



ESCI

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DIRECTOR'S DESK



THE EVOLUTION OF ENGINEERING FROM ANCIENT INNOVATIONS TO MODERN ADVANCEMENTS

Engineering is a discipline that applies scientific and technological knowledge to design, build, maintain, and enhance systems, structures, devices, processes, and products. Engineering is driven by problem-solving and innovation, leveraging science, mathematics, and technology to achieve practical solutions.

Ancient Engineering and Architecture

The history of engineering dates back to prehistoric times when early humans, around 10,000 BCE, constructed basic shelters and tools using natural materials such as wood, stone and animal bones.

The Mesopotamians engineers during 3000 BCE developed irrigation systems to support agriculture, constructing canals and dams to manage water resources effectively. The Egyptians during 2600 BCE demonstrated advanced engineering skills with the construction of the Great Pyramids of Giza, whereas the city of Mohenjo-Daro during Indus Valley civilization during 2500 BCE showcased well-planned streets, public baths, and an advanced drainage systems. The Greek engineers during 776 BCE designed the theaters and stadiums contributing significantly to the development of infrastructure and public amenities.

The Industrial Revolution during 18th & 19th Century marked a significant turning point in engineering with innovations such as steam power, iron and steel production, and mechanized construction methods. These breakthroughs revolutionized the development of railways, bridges, and skyscrapers allowing for more efficient and durable

structures.

Today, engineering spans various specialized fields like Aerospace, Agriculture, Architectural, Civil, Chemical, Mechanical, Electrical, Environmental, Marine, Mining, Software and various other engineering divisions playing a crucial role in technological advancement and problem-solving.



World Engineering Day 2025

On March 4, 2025, the world celebrated **World Engineering Day** under the theme **"Unleashing the Power of Engineers to Advance the Sustainable Development Goals."** This initiative, led by UNESCO and WFEO, highlighted engineers' achievements globally, emphasizing their role in designing impactful solutions for local and global challenges.

The Engineering Staff College of India (ESCI) has also celebrated World Engineering Day on 4th March in a grand and impactful manner, engaging all young engineers associated with the institution. The event served as a platform to recognize and appreciate the contributions of engineers while inspiring innovation and excellence.

The Future engineering landscape is characterized by rapid technological advancements with skilled professionals and a strong focus on sustainability and innovations. Emerging trends shaping the industry include the **Artificial Intelligence (AI) and Machine Learning, Renewable Energy with Solar, Wind and Sustainable power solutions, Automation and Robotics, Smart Infrastructure** with urban planning for sustainable cities, **Healthcare Innovations** in medical devices and biotechnology.

By leveraging technology and scientific knowledge, engineers will play a crucial role in shaping a more advanced, efficient, and sustainable future.

With best regards,
Dr. G. Rameshwar Rao, FIE

Events at ESCI

Training for 7,000 Officers through 400 Training Programs Director Dr.G. Rameshwar Rao Unveils the ESCI's Schedules of Training Programmes 2025-26

Dr. G. Rameshwar Rao, Director of the Engineering Staff College of India (ESCI), unveiled the Schedule of Annual Training Programmes for the year 2025-26 in the presence of HoDs and faculties on 11-3-2025. The Director instructed the officials to strictly implement the scheduled of training programs by all divisions. These training programs will be conducted commenced from April 2025 to March 2026.

Dr. Rameshwara Rao also noted that ESCI is the only institution in Asia providing specialized training for engineers.

The upcoming training programs will cover nearly 400 topics, including Geo-Spatial Solutions, Smart Cities and Green Buildings, Challenges in Hill Structure Constructions, the Importance of 3D Printing, Artificial Intelligence and Machine Learning, Cyber security, Conflict Management, Energy and Safety Audits, Mining Geology, IT Solutions in DISCOM, Six Sigma Green Belt, Automation in Micro Irrigation, 5G Technology, Green

Hydrogen, and Drone Technology.

