

SAVISTHARA

DEPARTMENT OF CIVIL ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY, KARUKUTTY

2023 - 2024





SCMS School of Engineering and
Technology Vidya Nagar, Palissery,
Karukutty, Ernakulam,
Kerala – 683576

 +91 4842882900

 +91 4842450330

 sset@scmsgroup.org

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

Established with a vision to impart quality technical education and foster innovation, SCMS School of Engineering and Technology (SSET), Karukutty stands as one of the premier engineering institutions in Kerala. Nestled in a serene and eco-friendly campus, the college provides an ideal environment for academic excellence and holistic development.

SSET is a premier institution, upholding a tradition of excellence for over 48 years within the esteemed SCMS Group of Educational Institutions. Established in 2001 under Mahatma Gandhi University, SSET is the pioneering self-financing engineering college. SSET offers technical programmes recognised by AICTE, New Delhi.

Affiliated to APJ Abdul Kalam Technological University, SSET offers a wide range of undergraduate and postgraduate programs across various engineering disciplines. The institution is committed to nurturing technically competent professionals equipped with strong ethical values and leadership qualities.

The college boasts state-of-the-art infrastructure, including well-equipped laboratories, modern classrooms, advanced research facilities, and a rich library that supports both academic and research pursuits.

SSET also promotes extracurricular and co-curricular activities, fostering creativity, teamwork, and leadership among students. With a strong placement record and collaborations with industries, the institution ensures promising career opportunities for its graduates.

Located on a sprawling 25-acre campus in Karukutty, Ernakulam District, our cutting-edge facilities are the cornerstone of a transformative learning experience. With NBA Accredited Departments and a NAAC Accreditation with two highly acclaimed Centers of Excellence—the SCMS Water Institute (SWI) and the SCMS Institute for Road Safety and Transportation (SIRST)—SSET offers a gateway to innovation and social commitment.

Driven by a commitment to excellence, SCMS School of Engineering and Technology, Karukutty continues to empower young minds to build a better and more sustainable future.



Mission

Innovative education and research for shaping techno-leaders

Vision

To be a premier institution moulding ethical and socially responsible engineers with emphasis on 'Service Learning'.

To be among the top ten institutions in India by 2040, shaping technology innovators and leaders for spearheading research relating to sustainable development goals.

Quality Policy

SCMS School of Engineering and Technology (SSET) is envisaged as a premier institution offering technology related education of exceptional quality to students by developing their total personality with due emphasis on ethical values and preparing them to meet the growing challenges of the industry and diverse societal needs of the institution.

DEPARTMENT OF CIVIL ENGINEERING

The Department of Civil Engineering at SCMS School of Engineering and Technology plays an important role in developing skilled engineers with strong academic and practical knowledge. The department offers a well-structured curriculum covering key areas such as structural, environmental, geotechnical, and transportation engineering, ensuring students gain a solid foundation in the field. Along with classroom learning, students benefit from well-equipped laboratories, field visits, and project work that provide real-world exposure. The department also encourages participation in seminars, workshops, and technical activities to enhance creativity and problem-solving skills. With experienced faculty guidance and opportunities for internships and industrial training, students are prepared to meet professional challenges effectively. Emphasis is also given to sustainable practices and modern technologies like Building Information Modeling, helping students stay updated with industry trends. Overall, the department provides a balanced learning environment that supports both technical growth and personal development, shaping students into competent and responsible civil engineers

Vision

To be a Department of excellence providing quality education and to engage in research activities in diverse fields of Civil Engineering.

Mission

- Impart quality education to our graduates in all fields of Civil Engineering.
- Mould technically competent graduates who are prepared to meet the current global engineering challenges.
- Create socially committed and ethically responsible professionals performing cutting edge research that will positively impact and improve our profession and society.
- Instill in our graduates a passion for lifelong learning.



PROGRAM OUTCOMES

PO1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO 3 Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4 Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10 Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11 Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES

PSO1 Graduates shall demonstrate good understanding of engineering fundamentals and demonstrate sound knowledge in analysis, design and laboratory investigations in various domains of Civil Engineering.

PSO2 Graduates will exhibit a passion for continuous self-learning and/ or pursue higher studies and engineering research.

PSO3 Graduates will possess ability to interact and function within multidisciplinary teams with competence in modern tool usage.



PROGRAM EDUCATIONAL OBJECTIVES

PEO 1 Knowledge Attainment: Graduates shall attain sound technical competency and knowledge in various fields of Civil Engineering leading to a successful career.

PEO 2 Social Responsibility: Graduates shall use the acquired skills and knowledge to solve complex Civil Engineering problems for the betterment of the society.

PEO 3 Integrity and Ethics: Graduates shall conform to professional ethics and contribute to uphold the integrity of the profession

PEO 4 Communication Skills: Graduates shall develop strong technical communication skills and intra and inter personal skills which would help inculcate in them team spirit, management and leadership qualities.



MESSAGE FROM PRINCIPAL

It gives me immense pleasure to present SAVISTHARA, the annual magazine of the Civil Engineering Department. This publication stands as a reflection of the creativity, technical knowledge, and collective spirit of our students and faculty. It is heartening to see young minds expressing their ideas, innovations, and perspectives through this platform.

Civil Engineering, as a discipline, plays a vital role in shaping the infrastructure and future of our society. I am confident that this magazine not only showcases academic excellence but also highlights the vision, dedication, and commitment of our budding engineers. Such initiatives nurture critical thinking, creativity, and communication skills—qualities essential for future leaders in the field.

I appreciate the efforts of the editorial team, contributors, and faculty coordinators who have worked tirelessly to bring out this edition. Your dedication and teamwork have made this publication possible.

I extend my best wishes to all students for their future endeavors. May you continue to strive for excellence and contribute meaningfully to society.

Warm regards,
Dr. Anitha G. Pillai
Principal
SCMS School of Engineering and Technology

SAVISTHARA



MESSAGE FROM HOD

It gives me great pride and satisfaction to present SAVISTHARA, the annual magazine of the Civil Engineering Department. This publication is a testament to the talent, creativity, and intellectual curiosity of our students, who continue to excel not only in academics but also in co-curricular and creative pursuits.

Civil Engineering is a dynamic field that demands innovation, responsibility, and a deep commitment to sustainable development. I am delighted to see our students engaging with these challenges and expressing their ideas through articles, sketches, and technical insights featured in this magazine. SAVISTHARA serves as a platform that bridges knowledge with creativity, encouraging students to think beyond the classroom.

I sincerely appreciate the efforts of the editorial board, faculty members, and all contributors who have worked diligently to bring out this wonderful edition. Your dedication and teamwork reflect the true spirit of our department.

I extend my heartfelt wishes to all our students for a bright and successful future. May you continue to build, innovate, and contribute to society with integrity and excellence.

Dr. Ratish Menon
Professor
Head of the Department
Civil Engineering Department
SCMS School of Engineering and Technology

SAVISTHARA

EDITORIAL BOARD

Department of Civil Engineering

SCMS School of Engineering and Technology, Karukutty

Faculty Editor



Dr. Praseeja A. V.
Associate Professor
Civil Engineering Department

Student Editor-in-Chief



Mr. Adithya Hari
S8 CE

Student Associate Editor



Ms. Ardra Anilkumar
S6 CE

Design & Creative Team



Ms. Fathima Salim K
S4 CE



Ms. Gowri Benesh M.
S4 CE

Acknowledgement

The Editorial Board expresses sincere gratitude to all contributors, faculty members, and students whose efforts and creativity made SAVISTHARA a success.

