



**BISHOP JEROME  
INSTITUTE  
KOLLAM**

**Department of ECE**

# NEWSLETTER

**MARCH 2024 | ISSUE 1**

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## **INSTITUTE VISION**

To Impart Technical Education and to foster a scientific temper to the local community that leads to academic excellence and to the development of an integral personality.

## **INSTITUTE MISSION**

Bishop Jerome Institute is committed to provide University Education in a Christian atmosphere to deserving students, especially of the Catholic Community. However it does admit other students also irrespective of caste and creed. The College aims at maintaining an ambience conducive to academic pursuits and at encouraging in its alumni an observant eye and an enquiring mind which should facilitate research and eventually raise them to the ranks of the eminent. The institution has also a social mission which is to turn out leaders with a social commitment and moral values; leaders who will pioneer social transformations for a brighter world.

## **DEPARTMENT VISION**

To nurture skilled and ethical Electronics & Communication Engineering professionals who can lead positive change for a better world.

## **DEPARTMENT MISSION**

- 1.To deliver top-notch academic programs that mirror international standards, emphasizing both academic excellence and professional proficiency.
- 2.To empower the students with vital industry and research skills, encouraging teamwork and clear communication to promote responsible practices in Electronics & Communication Engineering.

# HOD'S DESK



**Mr. Roy S, Associate Professor**

—  
***"As we celebrate our  
achievements, let's  
remember that our  
commitment to excellence  
is what propels us forward,  
semester after semester"***  
—

It is with great pleasure that we present the 2023-24 edition of the department newsletter. This platform is dedicated to sharing educational insights, departmental activities, and achievements.

As we reflect on the past semesters, I am proud to share some of the exciting developments and accomplishments within our department. From engaging educational activities to impactful events, our commitment to excellence in education and research has remained steadfast.

This is a collaborative space. I encourage everyone to share their thoughts, experiences, and contributions to enrich our community.

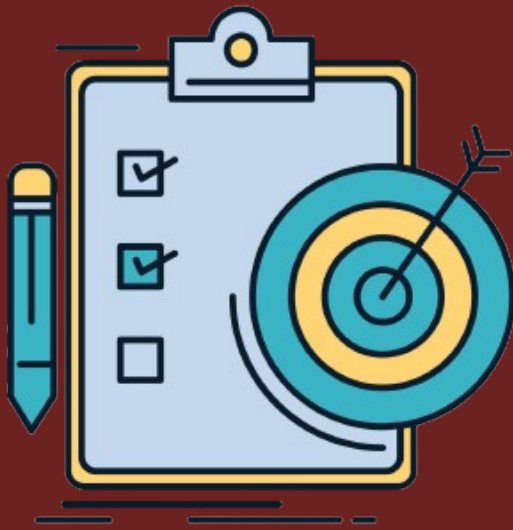
I am proud of our dynamic faculty, dedicated students, and supportive staff. Together, we continue to excel in academic, research, and extracurricular endeavours.

Congratulations to our staff and students on their achievements. Your hard work and determination inspire us all.

Looking forward to a successful journey ahead!







