AUGUST 2022

EDITION 4

TECHNOEDGE

DEPARTMENT OF ELECTRONICS AND COMPUTER SCIENCE

NEWSLETTER HIGHLIGHTS

- MY JOURNEY IN RESEARCH-DR. UDAY KAMATH
- STUDENT AND FACULTY ACHIEVEMENTS

August 2022

Department of E. C. S.

TECHNOEDGE

HIGHLIGHT

• My Journey from FRCRCE to Research

- Dr. Uday Kamath Electronics- Batch 1996

• Pill Cam

- Aayush Juhukar SE ECS

- The Metaverse -Shalaka Vengurlekar SE ECS
- IoT & AI for Health care Informatics
 - Prof. Sangeeta Parshionikar
- Department Activities
- S.P.H.E.R.E.
- Student Achievements
- Faculty Achievements





"When learning is purposeful, creativity blossoms. When creativity blossoms, thinking emanates. When thinking emanates, knowledge is fully lit. When knowledge is lit, economy flourishes." -Dr. CA.P.T. (Abdul Kalam

Message from Head of Department

"Success is not final, failure is not fatal: it is the courage to continue that counts." - Winston Churchill



Hello everyone!!

It gives me great pleasure to present the fourth edition of TechnoEdge, the Annual Newsletter of the Department of Electronics and Computer Science (ECS). We have now resumed completely offline from March 2022. It's great to see the campus buzzing with excitement after the last 2 years of the pandemic. Despite the trying times, faculty and students have held on admirably to the teaching-learning process ensuring that there are no lasting marks.

The ECS department is unique in many respects with its syllabus aimed at creating Engineers of the future with its inter-disciplinary approach. Students are exposed to a variety of subjects like Artificial Intelligence, Internet of Things, Robotics, Big Data Analytics, BlockChain, etc. Armed with a solid base in programming, we are positive that this branch of Engineering will generate well-rounded individuals. The department has taken up various initiatives in the past year like structured Mentoring as well as a Placement and higher studies assistance process. Many more initiatives have been planned out for the coming year. It is our constant endeavor as a department to ensure that our students will get the right assistance in every which way.

The Academic year 2021-22 saw the last Batch of Electronics Engineering pass out with excellent careers ahead of them. Though it is with a heavy heart we bid the branch adieu, we are now ready to move forward with purpose.

This edition will take you through the department activities, Student and faculty achievements as well as some articles by our beloved Alumni.

Happy reading!!

Dr. Sapna Prabhu Head of Department, Electronics and Computer Science

From Editor's Desk



"Learn from yesterday, live for today, hope for tomorrow. The important thing is not stop questioning."

Albert Einstein

Greetings!!! I have been doing a lot of thinking about what to write about in this edition of TechnoEdge, official newsletter of Department of Electronics and Computer Science and doing some reading on technology whenever I get the chance. This edition of TechnoEdge showcases motivating journey of Dr. Uday Kamath from FRCRCE to Research. It includes technical articles by students and faculty.

"Instructions do much, but encouragement everything!" TechnoEdge also showcases students and faculty achievements.

Happy Reading!!!

Archana Lopes Assistant Professor, Electronics and Computer Science

Best Wishes to Dr. Srija Unnikrishnan



Dear Srija Ma'am,

Your journey in this institute as a professor to the principal of the college is exceptional. You have inspired many students' life. Thank you for providing an atmosphere of motivation and your graciousness, friendliness and team work is going to be missed. You have indeed made a great difference in the lives of students, teachers and staff members. Thank you for being someone we can look up too. Enjoy this new journey in your life!

FRCRCE TO RESEARCH.. Dr. Uday Kamath Electronics - Batch 1996



Academic journey documents are both difficult and yet liberating to write—as I write this, I have come to understand that it is so important to appreciate the journey one has taken or the path one has chosen. Retrospection has allowed me to see that the choices I made, the difficult pathways I was loyal to have created my career as it stands today. This is what I would like to share with all of you.

I started my academic journey in 1992 as a student of the Electronics branch in FR CRCE. I hardly had a clear idea as to what studying electronics entailed or what the future prospects of it were. I simply went in with the knowledge that electronics was the chosen field of many at that time taking this well trodden path was then a no brainer for me. It also made sense to me then because it allowed me to stick to my particular affinity towards Math. It was also reassuring given I had a good hand on basic scientific knowledge needed to pursue such a subject. It allowed me to trust my skills even after I had done miserably in Physics for my IIT JEE exam. While I lost my chance to go to an IIT , I gained a different pathway in the process.

