

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ACCREDITED BY NBA, NEW DELHI

# IMPULSE

INTEGRATING THE NEWS OF ELECTRONICS

#### **IN THE EDITION**

- Message from HOD
- Student achievements
- Departmental activities
- Technical talks
- Student articles
- Faculty achievements
- Faculty publications
- Placements



April Issue 2022

## NEWSLETTER

#### **INSTITUTE**

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*VISION To develop professionally competent Engineers to serve the society* 

#### **MISSION**

- Imparting effective outcome-based education
- Preparing students through skill oriented courses to excel in their profession
- Promoting research for the benefit of society
- Strengthening relationship with all stakeholders

#### DEPARTMENT

#### VISION

To develop professionally competent and socially responsible Electronics and Communication Engineers

#### MISSION

- Strengthening core competencies among the learners through outcome-based education
- Imparting technical skills by conducting hands-on training programs/workshops on Emerging technologies
- Producing graduates with societal responsibilities



#### MESSAGE FROM HOD

It gives me great pleasure in welcoming the bright minds to the Electronics and Communication engineering department. The department thanks the parents and students in reposing faith on us by choosing our institution and department of Electronics and Communication Engineering. We promise you that we will not let you down.

The department has excelled in many spheres. We are an NBA Accredited department. Most of our students have been bagging First Class with Distinction. Our students excelled both Academic have in and extracurricular activities. We have the privilege of getting a number of KSCST projects since the last five years. The participation of our students in LinkedIn MOOC courses such as Coursera, Udemy, edX etc is astounding. Year by year the placement of students in industry and the number of students going for higher studies is improving. Students are also encouraged to participate in extracurricular activities and sports. Staffs of the department get updated in latest technologies by attending FDP's, Workshops and Conferences conducted by various reputed Institutes. They also publish research papers in reputed journals.

Let us together make the journey of Learning fruitful, work towards a bright future for the generations to come and participate in the development of our Great Nation.



Dr. Noorullah Shariff (B.Tech (ECE), M.E (Guided Missiles), Ph.D (CSE))

#### STUDENT ACHIEVEMNTS

- Mr. Md. Asif Hundekar of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Learning Python" in LinkedIn Learning on Jan 10, 2022.
- Mr. Md. Aftab Shaikh of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Python for students" in LinkedIn Learning on Jan 15, 2022.
- Mr. Ahtesham B. of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Python for students" in LinkedIn Learning on Jan 11, 2022.
- Mr. Ahtesham B. of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Learning Python" in LinkedIn Learning on Jan 18, 2022.

COURSE Certificate of Completion Congratulations, Md.Asif Hundekar   Course completed on Jan 10, 2022 at 01:20PM UTC • 2 hours 27 min   By continuing to learn, you have expanded your perspective, sharpened your skills, and made yourself even more in demand.   Durant   Head of Content Strategy, Learning	COURSE Cartificate of Completion Congratulations, Mohd Aftab Shaikh   Public for Students Definition of the state of the
Centificate les ARJN004/biteKcAtyc6U85/H4CCC	Centificate Id: AVEWSIAOur-4u9NMagQZzvfflv1
COURSE   COURSE   Catificate of Completion Congratulations, Ahtesham Baigampalli   Definition of the completed on Jan 11, 2022 at 07:10AM UTC • 1 hour 8 min   By continuing to learn, you have expanded your perspective, sharpened your shifts, and mode yourself even more in demand.   Description   Head of Content Strategy, Learning   Linkedin Learning 1000 Wlaude Ave Sunnyvale, CA 94085	FUNRE EXEMPTION   EVENTION Completion Completion Compatulations, Ahtesham Baigampalli   Compatulations, Ahtesham Baigampalli Compatulations, Ahtesham Baigampalli   Completed on Jan 18, 2022 at 05:34AM UTC + 2 hours 27 min Continuing to learn, you have expanded your perspective, sharpened your stills, and made yourget even more in emand.   Continuing to learn, you have expanded your perspective, sharpened your stills, and made yourget even more in emand. Underfine Learning 1000 Window Ave 3000 Window 3000 Window Ave 3000 Window Ave 3000 Window
Certificate les Acizemici TagiotionMyeNhbg/1p-	Certificate Id: ARL_2wRQter/TPHoRMailBiLet8_



NASA's <u>James Webb Space Telescope</u> is the largest space telescope in history. The telescope was launched on December 25, 2021 from Europe's spaceport in French Guiana. It is named after James Webb, NASA's second administrator who led many of NASA's science missions.