Since the inception of ESCI in 1981, for the past four and a half decades, ESCI has been conducting around 300 to 400 training programs annually, benefiting approximately 6,000 to 7,000 employees working in different government offices across India. The institution serves as a key resource center for program design for organizations such as the Central Electricity Authority, Ministry of Road Transport, Ministry of Rural Water Supply, Department of Science and Technology, and the Jal Jeevan Mission.

The event was attended by all Heads of Departments and senior faculties including Dr. Krishna Prasad Rao, K.J. Amarnath, Dr. Venkat Reddy, U.Vidyasagar, M.Rajasekhara Reddy, Dr. Chandrakala, Dr. P. Sridhar, Dr. NVVS Sagar, Anita Agarwal, Dr.V.Vidyasagar, Syed Ajjar, P.Sai Kishore, D.Sridhar Babu, Dr. P. Rajarao, S. Lakshmi Kantha Rao, Dr. Naresh, Dr. Bharat and C.H. Tilak.



Necessity of Green Building Construction using with latest Civil Engineering Technology : Speakers at the Workshop Held at ESCI organized by CCC

Sustainable innovations in the construction sector require the implementation of green buildings said Dr. Anil Joseph, President of the Indian Geotechnical Society and National Council Member of the Institution of Engineers (India). Speaking as the chief guest at a workshop organized by the Center for Climate Change at the ESCI on March 19, 2025, he emphasized the necessity of sustainable green building construction using the latest advancements in civil engineering technology.

Dr. Anil Joseph highlighted the importance of allowing natural light in building construction and discussed concepts like vertical gardens, self-healing concrete, smog vacuum cleaners, waste reduction, recycling methods and energy-efficient devices which contribute to green construction. He pointed out that many high-rise buildings lack such facilities, and many countries are already adopting green construction practices to replace environmentally



harmful buildings. Dr. Anil Joseph is also a Governing Council Member of the Indian Association of Structural Engineers and Chairman of the Indian Concrete Institute, Kochi Center.

Another key guest at the event, Mr. Rajeev Bisht, Head of Devashree Ispat Steel Products, stated that India is on its way to becoming the third-largest economy in the world. He noted that even as India progresses with corporate buildings, modern hospitals, airports, metro rail projects, seaports, prestigious educational institutions, IT offices, and advancements in space technology, the country has also maintained quality in recycling processes without any compromise for which he praised Indian engineers and scientists for their contributions. He stressed that green buildings are essential for environmental conservation.

Dr. G. Rameshwar Rao, Director of the Engineering Staff College of India, spoke about the risks posed by global warming and the need to adopt innovative approaches in civil engineering. He advocated for climate-friendly designs incorporating solar panels, rainwater harvesting systems, and smart energy systems to ensure sustainable building

construction. He explained that such structures enhance strength, longevity, and durability while reducing carbon emissions and increasing construction efficiency. Dr. Rameshwar Rao emphasized that sustainable and cost-effective infrastructure solutions would benefit future generations.

Discussions during the workshop Mr. Srikanth Renikunta, Assistant Professor from Methodist College of Engineering and Technology, Mr. B. Vamsikrishna, Chief Accreditation Officer at Malla Reddy Health City, Dr. V. Bikshma, Professor, Osmania University and CII Green Pro Engineer Mr. S.P. Alagappan spoke on various subjects on achieving sustainability through green building construction.

The event was attended by civil engineers, architects, representatives from various construction firms and contractors, carbon emission control experts, and environmental consultants. The entire program was coordinated by Dr. Chandrakala, Head of the Center for Climate Change, and faculty member Dr. Adi Naresh.

Civil & Transportation Engineering Division

- 1) The C&TE Division organized In house programme on **"The Motor Vehicle Act, 1988 as amended from time to time"** on **05th – 07th March, 2025** sponsored by **Ministry of Road Transport and Highways (Transport Section), Govt. of India, New Delhi** at **Thiruvananthapuram, Kerala** with 30 participants. The participants attended from Transport Departments, Motor Vehicle Department, State Road Transport Corporation & Police Department across India.