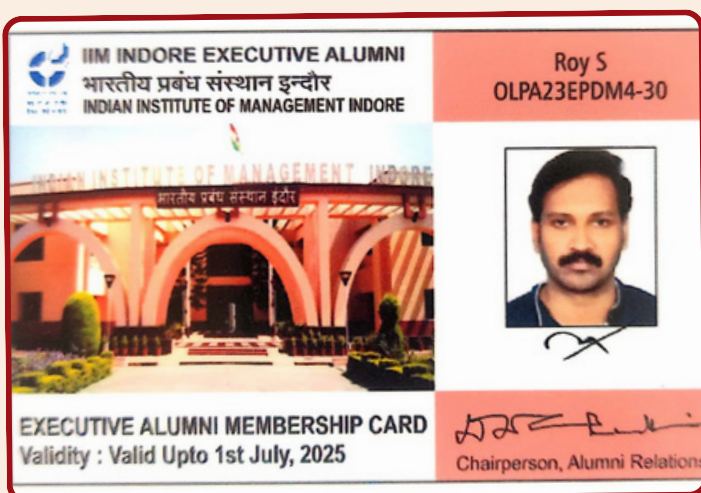
# FACULTY ACHIEVEMENTS

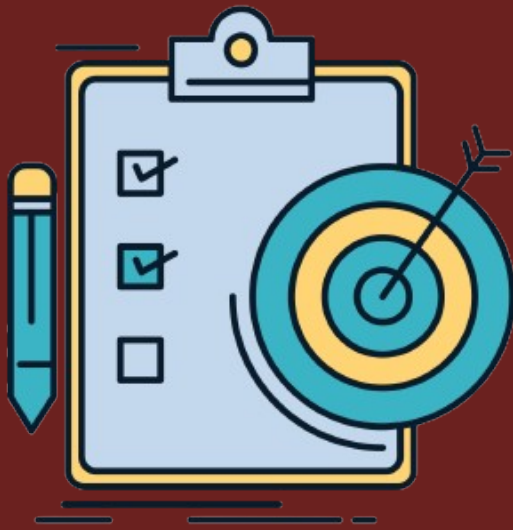
## FACULTY TRIUMPHS

Faculty Spotlight: Celebrating Achievements and Contributions

## ACHIEVEMENTS

- Dr. Vidya GS, our esteemed Associate Professor and Dean of Engineering, has been awarded a PhD in Data Science by Kerala Technological University.
- As part of the "Digital Marketing" course offered by IIM-Indore, Mr. Roy S, Associate Professor, achieved the top position among 49 participants from all over India in the Stukent Digital Marketing Simternship & Social Media Simternship, with a total profit of \$382,184.89 and revenue of \$164,998.43, respectively.
- Ms. Neena John, Assistant Professor, showcased her interactive robot 'Izha1.0' at last year's institution project exhibition, receiving widespread acclaim





# FACULTY ACHIEVEMENTS

## FACULTY TRIUMPHS

Faculty Spotlight: Celebrating  
Achievements and Contributions

## ACHIEVEMENTS

- Ms. Blessy Babu, Assistant Professor, authored a journal paper titled 'Automatic Detection of Modulation Scheme Using Convolutional Neural Networks', published in the International Journal on Communication and Antenna Propagation, Volume 13, Issue 3, in 2023
- Ms. V Sreeja, Assistant Professor presented paper titled 'AI Powered Self Checkout System' at 5th International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2024) held during 18-19 JANUARY 2024, at Tribhuvan University, Nepal.
- Dr. Vidya G S, published "Prediction of Bus Passenger Traffic using Gaussian Process Regression" in the Journal of Signal Processing Systems, Springer, 2022.
- Dr. Vidya G S, published "LSTM Network Integrated with Particle Filter for Predicting the Bus Passenger Traffic" in the Journal of Signal Processing Systems, Springer, 2023.
- Dr. Vidya G S has a paper under review titled "Automated Scheduling of Buses Based on Passenger Traffic Model" for the Journal of Scheduling, Springer.
- Dr. Vidya G S has a paper under review titled "Road Water Runoff using TCN for Intelligent Traffic Routing" for the Frontiers of Information Technology and Electronics Engineering, Springer.

# FACULTY ACHIEVEMENTS

- Dr. Vidya G S has a paper under review titled "Python - A Language for Scientific Computing, Data Analysis and Visualization" for the Transactions of the Indian National Academy of Engineering, published by Springer.
- Dr. Vidya G S has a paper under review titled "Implementation of LSTM - Particle Filter Model for Forecasting Gold Price" for Mathematical and Computational Applications, published by MDPI.
- Dr. Vidya G S presented a paper titled "Rainfall Forecasting using Non Parametric Bayesian Approach" at the 2021 Fourth International Conference on Microelectronics, Signals and Systems (ICMSS), with proceedings published in Springer.
- Dr. Vidya G S presented a paper titled "Gold price prediction and modelling using deep learning techniques" at the 2020 IEEE Recent Advances in Intelligent Computational Systems (RAICS).
- Dr. Vidya G S presented a paper titled "Estimation of passenger flow in a bus route using Kalman filter" at the 2020 6th International Conference on Advanced Computing and Communication System.
- Dr. Vidya G S presented a paper titled "Intelligent traffic Prediction using LSTM Network" at the 2020 Springer International Conference at VIT, Vellore (ICACIC 2020).