- Ms. Neha Guthikonda of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Python for non programmers" in LinkedIn Learning on Jan 10, 2022.
- Ms. Neha Guthikonda of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Python for students" in LinkedIn Learning on Jan 11, 2022.
- Ms. Subaita Jahagirdar of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Python object-oriented programming" in LinkedIn Learning on Jan 13, 2022.
- Ms. Subaita Jahagirdar of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Confidence: How to overcome self-doubt, Insecurity and fears" in LinkedIn Learning on Jan 14, 2022.

COURSE 	Linked LEARNING Certificate of Completion Congratulations, Neha Guthikonda Python for Non-Programmers Course completed on Jan 10, 2022 at 08:14AM UTC • 1 hour 55 min By continuing to learn, you have expanded your perspective, sharpened your skills, and made yourself even more in demand. Head of Content Strategy, Learning Linkedin Learning 1000 W Maude Ave Sunnyvale, CA 940085	COURSE COMPLETON	Linked LEARNING Certificate of Completion Congratulations, Neha Guttikonda Deurse completed on Jan 11, 2022 at 05:18PM UTC • 1 hour 8 min By continuing to larm, you have expanded your perspective, sharpened your skills, and made yourself even more in demand. Demach Head of Content Strategy, Learning
	Centificate M. 42;38;68]et3]et3=317foowth6		Certificate id: Ar9_5-Hoef654d685c5cPropidQP
COURSE I COURSE COMPLETION	Linked: I EERNING   Certificate of Completion   Congratulations, Subaita Jahagirdar <b>Python Object-Oriented Programming</b> Course completed on Jan 13, 2022 at 12:22PM UTC • 1 hour 36 min   By continuing to beam, you have appended your perspective, sharpened your skills, and made yourself even more in demand.   Words and yourself even more in demand.   Linked of Content Strategy, Learning   Head of Content Strategy, Learning	COURSE ( COURSE ( COURSE ( COURSE ) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE ) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE ( COURSE) ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE) ( COURSE) ( COURSE ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE) ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE) ( COURSE) ( COURSE ( COURSE) ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE) ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE ( COURSE ( COURESE ( COURSE ( COUR	Linked LEARNING   Cartificate of Completion   Congratulations, Subaita Jahagirdar   Onfidence: How to Overcome Self-Doubt,   Confidence: How to Overcome Self-Doubt,   Ourse completed on Jan 14, 2022 at 04:15PM UTC • 1 hour 6 min   By continuing to learn, you have expanded your perspective, sharpened your skills, and made yourself even more in demand.   Image: How of Content Strategy, Learning   Head of Content Strategy, Learning
	Certificate id: Albida31.150w4wC7Tgrf7D207fdm		Certificate ld AbZzaRSykBFbbt7_mNUBLICGCd



The world's first Malaria vaccine RTS, S was also known by the brand name Mosquirix has been approved by the World Health Organization (WHO). The mosquito-borne disease kills more than 400,000 people a year. The Mosquirix vaccine is developed by British drug maker GlaxoSmithKline.

Malaria is transmitted through a parasite called, Plasmodium falciparum

- Ms. Subaita Jahagirdar of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Python for students" in LinkedIn Learning on Jan 13, 2022.
- Ms. Subaita Jahagirdar of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Learning data analytics:1 Foundations" in LinkedIn Learning on Jan 18, 2022.
- Ms. Subaita Jahagirdar of 5<sup>th</sup> Semester, ECE dept. has completed an online course on "Machine Learning with Scikit-learn" in LinkedIn Learning on Feb 26, 2022.
- Ms. Anjum S. Sartur of 8<sup>th</sup> Semester, ECE dept. has attended a webinar on "Career guidance program for engineering graduates conducted by Eazy Btech" on 5<sup>th</sup> March, 2022.