Cover page design:
Ms. Meera Aji
S8 CE

Editor's Note

With immense pride and heartfelt joy, I unveil Savisthara, the annual magazine of the Civil Engineering Department at SCMS School of Engineering and Technology, Karukutty. More than a compilation of pages, this magazine is a vibrant tapestry woven with the intellect, imagination, and dedication of our students and faculty.

The journey of creating Savisthara has been nothing short of inspiring—a confluence of ideas, creativity, and perseverance. Each contribution echoes a unique voice, capturing not only technical acumen but also the artistic and reflective spirit of budding engineers. From insightful technical explorations to expressive creative pieces, this magazine stands as a testament to the multifaceted talents that flourish within our department.

Engineering is not merely about structures and systems; it is about shaping the world with responsibility, vision, and empathy. As future engineers, our students are called to think beyond blueprints—to dream, to question, and to innovate for the betterment of society. It is truly gratifying to witness their enthusiasm in embracing opportunities that nurture both intellect and character.

I extend my deepest appreciation to the editorial team, contributors, and faculty members whose unwavering commitment and passion have brought this endeavor to life. May Savisthara continue to ignite curiosity, inspire creativity, and guide our students toward excellence and purpose.

Dr. Praseeja A. V
Editor & Associate Professor
Civil Engineering Department

Student Achievements



Ms. Nizwin K. S., final year M.Tech - Computer Aided Structural Engineering student won second prize worth Rs. 7500/- in the hackathon on “Design and estimation of a structure and its foundation” conducted by Association of Structural and Geotechnical consultant, Kerala.

Semester Toppers - UG

Semester 7 (2020-2024)	
Student	SGPA
SCM20CE053-SOBIN VARGHESE	9.6
SCM20CE060-VARUN VIJAYAN	9.37
SCM20CE032-KAREN MARY FRANCIS	9.03
Semester 6 (2020-2024)	
Student	SGPA
SCM20CE053-SOBIN VARGHESE	8.91
SCM20CE060-VARUN VIJAYAN	8.87
SCM20CE021-BIBIN BIJU	8.78
Semester 5 (2021-2025)	
Student	SGPA
SCM21CE005-ANUPRIYA SHAJI	8.04
SCM21CE012-NISHAB K	7.87
LSCM21CE022-ARCHANA K DINESH	7.78
SCM21CEE001-ANNAPOORNA LEKHI	8.07

Semester 4 (2021-2025)	
Student	SGPA
SCM21CE005-ANUPRIYA SHAJI	8.64
SCM21CE018-SWATHY M VIJAYAN	8.45
SCM21CE016-SANDRA ROSE DAVIS	8.27
SCM21CEE001-ANNAPOORNA LEKHI	8.41
SCM21CEE002-DURGA V NAIR	8.41
Semester 3 (2022-2026)	
Student	SGPA
SCM22CE010-NANDANA A S	9.14
SCM22CE012-SAFWANA V S	8.18
SCM22CE002-APARNA SANTOSH	8.09
SCM22CEE002-ANGELA THERESSA JOY	6.73
Semester 2 (2022-2026)	
Student	SGPA
SCM22CE010-NANDANA A S	9.81
SCM22CE012-SAFWANA V S	8.76
SCM22CE008-HUDHA SALIM	8.57
SCM22CEE002-ANGELA THERESSA JOY	7.4
Semester 1 (2023-2027)	
Student	SGPA
SCM23CE006-FATHIMA FARZANA	7.91
SCM23CE005-DEVASURYA RAMESAN	7.41
SCM23CE002-AFSAL NADARSHA	7.15

Semester Toppers - PG

Semester 3(2022-2024)	
Student	SGPA
SCM22CEEE01-ANNU ANTONY	10
SCM22CEEE02-ARYA M	10
SCM22CECS11-VINISHA VINOD	10
Semester 2 (2022-2024)	
Student	SGPA
SCM22CECS11-VINISHA VINOD	9.42
SCM22CEEE01-ANNU ANTONY	9.61
Semester 1 (2023-2025)	
Student	SGPA
SCM23CEEE03-SHILGY DEENA W	9
SCM23CEEE02-PARVATHY N SURESH	8.97



Faculty Achievements



Dr. Ratish Menon, Professor & Head of Civil Engineering Department was invited as a resource person by World Health Organization (WHO) for a workshop on "Climate Resilient Sanitation Safety Planning" conducted during 6 February to 9 February 2024 at Anil Agarwal Environmental Training Institute, Tijara, Rajasthan.



Ms. Sruthy S., Assistant Professor, Civil Engineering Department, presented a paper on "Treat Assessment of water distribution network in a semi urban area of Kerala" at National Environmental Conference organized by IIT Bombay on 16th February 2024.



Ms. Merin Mathew, Assistant Professor, Civil Engineering Department, presented a paper on "Management plan for Thevara-Perandoor Canal at Panampilly Nagar-A cost benefit approach" at National Environmental Conference organized by IIT Bombay on 16th February 2024.



A Knowledge sharing Program on "An introduction to BIM in Civil Engineering" was held on 20 March 2024 by Ms. Nandita Mohan, Assistant Professor, Civil Engineering Department, SCMS School of Engineering and Technology, Karukutty.



Dr. Rahul R Pai, Assistant Professor, Civil Engineering Department, SCMS School of Engineering and Technology, Karukutty delivered a talk on "Significance of field testing of innovative materials used in the base and sub-base layers of flexible pavement" on 8 April 2024 during Rendezvous technical webinar organized by Indian Geotechnical Society, Kochi



Dr. Ratish Menon, Professor and Head of the Department of Civil Engineering, SCMS School of Engineering and Technology was invited as a speaker on 20 March 2024 to "Used Water Management Conclave 2024: Used water management for building water resilient Kerala", organized by Kerala Water Authority in association with Suchitwa Mission and WASH Institute during 20 to 22 March 2024 at Thiruvananthapuram.

Department Activities

Short term course- “Remote Sensing and Data Analysis

The Department of Civil Engineering conducted a short term course on “Remote Sensing and Data Analysis” on 7th August 2023 to 19th August 2023 in online mode. This short term training program was mainly intended to enhance the skill on Remote sensing using satellite data and how to perform data analysis in GIS platform via hands on sessions. Dr. Ratish Menon, Professor, Dr. Nisha L., Professor, Dr. Praseeja A. V., Associate Professor, Ms. Meera Varghese, Assistant Professor and Ms. Merin Mathew, Assistant Professor, Department of Civil Engineering, SSET were the resources persons. Faculty members and Research scholars from various Institutions attended the Program.

Alumni Talk

The Department of Civil Engineering conducted an alumni talk by Ms. Thushara Sudheish (M.Tech Environmental Engineering – Batch 2018-2020) for B.Tech Civil Engineering final year students on the topic “Environmental Impact Assessment” on 14th November 2023. She is currently working as Assistant General Manager, in ULTRA TECH Environmental Consultancy & Laboratory, Kochi.



Workshop on Sustainable Groundwater Resource Management

A workshop on Sustainable Groundwater Resource Management was organized by Groundwater Department, Govt. of Kerala in collaboration with Department of Civil Engineering of SCMS School of Engineering & Technology Karukutty on December 1st, 2023 at 9.30 am to 3.00 PM.

