Technical Newsletter – January – December 2020

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Top Nine Technological Trends in 2021

1. Artificial Intelligence (AI) and Machine Learning
2. Robotic Process Automation
3. EDGE Computing
4. Quantum Computing
5. Virtual Reality and Augmented Reality
6. Block Chain
7. Internet of Things
8. 5G
9. Cyber Security

10 Creative Ways to Keep a Positive Attitude

In general, having a positive attitude means being optimistic about situations, interactions, and yourself. People with positive attitudes can remain hopeful and see the best even in difficult situations. In contrast, those with negative attitudes may be more pessimistic and disagreeable, and typically expect the worst possible outcome in tough situations.

Clearly, having a positive attitude is pleasing, yet it may seem easier said than done. However, by adopting some of the following tips, you can maintain a positive attitude through highs and lows and improve your work ethic.

1. **Start a gratitude journal.**
2. **Treat yourself to some self-care every day.**
3. **Start every morning strong.**
4. **Avoid spreading gossip.**
5. **Crack more jokes.**
6. **Take real breaks.**
7. **Have something to look forward to after work.**
8. **Practice meditation.**
9. **Focus on the long-term instead of the short-term.**
10. **Listen to music that matches your mood.**

*Written by **Swetha Amaresan***

"*Your attitude, not your aptitude, will determine your altitude.*"

Mission and Vision of the Department

Vision

➢ To Excel in the field of Electronics and Communication Engineering to contribute to the knowledge economy and betterment of human life.

Mission

➢ To develop the state of the art infrastructure for quality education.

➢ To build up a team striving for excellence in teaching and research.

➢ To ensure greater research collaborations with industries and organizations.

➢ To strengthen social responsibilities and values.
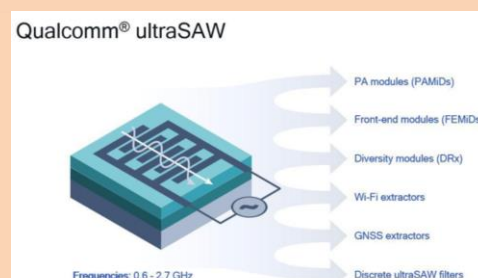
New Technology in Mobile Communication:

➢ **Qualcomm ultraSaw RF Filter Technology for 5G/4G Mobile Devices**

Radio frequency (RF) filters isolate radio signals from the different spectrum bands that phones use to receive and transmit information. By achieving as much as 1 decibel (dB) improvement in insertion loss, Qualcomm ultraSAW filters offer a higher performance solution compared to competing bulk-acoustic (BAW) filters in the sub-2.7 GHz frequency range. Qualcomm ultraSAW technology achieves superior filter characteristics to deliver high performance in frequencies from 600 MHz to 2.7 GHz with a range of benefits:

- Excellent transmit, receive and cross isolation
- High frequency selectivity
- A Q-factor as high as 5000 or even higher — significantly higher than the quality factor of competing BAW filters
- Very low insertion loss
- Excellent temperature stability with very low temperature drift in the single-digit ppm/Kelvin range

For more details visit
https://rffe.qualcomm.com/newsroom/articles/QCOM_ultraSAW_RF_Filter_Tech_for_5G

Qualcomm® ultraSAW

PA modules (PAMiDs)
Front-end modules (FEMiDs)
Diversity modules (DRx)
Wi-Fi extractors
GNSS extractors
Discrete ultraSAW filters

Frequencies: 0.6 - 2.7 GHz

Best Geeky Gadgets in India

Best Noise Cancelling Headphones in India

- ✓ **Sony WH-1000XM4 Noise Cancelling Headphones**
- ✓ **Bose Noise Cancelling Wireless Bluetooth Headphones 700**
- ✓ **Sennheiser PXC550 Wireless Headphones**
- ✓ **Skullcandy – S6HCW-L003 Venue Active Noise Cancellation Wireless Over-Ear Headphone**
- ✓ **EPOS Sennheiser GSP 300 Headset with Noise-Cancelling Mic**
- ✓ **Sennheiser PC 8 Over-Ear USB VOIP Headphone with Mic**
- ✓ **boAt Rockerz 510 Bluetooth On-Ear Headphone with Mic**
- ✓ **iBall Decibel BT01 Smart Headset**
- ✓ **Infinity (JBL) Glide 500 Wireless Headphones**
- ✓ **Envent Moksha ET-BTHDN730 Active Noise Cancellation Wireless Bluetooth Headphones with Mic**

10 Best Power Banks with Fast Charging in India

- ➢ **Mi 20000mAH Li-Polymer Power Bank 2i**
- ➢ **Mi Power Bank 3i 10000mAh**
- ➢ **Ambrane 10000mAh Li-Polymer Powerbank**
- ➢ **Redmi 10000mAh Li-Polymer Power Bank**
- ➢ **Syska 10000 mAh Li-Polymer P1016B Power Pocket100 Power Bank**
- ➢ **Redmi 20000mAh Li-Polymer Power Bank**
- ➢ **Syska 10000 mAh Li-Polymer P1015B Power Core100 Power Bank**
- ➢ **Syska 10000 mAh Lithium-Ion L1002J Port100 Power Bank**
- ➢ **Ambrane 20000mAh Li-Polymer Powerbank with Fast Charging**
- ➢ **realme 10000 mAh Power Bank with quick charge 2.0**