Why Silicon (Si) is used for most of the electronic devices? Because it is an element with very special properties. One of its most important properties is that it is a semiconductor. This means that it conducts electricity under some conditions and acts as an insulator under others. Silicon's electrical properties can be modified through a process called doping. These characteristics make it an ideal material for making transistors that amplify electrical signals. Silicon's properties are not the only reason why it is ideal for electronic devices. Silicon is also an abundant element on Earth. It is even the most common element in the Earth's crust. The abundance of Si allows it to be extremely affordable and appealing. It is no wonder why silicon has become the basis of memory chips, computer processors, transistors, and all other electronics.

• Ms. Sana Fauziya of 8<sup>th</sup> Semester, ECE dept. has successfully completed certification exam on "The fundamentals of Digital Marketing" on 6<sup>th</sup> June, 2021.



#### ALUMNI ACHIEVEMENT



Ms. Bibi Mariyam Sardar, 2018-19 Batch, our Prestigious Alumna, has cleared Karnataka State Eligibility Test (KSET 2021) held on 25<sup>th</sup> July, 2021.

#### DEPARTMENTAL ACTIVITIES

CONGE PARTING TO REUNITE FAREWELL AND GRADUATION DAY

The department of Electronics & Communication Engineering organized Farewell and Graduation day for final year students on 13<sup>th</sup> August, 2021 in SIET campus.



Dr. C. N. Sharif, HOD, ECE dept, Dr. S. A. Quadri, Professor, CSE dept, Dr. Azra Jilani, Professor, EEE Dept and Dr. S. J. Arwikar, HOD, Civil dept, inaugurated the function.



All students celebrated the event and they captured the moments in group photographs with all the staff members.



Memento Distribution to final year students

KANNADA RAJYOTSAVA ಹಚ್ಚೇವು ಕನ್ನಡದ ದೀಪ

The department of Computer Science & Engineering, Electronics & Communication Engineering and Electrical & Electronics Engineering jointly celebrated KANNADA RAJYOTSAVA on 2<sup>nd</sup> November, 2021 in SIET campus.



Prof Sarala S, HOD, Malik Sandal Institute of Art & Architecture, Dr. S. A. Quadri, Professor, CSE dept, Dr. C. N. Sharif, HOD, ECE dept, Dr. Azra Jilani, Professor, EEE Dept and Dr. S. J. Arwikar, HOD, Civil dept, inaugurated the function.



Competitions like Drawing & Singing were being organized for students on this occasion. Winners were appreciated with certificates & Medals.



#### DEPARTMENTAL ACTIVITIES

#### AGHAAZ 2021-22 FRESHER'S DAY PROGRAM

The department of Electronics & Communication Engineering organized Fresher's day program for second year students on 7th January, 2022 in SIET campus.



The formal function was hosted by Ms. Farha Mulla and Ms. Sufiya Begum, students of 5th semester. ECE Dept, Dr. C. N. Sharif, HOD, ECE dept, Dr. S. A. Quadri, HOD,CSE Dept, Dr. Azra Jilani, Professor, EEE Dept inaugurated the function.



As a token of love & remembrance, all second year students received gifts from their seniors.



INTERNATIONAL WOMEN'S DAY PROGRAM

SECAB Institute of Engineering and Technology is honored to organize the Women's Day Celebration on 14<sup>th</sup> March 2022.



Dr. K. S. Khyadagi, Professor & head, Department of food sciences & nutrition, College of Agriculture, Vijayapur, and Smt. Ujwala A. Sirnadgouda, Lecturer, Anjuman Law College, Vijayapur, graced the occasion as chief guests.

During the celebration, the meritorious students of SECAB I.E.T, Ms. Bibi Ayesha Hundekar of M.Tech in Computer Network Engineering who secured 1<sup>st</sup> Rank and bagged Gold Medal from Visvesvaraya Technological University, Belagavi., Ms. Pooja S. of M.Tech in Computer Network Engineering who secured 3<sup>rd</sup> Rank and Ms. Vaishnavi of M.Tech in Machine Design who secured 6<sup>th</sup> Rank were honored by the chief guests.



