

KPR Institute of Engineering and Technology

(Autonomous, NAAC "A")

Avinashi Road, Arasur, Coimbatore.

Phone: 0422-2635600 Web: kpriet.ac.in Social: kpriet.ac.in/social EC054

NBA Accredited (CSE, ECE, EEE, MECH, CIVIL)

HANDS ON TRAINING ON SOFTWARE DEFINED RADIO

Event No	EC054		
Organizing Department	Electronics and Communication Engineering		
Date	24/03/2023 to 25/03/2023 (2 Days)		
Time	08:45 AM to 04:15 AM		
Event Type	VAC / Training Program		
Event Level	Dept. Level		
Venue	ADC LAB		
Total Participants	80		
Industry Personnel	40		
Students - Internal	40		

Related SDG



Resource Persons

SI	Туре	Name	Designation	Company	Email	Phone
1	Resource Person	R Balamurugesh	CEO	Silicon Systems	siliconsystemscbe@gmail.com	xxxxxxxxxx
2	Resource Person	RAJA S	Product Development ManageR	Silicon systems	gururraja@gamil.com	xxxxxxxxxx

Involved Staffs

SI	Name	Role
1	Seethalakshmi V	Coordinator
2	Nithya S	Coordinator

Outcome

Students were able to transmit signals using GNU radio

Event Summary

Software-defined radio (**SDR**) is a radio communication system where components that have been traditionally implemented in analog hardware (e.g. mixers, filters, amplifiers, modulators/demodulators, detectors, etc.) are instead implemented by means of software on a personal computer or embedded system. While the concept of SDR is not new, the rapidly evolving capabilities of digital electronics render practical many processes which were once only theoretically possible. A basic SDR system may consist of a personal computer equipped with a sound card, or other analog-to-digital converter, preceded by some form of RF front end. Significant amounts of signal processing are handed over to the general-purpose processor, rather than being done in special-purpose hardware (electronic circuits). Such a design produces a radio which can receive and transmit widely different radio protocols (sometimes referred to as waveforms) based solely on the software used. Software radios have significant utility for the military and cell phone services, both of which must serve a wide variety of changing radio protocols in real time. In the long term, software-defined radios are expected by proponents like the Wireless Innovation Forum to become the dominant technology in radio communications. SDRs, along with software defined antennas are the enablers of the cognitive radio. This course is handled by R. Balamurugesh,CEO, Silicon Systems and Mr S Raja, Product Development Manager, Silicon Systems, Kalapatti, Coimbatore-641 048. The event started at 8.45am and ends at 4.15pm. Students were very much interactive throughout the session and completed the project assigned to them. Students are asked to prepare their report and submit for assessment.





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