Technical Events - Organized

AICTE SPONSORED SIX DAYS SHORT TERM TRAINING PROGRAMME

The Department Conducted AICTE SPONSORED SIX DAYS SHORT TERM TRAINING PROGRAMME (STTP) on the topic "SUPERVISED AND UNSUPERVISED MACHINE LEARNING USING GOOGLE CLOUD", it was planned in three different slots:

First Slot 12 th to 17 th Oct. 2020, Second Slot 02.11.2020 to 07.11.2020, and the Third Slot: 16.11.2020 to 21.11.2020.

Many participants enriched with the concepts of Machine learning using Google Cloud.

➢ Online Webinar on **"Road to Success",** Resource Person was **Ms. S. Aishwarya, Programmer Analyst (CTS) (**Alumni), It was conducted on 28.10.2020 from 11.15 AM to 12.15PM for all the second year (2019-2023) batch students.

Technical Events - Organized

Ethical Hacking Workshop

The Department of Electronics and Communication Engineering organized the two days' workshop on Ethical Hacking from 19th to 20th February 2020. The resource persons were Ms. Sheela Chowdary Program Director, Pramod Sai and Krishna K, Program Instructors. As the hacking awareness in this digital world is very required the workshop was organized where students learn about the Ethical hacking Concepts.

➤ ECE Department conducted Online Faculty Development Program on the topic **"FUNDAMENTALS OF IMAGE PROCESSING"** resource person was Mr. Thalish Sajeed, Senior Associate, Cognizant Technology Solutions, Chennai, on 26.06.2020.

➤ Online IEI SPONSORED WEBINAR on the topic **"TIPS TO CRACK INTERVIEW PROCESS BY ALUMNI EXPERTS"** Interview tips were given by Alumni Experts Mr. Prakash Naveen, Ms. Nancy Blessy, Ms. Kayalvizhi, Ms. Monika Christina and Mr. S.R. Karthik, from 11.00 AM to 12.30 PM on 15.09.2020.

List of Placed Students – 2017-2021 Batch

Name of the Student	Placed Company	Name of the Student	Placed Company
ABBIRAAMAVALLEE . S	CTS	PRIYENKA S	TCS
Abilash VM	TCS	PUNETI RAMYASRI	CTS
AKASH S	SIFY (JCL)	RAGHAV ANIRUD R	Wipro
ARVABHUMI PAWAN KALYAN REDDY	Wipro	RAHUL R	Coda Global
BARATHISELVAN.K	CTS	RAM ARAVIND U	SIFY
BHARATH KUMAR.V	Infosys	RAMYA CHITRA M	HCL
BODDU VENKATA SAI	Wipro	RAYAVARAM.SAI JITHENDRA	TCS
BRINDHA L	CTS	RITHIKA M	TCS
GNANA SEKAR YADAV C	Infosys	SAGARIKA L	TCS
Dhana dharani S	Wipro	SAKTHI PRIYA M	SIFY
DINESH RAJ N	CTS	SAMYUDHA.S	Wipro
DIVYA P.L	CTS	SANDHIYA J	Infosys
DIYYALA PRAVEEN	JCL	SANDHIYA K	CTS
GADIKOTA SOWMYA	CTS	SANKARA ESHWARI.S	CTS
HARINI J	Wipro	SANTHA KUMAR V	Infosys
HARISH Y D	CTS	T.SASI KUMAR	CTS
HEMCHANDHAR R	Kaar	SATHVIKAA PGK	Virtusa, (CTS),(Avasoft)
S INDUJA	Wipro	SHANMUGA PRIYA V	TCS
KALAIVANI M. R	CTS	SNEHA S	TCS
KEERTANA B	Wipro	DEGA SREE LAKSHMI	TCS
KEERTHANA S	Wipro	K.K.SRIJA	HCL
KRISHNA GEETHIKA PINDIBOYINA	CTS	SUBIKSHA S	HCL
LAKKI REDDY DEEPIKA REDDY	Wipro	SUMAN R	TCS
LAVANYA L	TCS	UMA R V	TCS
MADHUMITHA S	(LTI), CTS	VADIVEELAN D	CTS
MADHUMITHA V	Wipro	VAKATI SOHITH REDDY	CTS
MAVILLA MADHURI	HCL	VEMANABOINA VARSHITHA	TCS
MAHAKAMAKSHI J	HCL	VENKATA BADRI NADH MIRIYALA	Wipro
MAHIMA S	TCS	VENKATA NAGA SAI HARSHA NARA	LTI
MONISHA H	CTS	NELAKURTHI VIDYA	KPIT
NAGAMANGALAM SAI PRASUNA	TCS	VIGNESH K	Wipro
NARMATHA A	TCS	VISHAKHA.K	CTS
NISHA P	HCL	VISHAL S	TCS
PAVITHRA.S	TCS	VISHALI G	TCS
PELLAKURU HARSHINI	CTS (KPIT)	VISHVAJIT P.V	LTI
PRAMOD J	(Virtusa) Codingmart	YAGATEELA BHARATH KALYAN	Wipro
PRAVIN KUMAR K	CTS	YARAVA VIJITHA	Wipro
PREETHAM S	Infosys	Y CHAITHANYA	Wipro
PREETHI ANGEL.S	TCS	YOGALAKSHMI C	TCS
PRIYANKA S	(Virtusa), CTS (GenC Next)	YOKESH	Wipro