- 2) A One Day Online Training programme on **"Recent developments in Public Transportation Systems"** held on **10th March, 2025** at ESCI campus sponsored by **Ministry of Road Transport and Highways**

(Transport Section), Govt. of India, New Delhi with **30 participants**. The participants were Transport Departments, Motor Vehicle Department, State Road Transport Corporation & Police Department from all over India.

- 3) A 5-day training program was organised on **"Preparation of DPRs for Rural Road Projects"** from 17 - 21 March, 2025 at ESCI sponsored by the National Rural Infrastructure Development Agency (NRIDA), Ministry of Rural Development, Government of India, New Delhi.

A **total of 36 engineers** from various states across the country participated in this training program including Telangana, AP, Bihar, Assam, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Tamil Nadu, Karnataka, Ladakh, Maharashtra, Meghalaya, Tripura,



Events at ESCI

Uttarakhand, and West Bengal, attended. The participants were primarily engineers associated with PMGSY (Pradhan Mantri Gram Sadak Yojana) projects.

On the final day of the program, **Shri Pradeep Agarwal, Director (Project-NRIDA)**, New Delhi, conducted a full-day session for the PMGSY engineers.

- 4) The CTE Division organized In house programme on "Clean Technologies, Including Alternative Fuels and EV's" from 18th – 20th March, 2025 sponsored by Ministry of Road Transport and Highways (Transport Section), GoI, New Delhi at the Andaman & Nicobar Islands with 30 participants. The participants attended from Transport Departments, Motor Vehicle Department, State Road Transport Corporation & Police Department from all over India



- 5) An In house programme on "Road Transport Regulations" held from 24th – 28th March, 2025 at ESCI campus, sponsored by **Ministry of Road Transport and Highways (Transport Section), GoI, New Delhi** with 24 participants attended from Transport Departments, Motor Vehicle Department, State Road Transport Corporation & Police Department from all over India.



- 6) The Civil & Transportation Engineering Division organized a 5-day training program on "**Design of Flexible and Rigid Pavements**" from, 24 - 28 March, 2025 sponsored by the National Rural Infrastructure Development Agency (NRIDA), Ministry of Rural Development, Government of India, New Delhi.

A total of 23 engineers from various states across the country participated in this training program. Representatives from 14 states, including Telangana, Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Tamil Nadu, Ladakh, Karnataka, Madhya Pradesh, Sikkim, UP, Uttarakhand, and West Bengal, attended. The participants were primarily engineers associated with PMGSY (Pradhan Mantri Gram Sadak Yojana) projects.



- 7) Engineering Staff College of India, Civil & Transportation Engineering Division organized Online Continuing Professional Training Programme on "**Rehabilitation of Building using latest Techniques and Risk Criteria**" from 03 – 07 March, 2025 with 20 officers from attended from MES (Personnel)
- 8) Engineering Staff College of India, Civil & Transportation Engineering Division organized Online Continuing Professional Training Programme on "**Safety management in Civil Structures**" from 11th– 13th March, 2025 (3 days) of total 20 officers from MES (Personnel).

Design Prototyping Centre and Mechanical Division

The Design Prototyping Centre and Mechanical Division conducted a CPDP on "Engineering Simulations uses ANSYS & CFD" from 24 – 27 March 2025. The program was aimed to enhance participants' technical and simulation skills, provided insights into design and manufacturing analysis, and addressed common challenges in error correction and problem-solving.



The training included hands-on sessions with ANSYS software, offering practical experience. The program was attended by engineers, eminent scientists, and senior technical officers from NSTL, RCI, TBRL, SSPL, DMRL, LRDE, and CVRDE, who found it highly beneficial. Feedback indicated that the course content, particularly the case studies, was exceptionally valuable. Participants also appreciated the relevance of the topics and the expertise of the speakers.

