



SYNCOM

ECE Dept. NEWS LETTER

VOICE OF ELECTRONIC AND COMMUNICATION ENGINEERING

June 2019 Vol.4 Issue 06



Vision Mission |Page 02

Results| Page 03

Student Article | Page 05

Student Article | Page 07

Student Coordinators:

Mr.G.Saketh

Ms.V. Sri Hasitha

Mr.P.KomalVenkatSai

Ms.Ch.Naveena



Editors:

Dr.Sk.Sadulla^{HOD-ECE}

Mr.Maduguri Sudhir

Ms.NuthalapatiSoniya



VISION, MISSION & PEO'S

Vision

Developing highly Qualitative, Technically Competent and Socially Responsible Engineers.

Mission

To provide quality education in the domain of Electronics and Communication Engineering through

- Enriched curriculum for addressing the needs of Industry.
- Effective teaching learning processes through congenial environment.
- Gaining contemporary knowledge through research, development, curricular, co and extra-curricular.

ECE Program Educational Objectives

Graduates of Electronics & Communication Engineering Shall

PEO1: Develop a strong background in basic science and mathematics and ability to use these tools in their chosen fields of specialization.

PEO2: Have the ability to demonstrate technical competence in the fields of electronics and communication engineering and develop solutions to the problems.

PEO3: Attain professional competence through life-long learning such as advanced degrees, professional registration, and other professional activities.

PEO4: Function effectively in a multi-disciplinary environment and individually, within a global, societal, and environmental context.






PEO5: Take individual responsibility and to work as a part of a team towards the fulfillment of both individual and organizational goals.

The institute is a symbol of egalitarian outlook without discretions. KITS student activity council is organized exclusively by students with representatives from various disciplines stands for the advocacy of democracy and leadership opportunities provided by the institute. KITS student clubs enable all the students and staff mingle freely to express their views and share their talents and expertise. **KITS imparts Outcome Based Education (OBE)** which gives equal opportunities to teaching and learning curricular, co-curricular and extra-curricular activities


Results





Passed exam is a happy event. I witnessed how hard you studied. In my message I send you a key to success: study while others sleep, work while others loaf, prepare while others are play and dream while others just wish. It is clear that future holds great opportunities for you.

II-II Result






SNO	REGDNO	NAME	PERCENTAGE	PHOTO ID
1	17JR1A0494	NERELLA JHANSI	8.95	
2	17JR1A0495	PASUPULETI VALLI NAGA LAKSHMI	8.91	
3	17JR1A04D0	RAMINENI KEERTHI SRI	8.77	
4	17JR1A04E1	SOMINENI JHANSI	8.55	
5	17JR1A0470	K. LAKSHMI MADHURI	8.50	

III-II Result

NO	REGDNO	NAME	PERCENTAGE	PHOTO ID
1	16JR1A0462	KARNATI SIREESHA	9.14	

2	16JR1A04E2	VUTLA NAVYA	9.14	
3	16JR1A0464	KETHINENI NANDINI	9.00	
4	16JR1A04D7	VELCHURI SRI LAKSHMI SUBHASHINI	9.00	
5	16JR1A04C0	P.VENKATA NAGAVALLI SAI KAVYA	8.86	

I-II Result

SNO	REGDNO	NAME	PERCENTAGE	PHOTO ID
1	18JR1A04B8	PONDURI CHANDRAKIRAN	9.13	
2	18JR1A04C2	RACHAMADUGU VENKATA NAGA SAI LIKHITA	9.13	
3	18JR1A04C6	SHAIK AYESHA	9.13	
4	18JR1A0491	LAGHUVARAPU NAVEEN	9.00	
5	18JR1A0464	KEDARI LAKSHMI PRIYANKA	9.00	



Student Article:

Packing for university: items you do and do not need

Now that you've secured your place at university it's time to start thinking about the things you do and don't need to take with you. While it is tempting to pack every single item of clothing you own, your games console and a mini fridge, some of those things just simply aren't necessary. Here's a list of all the things you will need to take with you to college and the items you could probably do without.

What you will need

A laptop

While laptops are quite expensive, investing in one to see you through university is probably one of the best purchases you will make. These days you can get a fairly good one for a reasonable price and there are usually good deals around the start of term time that you can take advantage of. Your laptop will probably be one of your most used items from typing up lecture notes, writing essays, putting together presentations and researching. Additionally instead of bringing a TV to university, your laptop can be used for streaming TV shows and film on too.

Insurance

Contents insurance for students will cost very little, but will take a huge weight off your mind, knowing that your possessions are protected in case anything should happen.

A basic first-aid kit

Having a little pack of basic medicines will be very useful while you're at university, especially if you are struck down by the dreaded fresher's flu. It doesn't need to be too comprehensive, some cold and flu tablets or sachets, paracetamol, plasters, nasal spray, throat lozenges and antibacterial wipes should cover you for most minor illnesses and injuries.

And although this isn't really a first aid item, making sure that you have some form of contraception with you whether it is condoms, your contraceptive pill, or any type that you feel comfortable using. Most universities do give out free condoms during fresher's week so that is also always a good time to stock up.

Kitchen supplies

This will depend on whether you are in self-catered or catered halls. If you are in catered halls, you may still need a few basic items in case your halls doesn't provide food at certain times, but its unlikely that you will need a full set of things.

If you are staying in self-catered, then a basic set of pots and pans, a frying pan, and two or three plates, bowls, glasses and mugs will be enough for you. Other items to make sure to pack are wooden spoons, grater, colander, peeler, chopping board and a knife. It's unlikely that you will need anything too fancy to cook with.



