



SWAMI VIVEKANANDA UNIVERSITY

ELECTRONICS AND COMMUNICATION ENGINEERING

$x^2 - 4x + 5 \leq 5$
 $x^2 - 4x \leq 0$

$n(B \cap C) = 22$
 $n(B) = 68$
 $n(C) = 84$
 $n(B \cup C) = n(B) + n(C) - n(B \cap C)$

$\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$
 $\frac{a}{b} \div \frac{c}{d} = \frac{ad}{bc}$
 $\frac{a}{b} + \frac{c}{d} = \frac{ad+bc}{bd}$

$\log_a b^x = x \log_a b$
 $\log_a x = \frac{\log_b x}{\log_b a}$
 $\log_a (x^r) = r \log_a x$
 $\log_a (xy) = \log_a x + \log_a y$
 $\log_a \left(\frac{x}{y}\right) = \log_a x - \log_a y$

$20 \rightarrow$
 $6 \rightarrow$

$a(bc) = (abc)$
 $a+b = b+a$
 $a(b+c) = ab+ac$
 $126 = 6xy$
 $2x + 2y = 20$

$(100^2)a + 100b$
 $10000a + 100b - 5$
 $a_n = \frac{1}{2^{n-1}}$

$M = \frac{0.046765}{3.0L}$

$3H_2 = 2NH_3$
 $H_2 = 2H$
 $O_2 = 2O$
 $C_2O = CO$

$He = 4.002602$
 $Na = 22.989769$
 $Ar = 39.948$

$25h$
 $2r(r+h)$
 $5h$





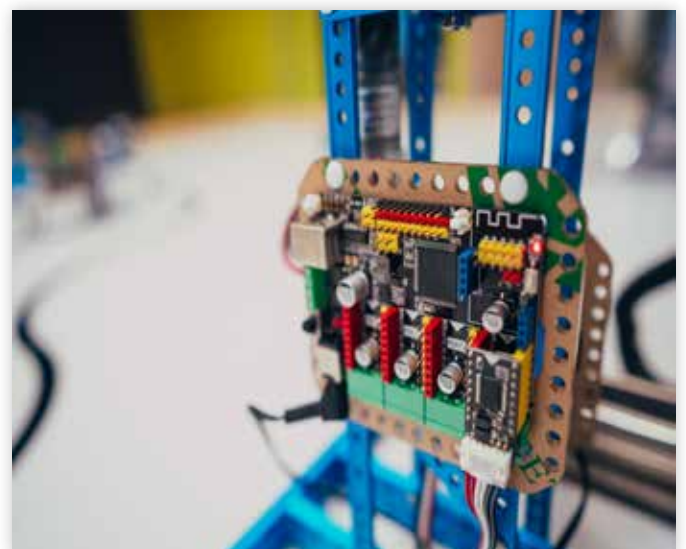
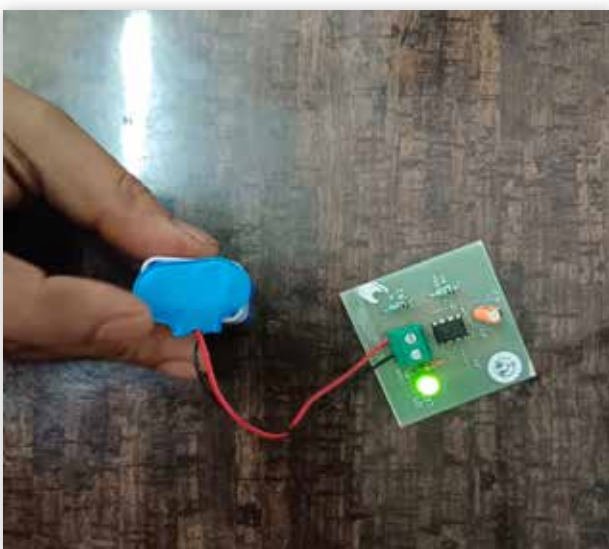
Two weeks Cadence Based PCB Design workshop (09.12.2024-21.12.2024)

A. Students gained hands-on experience in designing printed circuit boards (PCBs) using industry-standard Cadence tools. They learned schematic design, component placement, routing, and simulation.

B. This improved their practical skills in PCB design, making them industry-ready for hardware development roles. Improved understanding of signal integrity and real-world circuit challenges.

C. This workshop strengthened the department's reputation for VLSI and hardware design training and encouraged collaborative learning and innovation in circuit design.

D. It inspired students to take up PCB-based projects and interdisciplinary research, fostering a strong hardware development culture.





Project presentation for Final Year ECE Students

A. Students showcased innovative projects in areas like embedded systems, IoT, communication, and VLSI. They developed strong presentation skills and the ability to defend their technical works.

B. This improved their confidence, technical articulation, and problem-solving abilities. Gained valuable feedback from faculty and industry experts.

C. It highlighted the quality of student research and project-based learning and encouraged juniors to take up impactful projects.



Weekly training on IC Design and FPGA using Cadence tools

- A. Students acquired a deep understanding of IC design, verification, and FPGA prototyping. They gained hands-on experience in RTL design, synthesis, and layout.
- B. This developed industry-relevant skills, making them competitive for semiconductor and VLSI job opportunities. Increased proficiency in Cadence tools, crucial for chip design.
- C. This positioned our department as a hub for advanced semiconductor training. Encouraged faculty and students to pursue research in IC design.
- D. It helped to create a strong foundation for students interested in ASIC/FPGA design, reinforcing the department's focus on cutting-edge technology.

