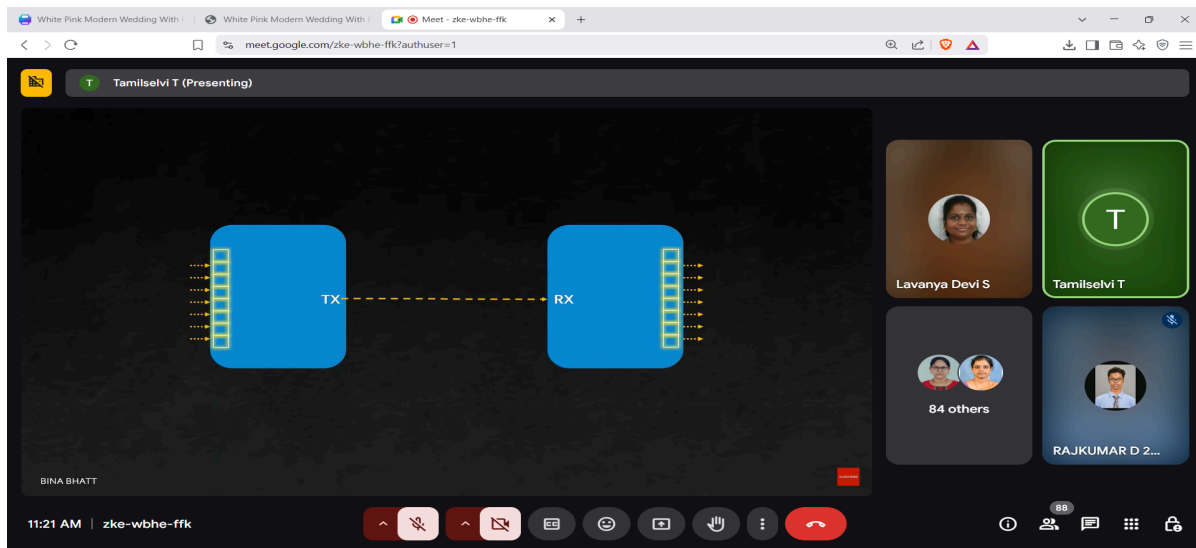
The Department of Electronics and Communication Engineering organized distinguished Guest Lecture for 2nd year students. Total 102 students attended the Guest Lecture and learned about Unlocking Embedded Power with Latest ARM Processors and Architecture

The screenshot shows a Google Meet interface with a presentation slide. The slide title is "What are Embedded Systems?". Below the title, it states: "Embedded systems are specialized computing systems that perform dedicated functions within larger systems." The slide is presented by Tamilselvi T. The right sidebar shows four participant tiles: Tamilselvi T (green), Lavanya Devi S (brown), a tile for "73 others" (dark grey), and RAJKUMAR D 2... (blue). The bottom status bar shows the time as 10:08 AM and the meeting ID as zke-wbhe-ffk.

The screenshot shows a Google Meet interface with a presentation slide titled "ARM9 ARCHITECTURE". The slide content includes the text "Architecture of ARM" and a block diagram of the ARM9 architecture. The diagram shows the following components and their interconnections:

- Instruction Cache** and **Data Cache** are connected to the **Instruction Bus** and **Data Bus** respectively.
- The **Instruction Bus** connects to the **Instruction Decoder**.
- The **Data Bus** connects to the **ARM9 Core** and the **AMBA Bus Interface**.
- The **Instruction Decoder** connects to the **ARM9 Core** and the **Registers**.
- The **ARM9 Core** (labeled with "FETCH", "DECODE", "EXECUTE", "MEMORY", "WRITEBACK") connects to the **Registers** and the **AMBA Bus Interface**.
- The **Registers** connect to the **MMU**.
- The **MMU** connects to the **AMBA Bus Interface**.

The slide is presented by Tamilselvi T. The right sidebar shows four participant tiles: Tamilselvi T (green), Lavanya Devi S (brown), a tile for "96 others" (dark grey), and RAJKUMAR D 2... (blue). The bottom status bar shows the time as 10:34 AM and the meeting ID as zke-wbhe-ffk.



Date and Time:

May 1, 2025 /10:00 AM – 11:30 AM

Mode: Online

Platform: Google Meet – <https://meet.google.com/zke-wbhe-ffk>

Event id:SEC202505IEEECAS04

Resource Person:

Ms. T. Tamilselvi

Associate Professor

Department of Electronics and Communication Engineering

Jerusalem College of Engineering

About the Speaker:

Ms. T. Tamilselvi is an accomplished academician with over 22 years of experience in teaching and research. She holds a Bachelor's degree in Electronics and Communication Engineering from Adhiparasakthi Engineering College and a Master's degree in Embedded System Technologies from College of Engineering, Guindy (CEG), Anna University. She is currently pursuing her Ph.D. in Cognitive Networks at VELs University, Chennai.

Her research contributions include one SCI-indexed journal publication, nine Scopus-indexed papers, and three patents. She has also secured research funding of ₹10.4 lakhs from AICTE and was honored with the **Academic Excellence Award in 2022**.

With her in-depth knowledge of embedded systems, ARM processor architecture, and cognitive networks, she brings valuable insights to this expert session.

Event Highlights:

Introduction to Embedded Systems and ARM Architecture:

The screenshot displays a Google Meet interface during a presentation. The main window shows a slide titled "ARM CORTEX Processor Technology" illustrating the "Scalable and Compatible Architecture" from Cortex-M0 to Cortex-M7. The slide highlights key features: Cortex-M0 (90 nm, lowest cost, low area), Cortex-M0+ (lowest power, outstanding energy efficiency), Cortex-M3 (performance efficiency, feature-rich connectivity), Cortex-M4 (Digital Signal Control (DSC) Processor with DSP, Accelerated SIMD, Floating point (FP)), and Cortex-M7 (Maximum DSC Performance, Flexible Memory System, Cache, TCM, AXI, ECC, Double & Single Precision FP). A circular badge indicates "5 CoreMark per MHz". The slide also compares "8/16-bit Traditional application space" with "16/32-bit Traditional application space". The bottom of the slide mentions "Digital Signal Control application space". The Meet interface includes a top bar with the presenter's name "Tamilselvi T (Presenting)", a right sidebar with participant avatars (Tamilselvi T, Lavanya Devi S, 88 others, RAJKUMAR D 2...), and a bottom toolbar with various controls. The status bar at the bottom shows the time "10:52 AM" and the meeting ID "zke-wbhe-ffk".

Students had the opportunity to clarify technical queries and explore project-related insights.

Participation & Certification:

The session was attended by numerous students and faculty members from the Department of ECE. All participants received e-certificates for their active involvement and enthusiasm.

Organizers:

- **Staff Coordinators:**
Dr.C.N. Savithri, Ms.G. Lakshmi, Ms.S. Lavanya Devi, Ms. P. Poornima
- **IEEE SB Counselor:**
Dr. S. Brindha
- **Student Coordinators:**
Raj Kumar D, Anuradha S
- **Management Support:**
Dr. J. Thamil Selvi (HOD – ECE)
Dr. J. Raja (Principal)
Dr. Sai Prakash Leo Muthu (Chairman & CEO – Sairam Institutions)

Conclusion:

The guest lecture proved to be a remarkable success, providing valuable exposure to advanced ARM processor technology. It significantly contributed to the academic and professional growth of the participants, encouraging them to explore deeper into embedded system applications.

Rate this Programme in a 5 point scale