I was pleasantly surprised to find out through my experience that Fr. CRCE had an outstanding faculty that encouraged open and honest discussions and had a pedagogical infrastructure that reinforced scientific and technological curiosity. Looking back, it was rare in an Indian setup, especially three decades back, for faculty to embrace such academic freedom and democratic exchange. The experience of questioning or discussing openly with your lecturers and even lab personnel was a rare but really pertinent experience for me. It set the standard for what academic exploration and rigors should look like.

While continuing on this path of exploration, I found Math to be my central anchor. Both as a subject and its specific application in, for example, signal processing and telecommunication, gave me the necessary foundation to build my own topics of interest on. There is a tacit agreement, even within Mathematics circles, that such topics in Math do not have translative value in real life, that they are esoteric.

As you will see, my own journey has proven this to be far from the truth-indeed, I will be thankful for these earlier choices I made in my life that proved to be critical and paradigmatic in how my career proceeded.

After working for one year in the reputed technology and engineering company, Siemens, getting through campus placement, I decided to pursue Masters in Computer Science and got admitted to UNCC in 1997— this time my choice was not based on having to take the road most taken but instead, it was for quenching my scientific thirst of knowledge and mastery of concepts. The two years were spent mostly in mastering the basics of algorithms, software engineering, data structures, programming, etc. This was so important to me as a thinker given all of these learnings, time and again, have proven to be critical in any research or real-world, in my opinion.

Soon after, I joined an early startup called Digital Harbor with revolutionary ideas of modeling the data and visualizations to the next level. After almost half a decade, the company was acquired by Norkom, and it had begun its journey in detecting fraud in financial systems through advanced analytics. It is at this time particularly, I got interested in learning how to learn from data and AI's role in automating many things humans do. During this time, I decided to pursue this passion by getting a formal degree and joined GMU (a local university) around 2008. I was honored to be a paty of such an institution that had some well-known names in the academic world, like Dr. Ken De Jong, the founder of Evolutionary computing, a branch of Artificial Intelligence using biologically inspired ideas to solve complex problems in optimization. In a couple of years, I had completed the required courses and was using my practical side (work and programming related gained through prior experience) to combine with my newly acquired interest in AI (evolutionary computing, machine learning, bioinformatics, etc.) to publish papers in journals and conferences. All the Math (differential equations, linear algebra, multivariate calculus, probability, etc.) learned during engineering suddenly became the most helpful tool in the research of AI. Publishing research papers with eminent scholars and professors in the top conferences and journals motivated and encouraged me to keep improving and accomplishing more. I completed my Ph.D. thesis under Dr. De Jong in scalable machine learning with bioinformatics and time series applications.

I then joined various companies such as BAE Systems, Digital Reasoning, and Smarsh to lead the applied research teams. I have trusted my instincts and followed the same recipe - of continuing to learn new things, looking at the value propositions of research from its value for business all the while attempting to solve challenging problems. In the past few years, I have contributed to several areas in AI, such as healthcare (automated cancer detection), financial (regulatory compliance and trade intelligence), government (security and threat detection), to name a few.

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I have contributed to around six books in AI and machine learning; some are top sellers. In addition to working as a Chief Analytics Officer at Smarsh, I still collaborate with many academic professors at various universities in human-computer interactions, speech recognition, computational linguistics, robotics, agent-based modeling, etc., to keep abreast of all the research and exchange ideas.

My humble message to everyone reading this is to keep themselves open-minded, adaptable, and strive for their own excellence without comparisons. Especially honor your life trajectory with all its bumps and highs— what may not seem important to you at first glance, or what may seem like a failure or a well worn path could potentially lead to a different, more expansive and affirming future.

Books Authored by Dr. Uday Kamath



TECHNOEDGE

PILL-CAM Aayush Juhukar S. E. (E.C.S.)



We all belong to a society where technology is advancing at doubling pace. World famous business magnate and CEO of Tesla Motors, Elon Musk quoted "Engineering is the closest thing to magic that exists in this world". There have been many advancements in technology till date. Talking about the advancement in biotechnology and nanotechnology, a new device called "Pill Cam" was invented in the year 2000 by an Israeli engineer Gavreil Iddan.