Measures by Sarvejana Foundation to Prevent Road Accidents – CEO and Former IAS Officer Janardhan Reddy in CT&E Meeting



Dr. B. Janardhan Reddy, former IAS officer and working as CEO of Sarvejana Foundation, emphasized the critical need for road safety awareness among students and youth while speaking as the Chief Guest at the concluding session of a training program on Road Traffic Regulations held at the ESCI on March 28, 2025. The event was organized by CT&E division.

Addressing senior officials attended from road transport departments, motor vehicle inspectors, and traffic police officers from multiple states including Gujarat, Karnataka, Kerala, Maharashtra, Uttarakhand, Uttar Pradesh, Odisha, and Rajasthan, Dr. Reddy underscored the alarming statistics of road accidents in India, where approximately 140,000 lives are lost annually. Highlighting human negligence as a primary cause, he pointed to common violations such as not wearing helmets or seat belts, over speeding, mobile phone usage while driving, jumping red signals, wrong-way driving, alcohol influence, and reckless driving.

Dr. Reddy revealed the alarming statistics stating that India has the second-largest road network in the world with 64.7 million kilometers of roads and around 260 million two-wheelers and 50 million four-wheelers in operation and approximately 1,400 road accidents occur daily in India, resulting in 474 deaths—averaging 55 accidents and 20 fatalities per hour.

Dr. G. Rameshwar Rao, Director, ESCI stated that a large-scale awareness program for school and college students is proposed to organize at the ESCI on prevention of the Road accidents on April 19.

The event was attended by Dr. B. Venkat Reddy, Head of the Civil and Transportation Engineering Department; senior official from the Ministry of Transport, Aravendra Kumar Bhaskar; C. H. Tilak; various state transport department officials; and college staff members.

Information & Technology Division

CPDP Programs

- 1) Network and Security Administration(Offline/ Online) from 03 - 07 March 2025 at ESCI

The Objective of the program is to enable to gain the knowledge in Network Administration to understand about Firewalls, Cryptography, VPNs, and IPS and to analyze security threats and protect organization's systems and database.

Participants attended from Directorate General of Quality Assurance

(DGQA) Units and Ship Building of Visakhapatnam (SBC)

- 2) Software Testing & Quality Assurance(Offline) from 03 - 06 March 2025 at ESCI

The objective of the program is to explore skills to enable people become technology aware, use technology effectively in the daily life and to Know About effective usage of Internet & Computer Security, Communication tools and security measures for Data storage.

Participants attended from West Bengal Power Development Corporation (WBPDCL) and from (DGQA) Units.

STP Programs

- 1) **Machine Learning & Artificial Intelligence for BEML, Bangalore** from 03 - 07 March 2025 at ESCI Campus.

Objective of the program is to enhanced skills to understand the vital nature of data for organizations and to learn the conceptual framework of machine learning apart from to explore and analyze data using supervised and unsupervised learning techniques.

The Training program is conducted for (BEML) Bharat Earth Movers Ltd., Bangalore and held at ESCI Campus, Hyderabad.



Mining Division

During the Valedictory Session of 2 Day Residential Professional Development Programme **"Condition-Based Monitoring & Maintenance for Effective Utilization of Mining Machinery"** held during 06-07 March 2025 organized at ESCI.



Management & Technology Division

The M&T division conducted the 3day CPDP through online and offline on **"Professional Ethics, Work Culture & Moral Values for Engineers, Scientists and Technologists"** from 18 - 20 March 2025 at ESCI Campus, Hyderabad. 05 participants has attended from OTPCL, New Delhi, CSIR-CESRI, Karaikudi & GSPL Gandhinagar, Gujarat..

