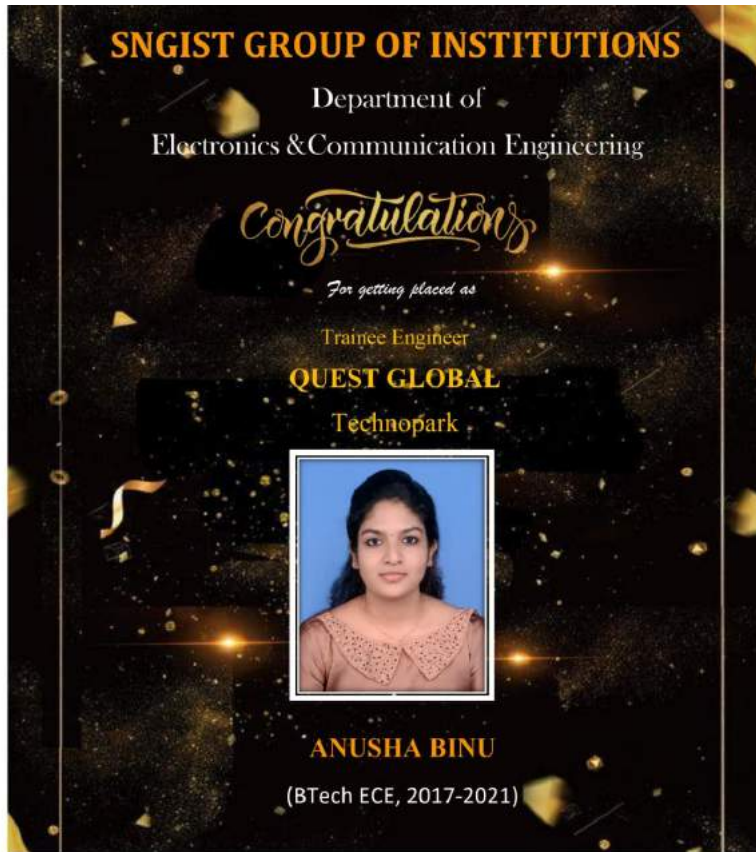




*DEPARTMENT OF ELECTRONICS AND COMMUNICATION
NEWSLETTER*

CONGRATULATIONS FOR GETTING PLACED IN QUEST GLOBAL



Our 2017-2021 batch students Anusha Binu and Aparna Raj K got placed as Trainee Engineer in Quest Global, Technopark. The Department of ECE wishes them a great future ahead!!!

STUDENT'S CORNER

SILENT SOUND TECHNOLOGY



Varsha Mohan
S7 ECE

Silent sound technology SST has been introduced to put an end to noise pollution and help the people that have lost their voice and cannot speak on mobile phone. This device is developed at Karlsruhe institute of technology and is expected to be seen in near future.

This device will notice the lip movement in form of electrical impulse and transfer it to sound speech that can be understood. It will be useful for people that want to make a silent call by just receiving the electrical impulse from lip movement and neglect all other surrounding noise and convert it to sound speech at the receiver ends. It can be used for languages like English, German and French but it cannot be used for language like Chinese because a different tone means different meaning. It will be useful for secret calling because the caller doesn't need to utter a word loudly just the lip movement. Silent sound technology (talking without talking) works based on two methods which are electromyography (EMG) and image processing.

What is silent? Silent is lack of audible sound or presence of sound with very low intensity. Silent sound technology is developed in Germany at Karlsruhe institute of technology. It is a technology that transmits sound without using vocal folds or vocal cord (a pair of muscles in larynx), which just receive electrical impulse by noticing the muscular movement of lips since it has been proved that the articulation muscle (Jaws and lips muscle) become active whether air passes through it or not, according to the research that proved that articulation muscle always remains active whether air passes through it or not (if you tense these muscles slightly, and release a little air, the vocal cords vibrate. This is called phonation and also called fundamental frequency of voice, try to place the finger across your throat when you talk or hum). Then it converts the electrical impulse into a sound signal which will be transmitted to the listener and hear it in form of speech.

Silent sound technology (talking without talking) will put an end to unwanted sound that phones pick up from surrounding when making a call especially in the noisy environment like movies theater, market place, train station etc. The technology will be useful for those who have lost their voice as a result of accident or illness or old age and want to make a phone call. Anytime you want to use the technology you will just activate the silent sound mode and start receiving the electrical impulse from the articulation muscle and neglect all other sounds from surrounding and transmit it which will now be converted to sound that the listener will understand.

Editorial Board: Ms. Nivya K Venu, Assistant Professor, ECE