Pill cam is device which is used for capsule endoscopy. Capsule Endoscopy is a procedure in which this pill cam which is a capsule is swallowed by the patient. The capsule travels through the small intestine where the traditional endoscopy method isn't much effective and clicks pictures which are later examined by the doctor. It is also used to detect Crohn's disease in its early stages. The size of the capsule is just 1.2 inches. The capsule consists of a camera sensor with lens, 4 SMD LEDS and an antenna mounted on a PCB which are powered by small button shaped batteries. While travelling inside the intestine, the camera clicks images which are transmitted by the antenna to the receiver on the belt which is strapped to the abdomen of the patient. The received images are then saved in the SD card which is also located on the strapped belt.

The capsule has a battery life of 8-10 hours and is capable of clicking 2000-25000 high-definition images. This technique is used to examine body parts like oesophagus, stomach, small bowel and colon. After the procedure, the capsule leaves the body from the excretory tract without any harm. This technique is harmless and painless as there is no incision made to insert the capsule. According to its inventor, the capsule is made in such way that it does not break open inside the body.

This procedure generally takes a day to complete but the patient undergoing capsule endoscopy has to follow a certain diet before and during the procedure. After the capsule is excreted out, the patient is free to eat anything (in some cases specific diet is advised). Paul Swain received the honour to be the first human on planet earth to swallow a capsule endoscope. This device is a great boon to medical science.

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THE METAVERSE Shalaka Vengurlekar S.E. (E.C.S.)



Oh the future is here guys! Metaverse is the next internet. Do you know what the metaverse means? Well, no one really does. I agree there has been a major technological shift in the last two years with the world going online amidst the pandemic, but living in a virtual world still sounds pretty uncanny to most people.

Let's take a look at what the hype around the Metaverse is all about.

Metaverse basically means a virtual world where real people can interact virtually. It can be viewed as an umbrella technology for various other tech like augmented reality and virtual reality. But it doesn't always mean you need a AR or a VR to access the metaverse, even games like Roblox, Fortnite and Minecraft can be considered as metaverse. The idea being a virtual world that continues to exist even when you're not playing, a virtual place where you can interact with other people through your digital avatar, and not just consume technology, but get immersed in it.

Metaverse is often confused with the company Meta, formerly known as Facebook. Meta is one of the top companies who are investing and developing technologies around metaverse, but not the only company to do so. Some more companies are Google, Microsoft, Fortnite creator Epic Games, Roblox, Nvidia, Unity, Linden lab. The fact that several tech giants are investing in the Metaverse makes it obvious that something great is on it's way. Although Fortnite and Roblox have only experimented with VR models, Meta has come up with some VR only spaces like Horizon worlds, and has also made a huge investment in the AR and VR hardware. Other leading metaverse worlds include Decentraland, Sandbox, Hyperverse, spatial. TardiVerse, a Tamil Nadu based startup was recently big in news as it is where India's first metaverse wedding reception was hosted on 6th February 2022. The newlyweds had set up a Hogwarts-themed metaverse for the reception, as they wanted to avoid the covid restrictions. More than 3000 guests attended the event on the platform. Sure, it does sound strange, but that is what every change looks like at the start. Overall, the metaverse is currently in a very primitive stage with basic cartoonish avatars and clumsy worlds, and a lot more is yet to be developed. So it's time to think as engineers, and as humans, about how we can develop this future of the internet which is going to change our lives immensely

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EVOLVING TECHNOLOGIES: IOT AND ARTIFICIAL INTELLIGENCE FOR HEALTHCARE INFORMATICS

Prof. Sangeeta Parshionikar Assistant Professor, ECS



The healthcare domain is one of the fastest-growing fields for IoT and AI. The entire healthcare sector is facing many challenges like shortage of healthcare personnel, medical resources, patient consultation, remote monitoring, etc. These problems are becoming more prominent in developing countries due to the lack of good quality hospitals and medical expertise. The convergence of IoT and AI slowly changing conventional health care to smart healthcare. By incorporating these technologies the performance of various domains of medical application such as diagnosis, prognosis, monitoring, spread control, and assistive systems, is improving, and still, research is going on. Early diagnosis and detection of life-threatening diseases such as cancer, heart disease, and diabetes is being possible with IoT and AI.