#### TECHNICAL TALKS

The department of Electronics & Communication Engineering organized a Technical talk on "Career guidance, placement and job opportunities at different Industries" on 25<sup>th</sup> November, 2021 in seminar hall, SIET campus. The resource person was Mr. David Edward George, General Manager, Human Resources at NS INFOTECH LTD Hubli, Karnataka in collaboration with Friends Union for Energizing Lives (FUEL). The Talk included emphasis on Placements and Internship. Students were also given the session on how to crack HR Interview.



• The department of Electronics & Communication Engineering organized a Technical talk on "Trends/scope of VLSI "on 2<sup>nd</sup> December, 2021 in seminar hall, SIET campus. The resource person was our prestigious alumnus, 2019 pass out, Mr. Farooq Patel working as physical verification engineer (MDE) in Capgemini, Bangalore. The session highlights were a Brief introduction to VLSI Physical design & physical

verification. ASIC design flow was also overviewed giving the details of how floor planning, Routing & placement is performed. Final year students were able to relate the session with the subject that they are studying as a part of their curriculum.



<u>About Indian Space Research Organization (ISRO)</u>: ISRO is India's national space agency formed on August 15, 1969, under Vikram Sarabhai's supervision. Vikram Sarabhai is also considered the father of the Indian Space Program. India's first satellite developed by ISRO was Aryabhata named after the famous astronomer and mathematician.

#### **PHOTO GALLERY**

#### INTERNATIONAL WOMEN'S DAY CELEBRATION AT SIET



#### STUDENT ARTICLES

#### CLOUD COMPUTING AS A CAREER



Cloud Computing has become the buzzing topic of today's technology, driving mainly by marketing and services offered bv prominent corporate organizations like Google, Microsoft, IBM & Amazon. Cloud computing is the next stage to evolve the Internet. Though for some people, "Cloud Computing" is a big deal, it is not. In cloud computing reality, is something that we have been using for a long time; it is the internet facility, along with the standards associated that provide a set of web-services to users.

Cloud computing is the ondemand availability of computer system resources, especially data storage and computing without power, direct active management by the user. Large clouds often have functions distributed over multiple locations, each location being a data center. These services are divided into three main categories or types of cloud computing: infrastructure а service as (laaS), platform as a service

(PaaS) and software as a service (SaaS).

With the significant advancement in information technology over the last half century cloud computing emerging as a power that creates job opportunities and storage of data securely. As a result of the shift to cloud, there is growing demand for professionals and managers that are more focused on business development than they are in application development. There will be greater opportunities for enterprise architects, and offshoots will some include cloud architects, cloud capacity cloud planners, service managers and business solutions consultants. It is found that IT services helped cloud organizations of all sizes and all vertical sectors around the world generate more than \$400 billion in revenue and 1.5 million new iobs. Cloud attractive computing is to business owners as it eliminates the requirement for users to plan ahead for provisioning, and allows enterprises to start from the small and increase resources only when there is a rise in service demand.

Skills Required for Cloud computing

• Knowledge in relevant scripting languages e.g. .NET, Java, Python & SQL.

• Expertise in appropriate Cloud platforms e.g. Google Cloud Platform, Azure, AWS, Terraform and Ansible.

• Data handling and database skills.

• Project management abilities, such as risk management and reviewing service agreements.

• Excellent written and verbal communication skills

• Eagerness to take on new challenges and adapt

What does a Cloud Computing Engineer do?

A Cloud Computing Engineer is responsible for dav-to-dav Cloud technical computing support and works to develop, implement and maintain Cloud software infrastructure. Some of the key duties of a Cloud Computing Engineer include Cloud operating solution software and resolving anv potential issues. The role of a Cloud Engineer is very techfocused and less involved with business requirements.

What does a Cloud Architect do?

A Cloud Architect takes on a slightly different role to a Cloud Computing Engineer since they focus more on a business's plans and work to design and implement new Cloud strategies to meet business and technical requirements. The primary responsibilities of a Cloud Architect include optimizing Cloud designs and creating feasible solutions to business problems.