Expert Speakers: Mr. Harjeet Singh Kalsi, Dr. Mohd. Abdul Nayeem & Mr. K. Satyanarayana attended as faculty





Guest Faculty and Delegates from NTPC during 3-Day on **"Formulation of Mining Plan, EMP and Project Report in Mining"** held during 18-20 March 2025 at ESCI

- 2) Guest Faculty and Delegates from Hutti Gold Mines Company Limited during 3-Day on **"Effective Technical & Managerial Skills for Overman, Foremen, Electrical Supervisors, Electrical & Mechanical Charge hands in Mining Industry"** held during 24-26 March 2025 at Engineering Staff College of India, Hyderabad



26th March 2025 - Er K J Amarnath, Head, Mining Division and Mr Vijay Kumar, IAS and Gyana Sundaram in Consultation to jointly organize programmes pertaining to ESCI

Power & Energy Division

1. The P&E Division conducted a 12 Working Days **"Power Plant Familiarization + Induction training program on 150MW TPP Unit Operation Simulator"** for the Graduate Engineer Trainees of HINDALCO from 17 – 29th March, 2025 and at HINDALCO, Lapanga, Jharsuguda in Odisha state.

A total 23 participants attended from GETs from Birla Copper, Dahej, Renuagar Power Division, HINDALCO, Renukoot, Aditya Aluminium, Lapanga, HINDALCO Mahaan Complex and HINDALCO, Hirakud Complex.

The objective of the training is to impart such as Introduction to Application of Thermodynamic cycles used in Power Generation, Boilers-Fundamentals, Constructional details & its Aux., Steam Turbine Components, Constructional details & its Aux., HP-LP Bypass System, Condensate System & its components



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and their Constructional details, Turbine Governing system, Generator Excitation System, Voltage, MVAR Control, Generator Protections & Interlocks, Testings before synchronization & Synchronization to Grid, ATRS, TSE, ATT, Boiler follow & Turbine follow modes, Boiler Water chemistry, Compressors, Power Plant Efficiency & Fire Protection aspects have been covered in the PPF program. Shri E.Nandakishore, T.R. Rajagopalan, V.V.Ramana Murthy, the experienced senior Engineers from NTPC Ltd. Attended as faculty

Dr.V. Vidyasagar, Sr. Faculty, P&E Div (On-line) attended for valedictory on 29th March, 2025

- 2) P& E Division, conducted another 3-Day CPDP (On-line) on “ **Tariff Policy-Basics of Tariff Calculations & Procedure / Information required for preparation of Tariff Petition (ARR) & Energy Scheduling at ESCI from 19-21 March, 2025 wherein** 11 participants from GSEC, HPSLDC, CSPGCL, TPDCL,(Tamilnadu),

The objective of the training program is to understand the CERC Tariff Regulations-2024, RE Tariff Regulations-2024, ARR submission for Distribution retail Tariff, Multi-Year Tariff & its Implementation, Competitive Bidding Methodology etc., Shri P.Pentayya, Director, Distribution, DNH, S.Sunil Kumar, DE/RAC, TGSPDCL, Muralikrishna, DE,TSTRANSO, Mrs. Shruthi BS, SRLDC and others attended as faculty

attended by Participants of Executives cadre of different locations from DGQA, Pune & Secunderabad, Dr. C S Krishna Prasad Rao acted as faculty & Course Director, The other faculty was Er. K J Amaranath & Er. M Rajasekhhar Reddy.



