

# STUDENT ACHIEVEMENTS 2023-2024

October - December 2023



Ms. Manjusha Kulkari, Research Scholar completed a MOOC Course on NPTEL titled <Research Methodology> course duration from August-October, 2023.



Student team of 5th semester CSE under the name Alpha Debuggers were the top 10 in state level Cognizant Hackathon Technoverse 2023 got internship opportunity in the cognizant with certificate on 10th October, 2023.



5th Sem CSE students Chirag Aswal (ENG21CS0096), Aditya Pandey (ENG21CS0014), Bhagyalakshmi R A (ENG21CS0071) presented their Special Topic Project in the REVA HACK 2023 (track: IOT and Machine learning and cloud) a 36-hour hackathon held from 2nd Nov 2023 to 4th Nov 2023 at Reva University, Bengaluru under the guidance of Dr. Pramod Kumar Naik, Associate Professor, CSE. They successfully concluded the development of the project: Advanced Waste Management System and won the prize (IoT kit) for the Best implementation of MongoDB.



Mr. Chandru R., final year student (ENG21CS1004) has secured a prestigious position among the top 100 winners in the "National Level Quiz Competition" organized by Apponix Academy.



Chirag Aswal (ENG21CS0096), Pragati P Komarla (ENG21CS0300), Abhishek T N(ENG21CS0007), Ganesh Shinde, Pavanananda K S (ENG21CS0293), Spandan Das(ENG21CS0520) of 5th Semester CSE guided by Prof.Savita Vijay, with project titled <Optimized SW Distribution NMS to NE= in collaboration with Nokia, has been selected as one of the top 10 projects from across India for the University Day@Nokia event on 13th October, 2023.



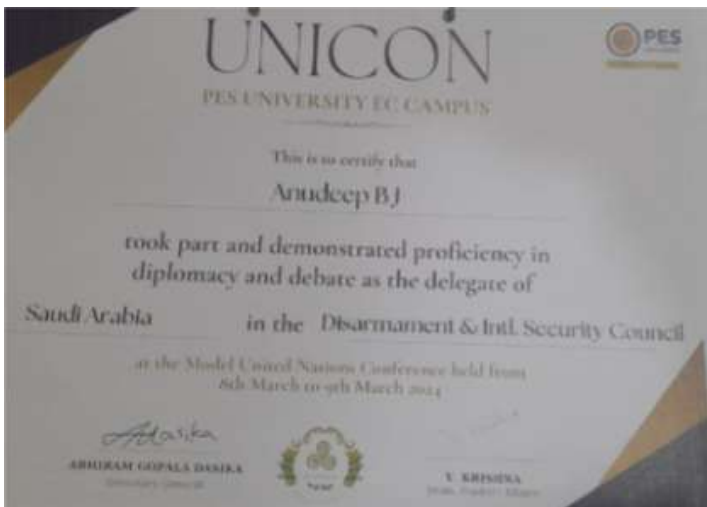
Third Semester students of Computer Science & Engineering along with students of Computer Science & Engineering (AI&ML), Eshaan U Bhat (ENG22CS0539) Gagan Nagarjuna (ENG22CS0304) have participated in the CTF (Capture The Flag) Competition hosted by BMS College of Engineering on 15th December, 2023 and got first place and a prize money of Rs. 3500/-.



Eeshaan U Bhat, Bilal Ahmed , and Gagan Nagarjuna, Computer Science Engineering (CSE) students from Dayananda Sagar University (DSU), achieved a remarkable feat by securing the first place in the CTF event at Techkriti hosted by IIT Kanpur. Their outstanding performance not only brought glory to the university but also earned them a prestigious cash prize amounting to Rs 40,000.

Mr. Samprith S and Dr. Rajesh T.M, Associate Professor has published a Conference paper in 2023 International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT) titled “Credit Risk Customers Categorization with Random Forest Classifier using Various Searching Techniques”.

Ms. Anitha N.S, Research Scholar and Dr. Rajesh T.M, Associate Professor have published a research article in Indonesian Journal of Electrical Engineering and Computer Science, titled “Evaluation of filtering and contrast in X-ray and computerised tomography scan lung classification” Q3, indexed in Scopus.