This workshop introduced practical aspects of ground water management to the students. The event was organized as part of the existing research collaboration between SCMS Water Institute & Kerala State Ground Water Department. Ernakulam District Officer Shri K. U. Aboobaker, Senior Hydrogeologist Dr. Lal Thompson and Er. Biji Thomas interacted with the students.

Short term training on "Analysis of water and wastewater quality"

The Department of Civil Engineering conducted a short-term training on "Analysis of water and wastewater quality" from 29 January 2024 to 31 January 2024. This training program was mainly intended to enhance the skill of participants in the field of water and wastewater quality analysis, air quality sampling, chromatographic techniques, spectrometric techniques, and examination of microplastics. Dr. Ratish Menon, Professor & Head, Dr. Nisha L, Professor, Dr. Sanju Sreedharan, Associate Professor, Dr. Lakshmi Priya, Assistant Professor, Ms. Merin Mathew, Assistant Professor, Ms. Roshni K R, Assistant Professor, Ms. Meera Varghese, Assistant Professor and Ms. Sruthy S, Assistant Professor, Department of Civil Engineering, SSET were the resources persons. 30 students from various Engineering colleges participated in the program.



Staff development program on "AUTO CADD"

The Department of Civil Engineering conducted a staff development program on "AUTO CADD" from 22 January 2024 to 30 January 2024. This training program was mainly intended to enhance the skill on various applications of AUTOCAD software via hands on sessions. Mr. Jerry Anto, Assistant Professor, Department of Civil Engineering, SSET was the resources person. Staff members from various departments attended the Program.



Workshop on Sustainable Groundwater Resource Management

A workshop on Sustainable Groundwater Resource Management was organized by Groundwater Department, Govt. of Kerala in collaboration with Department of Civil Engineering of SCMS School of Engineering & Technology Karukutty on December 1st, 2023 at 9.30 am to 3.00 PM.

This workshop introduced practical aspects of ground water management to the students. The event was organized as part of the existing research collaboration between SCMS Water Institute & Kerala State Ground Water Department. Ernakulam District Officer Shri K. U. Aboobaker, Senior Hydrogeologist Dr. Lal Thompson and Er. Biji Thomas interacted with the students.

Training Program on “Bridge the Brilliance”

The Department of Civil Engineering organized a one-day training program and bridge-building competition, “Bridge the Brilliance,” on 4 April 2024. The event combined software-based bridge analysis training with a hands-on competition to strengthen students’ technical skills.

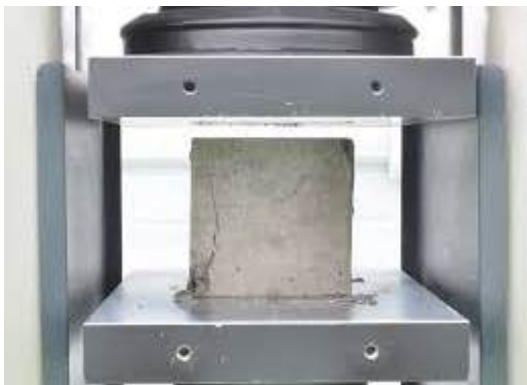
A technical talk on “Sustainability in Construction” was delivered by Er. Abhilash Joy, Managing Director of STUBA Engineering Consultancy Pvt. Ltd., emphasizing eco-friendly construction practices. The software training session was handled by Ms. Tennu Syriac and Ms. Nandita Mohan, Assistant Professors.

In the competition, first prize was secured by Mr. Bibin Biju and Mr. Alywn Jose Antony, while second prize was won by Mr. Juno Thankachan, Mr. Varun Vijayan, and Mr. Tony Prince, all Semester 8 Civil Engineering students.



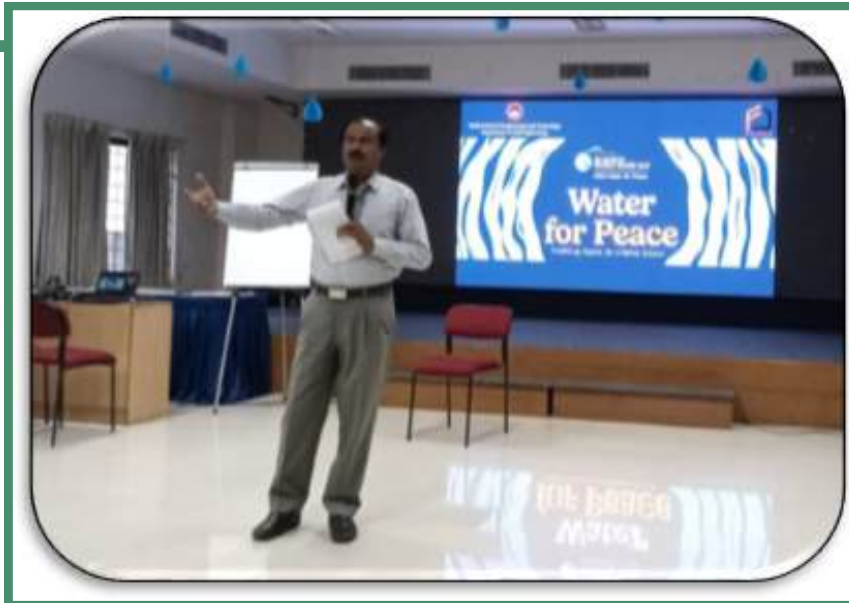
Training in “MIX MASTER”

The Department of Civil Engineering conducted a one-day Mix Design Training and Cube Testing Competition “MIX MASTER” for final year polytechnic students on 27 March 2024. This training program was mainly intended to incorporate Mix Design education into Civil Engineering Polytechnic students through a blend of technical training session and hands-on session. Ms. Nandita Mohan, Assistant Professor, Department of Civil Engineering, SCMS School of Engineering and Technology was the resource person for the Mix Design Training session. Students from various polytechnic colleges registered and participated in the training and competition.

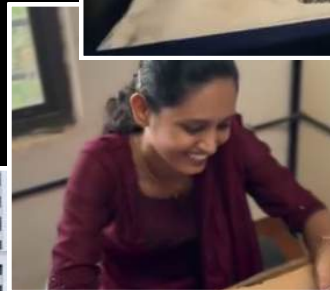


Water Day Celebration

The Civil Engineering Department Association-FRAMES, in collaboration with the SCMS Water Institute, marked the celebration of World Water Day 2024. The aim was to augment students' understanding of global water-related issues, potential solutions, key stakeholders in water conservation, and the significance of water. The festivities encompassed both technical and non-technical activities tailored for Civil Engineering Department students, aligning with the UN- Water's theme for the year: "Water for Peace". Addressing the audience, Dr. Ratish Menon, Professor & Head Department of Civil Engineering, underscored the paramount importance of water and extended a warm welcome to the event's Chief Guest, Dr. Sunny George, Director- SCMS Water Institute. Dr. Sunny George delivered an insightful technical discourse on the theme of World Water Day. The technical talk was followed by a series of interesting technical and non-technical activities for the students.



Beyond the Classroom



3D Printing in Construction: Shaping the Future of Building

3D printing, also known as additive manufacturing, is transforming the construction industry by introducing faster, smarter, and more sustainable building methods. Unlike traditional construction techniques that rely heavily on manual labor and large quantities of materials, 3D printing creates structures layer by layer using computer-controlled machines. This innovative technology has the potential to revolutionize the way homes, offices, bridges, and even entire communities are built.

