



# St. Joseph's College of Engineering and Technology

Elupatti, Thanjavur-613403

## Report on Faculty Research Seminar Presentation Session

<b>Name of the Event</b>	:	Internal Guest Lecture on “Clockless Chips”
<b>Organizing Department</b>	:	ECE
<b>Co-Ordinator</b>	:	Dr. A. Backia Abinaya, AP/ECE
<b>Date of the Event</b>	:	19.09.2023
<b>Resource Person</b>	:	Mr. G. Deepak Kumaran, AP/ECE St. Joseph's College of Engineering and Technology, Thanjavur.
<b>Targeted Audience</b>	:	II& IV year students and faculties
<b>No. of. Participants</b>	:	25
<b>Venue</b>	:	Main Block Seminar Hall

### PROGRAMME DETAILS:

The internal guest lecture on clockless chips was an insightful and engaging session that shed light on the revolutionary technology of clockless or asynchronous chips. The lecture commenced with a comprehensive introduction to clockless chips, emphasizing their fundamental departure from traditional synchronous chip designs. The speaker underscored the primary advantage of clockless chips, which is their ability to eliminate the global clock signal, thereby reducing power consumption and mitigating issues related to clock skew and jitter.

The lecture delved into the core principles behind clockless chip design, highlighting the significance of handshaking protocols and self-timed circuits. The speaker elucidated how these components enable clockless chips to function without a central clock, allowing different parts of the chip to operate independently and adjust their pace according to data availability. This inherently adaptive and energy-efficient approach presents promising prospects for the future of chip design, particularly in domains where power efficiency and performance are critical. It underscored the importance of research and development in this field as it holds the promise of addressing some of the key challenges associated with traditional synchronous chip designs.

**SCREENSHOT:**

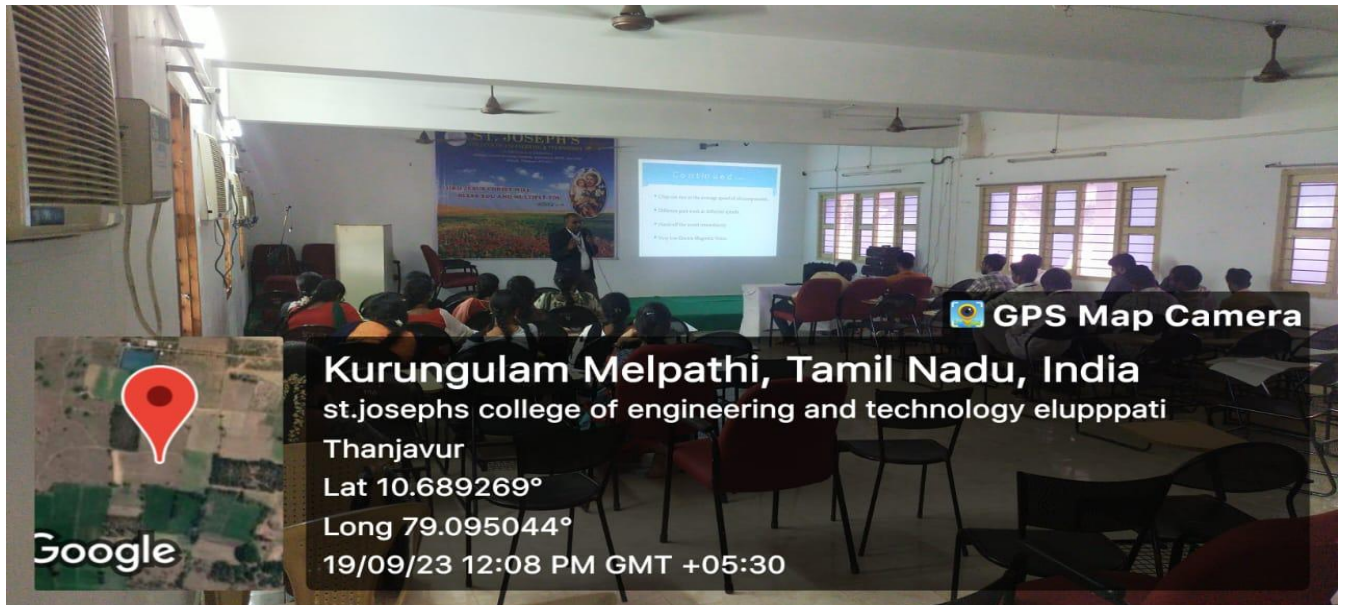


Figure 1: Mr. Deepak Kumaran presenting about the basics of Clockless Chips



Figure 2: Mr. Deepak Kumaran asking queries to attendees about the applications of clockless chips

**FRSP COORDINATOR**

**HOD**

**IQAC COORDINATOR**

**PRINCIPAL**