With wearable IoT, technology patients can provide real-time data on physical conditions like their vital signs, activities, and medication details. This led to the challenge of handling a large volume of healthcare data. Here AI techniques assist medical practitioner/ researcher to deal with such large amount of data and brings out important findings about diagnosis by utilizing, analyzing and processing patient data. AI techniques play a crucial role in dealing with large amounts of heterogeneous, multi-scale, and multi-modal data coming from IoT infrastructures. With health informatics AI has the capability to support medical experts in making diagnoses, predicting the spread of diseases, and designing treatment paths.

Informatics has changed the way health care organizations operate. Today's health care businesses are able to derive useful facts from seemingly infinite data collections. By streamlining organisational processes, informatics technology helps hospitals and other healthcare facilities save a lot. The technology also allows organizations to perform faster diagnostics, reducing overall patient costs, risk of harm, and discomfort.

The demand for health informatics grows, when there is transition from paper work to EHR (Electronics Health Record). Students with STEM degrees will be in high demand as the need for qualified informaticists grows.

To make sure the next generation of informaticists are up to date and able to adapt quickly to the changing healthcare landscape, it's important for universities to offer degree programs that emphasize hands-on learning in health IT, data analysis, and the healthcare system.

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DEPARTMENT ACTIVITIES

Mentoring Sessions





Mentoring Session 1 : "Fall Forward: Be Industry Ready Ms. Ipsita Bhattacharya B.E. Computers Batch 2014



Mentoring Session 3 : "What I Wish I Knew When I wan in Second Year" Ms. Mariya Ali B.E. Electronics, Batch 2016



JY.CRCE

Mentoring Session 2 : "Competitive Coding" Mr. Sankalp Rane B.E. Computers, Batch 2020

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DEPARTMENT ACTIVITIES

Guest Lectures

Fr. Conceicao Rodrigues College of Engineering



Guest lecture on "Machine Learning in IoT"

by Dr. Bhanu Prakash Kolla, Professor, K.L University for students in Third year and Final year ECS



DEPARTMENT INITIATIVES S.P.H.E.R.E.

Supporting Placements & Higher Education Requirements in Engineering

SPHERE aims to create a complete 360° support system in becoming a single point of contact in the Department for addressing all student related queries of career counseling, academic guidance, placements, higher education, developing the relevant skill sets etc. along with providing suitable resources in order to achieve them.

OBJECTIVES

- To guide students in selecting the career path of their choice.
- To equip students with the necessary skill sets as per requirements .
- To apprise students about higher education prospects.
- To make students professionally mature & employable graduates.
- To improve soft skills & communication abilities of students.
- To help bridge the gap between industry & graduate professionals.

DEPARTMENT INITIATIVES S.P.H.E.R.E.

Supporting Placements & Higher Education Requirements in Engineering

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING

AN INITIATIVE BY THE DEPARTMENT OF ELECTRONICS & COMPUTER SCIENCE

<u>Supporting Placements & Higher</u> <u>Education Requirements in</u> <u>Engineering (SPHERE)</u>

SPHERE aims to create a complete 360° support system in becoming a single point of contact at the Department level for addressing student related queries of career counseling, academic guidance, placements, higher education, developing the relevant skill sets or upskilling etc. along with providing suitable resources in order to achieve them.

No.	Name of SPHERE Activity	Date	Scan QR Code for Details	
1.	Orientation Programme for Description & Guidance in Selection of Elective Subjects	12 th June 2021		
2.	Orientation Programme on Internships – Needs & Objectives, Overview & Types of Internships	4 th October 2021		
з.	Introduction to SPHERE – Supporting Placements & Higher Education Requirements in Engineering	8 th January 2022		
4.	Virtual Guidance & Preparatory Arrangements with Mentoring for On-campus Placement Process	5 th March 2022		
5.	Industrial Visit for Interaction with Outside World & 23 rd April 2022			
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	Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400050. www.frcrce.ac.in / +91-22-67114111 / ecs.frcrce@gmail.com			

ACTIVITIES FOR A.Y. 2021 – 2022



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A SPHERE Activity on Preparation for Placem

ent Process for T.E. (ECS) - Se

Saturday 5th March 2022 at 03:00 pm IST onwards on Google Meet (online) for A.Y. 2021 - 2022

DEPARTMENT INITIATIVES

S.P.H.E.R.E.- Industrial Visit Kay Vybin Corp. Pune 23rd April 2022













DEPARTMENT INITIATIVES

S.P.H.E.R.E.