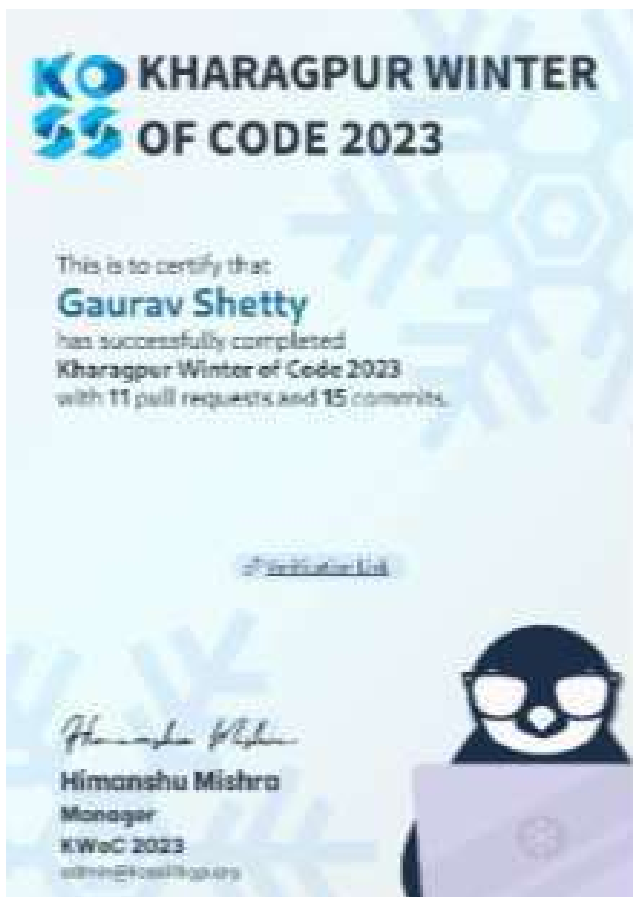
Mr Anudeep J (ENG22CS0244) has successfully participated and demonstrated proficiency in diplomacy and debate as the delegate of Saudi Arabia in the Disarmament & Intl. Security council at the Model United Nations Conference held from 8th March to 9th March 2024 in PES University.



Mr. Pranav Bawgikar (ENG21CS1015), K J Devaiah (ENG20CS0136), Yogdeep G (ENG20CS0418) and Dr. V. Revathi, Associate Professor has Presented and published a Conference paper in 29th March 2024, International Conference on Computing and Machine Learning (CML2024), Springer, titled “Decentralized Health Care Ledger System on Hedera with Deep Learning Analytics”.



Ms Amith R, D Akshitha, Sadhana B and Dr Pramod Kumar Naik, Associate Professor has presented and published a paper in the 1st International conference on Machine Learning Algorithms -ICMLA 2024 on 23rd and 24th February 2024, Springer, organized by Chitkara University, Himachal Pradesh, India.



Mr. Gaurav Shetty (ENG22CS0061) has successfully completed Kharagpur Winter of Code 2023 by passing both evaluations with a total of 11 pull requests and 15 commits, A 5-week long online program for students who are new to open-source software development on 31 st Jan 2024.



Mr. Gaurav Shetty (ENG22CS0061) has successfully completed Explore Supply Chain Job Simulation on Determine critical requirements for a turbobfan disassembly fixture Disposition non-conforming turbine blade conducted by GE Aerospace on 2 nd February 2024.





Mr. Vikram G Rathod (ENG22CS0207) has successfully Participated Intercontinental Innovo Quest-2024 on 1st March 2024 at DSU.



Mr. Ayush kumar (ENG22CS0060) has successfully participated the Intercontinental Innovo Quest-2024 on 1st March 2024 at DSU.



Mr. Vikram G Rathod (ENG22CS0207) has successfully Participated in a Coding Contest called Code-A-Bit on 21st and 22nd March 2024 at DSU kudlu gate campus.



Mr. Adarsh Priyadarshi (ENG22CS0517) Won 1st Prize worth Rs. 2000 in Lok Sabha committee in COPE Edition 1 of the MUNSOC, held on 22nd & 23rd, March 2024 at DSU.



Mr. S G Sumanth (ENG22CS0140), attended One Day Workshop on Vedic Mathematics held on 30th, March 2024 at DSU.



Gaurav Shetty (ENG22CS0061) has successfully participated Treasure hunt The Unencrypted event on 27 th March 2024 organized by ACM club at DSU.



Mr. P Roshan (ENG21CS0286), has successfully Participated Intercontinental Innovo Quest-2024 on 1st March 2024 at DSU.