# STUDENTS ACHIEVEMENTS

## STUDENTS TRIUMPH

Celebrating Achievements and Inspiring  
Success

- Ms. Aaliya S Mohammed, Ms. Liya Virge, and Ms. Anjali A (S8 ECE) successfully presented a paper titled 'AI Assisted Interactive AANLI Mirror' at the 5th International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2024), held during January 18-19, 2024, at Tribhuvan University, Nepal.
- Ms. Harsha Harrison, Ms. Christina C, and Mr. Aaron Vincent Baiju (S8 ECE) successfully presented a paper titled 'AI Powered Self Checkout System' at the 5th International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2024), held during January 18-19, 2024, at Tribhuvan University, Nepal.
- Ms. Liya Virge from S8 ECE was awarded a Gold Medal for the Online NPTEL course 'Technical English for Engineers' (Aug-Oct 2023) by IIT Madras with a consolidated score of 90%.
- Ms. Aiswarya Krishna from S8 ECE was awarded a Silver Medal for the Online NPTEL course 'Technical English for Engineers' (Aug-Oct 2023) by IIT Madras with a consolidated score of 78%.
- Ms. Aaliya Mohammed, Ms. Anjali A, Ms. Christina C, Ms. Harsha Harrison, Ms. Fathima Rafi, Ms. Jyothysha S, Ms. Liya Virge, Ms. Taniya Jose, Ms. Raveena B, and Mr. Vignesh Kumar have successfully completed Online NPTEL courses offered by various IITs.
- As part of a college-level project expo in association with CBSE interschool Science Exhibition, Ancy Maria Edwin, Akhil Bose, Rajeena Mary, and Mohammad Farook bagged the first prize.
- As part of 'Celestia', an association program of the Civil Department, Lekshmi S and Ancy Maria Edwin won the first prize for the Technical Quiz







# STUDENTS ACHIEVEMENTS

## STUDENTS TRIUMPH

Celebrating Achievements and Inspiring Success

- Vignesh Kumar, participated and secured second position in Techtronics Trivia organised as a part of SIDHANTHA 23 conducted on 24th and 25th March 2023 at Bishop Jerome Institute
- Ashin Antony (S8 ECE) participated in Kollam Arm wrestling competition and was awarded with these prizes.
  - 1) Second Prize in Youth Right Hand
  - 2) Second Prize in Youth Left Hand
  - 3) Third Prize in Senior Right Hand





# DEPARTMENT ACTIVITIES

## TRACES INAUGURAL FUNCTION AND EXPERT TALK ON MACHINE LEARNING

### TRACES

The Department of Electronics and Communication Association, 'TRACES,' held its Inaugural Function for the academic year 2023-2024 on 02.11.2023. The event featured a variety of technical and cultural activities.



### EXPERT TALK

As part of our association's activities, we conducted an event titled 'Introduction to Machine Learning and Deep Learning' on 02.11.2023. The event took place in the seminar hall on the sixth floor and attracted enthusiastic participation from students across all academic years. Dr. Shailesh Sivan, Assistant Professor at Cochin University of Science and Technology, delivered a guest lecture, providing insights into the fascinating world of artificial intelligence. His guidance emphasized the benefits of machine learning, including acquiring essential skills for future job markets, fostering innovation, opening doors to diverse career opportunities, promoting interdisciplinary collaboration, and empowering students to make a positive impact on society.





# DEPARTMENT ACTIVITIES

## RECENT PROFESSIONAL DEVELOPMENT INITIATIVES

### FACULTY DEVELOPMENT PROGRAMMES

- With the aim of fostering self-reliance and knowledge-sharing, Dept hosted a one-day Faculty Development Program on the topic 'Introduction to SDR' on February 23, 2024. The program benefited from the participation of 35 faculty members from diverse engineering colleges across Kerala, overseen by Prof. Deebu from College of Engineering, Adoor, who served as the program's instructor and controller.
- ECE Department and CSE Department of BJI collaborated to host a three-day online Faculty Development Program (FDP) on 'Data Analytics for Engineers' in partnership with ICT Academy, Kerala, spanning from February 27th to February 29th, 2024. Nearly 100 participants, including faculty, scientific officers, and research scholars from various universities, actively engaged in the program, garnering positive feedback

### WORKSHOP

- Organized a one-day workshop on 'Generative AI Model' in collaboration with NxtWave Disruptive Technologies Pvt. Ltd. on the online platform on October 21, 2023