In cloud computing, you will not be limited to any one type of role. In this field, you can work as a cloud architect, cloud administrator, cloud security professional, software engineer, etc. With the rising demand for cloud technologies, the pay scale of these jobs is also increasing rapidly in the market.

Clouds As are designed to provide services to external users, providers need to be compensated for sharing their resources and capabilities. However, despite the significant benefits offered by cloud computing, the current technologies are not matured enough to realize its full potential. Many key challenges domain, including in this automatic resource provision and security management etc., are only starting to receive attention from the research community. Therefore, we is believe there still tremendous opportunity for researchers to make groundbreaking contributions in this field, and bring significant impact to their development in the industry.

What is cloud computing? : In simple terms, cloud computing is a range of services delivered over the internet, or "the cloud." It means using remote servers to store and access data instead of relying on local hard drives and private datacenters.

Before cloud computing existed, organizations had to purchase and maintain their own servers to meet business needs. This required buying enough server space to reduce the risk of downtime and outages, and to accommodate peak traffic volume. As a result, large amounts of server space went unused for much of the time. Today's cloud service providers allow companies to reduce the need for onsite servers, maintenance personnel, and other costly IT resources. Ms. Tayyabara B. 8<sup>th</sup> Semester, ECE



## INFORMATION TECHNOLOGY & YOUNG GENERATION



The Information Technology has provided new ways to the students for acquiring knowledge, enhancing skills, creativity, enjoying pleasures of discovery and new job opportunities. With every passing day, technology is lives growing and making and happier convenient for everyone, especially for the Computers young generation. brought have in great revolution in processing data, resource planning & accessing internet knowledge which has led to the vast knowledge to the one who is operating it. It has made lengthy calculations working out tedious and problems a matter of fun. In writing articles too, it helps a by providing lot enough knowledge regarding the topic.

Undoubtedly, it has proved to great blessing for be the youngsters. Computers and IT have taken over each and every field. Can you just tell me an area where computers and IT are not used? In every field like education, Industries, accounting, Hospitals, online teaching, Media and space research exploration everywhere it has been used now a days. The modern world will look blank without Younger computers and IT. getting generation is huge benefits of IT because everything is available online for them. Technology has enabled the younger generation search for jobs and to universities by just sitting at home.

Books, latest technology, best learning and other useful materials are easily available and accessible.

In conclusion, it can be said that the younger generation is really fortunate to have all the wonderful benefits of IT.



#### VIRTUAL REALITY



Virtual reality (VR) is a powerful and interactive technology that changes our life. Unlike any other, virtual reality which can also be termed as immersive multimedia is the art of simulating a physical presence for the audience in places both real and imaginary.

It usually involves two senses namely sight and sound. The key property that distinguished VR from all previous media types is "Presence". Presence is the psychological sense of "being there", of actually being immersed in and surrounded by in the environment. The technology, art and business of VR are evolving rapidly.

VR is a very high end computer interface that evolves real time simulation and interface through numerous sensorial channels. The sensorial modalities are visual, aural. tangible, smell, taste and other senses. The first traces of VR came from the short story "Pygmalion's spectacles" in 1935 by Stanley Grauman Weinbaum. It describes a goggle based VR system with holographic demo fictional of experience including aroma and feel.

Some characteristics of VR are

- A simulated environment
- Computer generated graphics

- 3 dimensional
- Interactive
- Use of human senses Types of VR environments:
  - Semi-Immersive Virtual Reality.
  - CAVE Fully Immersive Virtual Reality.
  - Collaborative Virtual Environments.

Applications and key areas:

- Simulation of real environment
- The development of a fictional environment, typically for a game or educational adventure

Key Areas:

- Design evaluation
- Development & maintenance
- Data visualization and concept visualization
- Training and simulation
- Sales and marketing
- Aid for the handicapped

Some of technologies that are developed with the help of VR:

- VR headsets
- Google cardboard
- Head tracking
- Stereoscopic 3D rendering
- Intuitive seamless controls
- 3D trackers and Gloves

VR system has the potential to make difference to guild learners to new knowledge, to motivate and encourage at every level of education. VR system is very useful technology that could improve education to the next level as we can see from numerous advance virtual reality systems that use for training.