Higher Education in ECE Department
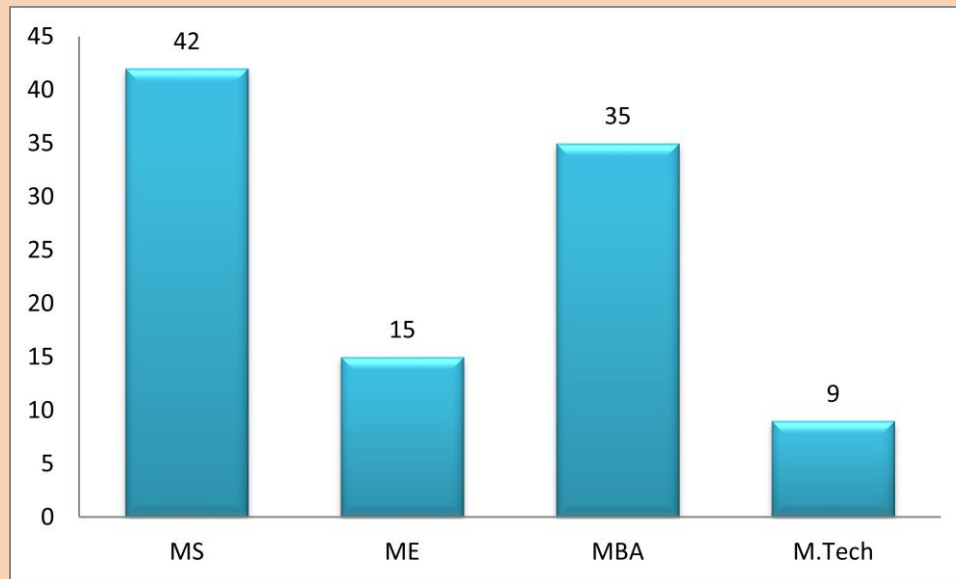
List of Students Studying abroad – 2019- 2020 & 2020-2021

S.No.	Name of the student	Graduating year	PG Program	Name of the University/Institution	Year of admission
1	SARANYA R	2019 - 2020	MBA	*Arizona State University*, Tempe, USA	2020 - 2021
2	SRAVANI U	2019 - 2020	MBA	University of Cincinnati, USA	2020 – 2021
3	LAVANYA L	2019 - 2020	MBA	Coventry University, UK	2020 – 2021
4	MOHANA VENGATA RAMANA S	2019 - 2020	MBA	University of Houston, USA	2021 – 2022
5	MONICA P	2018 - 2019	MS	UNIVERSITY OF TEXAS, ARLINGTON, USA	2019 – 2020
6	VENKATA PREETHAM V	2018 - 2019	MS	LA TROBE UNIVERSITY, AUSTRALIA	2019 - 2020
7	VENKATA PREM V	2018 - 2019	MS	LA TROBE UNIVERSITY, AUSTRALIA	2019 - 2020
8	SAI SREYA D	2018 - 2019	MS	UNIVERSITY OF TEXAS, DALLAS	2019 – 2020
9	MONISHA K N	2018 -2019	ME	UNIVERSITY OF WINDSOR,CANADA	2019 - 2020
10	JAYAKRISHNAN V S	2018 -2019	MS	UNIVERSITY OF BRESCIA IN ITALY	2020 – 2021

PROGRAM OUTCOMES

- **PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)

Graduates of Electronics and Communication Engineering program will

- ➢ **PEO1:** excel in their professional and technical career and pursue higher education to be globally competent
- ➢ **PEO2:** evaluate the real world problems and provide with technically feasible and economically viable solutions
- ➢ **PEO3:** continuously update technologies through lifelong learning
- ➢ **PEO4:** exhibit effective communication skills and professionalism in diverse environment

PROGRAM SPECIFIC OUTCOMES (PSO'S)

After successful completion of the B.E degree program, the graduates will be able to

- ➢ **PSO 1:** Develop and test electronic systems for given specifications
- ➢ **PSO 2:** Design and analyze the signal processing systems as per the requirements
- ➢ **PSO 3:** Apply appropriate technology for the implementation of modern communication systems