Preparatory Session on Higher Studies in Ireland



STUDENT ACHIEVEMENTS Courses Done

Student Name	Company Name	Course Name
Rutik Yerunkar	Coding Ninja	Introduction to Python
Santo Sunny	mycaptain	Web Development
Atharva Getle	Udemy	The Complete 2022- Web Development Bootcamp
Yukta Wagh	Great Learning	Front end Developer-CSS
Yukta Wagh	Great Learning	Android Application Development
Yukta Wagh	Great Learning	Front end Developer-HTML
Yukta Wagh	Great Learning	Introduction to Artificial Intelligence
Yukta Wagh	Great Learning	Pygame
Yukta Wagh	Great Learning	Introduction to Java Script
Yukta Wagh	Great Learning	Python Tkinter
Kaushik Nakashe	Coursera	Applied Data Science Capstone
Kaushik Nakashe	Coursera	Data Analysis with Python
Kaushik Nakashe	Coursera	What is Data Science?
Kaushik Nakashe	Coursera	Data Science Methodology
Kaushik Nakashe	Coursera	Tools for Data Science
Kaushik Nakashe	Coursera	Data Visualization with Python

Courses Done

Student Name	Company Name	Course Name
Kaushik Nakashe	Great Learning	Android Application Development
Kaushik Nakashe	Great Learning	Front End Development- HTML
Kaushik Nakashe	Great Learning	Cloud Foundations
Kaushik Nakashe	Great Learning	Microsoft Azure Essentials
Kaushik Nakashe	Great Learning	Python for Machine Learning
Kaushik Nakashe	Udemy	Learn Ethical Hacking from Scratch
Ronit Jhaveri	Cognitive Lab	Cognitive applications
Aayush Juhukar	Great Learning	Python Tkinker
Aayush Juhukar	Great Learning	Python for Machine Learning
Aayush Juhukar	Great Learning	Python Fundamentals for Beginners
Aayush Juhukar	Great Learning	Front End Development- HTML
Mohsin Ghadiali	Google Digital Garage	The Fundamentals of Digital Marketing
Ajinkya Pathare	Datacamp	Introduction to SQL
Jinish Varaiya	mycaptain .	Java Programming
Shubham Soni	Skill Vertex	Full Stack Web Development Program
Mohammad Nalwala	Internshala	Programming with C and C++
Mohammad Nalwala	Internshala	Programming with Python

Courses Done

Student Name	Company Name	Course Name
Prachiti Patil	X Billion Skills Lab	Workspace Intelligence
Dhruv Pednekar	Skillshark	Electric Vehicle Safety Fundamentals
Kunal Wagh	Great Learning	Java Programming
Kunal Wagh	Great Learning	Python Fundamentals for Beginners
• Sherwin D'souza	Udemy	C Programming on Windows for Beginners
Sherwin D'souza	Udemy	Get Started with NodeJS: For Beginner 2021
Sherwin D'souza	Udemy	Object Oriented Programming in Python- Aided with Diagrams
Kaushik Nakashe	Coursera	Python for Data Science, AI and Development
Kaushik Nakashe	Coursera	Python Project for Data Science
Ronit Patange	Google Digital Garage	The Fundamentals of Digital Marketin
Jason Rodrigues	Skill Shark	Electric Vehicle Safety Fundamentals
Vrushti Shah	Coursera	Introduction to Virtual Reality
Vrushti Shah	Coursera	Introduction to Cyber Attacks
- Kaushik Nakashe	Coursera	Databases and SQL for Data Science with Python
Kaushik Nakashe	Coursera	Machine Learning with Python

Courses Done

Student Name	Company Name	Course Name
Vrushti Shah	Coursera	What is Data Science?
Yukta Wagh	Great Learning	Python for Machine Learning
Yukta Wagh	Great Learning	Python Fundamentals for Beginners
Jinish Varaiya	Coursera	Front End Web UI Frameworks and Tools: Bootstrap 4
Lavil Saldana	TIH Foundation for lOT & lOE, IIT Bombay	Internet of Things (loT)
Avaneesh Gaikwad	Microsoft	Microsoft AI Classroom Series
Avaneesh Gaikwad	Coursera	Programming for Everybody (Getting Started with Python)
Avaneesh Gaikwad	Coursera	Introduction to HTML
Shalaka Vengurlekar	TIH Foundation for lOT & lOE, IIT Bombay	Internet of Things (loT)