Mr. P Roshan (ENG21CS0286), has successfully Participated in “Mastering ReactJS: From development to Deployment with GitHub” organized by FSD club on 13 th and 14 th March 2024 at DSU.



Ms. Tejal Daivajna (ENG21CS0445), has successfully Participated Intercontinental Innovo Quest-2024 on 1st March 2024 at DSU.



Mr. Batchu Chaitanya Sai Kumar (ENG22CS0263), has successfully Participated Intercontinental Innovo Quest-2024 on 1st March 2024 at DSU.





Mr. Batchu Chaitanya Sai Kumar (ENG22CS0263), has successfully Participated in IEEE VTSoc website development/enhancement hackathon on 30th March 2024 at Hebbal Atria Institute of Technology.



Mr. S G Sumanth (ENG22CS0140), has successfully participated Treasure hunt The Unencrypted event on 27 th March 2024 organized by ACM club at DSU .



Mr. P Roshan (ENG21CS0286) has successfully Participated a Coding Contest called Code-A- Bit and Won the 4th Round of Code-A-Bit Hackathon which was based on Data Fusion from 21st and 22nd March 2024 at DSU kudlu gate campus.

April - June 2024



Ms. Ekta Maini, Research Scholar of Dr. Bondu Venkateswarlu, Associate Professor, received BITES Best PhD Thesis Award-2021 from BITES Best PhD Thesis Awards 2021 Ceremony on 2nd April 2024 at SIT, Thumakuru, Karnataka.



Ms Sanaa Kittur (ENG20CS0313), Swati Priya(ENG20CS0375),Shermeen Ulfat(ENG20CS0335) and Shravana(ENG20CS0339) final year project Guided by Dr Basavaraj N Hiremath, Professor, CSE and Dr Gopal Das, CDSIMER with project titled "Identifying and Diagnosing common mental disorders by Digital Phenotyping" got the second place with cash prize of Rs 20000 @ the Project Expo of MVJ college of Engineering Whitefield Bangalore held on 27th April 2024.



Mr. Ayush kumar (ENG20CS0047), Fahad U R Rahman (ENG20CS0097), Himanshu (ENG20CS0115), Uday Narayan Gautam (ENG20CS0390) and Dr. George Fernandez, Associate Professor, Presented and published a research paper in ICONSTEM 2024 titled "Early-Stage Detection of Autism Spectrum Disorders" in 9th IEEE conference organized by Jeppiaar Engineering college 4th and 5th April 2024.



# KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

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## 47<sup>th</sup> series of Student Project Programme (SPP): 2023-24

List of Student Project Proposals Approved for Sponsorship

Sl. No.	REGIONS/STUDENT NO.	PROJECT TITLE	YEAR	BRANCH	NAME OF THE STUDENT	NAME OF THE PROJECT	SPONSOR AMOUNT (Rs.)
01	47S_01_001	MAINTAINING THE QUALITY OF THE WATER	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
02	47S_01_002	DESIGNING A SYSTEM FOR THE AUTOMATICALLY CONTROLLED WATER	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
03	47S_01_003	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
04	47S_01_004	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
05	47S_01_005	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000

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## 47<sup>th</sup> series of Student Project Programme (SPP): 2023-24

List of Student Project Proposals Approved for Sponsorship

06	47S_01_006	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
07	47S_01_007	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
08	47S_01_008	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
09	47S_01_009	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
10	47S_01_010	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000

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## 47<sup>th</sup> series of Student Project Programme (SPP): 2023-24

List of Student Project Proposals Approved for Sponsorship

11	47S_01_011	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000
12	47S_01_012	ANALYSIS OF THE WATER QUALITY IN THE KARNATAKA STATE	01	ENVIRONMENTAL ENGINEERING	ANIL KUMAR SINGH	ANALYSIS OF WATER QUALITY IN THE KARNATAKA STATE	10000

For more details about the project, please visit the website: [www.kscst.org](http://www.kscst.org). For more details about the project, please visit the website: [www.kscst.org](http://www.kscst.org).

Ten final year BTech Projects from KSCST SPP scheme 2023-24 received funding of Rs. 37500/- in April 2024.



Mr. S G Sumanth (ENG22CS0140), has participated in Unleash your code with GSoC organized by DSU-ACM Student Chapter on 18-04-2024, at DSU.



Mr. Utkarsh Priye (ENG22CS0602), has participated in Unleash your code with GSoC organized by DSU-ACM Student Chapter on 18-04-2024, at DSU.