- 3) 4 days CPDP on **Laboratory Management System Awareness & Internal Auditor Training** was conducted from 17 – 20 March, 2025. The objectives of the Programme are to Understand the needs for validation of test results and. Enable to interpret ISO/IEC 17025:2017 requirements. It was attended by 8 Participants of Executives cadre of different locations from CSIR-CECRI, RCI-DRDO, NLCIL, DGQA, Karaikudi, Hyderabad, Neyveli, Bangalore & Secunderabad, Dr. C S Krishna Prasad Rao, as faculty and Course Director

Quality & Productivity Division

- 1) The Q&P Division conducted a 3 days CPDP on **Internal Auditor Training for AS 9100 Rev D** from 03 – 05 March, 2025 at ESCI Office. The objective of the Programme is to Understanding AS 9100 Rev-D: Learn the intent and requirements of each clause of AS 9100 Rev-D and how they apply to real-world scenarios The programme was attended by 6 Participants of Executives cadre of different locations from DGQA, New Delhi, Pune, Bangalore. Dr. C S Krishna Prasad Rao acted Course Director and Faculty Er. Hemamalini.
- 2) A 4 days CPDP was conducted on **Total Productive Maintenance** from 10 – 13 March, 2025 at ESCI office. The objective of this program is to provide participants with a comprehensive understanding of Total Productive Maintenance (TPM), its principles, and how to successfully implement it within an organization. The course aims to equip participants with the tools, techniques, and methodologies necessary to foster an environment of continuous improvement and achieve enhanced productivity. The programme was



ESCI Proposes Training Program for PR & RD Officials **The Director submitted a representation to Hon'ble Minister for PR&RD**

Dr. G. Rameshwar Rao, Director ESCI, along with a delegation comprising HoDs and staff members submitted a formal representation to Smt. Dhanasari Anasuya Seethakka, Hon'ble Minister for Panchayati Raj, Rural Development, Rural Water Supply, and Women & Child Welfare. The representation outlined ESCI's proposal to provide specialized training programs for officials from the PR & RD including those working under Mission Bhagiratha in Telangana subject to government approval.

Hon'ble Minister Seethakka visited the Centenary Convention Center of ESCI on March 26, 2025, as the Chief Guest for the 12th General Body Meeting of Stree Nidhi, an event organized by the Society for Elimination of Rural Poverty in collaboration with NABARD.

During the submission, Dr. Rameshwar Rao emphasized the Minister stating that ESCI is a registered and empanelled training institution with the Ministry of Jal Shakti's National Jal Jeevan Mission, Government of India. The institution has previously conducted Community Level Training (Level-3) programs for PR & RD and Rural Water Supply officials from various states, including Andhra Pradesh, Arunachal Pradesh, Chhattisgarh, Kerala, Madhya Pradesh, and Manipur. Given its extensive experience, ESCI is now fully equipped to train both engineering and non-engineering personnel working at various administrative levels within Telangana, including Zilla Parishat, Mandal Parishad, and Gram Panchayat offices.

For the fiscal year 2025-26, the ESCI has proposed the first phase of training to be conducted across 20 districts in Telangana, accommodating 60 participants with each session. The project cost will be around Rs. 12 crores annually aiming to train thousands of rural and urban staff members within a single year.

Hon'ble Minister Seethakka responded positively to the proposal, acknowledging its potential benefits for capacity-building within the PR & RD and RWS departments. Following the submission, Dr. Rameshwar Rao honored the Minister with a Shawl.

The representation submission team included ESCI HoDs and officials M. Rajasekhara Reddy, Anita Agarwal, Dr. Chandrakala, D.Sridhar Babu, S. Laxmikanth Rao, Dr. P. Rajarao, Y. Padmavati, SA.Kavitha, P.Jyothi, Naresh, and other distinguished members.



Women's Contributions Are Invaluable Director Dr.G.Rameshwar Rao on the International Women's day

"A woman is the lifeblood of humanity's existence... An unfathomable treasure of sacrifice and affection," said a great poet, emphasizing the greatness of women. Love and nurturing in the form of a mother, affection as a wife, and strong familial bonds as a grandmother—women play numerous roles in human life, making it impossible to fully describe their significance, said Dr. G. Rameshwar Rao, Director of the Engineering Staff College of India (ESCI).