Student Internships

Student Name	Company Name
Sherwin D'souza	CyberFrat
Ajinkya Pathare	Tann Mann Gaadi
Ajinkya Pathare	C-Limitless Technologies
Sahil Mahimkar	Learnovate Ecommerce
Max Johnson	Cloud Counselage Put. Ltd.
Max Johnson	Engineer's Grade
Rutik Yerunkar	Cloud Counselage Put. Ltd.
Jinish Varaiya	Symphony Infotech
Santo Sunny	myCaptain Ltd.
Mathew Payapilly	Younity Community LLP
Mathew Payapilly	DFY Content
Shubham Sony	Skill Vertex
Farhan Khan	Younity Community LLP
Emmanuel Saju Vazathra	DFY Content
Sahil Bane	Binary Curve
Emmanuel Vazathra	The Tann Mann Gaadi
Yukta Wagh	Airport Authority of India
Fiola Mathias	Schbang Digital Solutions Put. Ltd.
Ronit Patange	IEEE-RGIT

Student Internships

Student Name	Company Name
Max Johnson	Zee- Mind Wars
Benhur Falcao	PyTech
Divanshu Tandon	O.N.G.C. Vadodara
Sharvin Sunny	The Entrepreneurship Network
Sharvin Sunny	Derest

Extra Curricular Activities

CERTIFICATE of achievement	{म्} मुंबई Hackathon		ICAO RODRIGUES COLLEGE		ÇRCE
This certificate is presented to Santo Sunny, Hitesh Sharma, Sohil Bane, Malaika Montenio, Naman Chouhan for winning 3rd position at Mumbai Hackathon on 9th and 10th April 2022 at DBIT Kurla	$\{\Pi$		THIS IS AWARDED TO Iaka Vengu Hour live workshop "Stepping int lent to stand as RUNNER-UP under June 19, 2021 by Team Robocon	o Robotics" and exceling in the domain "Computers" he	the ild on
Radrida Melha Radrida Melha Radri di Frage Holecages	N ZERODHA Frappe F055	RICHA TRIPATHI Team Captain	EDWIN CLEMENT Technical Incharge	DR. DEEPAK BHOI Dean of Student Affa	
GALACTIC PROBLE	M-SOLVER	Certificate Number: ATVC20			MYLEAGUE IFICATE Of Participation
NASA's International Space Apps Challenge prov Santo Sunny for outstanding participation and ef challenges in the largest global annual f	7		2021 ELECTR	This certificate is Emmanue	proudly awarded to El Vazathra science engineering BRANCH
Sandra Cauffman NASA Earth Science Deputy Division Director	Date: October 2-3, 2021				(Second Year) IRTUAL SEASON-2, 9 to sfully completing all the rounds of the event.
anterese etc.	KA 👞 🎉 🚳 Genera			h ishank Jain Head Judge	Pavan Tiwari Director, Infi league Motorsports www.atvcofficial.in









Winner of Girls Throwball B.E. Electronics



Winner of Table Tennis Gautami Thankur & Ritika Patil B.E. Electronics



Convocation Ceremony Electronics - Batch 2021



Placement Statistics



Total no. of offers - 84 Total no. of companies - 62 Highest package - INR 10.35 LPA (U. B. S.) Average package - INR 4.87 LPA