Ms. Humera Mujawar, 8th Semester, ECE





The Chip Shortage: What Is It?

The global chip shortage is a supply chain problem caused by a lack of sufficient supply of the silicon microchips that power today's electronics. These chips go by a variety of names: semiconductors, semiconductor chips, computer chips, and so on. And right now, manufacturers need more of these chips than the chipmakers can make. These chips are in nearly everything with a computing component, from household appliances to cars to consumer electronics. As a rule of thumb, if it has a screen, it has one or more chips inside.

The auto industry was one of the first to hit a chip shortage. Ever since the summer of 2020, new vehicles have been in short supply- not because of assembly line shutdowns, but because the automakers can't source the \$10 for chips computer the and infotainment modules that the vehicles can't run without.

#### How Did This Happen?

So, how did we get here? Well, it's complicated, but In a word, COVID. Most of the global manufacturing capacity for semiconductors is located in Asia, which was the first region to shut down at the beginning of the COVID-19 pandemic. Semiconductor factories sat offline for months, but demand for their chips didn't lag all that much.

Semiconductors are incredibly complex, and they take a long time to make — in the neighborhood of three months, start to finish. On top of that, building a new plant for manufacturing them is not simple. Some firms have already begun building in Arizona. but their facilities won't even come online until 2022 at the earliest.

COVID also created high levels of demand for certain products that you guessed it — needed semiconductors. Manufacturers shifted to fill those orders, of course.

Intel acquires Tower Semiconductor: Intel and Tower Semiconductor on Feb. 15, 2022, announced a definitive agreement under which Intel will acquire Tower for USD53 per share in cash, representing a total enterprise value of approximately **USD5.4** billion. Tower Semiconductor is a foundry for analog semiconductor solutions and serves high-growth markets such as mobile, automotive The acquisition and power. accelerates Intel's path to becoming a major provider of foundry services and capacity globally, now offering of the industry's broadest one portfolios of differentiated technology.

Chip shortage to keep car prices high and inventory low for the rest of 2022: Analysts have said that car buyers shouldn't expect a quick return to normal pricing and availability until the end of this year at the earliest, even though car production is expected to return to pre-pandemic levels.

The chip shortage has forced automakers to forge new relationships with suppliers to help solve crisis. "Automotive the companies are notorious for bullying their suppliers and throwing their weight around. But some companies like Toyota, which had long cultivated its suppliers, were - until recently - insulated from the chip shortage," said Rob Handfield, professor in supply chain management at North Carolina State University in a recent interview with Canadian newspaper, The Globe and Mail.

"The GMs and Fords of the world are finally figuring out that maybe they have to stand in line like everybody else now." Ford and General Motors is now known to be working with chipmakers to develop new manufacturing capacity.

Toyota: Covid and chip shortage will lead to 500,000 fewer cars:

Toyota, the world's biggest carmaker, has said that the combined impact of COVID-19 and the chip shortage will result in 500,000 fewer cars being made in its 2021-22 financial year, which ends in March, as it continues to battle threats from the Omicron variant.

The company's estimated figure of 8.5 million - revised downwards from

a previously revised figure of 9 million - represents a total reduction of around 800,000 vehicles compared to its expectations a year ago. Toyota builds a large number of its vehicles in its home market of Japan where it has 16 production facilities.

further Tokyo officials imposed COVID-19 restrictions as it battles rapidly rising cases induced by the Omicron variant. Like other global carmakers, Toyota has also been forced to cut output due to the pandemic's impact on global supply chains. While the company's operating products in its October-December quarter were down by a fifth, the company says that it's sticking to its full-year forecast of USD24.3 billion.

How is the chip crisis playing out in geopolitics?

The global chip crisis and geopolitical tensions with China have shifted focus back on semiconductors. The US, which was once a leader in chip manufacturing, wants the crown back. Under President Joe Biden, the US is looking to bring manufacturing back to America and reduce its dependency handful on а of chipmakers mostly concentrated in Taiwan and South Korea. China's renewed aggression on Taiwan is also being seen in light of the chip crisis.