In construction, large-scale 3D printers use materials such as concrete, cement mixtures, or recycled materials to print walls and structural components directly from digital designs. The process begins with a computer-aided design (CAD) model, which guides the printer in placing material accurately. This reduces human error and ensures precision in construction. One of the greatest advantages of 3D printing is speed. Buildings that traditionally take months to complete can now be constructed within days or weeks. In some cases, small houses have been printed in less than 24 hours.

Another major benefit of 3D printing is cost efficiency. Since the process uses only the required amount of material, wastage is minimized significantly. The need for excessive labor is also reduced, helping contractors lower construction expenses. This makes 3D printing especially useful in providing affordable housing solutions in rapidly growing urban areas. Additionally, the technology can work continuously with minimal interruption, increasing productivity and reducing project delays.

Sustainability is another important aspect of 3D printing in construction. The construction industry is one of the largest contributors to environmental pollution due to material waste and carbon emissions. 3D printing helps address these challenges by optimizing material usage and allowing the incorporation of eco-friendly or recycled materials. Some researchers are even experimenting with locally available materials such as clay, sand, and industrial waste to create sustainable structures.

The flexibility offered by 3D printing also allows architects and engineers to design complex and creative structures that are difficult to achieve using conventional methods. Curved walls, customized designs, and intricate architectural features can be produced with ease. This opens new possibilities in modern architecture and structural innovation.

Despite its many advantages, 3D printing in construction still faces certain challenges. The high initial cost of printers and technology, limited availability of skilled professionals, and concerns regarding building regulations and structural safety are some of the major obstacles. Countries around the world are investing in this technology to develop affordable housing, disaster-relief shelters, and sustainable infrastructure. As technology advances, 3D printing is expected to become an integral part of the construction industry, making buildings safer, faster, and more environmentally friendly.

India's First 3D Printed House at Indian Institute of Technology Madras

India achieved a major milestone in construction technology with the inauguration of the country's first 3D printed house at the campus of Indian Institute of Technology Madras on 27 April 2021. The project was developed by Tvasta Manufacturing Solutions, a startup founded by IIT Madras alumni. The house was virtually inaugurated by Nirmala Sitharaman.

The single-storey house has an area of about 600 square feet and includes a bedroom, hall, and kitchen. It was constructed using indigenous "Concrete 3D Printing" technology, in which a large automated printer deposits layers of specially designed concrete according to a computerized digital model. This process eliminates the need for conventional brickwork and significantly reduces construction time. The entire house was completed in nearly five days, whereas traditional construction methods may take several months.

One of the major advantages of this technology is its cost efficiency and sustainability. The 3D printing process minimizes material wastage, reduces labor requirements, and lowers overall construction cost by nearly 30 percent. The method also improves precision and allows the construction of complex architectural forms with ease. According to the developers, the technology can help provide affordable housing solutions and support government housing projects in the future.

The project was developed in collaboration with Habitat for Humanity's Terwilliger Center for Innovation in Shelter. Experts believe that 3D printing can play a significant role in disaster rehabilitation, rapid infrastructure development, and sustainable urban housing. The success of the IIT Madras project demonstrated India's capability in advanced construction technology and opened new opportunities for innovation in civil engineering.

The 3D printed house at IIT Madras represents a major step toward the future of smart and sustainable construction in India. It highlights how technology, innovation, and engineering can work together to create faster, safer, and more affordable housing solutions for society.



Ms. Anjana Susan John
Assistant Professor, CED

Brahmapuram Fire: A Wake-Up Call for Waste Management in Kerala

The Brahmapuram fire of March 2023 was not merely an accidental landfill fire, but a serious environmental engineering failure that exposed the limitations of municipal solid waste management practices in rapidly urbanizing Indian cities. The incident occurred at the Brahmapuram waste treatment facility near Kochi, where nearly 100,000 tonnes of mixed municipal solid waste had accumulated over several years due to inefficient segregation, inadequate processing capacity, and improper landfill management. The fire generated dense smoke plumes that affected air quality across Kochi for more than ten days, creating a major environmental and public health emergency.

From an environmental engineering perspective, the Brahmapuram incident illustrates the consequences of uncontrolled solid waste accumulation and poor landfill operation. Municipal solid waste in Indian cities typically contains a high percentage of biodegradable organic matter mixed with plastics, textiles, paper, biomedical waste, and electronic waste. In the absence of source segregation, these wastes undergo anaerobic decomposition inside landfill heaps, producing methane (CH_4), carbon dioxide (CO_2), and volatile organic compounds. Methane is highly combustible, and under elevated temperature conditions, spontaneous combustion can occur within waste piles. Environmental engineers identified this as one of the primary technical reasons behind the Brahmapuram fire.

Another major engineering concern was the absence of scientifically designed sanitary landfill systems. A properly engineered landfill should include leachate collection systems, methane gas venting mechanisms, liner systems, daily soil cover, and temperature monitoring facilities. However, the Brahmapuram site functioned largely as an open dumping yard rather than a controlled sanitary landfill. The accumulation of combustible materials such as low-density polyethylene plastics and dry organic waste increased the calorific value of the waste mass, intensifying the fire and making extinguishment extremely difficult.

The environmental impacts of the fire were severe. Combustion of mixed solid waste releases particulate matter ($\text{PM}_{2.5}$ and PM_{10}), carbon monoxide, sulfur oxides, nitrogen oxides, dioxins, furans, and polycyclic aromatic hydrocarbons. Among these pollutants, dioxins and furans are particularly dangerous due to their carcinogenic and bioaccumulative properties. Continuous exposure to such pollutants can cause respiratory diseases, cardiovascular disorders, neurological effects, and long-term ecological damage. Air quality monitoring during the incident indicated a drastic increase in suspended particulate concentrations in Kochi city, exceeding permissible limits prescribed by the Central Pollution Control Board.

The incident also highlighted the importance of integrated solid waste management (ISWM). Modern waste management strategies emphasize waste minimization, source segregation, recycling, composting, biomethanation, and waste-to-energy technologies instead of excessive landfill dependency.

Nearly 60% of Kerala's municipal waste is biodegradable and could be treated through decentralized composting or anaerobic digestion systems. Plastics and recyclables could be diverted through material recovery facilities (MRFs), thereby significantly reducing landfill load.

From an engineering management viewpoint, the Brahmapuram disaster revealed failures in environmental monitoring, risk assessment, and operational maintenance. Regular thermal imaging, methane concentration analysis, and landfill stability assessments could have identified potential fire hazards earlier. In addition, emergency response systems for landfill fires were insufficient, requiring support from disaster management agencies and the Indian Navy during the incident.

Following the fire, authorities initiated biomining operations to remove legacy waste and proposed waste-to-energy projects for sustainable waste treatment. Biomining involves excavation, segregation, bio-remediation, and recovery of reusable materials from old waste dumps. Although such measures are technically beneficial, environmental engineers stress that long-term sustainability can only be achieved through decentralized waste processing, public participation, strict regulatory enforcement, and scientific landfill engineering.

The Brahmapuram fire stands as a critical case study in environmental engineering and urban sustainability. It demonstrated how inadequate waste management infrastructure, combined with poor planning and weak implementation, can transform municipal waste into a large-scale environmental hazard. The incident serves as a warning for rapidly growing cities across India to adopt scientifically engineered waste management systems that prioritize environmental protection, resource recovery, and public health.