tudents with Three Placement Offers = 8 Students with Four Placement Offers =





FACULTY ACHIEVEMENTS Paper Publications

Sr. No.	Publications
1	Siddharth Goutam and Srija Unnikrishnan: analysis of Vertical Handover parameters using ANOVA, AICTE sponsored National Conference on Communication, Computational Intelligence and Learning, NCCCIL -21, Army Institute of Technology, Pune, 12-13 January 2022
2	Monica Khanore and Srija Unnikrishnan: A Simple and Sturdy Hybrid Interference Canceller for a DS-CDMA System in Multipath Environment for Static and Mobile Users, Recent trends in Electronics and Communication, Lecture Notes in Electrical Engineering, Volume 777, Springer, ISSN 1876-1100, ISSN 1876-1119 (electronic), ISBN 978-981-16-2760-6, ISBN 978-981-16-2761-3 (eBook), pp 145-154, 2022, https://doi.org/10.1007/978-981-16-2761-3_14 (Scopus Indexed)
3	Siddharth Goutam and Srija Unnikrishnan: Algorithm for decision of vertical handover in femto environment, International Journal of Mobile Network Design and Innovation, InderScience Publishers, Vol 10, No.2, 2021, pp 55-62
4	Ami Munshi and Srija Unnikrishnan: A responsive compressive sensing based channel estimation algorithm using curve fitting and machine learning, International Journal of Systems, Control and Communications (InderScience Publishers)
5	Siddharth Goutam and Srija Unnikrishnan: QoS Evaluation for Wireless Networks using K-Nearest Neighbor (k_NN) Algorithm, Lecture Notes in Networks and Systems nr. 214 - Mathematical, Computational Intelligence and Engineering Approaches for Tourism, Agriculture and Healthcare, Springer, Series volume 214, eBook ISBN 978-981-16-3807-7, Hardcover ISBN 978-981-16-3806-0, Series ISSN 2367-3370, DOI 10.1007/978-981-16-3807-7, September 2021
6	Kailash Nair, Manoah Jeyaraj, Dr. Sapna Prabhu and Noel James, " Smart User Authentication using Keystroke Dynamics". International Journal of Advance and Innovative Research

Paper Publications

Sr. No.	Publications
7	Arunima Varma and Srija Unnikrishnan: Effect of payload security in MQTT protocol over transport and application layer, IOP Conf. Series: Materials Science and Engineering, Volume 1166, International Conference on Materials Science and Manufacturing Technology (ICMSMT 2021), 8th-9th April 2021, Coimbatore, India, DOI:10.1088/1757-899X/1166/1/012019
8	Siddharth Goutam and Srija Unnikrishnan: Design, Implementation and Analysis of Vertical Handoff Decision Algorithm, International Journal of Interdisciplinary Telecommunications and Networking, Volume 13, Issue 3, pp 32-52, July- September 2021, DOI: 10.4018/IJITN.2021070103
9	Siddharth Goutam and Srija Unnikrishnan: Algorithm for decision of vertical handover in femto environment, International Journal of Mobile Network Design and Innovation, InderScience Publishers, Vol 10, No.2, 2021, pp 55-62
10	Binsy Joseph and Dr Deepak Vishnu Bhoir : Design and Assessment of Electric Vehicle Performance Parameters based on Drive Cycle International Conference on Automation, Computing and Communication 2021 (ICACC-2021) ICACC-2021, ITM Web of Conferences 40, 01007 (2021) DOI: https://doi.org/10.1051/itmconf/20214001007
11	A. P. Lopes, S. Parshionikar, A. Kale, N. Sharma and A. A. Varghese, "Comparative Analysis of Deep Learning Techniques For Credit Card Fraud Detection," 2021 International Conference on Advances in Computing, Communication, and Control (ICAC3), 2021, pp. 1-5, doi: 10.1109/ICAC353642.2021.9697205.
12	Sushma Nagdeote Heenakausar Pendhari, Omkar Shirsat, Raj Lad, Sujata Chiwande , "Esports Analysis with Data Science", iCATCHCOME 2022, AIP Proceeding 2022
13	Nagdeote S. and Prabhu S., "Hybrid UNet Architecture based on Residual Learning of Fundus Images for Retinal Vessel Segmentation", in Journal of Physics Conference Series, 2021, vol. 2070,doi:10.1088/1742- 6596/2070/1/012104.

Courses/FDPs Attended

Name of the faculty	Course Done	Place	Duration
Sushma Nagdeote	"Future Trends in Biomedical Engineering",	NMIMS	08/12/2021 - 14/12/2021
Sushma Nagdeote	"Deep Learning and its Application",	K. J. Somaiya Institute of Engineering and Information Technology, Sion.	13/12/2021 - 18/12/2021
Sangeeta Parshionikar	Trends in Machine Learning and Data Science	L.T.College of Engg.	28/06/2021 – 30/06/2021
Sangeeta Parshionikar	Cyber Security: Individual, Technology and Research Trends	Vidyavardhini's College of Engineering and Technology	21/06/2021 - 26/06/2021
Sangeeta Parshionikar	ATAL FDP on "Deep Learning for Natural Language Processing"	Bhilai Institute of Technology Durg	15/11/2021 - 19/11/2021
Sangeeta Parshionikar	ATAL FDP on "Object Detection And Recognition Using Deep Learning Techniques"	K.L. University, Hyderabad	08/11/2021 - 12/11/2021
Sangeeta Parshionikar	Innovation Ambassador training	MoE's Innovation cell and AICTE	30/06/2021- 30/07/2021
Sangeeta Parshionikar	Artificial Intelligence and Machine Learning	NIT Warangal	21/08/2021- 30/08/2021