Global chip shortage is an ongoing global crisis in which the demand for integrated circuits (commonly known as semiconductor chips) exceeds the supply, affecting more than 169 industries.

The crisis has led to major price increases, shortages and queues amongst consumers for automobiles, graphics cards, video game consoles, computers, and other products that require semiconductors. Commonly cited causes for the shortage include the COVID-19 pandemic, the China–United States trade war, and various severe weather incidents.



#### FACULTY ACHIEVEMENTS

• Prof. MALLANAGOUD CHIKKOND, Assistant Professor in Electronics and Communication Engineering Participated in the Online Training Programme on "NBA Accreditation Process" Conducted by National Institute of Technical Teachers Training and Research (NITTR), Chennai from 20.12.2021 to 24.12.2021.



• Prof. AARIF MAKANDAR, Assistant Professor in Electronics and Communication Engineering Participated in the Online Training Programme on "NBA Accreditation Process" Conducted by National Institute of Technical Teachers Training and Research (NITTR), Chennai from 20.12.2021 to 24.12.2021.



An experiment is a question which science poses to Nature and a measurement is the recording of Nature's answer.— Max Planck

• Prof. Mohammad Ziaullah Choudhari, Assistant Professor in Electronics and Communication Engineering, is presented with a Certificate of Participation from Internshala Annual Rankings'21.



• Mrs. Uzma Satteekar has actively participated in the one week workshop on "Advanced Technologies in Electrical and Electronic Systems (ATEES-2022)" organized by department of Electrical and Electronics Engineering in association with IEEE Power and Energy student chapter and technically co-sponsored by IEEE North Karnataka Sub Section (NKSS) during 3rd to 7th January 2022.



<u>National Science Day</u> is celebrated every year on February 28 in India to celebrate the discovery of the 'Raman Effect'. India's great scientist, Sir CV Raman, announced the discovery of the 'Raman Effect' on this day. He was awarded the 1930 Nobel Prize in Physics.



• Mrs. Fathima Sholapur has participated and presented a paper entitled "Face mask and social distance recognition using deep learning "in the two days online international conference on Artificial Intelligence and Machine Learning held during 25<sup>th</sup> & 26<sup>th</sup> August 2021.



• Prof. Mohammad Ziaullah Choudhari, Assistant Professor in Electronics and Communication Engineering, has successfully completed the AICTE- ISTE approved orientation/refresher programme on "Industrial Automation and Networking" held during 03-12-2021 to 09-12-2021 organized by Basaveshwar Engineering College (Autonomous), Bagalkot.



• Dr. Saba Fatima, Assistant Professor in Electronics and Communication Engineering, has presented a paper titled "Smart Power Management System for Uninterrupted Power Supply(UPS)with Priorities" in the International Conference on Intelligent Engineering Approach (ICIEA-2022), organized by the Department of Electronics and Communication Engineering, H.K.E, Society's S.L.N. college of Engineering, Raichur, India in association with Technical Institute for Engineers (T.I.E), Bengaluru on 12<sup>th</sup> February,2022.

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the International Conference o communication Engineering, H.K. ngineers (T.I.E.), Bengaluru on 12	n Intelligent Engineering Approach E. Society's S.L.N. College of Eng <sup>th</sup> February, 2022.	(ICIEA-2022), organized by th ineering, Raichur, India in assoc	e Department of Electronics i iation with Technical Institute
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• Dr. Saba Fatima, Assistant Professor in Electronics and Communication Engineering, has successfully completed the AICTE-ISTE approved Orientation/Refresher Programme on "AI & ML Revolution" held during 12.01.2022 to 18.01.2022 organized by H.K.E, Society's S.L.N. college of Engineering, Raichur, Karnataka.

	Cert	ificate	
This is to c	ertify that <b>SABA FATIN</b>	<b>IA</b> has successfully complete	ted the AICTE-ISTE
approved on	to 18.01.2022 organized	by H. K. E. Society's S.	L. N. College of
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• Prof. Mohammad Ziaullah Choudhari, Assistant Professor in Electronics and Communication Engineering, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "An insight to Biomedical Instrumentation, Biomedical Signal and Image Processing with hands on experience and LabView Programming" from 2021-8-2 to 2021-8-6 at Poojya Doddappa Appa College of Engineering, Kalaburagi.