Sea Level Rise and Its Impacts on Kerala

Sea level rise is emerging as one of the most critical environmental challenges for Kerala due to its 590 km long coastline, dense coastal population, and fragile ecosystem. According to the Intergovernmental Panel on Climate Change (IPCC), global mean sea level has risen by nearly 20 cm since 1900, with the present rate exceeding 3.7 mm/year. Studies conducted along the Indian coastline indicate that the Arabian Sea coast is experiencing a sea level rise of approximately 1.3–1.8 mm/year, making Kerala highly vulnerable to long-term coastal hazards.

One of the major impacts of sea level rise in Kerala is coastal erosion. Nearly 63% of Kerala's coastline is affected by varying degrees of erosion, especially in districts such as Alappuzha, Kollam, Ernakulam, and Kannur. Rising sea levels increase wave energy and shoreline instability, resulting in continuous land loss. During monsoon seasons, high-energy waves and storm surges further accelerate erosion, damaging houses, roads, seawalls, and coastal infrastructure. Coastal engineers report that several fishing villages are facing displacement due to shoreline retreat.

Low-lying regions such as Kuttanad are particularly vulnerable because parts of the region lie about 1–2 meters below mean sea level. Even a small rise in sea level can significantly increase flood risk. Sea level rise reduces the efficiency of gravity-based drainage systems, causing waterlogging and urban flooding during intense rainfall events. In Kochi and nearby coastal cities, tidal flooding has become increasingly common during monsoons and high tides.

Sea level rise also threatens Kerala's ecological systems, including mangroves, wetlands, estuaries, and backwaters. These ecosystems function as natural barriers against coastal flooding and erosion. Their degradation reduces the natural resilience of coastal zones and increases disaster vulnerability.

From an engineering perspective, Kerala requires integrated coastal zone management strategies to address future risks. Structural measures such as seawalls, groynes, breakwaters, and elevated infrastructure can provide temporary protection. However, sustainable solutions include mangrove restoration, beach nourishment, wetland conservation, and climate-resilient urban planning. Advanced technologies such as GIS mapping, remote sensing, and hydrodynamic modeling are essential for coastal vulnerability assessment and disaster prediction.

The impacts of sea level rise in Kerala are not only environmental but also social and economic. Without scientific planning and sustainable engineering interventions, future sea level rise could threaten coastal settlements, tourism, fisheries, agriculture, and public infrastructure. Therefore, climate adaptation and resilient coastal engineering have become essential for protecting Kerala's coastline and ensuring sustainable development in the coming decades.



Ms. Annu Antony
S4 M.Tech EE

മഴവില്ലിന്റെ അവസാന നിറം

മഴ നിർത്തിയ ശേഷമുള്ള നനുത്ത മണ്ണിന്റെ മണം അനുപിന് ഏറെ ഇഷ്ടമായിരുന്നു. വീട്ടിന്റെ പിന്നിലെ ചെറിയ പുഴക്കരയിൽ ഇരുന്ന് മഴത്തുള്ളികൾ വെള്ളത്തിൽ വീണ് വലയങ്ങൾ തീർക്കുന്നത് നോക്കുക എന്നത് അവന്റെ ബാല്യകാല ശീലമായിരുന്നു.

അന്ന് വൈകുന്നേരവും മഴ പെയ്തിരുന്നു. ആകാശം മുഴുവൻ ചാരനിറം. പുഴയുടെ മറുവശത്ത് നിലകൊള്ളുന്ന പഴയ വീട്ടിലേക്ക് അവന്റെ കണ്ണുകൾ വീണ്ടും തിരിഞ്ഞു. വർഷങ്ങളായി ആരും താമസിക്കാത്ത ആ വീട്ടിനെക്കുറിച്ച് നാട്ടിൽ പല കഥകളും ഉണ്ടായിരുന്നു. രാത്രിയാകുമ്പോൾ അവിടെ നിന്ന് വയലിൻ ശബ്ദം കേൾക്കുമെന്നാണ് എല്ലാവരും പറയുന്നത്.

അനുപ് ഇത്തരം കഥകളിൽ വിശ്വസിച്ചിരുന്നില്ല. എന്നാൽ അന്ന് അവൻ വ്യക്തമായി ആ ശബ്ദം കേട്ടു. മഴയുടെ ശബ്ദത്തിനിടയിലൂടെ ഒരു മൃദുവായ വയലിൻ സംഗീതം.

കൗതുകം അവനെ ആ വീട്ടിലേക്കു കൊണ്ടുപോയി. പഴകിയ വാതിൽ ചെറുതായി തുറന്നുകിടക്കുകയായിരുന്നു. അകത്ത് ഇരുണ്ട മുറികൾ, ചുമരുകളിൽ ചിതറിയ പെയിന്റ്, പഴയ മരപ്പണികളുടെ മണം. പക്ഷേ മുകളിലെ മുറിയിൽ നിന്ന് സംഗീതം ഇപ്പോഴും കേൾക്കാം.

അവൻ പതുക്കെ പടികൾ കയറി. മുറിയുടെ വാതിൽ തുറന്നപ്പോൾ ഒരു പഴയ മരക്കസേരയിൽ വെള്ളമുടിയുള്ള ഒരു വയോധികൻ വയലിൻ വായിച്ചുകൊണ്ടിരുന്നു.

“ആരാ?” അനുപ് പേടിയോടെ ചോദിച്ചു.

വയോധികൻ സംഗീതം നിർത്തി ചിരിച്ചു.

“ഈ വീട്ടിലേക്ക് ഇത്ര വർഷങ്ങൾക്ക് ശേഷം ആരെങ്കിലും വന്നത് ഇതാദ്യമാണ്,” അദ്ദേഹം പറഞ്ഞു.

അദ്ദേഹത്തിന്റെ പേര് ദേവദാസ്. ഒരിക്കൽ പ്രശസ്തനായ സംഗീതജ്ഞൻ. ഭാര്യ മരിച്ചതിന് ശേഷം എല്ലാവരിൽ നിന്നും അകന്ന് ഈ വീട്ടിൽ ഒറ്റയ്ക്കായിരുന്നു താമസം. നാട്ടുകാർ അവനെ കുറിച്ച് കഥകൾ ഉണ്ടാക്കി, ഒടുവിൽ അവൻ മരിച്ചുവെന്ന് പോലും വിശ്വസിച്ചു.

“എങ്കിൽ നിങ്ങൾ ഇവിടെ ഒറ്റയ്ക്കാണോ?”

“ഒറ്റയ്ക്ക് അല്ല മോനേ,” അദ്ദേഹം ചിരിച്ചു. “ഓർമ്മകൾ ഉണ്ടല്ലോ.”

അന്ന് രാത്രി അനുപ് ഏറെ നേരം അദ്ദേഹത്തോടൊപ്പം സംസാരിച്ചു. പഴയ ഗാനങ്ങൾ, ജീവിതത്തിന്റെ സന്തോഷവും നഷ്ടങ്ങളും, മനുഷ്യരുടെ മറവിയും—എല്ലാം ആ വൃദ്ധന്റെ വാക്കുകളിൽ ഉണ്ടായിരുന്നു.