Courses/FDPs Attended

Name of the faculty	Course Done	Place	Duration
Archana Lopes	ATAL FDP on "Deep Learning for Natural Language Processing"	Bhilai Institute of Technology Durg	15/11/2021 - 19/11/2021
Archana Lopes	ATAL FDP on "Emerging Challenges in Cyber Security"	Govind Ballabh Pant Engineering College	18/10/2021 - 22/10/2021
Archana Lopes	ATAL FDP on "Object Detection And Recognition Using Deep Learning Techniques"	K.L. University, Hyderabad	08/11/2021 - 12/11/2021
Archana Lopes	ATAL FDP on "Application Areas of Data Analytics"	Indian Institute of Information Technology- Allahabad	23/10/2021 - 27/10/2021
Archana Lopes	ISTE STTP on " Cyber Security: Individual, Technology and Research Trends"	Vidyavardhini's College of Engineering and Technology	21/06/2021 - 26/06/2021
Archana Lopes	Data Structures and Algorithms	Udemy	
Archana Lopes	Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning	Coursera	

Courses/FDPs Attended

Name of the faculty	Course Done	Place	Duration
Heenakausar Pendhari	Machine learning using Python	APPTRONIX TECHNOLOGIES – NOIDA	21/02/2022- 05/03/2022
Heenakausar	Inculcating Universal Human	AICTE	12/07/2021-
Pendhari	Values in Technical Education		16-07/2021
Heenakausar	Innovation Ambassador	MoE's Innovation	30/06/2021-
Pendhari	training (Foundation Level)	Cell & AICTE	30/07/2021

Interaction with outside world

SYLLABUS SETTINGS

Dr. Sapna Prabhu

Program Coordinator for "Electronics and Computer Science" branch under the University of Mumbai

Coordinator of syllabus committee for the subjects "Internet of Things", "Microprocessors and Microcontrollers", "Computer Organization and Architecture", "Embedded Systems and RTOS" of "Electronics and Computer Science". (UG program under University of Mumbai)

Coordinator of syllabus committee for the subject "Internet of Things", "Industrial IoT" and "Computer Organization and Architecture" of "Electronics Engineering". (UG program under the University of Mumbai).

Prof. K. Narayanan

 Coordinator of syllabus committee for the subjects "Digital Signal Processing" and "Robotics" of "Electronics and Computer Science". (UG program under University of Mumbai)

Dr. D.V. Bhoir

 Coordinator of syllabus committee for the subjects "Sensors and Applications", "Industrial Automation" and "VLSI Design" of "Electronics and Computer Science". (UG program under University of Mumbai) TECHNOEDGE EDITION 4

Interaction with outside world

SYLLABUS SETTINGS

Prof. Shilpa Patil

 Member of syllabus committee for the subjects "Digital Design with Reconfigurable Architecture" of "Electronics Engineering". (UG program under University of Mumbai)

Prof. Monica Khanore

 Coordinator of syllabus committee for the subjects "Communication Engineering" of "Electronics and Computer Science". (UG program under University of Mumbai)

Prof. Jagruti Nagaonkar

 Member of syllabus committee for the subjects "Sensors and Applications" of "Electronics and Computer Science". (UG program under University of Mumbai)

Prof. Sangeeta Parshionikar

 Coordinator of syllabus committee for the subjects "ASIC Verification" of "Electronics and Computer Science". (UG program under University of Mumbai)

Interaction with outside world

SYLLABUS SETTINGS

Prof. Archana Lopes

- Coordinator of syllabus committee for the subject "Advanced Networking Technologies" of "Electronics and Computer Science". (UG program under University of Mumbai)
- Coordinator of syllabus committee for the subject "Advanced Networking Technologies" of "Electronics Engineering". (UG program under University of Mumbai)
- Member of syllabus committee for the subject " Neural network and Fuzzy Logic" of "Electronics Engineering". (UG program under University of Mumbai)

Prof. Jayen Modi

 Coordinator of syllabus committee for the subjects "Electronic Devices" and "Electronic Circuits" of "Electronics and Computer Science". (UG program under University of Mumbai)

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