# DEPARTMENT ACTIVITIES

INTERNSHIPS , INDUSTRIAL VISITS  
AND TOURS

## INTERNSHIPS

- First-year students enthusiastically participated in an internship program at BSNL on November 30, 2023, gaining valuable hands-on experience and insights into the telecommunications industry.
- First, second, and third-year students gained hands-on experience in Machine learning, data science, and Python programming during their internship at Shrishti Innovation, Technopark, Trivandrum
- Second year students completed their internship on "Embedded Systems","IoT" at Keltron from 15/05/2023-21/05/2023.
- A batch from second year students went through the "Study of Titanium Dioxide Pigment" as part of their internship at KMML, Chavara.
- Fourth year students successfully completed their internship on "Embedded IoT", "AI for Engineers" at Technologies Global Pvt.Ltd. and Qnadys LLP

## INDUSTRIAL VISITS AND TOURS

- Students recently enjoyed an educational trip to Munnar and Goa, combining leisure activities with industrial visits for a balanced experience of entertainment and learning, enriching their academic journey and preparing them for future endeavours.





# DEPARTMENT ACTIVITIES

PTAs  
&  
EXTRA CURRICULAR ACTIVITIES

## PTA

The Parent-Teacher Association (PTA) meeting was highlighted by fruitful discussions and collaborative efforts between parents and educators.



## EXTRA CARRICULAR ACTIVITIES





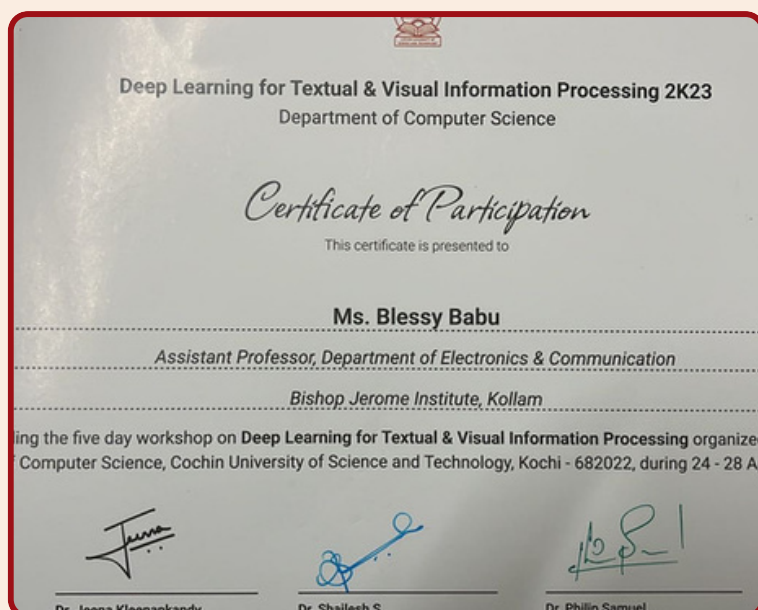


# TRAINING PROGRAMS ATTENDED

## UPSKILLING OUR EDUCATORS

Investing in Excellence: Faculty  
Participation in Recent Development  
Programs

- Mr. Roy S, Associate Professor, successfully completed the 18-week Executive Program on "Digital Marketing" offered by IIM Indore from February to June 2023.
- Mr. Roy S, Associate Professor, successfully completed the AICTE Training And Learning (ATAL) Academy Blended/Hybrid FDP on 'Machine Learning and Deep Learning Applications for Real-World Problems with Python Hands-On Training' from October 10 to October 15, 2022, at College of Engineering Perumon
- Ms. Deepthi Felix, Assistant Professor, attended the FDP on 'Mathematical Foundations for Machine Learning' from January 30, 2023, to February 3, 2023, at TKM College of Engineering.
- Ms. Blessy Babu, Assistant Professor, participated in a five-day workshop on Deep Learning for Textual & Visual Information Processing, hosted by the Department of Computer Science at Cochin University of Science and Technology, Kochi (682022), from April 24 to 28, 2023