പോകാൻ നേരം ദേവദാസ് അവന് ഒരു പഴയ വയലിൻ നൽകി.

“സംഗീതം ഒരിക്കലും മരിക്കില്ല. ആരെങ്കിലും അതിനെ കേൾക്കാൻ തയ്യാറുണ്ടെങ്കിൽ മതി,” അദ്ദേഹം പറഞ്ഞു.

അടുത്ത ദിവസം രാവിലെ അനുപ് വീണ്ടും ആ വീട്ടിലെത്തി. പക്ഷേ വാതിൽ പൂട്ടിയിരുന്നു. ജനലുകളിൽ പൊടി നിറഞ്ഞു. ആരും അവിടെ താമസിക്കുന്നതിന്റെ അടയാളമില്ല.

അയൽവാസികളോട് ചോദിച്ചപ്പോൾ അവർ പറഞ്ഞു:

“ദേവദാസ് മാസ്റ്റർ? അദ്ദേഹം പത്തു വർഷം മുമ്പേ മരിച്ചു പോയി!”

അനുപിന്റെ കൈയിലെ വയലിൻ മാത്രം സത്യം പോലെ നിലനിന്നു. ആ വൈകുന്നേരം മഴയ്ക്ക് ശേഷം ആകാശത്ത് തെളിഞ്ഞ മഴവില്ലിന്റെ അവസാന നിറം പോലെ, ചില ഓർമ്മകൾ ഒരിക്കലും മായില്ലെന്ന് അവൻ മനസ്സിലാക്കി.



ഓർമ്മകളുടെ മൺവാസന

വൈകുന്നേരത്തെ ചായം മങ്ങിയ ആകാശത്തിന് കീഴിൽ പഴയ വീട്ടുമുറ്റത്ത് അനന്യ നിശ്ശബ്ദമായി നിന്നു. മഴ പെയ്തു നനഞ്ഞ മണ്ണിൽ നിന്നും ഉയരുന്ന മൺവാസന അവളുടെ ഹൃദയത്തിൽ മറഞ്ഞുകിടന്ന ബാല്യകാലത്തെ പതുകെ ഉണർത്തി.

മുറ്റത്തിന്റെ ഒരു വശത്ത് ഇപ്പോഴും നിലകൊള്ളുന്ന മാവിൻമരം കാറ്റിനോട് എന്തോ പഴയ കഥകൾ ചൊല്ലുന്നതുപോലെ ഇലകൾ ചലിപ്പിച്ചു. ആ മാവിൻചുവട്ടിലായിരുന്നു അവളുടെ ബാല്യം വീണുകിടന്നിരുന്നത്—ചിരികളായി, ഓട്ടങ്ങളായി, കുഞ്ഞിക്കാലിന്റെ പാദമുദ്രകളായി.

ഒരിക്കൽ ഈ വീട് നിറഞ്ഞിരുന്നത് മനുഷ്യരുടെ ശബ്ദങ്ങളാലായിരുന്നു. അമ്മയുടെ വിളി, അച്ഛന്റെ പാട്ട്, മഴവെള്ളത്തിൽ കുളിക്കുന്ന കുട്ടികളുടെ ചിരി—എല്ലാം ഇന്നും ചുമരുകളിൽ തങ്ങി നിൽക്കുന്നതുപോലെ.

അനന്യയുടെ കണ്ണുകൾ പതുകെ പഴയ തറവാട്ടുവീട്ടിന്റെ ജനലിലേക്കു നീങ്ങി. അവിടെ ഒരു ചെറിയ മരക്കുതിര ഇപ്പോഴും കിടക്കുന്നു. ബാല്യത്തിൽ അവൾ ഏറ്റവും സ്നേഹിച്ച കളിപ്പാട്ടം. അതിന്റെ തകർന്ന ചക്രങ്ങൾ പോലും കാലത്തിന്റെ ക്ഷീണം ചുമന്നുപോലെ തോന്നി.

അവൾ അതിനെ കൈയിൽ എടുത്തു. പെട്ടെന്ന് മനസ്സിൽ ഒരു മഴക്കാല സായാഹ്നം തെളിഞ്ഞു.

മഴത്തുള്ളികൾ പായലുകളിൽ വീണ് മുത്തുകളാകുന്ന സമയം.

പുഴക്കരയിൽ കുട്ടുകാരോടൊപ്പം കടലാസ് വള്ളങ്ങൾ ഒഴുക്കിയിരുന്ന നാളുകൾ.

മണ്ണിൽ ചവിട്ടിയ കാലുകൾ, നെറ്റിയിൽ പെയ്ത മഴ, ചിരിയിലൊളിച്ച സ്വാതന്ത്ര്യം—എത്ര ലളിതമായിരുന്നു അന്ന് ജീവിതം!

അമ്മ അടുക്കളയിൽ നിന്നും വിളിക്കും:

“മഴ നനയണ്ട മോളേ, പനി വരും.”

പക്ഷേ ആ മഴയിൽ നനയാതിരുന്നാൽ ബാല്യം പൂർണ്ണമാകില്ലായിരുന്നു.

അവൾ വീടിന്റെ പിന്നിലേക്ക് നടന്നു. അവിടെ ഒരു ഊഞ്ഞാൽ ഇപ്പോഴും കാറ്റിൽ അലിഞ്ഞുനിൽക്കുന്നു. ഒരിക്കൽ ആ ഊഞ്ഞാലിൽ ഇരുന്ന് ആകാശം തൊടാമെന്ന് അവൾ വിശ്വസിച്ചിരുന്നു. ബാല്യകാല സ്വപ്നങ്ങൾക്ക് അതിരുകളില്ലായിരുന്നു; ഓരോ നക്ഷത്രവും സ്വന്തം സുഹൃത്തായിരുന്നു.

കാലം ഒഴുകി. മനുഷ്യർ വളർന്നു. വീട് പഴകി. മുറ്റം നിശ്ശബ്ദമായി. പക്ഷേ ബാല്യം മാത്രം എവിടെയോ മൺവാസനയായി നിലനിന്നു.

അനന്യ ആകാശത്തേക്ക് നോക്കി. സന്ധ്യയുടെ ചുവന്ന മേഘങ്ങൾ പിരിഞ്ഞുപോകുകയായിരുന്നു.

അവൾക്ക് തോന്നി—

ബാല്യം എന്നത് തിരികെ പോകാൻ കഴിയാത്ത ഒരു ഗ്രാമമാണ്.

പക്ഷേ മഴയുടെ മണം വന്നാൽ, ഒരു പഴയ പാട്ട് കേട്ടാൽ, അല്ലെങ്കിൽ മാവിൻഇലകൾ കാറ്റിൽ പുഞ്ചിരിക്കുമ്പോൾ, ആ ഗ്രാമം വീണ്ടും ഹൃദയത്തിനുള്ളിൽ പൂക്കും.

അവൾ കണ്ണുകൾ അടച്ചു.

അപ്പോൾ എവിടെയോ ദൂരത്ത് നിന്ന് കുഞ്ഞിക്കാലത്തിന്റെ ചിരികൾ വീണ്ടും കേൾക്കുന്നതുപോലെ തോന്നി.



Building Kerala through Cooperation: Insights from Uralungal Labour Contract Co-operative Society

Kerala's construction sector has witnessed remarkable growth over the years, supported by innovative engineering practices, modern infrastructure development, and socially responsible organizations. Among the most respected institutions in this field is Uralungal Labour Contract Co-operative Society, popularly known as ULCCS. Established in 1925 at Uralungal in Kozhikode district, the organization has grown from a small labor cooperative into one of India's leading construction cooperatives, contributing significantly to infrastructure development in Kerala and other states.