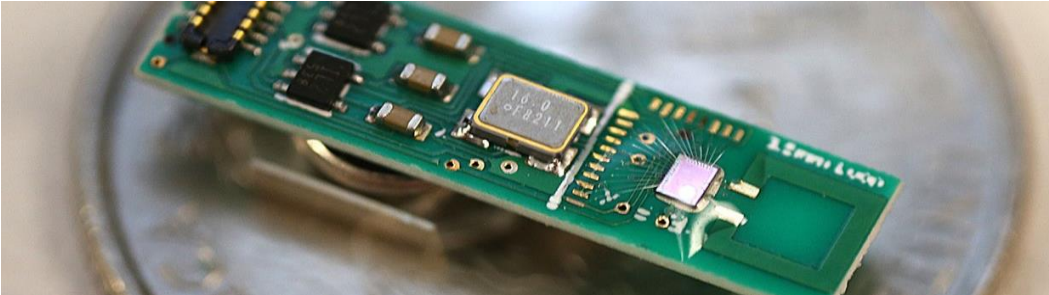
Bathroom supplies

Aside from the usual things like toothbrush, toothpaste, shower gel etc, make sure you bring some bathroom cleaner and a sponge with you. These will almost always be useful.

Bedding and room decoration

One of the biggest things that will make your room feel like yours is the bedding you choose. Choose something that really reflects your personality and make sure you buy two sets of bedding. That way when you wash one, you'll have another set to stick on straight away. Additionally taking pictures, posters or any other kinds of room decoration will go even further in personalising your room. Having special and personal items with you can also help to keep homesickness at bay.

**By/-
Ms.V. Sri Hasitha (IV ECE-3)**

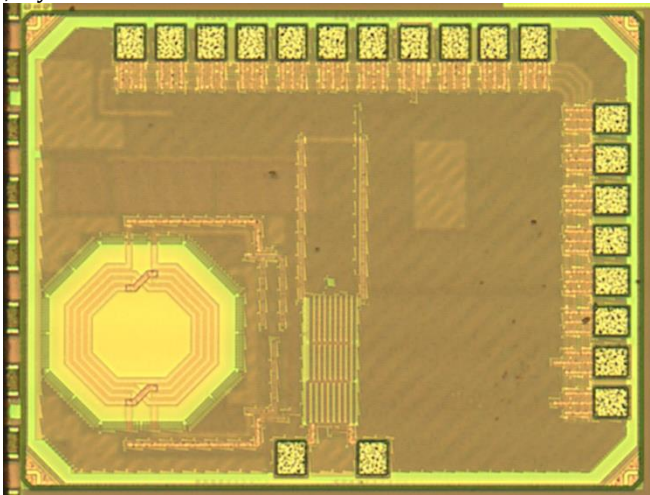


Faculty Article:

Bluetooth Low Energy data packets can now be sent by millimeter-size IoT motes

You're probably swimming in Bluetooth radio signals right now. But none of those are coming from the smallest, lowest-power end of the Internet of Things. These battery-powered and energy-harvesting millimeter-scale sensors are meant to last for years without needing replacement, but their radios can't muster the energy needed to communicate using even the lowest energy version of Bluetooth, called Bluetooth Low Energy (BLE). Engineers at the University of Michigan have now built the first millimeter-scale stand-alone device that speaks BLE. Consuming just 0.6 milliwatts during transmission, it would broadcast for 11 years using a typical 5.8-millimeter coin battery. Such a millimeter-scale BLE radio would allow these ant-size sensors to communicate with ordinary equipment, even a smartphone. The transmitter chip, which debuted last month at IEEE International Solid-State Circuits Conference, had to solve two problems, explains David Wentzloff, the Michigan associate professor who led the research. The first is power consumption, and the second is the size of the antenna. "The size of the antenna is typically physics-based, and you can't cheat physics," says Wentzloff. The group's solution touched on both problems. An ordinary transmitter circuit requires a tunable RF oscillator to generate the frequency, a power amplifier to boost its amplitude, and an antenna to radiate the signal. The Michigan team combined the oscillator and the antenna in a way that made the amplifier unnecessary. They called their invention a power oscillator. The key part of an oscillator is the resonant tank circuit: an inductor and a capacitor. Energy sloshes back and forth between the inductor's magnetic field and the capacitor's electric field at a resonant frequency determined by the capacitance and inductance. In the new circuit, the team used the antenna itself as the inductor in the resonant tank. Because it was acting as an inductor, the antenna radiated using a changing magnetic field instead of an electric field; that meant it could be more compact.

However, size wasn't the only thing. "The big advantage there is that the antenna is a much higher quality factor inductor than on-chip inductors," says Wentzloff. Quality factor, or Q , is a dimensionless quantity that basically says how efficient your resonator is. As a 14-mm long loop of conductor, the antenna was considerably larger than an on-chip inductor for a millimeter-scale radio could be. That led to a Q that was about five times what an on-chip inductor would deliver. Though it was a much more efficient solution, in order to meet BLE specifications, the team needed a better way to power the power oscillator. Their solution was to build an on-chip transformer into the circuit that supplies power to it. The transformer looks like two nested coils. One coil is attached to the supply voltage end of the oscillator circuit, and the other is attached to the ground side. Pumping the transformer at a frequency twice that of the power amplifier wound up efficiently boosting the flow of power to the antenna, says Wentzloff.



The new transmitter was tested by broadcasting the BLE "advertising" packet—a set of bits that tell receiving devices that the transmitter is out there. "If you wanted to make a millimeter-scale tracker device, this is all you'd need," says Wentzloff. But the advertising packet also has a payload section of up to 31 bytes, which is perfect for packing with sensor data. The research was part of the University of Michigan's M³ project, which is developing modular, millimeter-scale sensors. The next step, says Wentzloff, is integrating the BLE radio into one of these sensors.

Ms.N.Soniya
Asst. Prof.