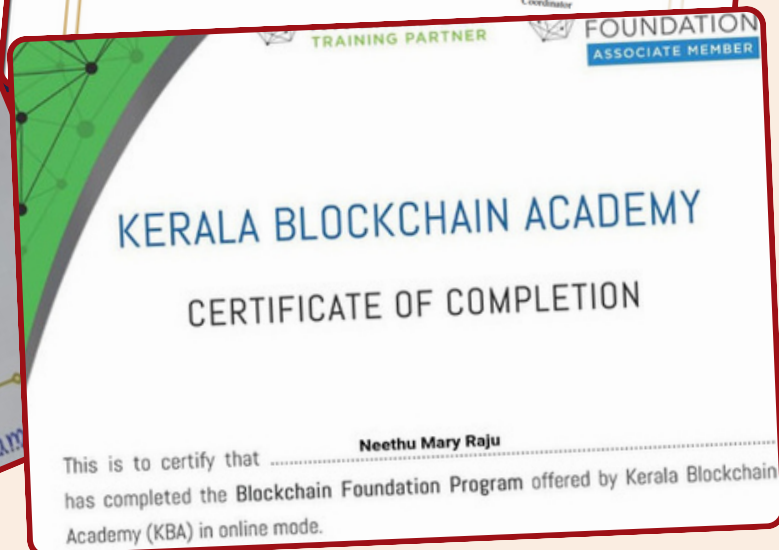
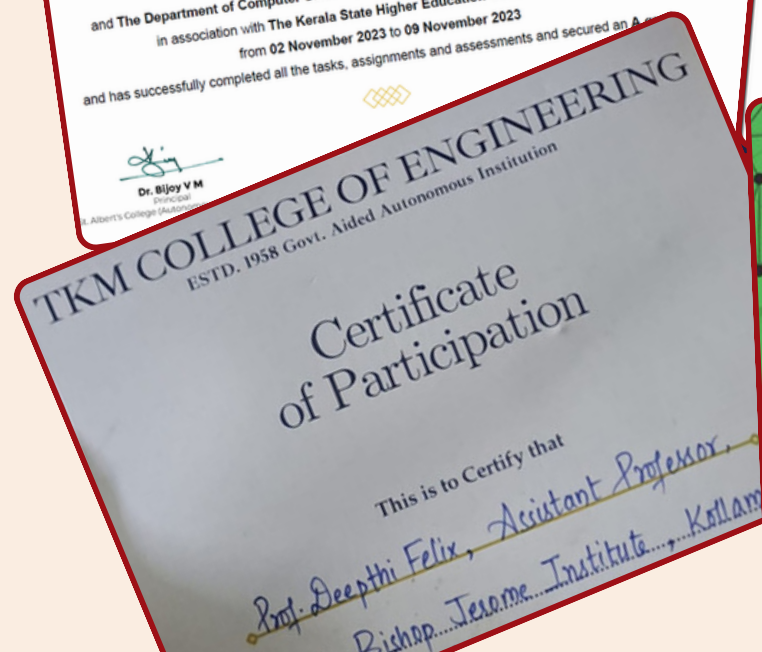


# TRAINING PROGRAMS ATTENDED

## UPSKILLING OUR EDUCATORS

Investing in Excellence: Faculty  
Participation in Recent Development  
Programs

- Ms. Blessy Babu, Assistant Professor, attended the FDP on 'Mathematical Foundations for Machine Learning' from January 30, 2023, to February 3, 2023, at TKM College of Engineering.
- Ms. V Sreeja, Assistant Professor, successfully completed the 7-day National level Online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers, organized by the IQAC and the Department of Computer Science at St. Albert's College (Autonomous), Ernakulam, in association with the Kerala State Higher Education Council (KSHEC), from November 2 to November 9, 2023, securing an A grade.
- Ms. Neethu Mary Raju, Assistant Professor, successfully completed the training program on "Blockchain Foundation Program" offered by the Kerala Blockchain Academy in September 2023.