In a recent interaction with the management of ULCCS, several important insights emerged regarding the changing trends, challenges, and future of the construction industry. According to the company leadership, the construction sector today is undergoing rapid technological transformation. Traditional methods are increasingly being replaced with advanced technologies such as Building Information Modelling (BIM), automated surveying systems, drone monitoring, ready-mix concrete technology, and digital project management tools. These advancements have improved construction quality, reduced delays, and enhanced project efficiency.

ULCCS has been involved in the construction of roads, bridges, smart city projects, educational institutions, IT parks, and large-scale public infrastructure projects. The organization is particularly known for combining engineering excellence with cooperative values and social responsibility. Unlike conventional private construction firms, ULCCS operates on a cooperative model that emphasizes worker welfare, community participation, and sustainable development.

One of the major concerns highlighted during the discussion was the impact of climate change on infrastructure development in Kerala. The increasing occurrence of floods, landslides, and coastal erosion has forced engineers to adopt climate-resilient construction practices. According to the management, modern infrastructure projects must incorporate proper drainage systems, slope stabilization measures, flood-resistant foundations, and environmentally sustainable planning methods. The disasters witnessed in Kerala during recent years have demonstrated the need for resilient and scientifically designed infrastructure.

The organization also emphasized the growing importance of sustainable construction. Green building concepts, rainwater harvesting systems, solar energy integration, wastewater recycling, and eco-friendly construction materials are becoming essential components of modern projects. ULCCS has increasingly focused on environmentally responsible construction practices to reduce ecological impacts and improve long-term sustainability.

Another important issue discussed was the shortage of skilled labor and rising construction material costs. Cement, steel, and aggregate prices have increased significantly in recent years, affecting project budgets and timelines. At the same time, the construction industry faces challenges in maintaining a skilled workforce capable of handling modern technologies and complex engineering systems.

The interview further explored the role of emerging technologies such as 3D printing, artificial intelligence, and smart construction systems. According to the company representatives, these technologies have the potential to revolutionize the industry by improving precision, reducing material wastage, and accelerating project execution. They believe that future infrastructure development in India will depend heavily on innovation and digital engineering practices.

The insights shared by Uralungal Labour Contract Co-operative Society clearly reflect the evolving nature of the construction industry in Kerala. Today's infrastructure development requires not only engineering expertise but also environmental awareness, technological adaptability, and social responsibility. Through its cooperative model and commitment to sustainable development, ULCCS continues to play a vital role in building Kerala's future.



Mr. Harish P V
S4 M.Tech CASE

“The Flower’s Whisper”

In a quiet garden, soft and bright,
A flower blooms in morning light.
With petals kissed by drops of dew,
It tells a tale both pure and true.
It dances gently with the breeze,
Whispers secrets to the trees.

A symbol of hope, so calm and fair,
Spreading beauty everywhere.
Through scorching sun and pouring rain,
It stands so strong, despite the pain.

A lesson hidden deep inside,
In silent strength, it takes its pride.
Its fragrance travels far and wide,
A gentle joy it cannot hide.
It teaches hearts to love and grow,
In ways we often fail to know.

Though life may fade, it does not fear,
For beauty blooms year after year.

A simple flower, yet so wise,
A tiny world beneath the skies.
So pause a while, and you will see,
A lesson in humility.

For in its grace, so soft and true,
The flower reflects both me and you.



Ms. R. Kavya
S8 CE



ദ്യസാക്ഷി

നിശ്ശബ്ദമായൊരു സന്ധ്യയുടെ
മുടിപ്പോകുന്ന വെളിച്ചത്തിൽ,
കാലത്തിന്റെ കണ്ണുകളായി
നിൽക്കുന്നു ദ്യസാക്ഷികൾ.
ചിരികളുടെ പിന്നിലെ കണ്ണീരും,
കൈയടികളുടെ അടിയിലെ മൗനവും,
അവരറിഞ്ഞ കഥകളായി
ഹൃദയത്തിൽ പതിഞ്ഞിരിക്കുന്നു.
പാതി തുറന്ന ജനലിലൂടെ
കാറ്റ് പറഞ്ഞ രഹസ്യങ്ങൾ,
വീണ ഇലകളുടെ നടുവിൽ
കാലം മറച്ച ഓർമ്മകൾ.
കണ്ടതെല്ലാം പറയാതെ
മൗനത്തിൽ കാത്തുസൂക്ഷിക്കുന്ന
ഒരു പഴയ വൃക്ഷംപോലെ
ദ്യസാക്ഷി നിലകൊള്ളുന്നു.
പുഞ്ചിരികൾ മാഞ്ഞുപോയാലും
ചിത്രങ്ങൾ ചാരമായാലും,
സത്യം മറക്കാത്ത കണ്ണുകളായി
അവൻ ഇന്നും ജീവിക്കുന്നു.
ജീവിതത്തിന്റെ വഴിത്തിരിവിൽ
നിഴലായി കൂടെ നടക്കുന്ന
ഓർമ്മകളുടെ അനശ്വര രൂപം —
അതാണെൻ ദ്യസാക്ഷി.
തകർന്ന സ്വപ്നങ്ങളുടെ മേൽ
പുതിയ പ്രഭാതം വിരിയുമ്പോൾ,
മുറിവുകൾക്കുമപ്പുറം
പ്രതീക്ഷകൾ പൂക്കുന്നു.
കടലാഴം പോലെ ഗഹനമായ
മനുഷ്യഹൃദയത്തിന്റെ ഭാഷ,
വാക്കുകൾക്കതീതമായി
ദ്യസാക്ഷി വായിച്ചെടുക്കും.
പുനർജന്മം നൽകുന്ന ശക്തി —
അതാണീ ദ്യസാക്ഷി.



Ms. Milna Jose
S8 CE

മറന്നോ മലയാള ഭാഷയെ?



കാർത്തിക എം നായർ
അവസാന വർഷ വിദ്യാർത്ഥിനി



“അമ്മ” എന്ന വാക്കിൽ ആരംഭിക്കുന്ന നമ്മുടെ ജീവിതം ഇന്ന് അന്യഭാഷകളുടെ ആധിപത്യത്തിൽ വഴിതെറ്റിക്കൊണ്ടിരിക്കുകയാണ്. ലോകവുമായി കൈകോർക്കാൻ ഇംഗ്ലീഷും മറ്റു ഭാഷകളും ആവശ്യമാണ്. എന്നാൽ അതിന്റെ തിരക്കിൽ സ്വന്തം മാതൃഭാഷയെ മറക്കുന്നത് ഒരു സംസ്കാരത്തെ തന്നെ ഉപേക്ഷിക്കുന്നതുപോലെയാണ്. മലയാളം ഒരു ഭാഷ മാത്രമല്ല; അത് നമ്മുടെ സംസ്കാരവും പാരമ്പര്യവും വികാരങ്ങളുമാണ്.