Mr. Gaurav Shetty (ENG22CS0061), has Participated Spring 2024 Battle of the brains coding contest Online held by Department of Computer Science, The University of Texas at Dallas on 13th April 2024.



Mr. Handigund Sai Prasad (ENG22CS0143), has participated in Talent Show and Won 1st Place in Group Singing held at DSU on 19th April 2024







Mr. Sandeep Kumar Pradhan (ENG20CS0315), Vinod V(ENG20CS0413), R DINAKAR (ENG20CS0272), PRAJWAL J (ENG20CS0258) and Uday Kumar A (ENG20CS0389) has successfully participated in The State Level Project Competition 2024 was held on April 27th, of Saturday, at Bangalore Institute Technology (BIT).



Mr. Amith R (ENG21CS0033), Ms D Akshitha (ENG21CS0102), Mr Amith Kumar P (ENG21CS0281), and Ms Akila A (ENG21CS0025), Students 6th Semester, Department of Computer Science and Engineering have participated in the e-YUVA Project Funding Proposal Presentation Competition organized by BIRAC. The event took place at the University of Agricultural Sciences, Dharwad, on 08/05/2024. Presentation focused on an innovative app called 'Lung Sight,' which utilizes an advanced approach to detect and classify lung nodules using CT images for the early detection of cancer. The app aims to contribute significantly to improving survival rates by enabling early identification of lung cancer under the guidance of Dr Pramod Kumar Naik.



Mr. Jashwanth P V (ENG23CSE005) and Mr Giridhar S T (ENG23CSE005), students of 1st year CSE have participated has a finalist in the grand finale of EG Hackathon 2024 from 14/5/24 to 15/5/24, at Mangalore.



Mr. Kamarsu Venkata Sriya (ENG21CS1009), Student of 8th semester CSE Won Second Prize in the DSU Project Expo 2024, conducted by CSE department on 17th May 2024.



Mr. Shreyas S (ENG21CS0389), Student of 6th sem CSE Won first place at the blockchain based web3wave event conducted by Carrer club at DSU on 03rd May 2024.



Ms. Sofia Rebecca (ENG22CS0590) and team, students of 4th semester have participated and won the consolation prize in Two-day PAN India Contest and Drone Competition. This team made a surveillance drone that recognises faces and can track objects. The event was held in the open auditorium at DSU,Harohalli from 9 am to 4 pm on 03rd May 2024.



Mr. Sujeet Mahadev Alagundi (ENG22CS0191) and Mr Sharanu Mitta (ENG22CS0160), students of 4th sem CSE has participated DSU Code Red Hackathon Contest was held on 22-23th of May by DSU ACM Student Chapter in DSU Main Campus Harohalli.



Ms. Sristi A H (ENG22CS0186), student of 4th semester CSE, has participated DSU Matrix International Hackathon Workshop on Exploring ARM technologies and opportunities held on 22nd May 2024, The HR conclave '24 held on May 24, 2024.





Mr. Adarsh Priyadarshi (ENG22CS0517), student of 4th semester CSE Participated in the Dayananda Sagar University Model United Nations Lok Sabha (DSUMUN) held at DSU Main Campus on 24-05-2024 & 25-05- 2024. Secured the 2nd position while representing Rajnath Singh, Hon'ble Defence Minister of India in the Lok Sabha and also awarded a cash prize for the same.



Ms Savita Chinnur (ENG22CS0156), student of 4th semester CSE, was awarded IEEE Women Engineering scholarship 50,000 funded by Quest global on 16th May 2024.



Ms N M Bhavana, student of 4th semester CSE has delivered a presentation on Personalized Carbon Emission Tracker during the workshop organized by INAE Bangalore Chapter and DSU on 11th may 2024.



Alumni Ms Subhra of 2021 batch currently doing MS in Carnegie Mellon University PA in USA donated a Textbook to the CSE department library on 21st June 2024 to Dr Girisha and Dr Rajesh receiving with Thanks.



Mr. Pavanananda K S (ENG21CS0293), student of 6th semester CSE Won 3rd place under AI/ML category in the pre-final year project exhibition Srishti 2024 Avishkar (State-level of project expo) held at Atria Institute Technology, Bengaluru on 24th May 2024.



Ms. Moni Shree S (ENG22CS0372), student of 4th semester CSE has participated in LaTeX Workshop on Technical Writing organized by the Department of Computer Science and Engineering, SOE, Dayananda Sagar University on June 3rd, 2024.