• Prof. MALLANAGOUD CHIKKOND, Assistant Professor in Electronics and Communication Engineering, has actively participated in the one week workshop on "Advanced Technologies in Electrical and Electronic Systems (ATEES-2022)" organized by department of Electrical and Electronics Engineering in association with IEEE Power and Energy student chapter and technically co-sponsored by IEEE North Karnataka Sub Section (NKSS) during 03rd to 7th January 2022.



#### FACULTY PUBLICATIONS

Sl. No.	Author's Name	Paper Title	Journal Name With ISSN	Year/ Month
1.	Tejashri H. Mohite, Noorullah Sharif	Design and operation of energyaware wireless sensor networks through scheduling and routing	International Journal Of Emerging Trends & Technology In Computer Science (IJETTCS)	Oct 2020
2.	Girija Vani Gurram, Noorullah Shariff Chowdhary, Rajkumar, Laxmikanth Biradar	Optimization Of Keys Using Grey-Wolf Optimization For Secure Path Key Establishment Schemes In Wireless Sensor Networks	International Journal Of Intelligent Engineering And Systems, Vol.14, No.3, 2021 Doi: 10.22266/Ijies2021.0630.01	Jan 2021
З.	Phanindra Reddy Kannari, Noorullah C. Shariff & Rajkumar L. Biradar	Network Intrusion Detection Using Auto encoders With Swish- Prelu Activation Model	Journal Of Ambient Intelligence And Humanized Computing (2021) Issn:1868-5145	Mar 1-13, Springer,
4.	Madhuri Devi, C N Shariff	Neural Network-Based Pest Detection With K-Means Segmentation: Impact Of Improved Dragonfly Algorithm	Journal Of Information & Knowledge Management Doi.Org/10.1142/S0219649 221500404	Vol. 20, No. 03, 2150040 (2021)
5.	Tejashri H. Mohite, Noorullah Sharif	Optimal Approach For Maximum Life Span Of Wireless Sensor Network By Energy Efficient Design	PENSEE International Journal	April 2021 Vol-51 Issue Page 521-527
6.	Mahantesh P, Saba Fatima, V. M. Vishwanatha, Kalyani Rasika, Vishwanath P	Smart power Management system for uninterrupted power supply(UPS) with Priorities	Published by Elsevier B.V.(accepted and under process of publishing)	Science Direct Procedia Manufacturin g 00(2022)000 -000





#### **PLACEMENTS**



SECAB.I.E.T. has collaborated with FUEL (Friends Union For Energizing Lives) India Pvt. Ltd. Hubli, an initiation towards better training and placement opportunities, under which students are offered with FREE trainings and placement assistance where they get the exposure of different engineering domains in line with industry requirements.

#### **PLACEMENTS**

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Mr. Ahsan Mehdi Momin Company: Capgemini Designation: Analyst/Software Engineer



Mr. Akshay Kalaburgi Company: Capgemini Designation: Analyst/Software Engineer



Mr. Ameet Kulkarni Company: Capgemini Designation: Analyst/Software Engineer



Mr. Zuber Khan Pathan Company: MANHATTAN Assoc. Designation: Technical Analyst



Mr. Vishal Joshi Company: Capgemini Designation: Analyst/Software Engineer



## SECAB.I.E.T

#### <u>Department of Electronics &</u> <u>Communication Engineering</u>

Programme Educational Objectives (PEOs):

PEO 1: Apply the knowledge of Electronics and Communication Engineering to analyze and solve Engineering problems.

PEO 2: Acquire core competency for successful adaptation to emerging technological developments.

**PEO 3:** Inculcate professionalism to solve societal and environmental issues.

**PEO 4:** Develop lifelong learning attitude by involving stakeholders.

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"All of us do not have equal talent. But, all of us have an equal opportunity to develop our talents." - Dr. APJ Abdul Kalam