## SOCIETY RELEVANT PROJECTS

EMPOWERING COMMUNITIES:  
SOCIETY-DRIVEN PROJECTS MAKING  
AN IMPACT

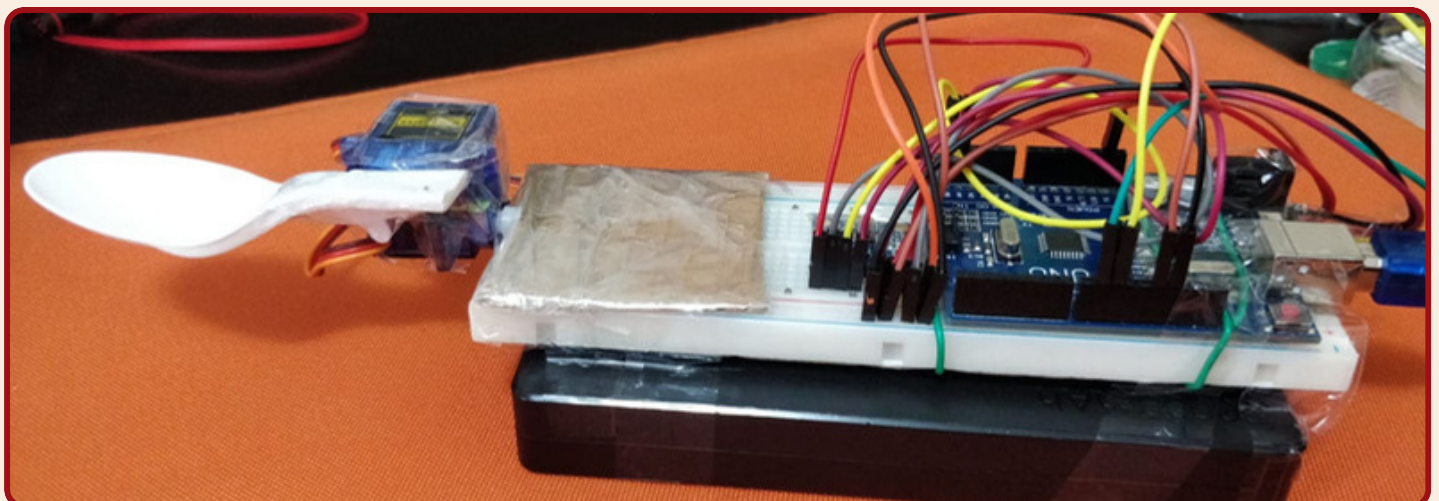
### SMART-DUSTBIN

The "smart dustbin" mini-project, developed by final year students Ms. Jyothysha, Mr. Ashin, and Ms. Lidiya, stands as a socially impactful initiative directly benefiting the public. By automatically opening its lid upon approach, indicating its full or empty status, and sending SMS notifications to cleaners as it approaches capacity. This innovation not only enhances waste management but also promotes cleanliness in its surroundings.



### PARKINSON'S SPOON: A STEADY SOLUTION

Ms. Harsha and the group of senior students have developed a smart spoon powered by batteries. This utensil is intended to aid individuals with Parkinson's disease in feeding themselves more autonomously. Notably, the spoon addresses hand tremors and maintains stability while in use.







# INDUSTRY INTERACTION

BRIDGING ACADEMIA WITH INDUSTRY

We are pleased to showcase the remarkable industry interaction projects led by Dr. Vidya GS, our esteemed Associate Professor and Dean of Engineering. **Dr. Vidya GS** has actively engaged in collaborative ventures, leveraging her expertise to address real-world challenges and foster innovation.

## Projects Led by Dr. Vidya GS:

### 1. Road Traffic Simulation for Trivandrum City Routes (2020)

In collaboration with Rand Walk Research and Solutions Pvt Ltd, Dr. Vidya GS spearheaded a project to simulate road traffic for Trivandrum city routes under KSRTC. This initiative aimed to optimize traffic management strategies for enhanced efficiency.

### 2. Pilot Project for Pune Routes (2019)

Dr. Vidya GS led a pilot project in association with PMPML and Rand Walk Research and Solutions Pvt Ltd to implement innovative solutions for Pune routes. This project focused on improving public transportation services through data-driven insights.

### 3. Route Recommender System for KSRTC (December 2020)

Collaborating with Rand Walk Research and Solutions Pvt Ltd, Dr. Vidya GS developed a route recommender system for KSRTC. This system utilized advanced algorithms to suggest optimal routes, enhancing commuter experience and operational efficiency.

### 4. Road Water Runoff Model for Intelligent Rerouting (August 2021)

Under the Smart City Project in Karnataka, Dr. Vidya GS contributed to the development of a road water runoff model for intelligent rerouting. This project aimed to mitigate the impact of waterlogging on traffic flow, ensuring smoother transportation during adverse weather conditions.

*Thank you!*



## STAFF EDITOR

Ms. Blessy Babu

Assistant Professor, Department of ECE