## Continuous user Authentication through Keystroke Dynamics

Dr. Suvika K V, Darshan Kumar M, Gunter Lohith Sai, Jasin Jayachandran and Kapil Adarsh S A  
Assistant Professor, Dept. of CSE, School of Engineering, Durgam Cheruvu University  
Bangalore, Karnataka, India

(Students, Dept. of CSE, School of Engineering, Durgam Cheruvu University)

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**Abstract** - Our research aims to tackle the urgent concern of personal computer security, specifically concentrating on enhancing user authentication. Conventional authentication techniques, such as passwords and PINs, have demonstrated susceptibility to diverse cyber threats, necessitating fresh ideas and pushing experts. Additionally, the user experience with these methods often falls short, leading to frustration and potential security vulnerabilities arising from weak or reused passwords. In address these issues and propel the field of personal computer security forward, we propose for a novel solution: User Authentication Based on Keystroke Dynamics. Keystroke dynamics leverage the unique rhythm and timing of a user's typing patterns, encompassing keypress duration and intervals, to authenticate users. This approach capitalizes on the uniqueness of each person's typing habits, rendering it robust and highly secure authentication method.

**Index Terms** - ICET, Keystroke Data, Continuous User Authentication

### 1. INTRODUCTION

In the ever-evolving landscape of the IT industry, where technology progresses at unparalleled productivity and efficiency, the exponential growth has created a continuous stream of challenges, notably the persistent threat of cyberattacks and data breaches affecting businesses and individuals.

Our industry exhibits a critical demand to confront and mitigate the formidable challenges through the strategic deployment of innovative analysis and continuous authentication. While technology has evolved in unprecedented advancement, it has also exposed vulnerabilities that demand security solutions.

In the realm of user authentication, the traditional methods of passwords and PINs have proven to be susceptible to various threats, including phishing, keylogging, and brute force attacks. These methods often rely on static information, which can be easily compromised or stolen. The emergence of continuous authentication methods, which rely on dynamic characteristics of user behavior, offers a promising solution to these challenges.

The continuous authentication approach leverages the unique characteristics of individual users, such as typing patterns, mouse movements, and device usage, to provide a more robust and secure authentication mechanism. This paper explores the challenges and opportunities associated with continuous authentication, and presents a novel approach to address these challenges.

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Mr. Darshan Kumar M (ENG20CS0081), Mr. Gunter Lohith Sai (ENG20CS0106), Mr. Jasin Jayachandran (ENG20CS0131), and Mr. Kapil Adarsh S A (ENG20CS0143) students of 8th semester CSE under the Guidance of Prof. Suvika K V, Assistant professor, presented and published a project paper in scopus indexed conference "International Conference on Emerging Technologies in Science and Engineering-ICETSE-2024" with the title "Continuous user Authentication through Keystroke Dynamics" during June 2024 organized by Akshaya Institute of Technology, Tumkur.

### Smart Bin: A Segregation and Management of Garbage for Smart City using IoT

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E-mail: [csengr2002@yahoo.co.in](mailto:csengr2002@yahoo.co.in), [csengr2002@yahoo.co.in](mailto:csengr2002@yahoo.co.in), [csengr2002@yahoo.co.in](mailto:csengr2002@yahoo.co.in)

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### References

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J. Polym. Sci. Part A: Polym. Chem. 42: 1035–1044 (2004)



Mr. Karanveer Singh (ENG21CS1027), Ms. Akshaya Singh (ENG20CS0022), Mr. Saksham Dubey (ENG20CS0310), and Mr. Hemang Verma ((ENG19CS0119) students of 8th semester CSE under the Guidance of Prof. Mala B A Assistant professor, presented and published a project paper in scopus indexed conference “International Conference on Emerging Technologies in Science and Engineering-ICETSE-2024” with the title “Smart Bin: A Segregation and Management of Garbage for Smart City using IoT” during June 2024 organized by Akshaya Institute of Technology, Tumkur.



Ms. Alisha Aric Fernandes (ENG21CS0021) and Ms. Bhat Dhanvi (ENG21CS0074), students of 6th sem are Attended the Q-Karyashala Workshop held on the 24th and 25th of June 2024 at the Indian Institute of Science, Bangalore. In this workshop, The knowledge gained is across various quantum computing concepts presented by professors from IIT and IISc. Additionally, they also participated in a hands-on workshop on ADS Quantum Pro and had a lab session on the Mach-Zehnder Interferometer.