ഇന്നത്തെ തലമുറയിൽ മലയാളം സംസാരിക്കാൻ പോലും മടിക്കുന്നവരെ കാണാം. സമൂഹമാധ്യമങ്ങളുടെയും ആധുനിക ജീവിതശൈലിയുടെയും സ്വാധീനത്തിൽ മലയാളം പലപ്പോഴും അവഗണിക്കപ്പെടുന്നു. കുട്ടികൾ ആദ്യമായി പഠിക്കുന്ന വാക്കുകൾ പോലും ഇംഗ്ലീഷിലാകുമ്പോൾ, മലയാളത്തിന്റെ മാധുര്യം അവരുടെ ജീവിതത്തിൽ നിന്ന് അകന്നുപോകുന്നു. സ്വന്തം ഭാഷ സംസാരിക്കുന്നതിൽ അഭിമാനമല്ല, ലജ്ജയാണ് പലർക്കും തോന്നുന്നത് എന്നത് ദുഃഖകരമാണ്.

എന്നാൽ പുതിയ തലമുറയുടെ കാഴ്ചപ്പാടിൽ പ്രതീക്ഷയുടെ ഒരു വെളിച്ചവും കാണാം. സാങ്കേതിക വിദ്യയുടെ ലോകത്ത് മലയാളത്തെ കൂടുതൽ ശക്തമായി അവതരിപ്പിക്കാൻ യുവാക്കൾ ഇന്ന് മുന്നോട്ടുവരുന്നു. മലയാളം ബ്ലോഗുകൾ, പോഡ്കാസ്റ്റുകൾ, യൂട്യൂബ് ചാനലുകൾ, ഡിജിറ്റൽ മാസികകൾ എന്നിവയിലൂടെ ഭാഷയ്ക്ക് പുതിയ മുഖം നൽകുകയാണ് അവർ. പഴയ സാഹിത്യത്തെ മാത്രം സംരക്ഷിക്കുന്നതല്ല, പുതിയ ആശയങ്ങളെയും സൃഷ്ടികളെയും മലയാളത്തിലേക്ക് കൊണ്ടുവരികയാണ് പുതിയ തലമുറയുടെ ദൗത്യം.

മലയാള സാഹിത്യത്തിന്റെ സമ്പത്ത് അളവറ്റതാണ്. വള്ളത്തോൾ, കുമാരനാശാൻ, വൈലോപ്പിള്ളി, എം.ടി. വാസുദേവൻ നായർ തുടങ്ങിയ മഹാമാർ മലയാളത്തെ ലോകത്തിന് മുന്നിൽ ഉയർത്തിപ്പിടിച്ചു. അവരുടെ കൃതികളിൽ മനുഷ്യജീവിതത്തിന്റെ സത്യങ്ങളും വികാരങ്ങളും മനോഹരമായി പ്രതിഫലിക്കുന്നു. ഇന്നത്തെ യുവതലമുറ ഈ പാരമ്പര്യം സാങ്കേതിക വിദ്യയുമായി ചേർത്ത് പുതിയൊരു സംസ്കാര സൃഷ്ടിക്കുകയാണ്.

ഭാഷയുടെ നാശം ഒരു ജനതയുടെ തിരിച്ചറിവിന്റെ നാശവുമാണ്. മലയാളം നിലനിൽക്കേണ്ടത് പുസ്തകങ്ങളിൽ മാത്രം അല്ല, നമ്മുടെ നിത്യജീവിതത്തിലും ഹൃദയത്തിലും കൂടിയാണ്. വീടുകളിൽ കുട്ടികളോട് മലയാളത്തിൽ സംസാരിക്കാനും, മലയാള സാഹിത്യങ്ങൾ വായിക്കാനും, ഭാഷയുടെ സൗന്ദര്യം അടുത്ത തലമുറയ്ക്ക് പകർന്നു നൽകാനും നമ്മൾ ശ്രമിക്കണം.

മലയാളം മറക്കരുത്, കാരണം അത് നമ്മുടെ ആത്മാവിന്റെ ശബ്ദമാണ്. ലോകം എത്ര മുന്നേറിയാലും സ്വന്തം ഭാഷയെ നെഞ്ചോടു ചേർത്ത് മുന്നേറുന്ന യുവതലമുറയാണ് ഒരു സംസ്കാരത്തിന്റെ യഥാർത്ഥ കരുത്ത്.

Left in Shame: Body Shaming Killing the Confidence

In today's society, appearance is often given more importance than character, talent, or kindness. Many people, especially young students, become victims of body shaming — the act of mocking or criticizing someone based on their physical appearance. A person may be judged for being too thin, overweight, too short, too tall, dark-skinned, or even for having acne or scars. Though some comments may seem casual or humorous, they can deeply wound a person's mind and slowly destroy their self-confidence.

Body shaming has become more common with the rise of social media. Perfectly edited photos and unrealistic beauty standards create pressure among youngsters to look a certain way. People begin comparing themselves with celebrities, influencers, or even friends online. As a result, many feel insecure about their bodies and start believing that they are “not good enough.” This negative self-image often leads to stress, anxiety, depression, and social withdrawal.

The worst part of body shaming is that it attacks a person's identity. Confidence is built when people feel accepted and valued. Constant criticism about appearance makes individuals doubt themselves, avoid social situations, and hide their true personality. Some stop participating in activities they once loved because they fear being judged. In extreme cases, body shaming can even lead to eating disorders and severe mental health issues.

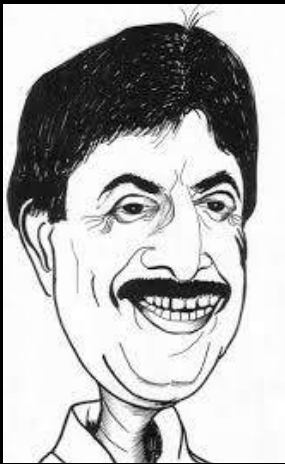
Every individual is unique, and beauty cannot be measured by society's narrow standards. Real beauty lies in confidence, kindness, intelligence, and the ability to respect others. Instead of criticizing appearances, society should encourage healthy living, self-love, and acceptance. Schools and colleges should create awareness about the emotional impact of body shaming and promote positive conversations about body image.

Words have power. A single comment can either build confidence or break someone from within. Therefore, we must choose kindness over criticism. No one should feel ashamed of the body they live in. Confidence grows where acceptance exists, and a better society begins when people learn to respect differences rather than mock them.

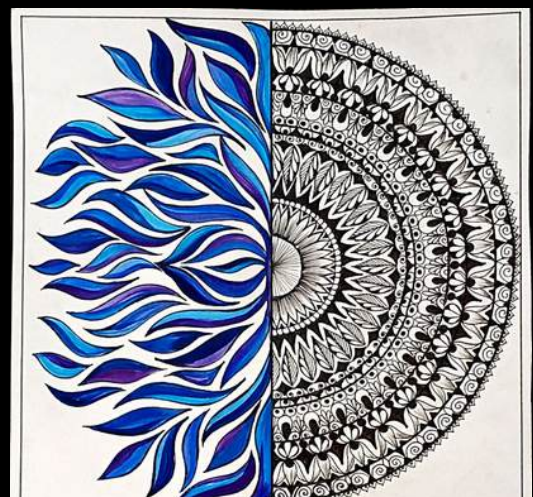


Ms. Sandra Rose Davis
S6 CE





Ms. Gopika S.
S6 CE



Mr. Arjun K.P.
S2 CE



Mr. Devasurya Remesan.
S2 CE



SCMS
School of Engineering & Technology

a department of
CIVIL ENGINEERING
association.