Speaking as the chief guest at the International Women's Day celebrations held at ESCI for 2 days on 7th & 8th March, 2025, Dr. Rameshwar Rao stated that the world itself would not exist without women. He highlighted that qualities like sacrifice, patience, courage, humility, wisdom, intelligence, determination, and mental strength are among the many invaluable gifts possessed by women. Throughout their lifetime, a woman serves in multiple roles—as a mother, sister, daughter, wife, friend, social worker, and nurse—offering invaluable services to society. He emphasized that the sacrifices and contributions of women cannot be repaid in any form, urging all men to learn to respect and honor women.

"Accelerate Action"

Dr. Rameshwar Rao said that the theme for the 2025 International Women's Year is "Accelerate Action." He stressed the importance of identifying strategies and resources that can help women advance more rapidly in education, employment, and leadership roles, encouraging them to move forward on the path of development.

Free Medical Camp for Women

On this occasion, a free medical camp was organized at ESCI on 7th March, 2025 in collaboration with the Asian Institute of Nephrology & Urology, Banjara Hills. Several women staff members of the college participated in the camp and underwent various medical tests. The medical camp was attended by Dr. Sushma, along with medical staff members.

Fun Activities & Competitions

In the evening, several games and cultural competitions were held for women employees. Many participated enthusiastically in musical chairs and shuttle badminton competitions. These events were supervised by Anita Agarwal, Head of the Environment Department. Women participants Dr. Chandrakala, Dr. M. Sindhu, Sunitha, Sowmya, Jyothi, Saraswathi, Kavitha, Rajeshwari, and many others actively took part in the competitions, making the celebrations event more vibrant.

On the second day of the celebrations, held on March 8, 2025, Ms. Madhulika Sharma Choudhary, renowned as the "Lake Lady" for her significant contributions to water body restoration, attended as the Chief Guest. The event took place in the Seminar Hall of the Convention Centre.

During her address, Ms. Choudhary emphasized the importance of resilience, leadership, and the development of supportive ecosystems to foster women's professional growth. She highlighted various initiatives aimed at empowering women in the workplace and society.

As part of the celebrations, all women employees of ESCI were honored by the Director, recognizing their invaluable contributions. ESCI Chief S. Lakshmikanth Rao, Dy. Chief Dr. P. Rajarao Project Coordinator D.Sridhar Babu, and Y. Padmavati supervised the entire event grand success.

World Water Day held in the ESCI



Preserving Glaciers is the Final Step in Water Conservation: Prof. P.G. Shastri

The Engineering Staff College of India celebrated World Water Day on 22nd March, 2025, with the theme “Glacier Preservation.” The event brought together esteemed water experts, dignitaries, students, and academicians to emphasize the importance of sustainable water resource management. The celebrations, held at the newly constructed Centenary Convention Centre, added grandeur and vibrancy to the occasion, making it a memorable and impactful event.

Speaking as chief guest, Prof. P.G. Shastri, the former Director of the National Institute of Technology and Head (L&D), RANKI Infrastructure emphasized that human civilization began near water sources. He warned that increasing population and global warming are depleting water resources, leading to the gradual melting of glaciers that have existed for centuries. If these glaciers disappear, life on Earth will be in jeopardy.

Through a presentation, Prof. Shastri illustrated how glaciers like Gangotri, Kilimanjaro, Siachen, Greenland, Milam, and Pindari have been melting from 1780 to latest dates with a significant reduction year by year. He noted that Pandit Nehru referred to projects as the modern temples, and despite India having around 2,800 small and large water projects, the country still struggles to meet the water needs of its 18% share of the global population, lagging behind China and the USA in terms of water security.

Sri Ponnam Prabhakar, Hon'ble Minister for Transport & BC Welfare was invited as the Chief Guest for the event, who could not attend the meeting due to ongoing Assembly sessions, but he conveyed his congratulations to the Director of ESCI through an online message commending the successful organization of the event with a message “Save water..Save future”

Dr. Anupama Mohanty, Associate Professor at the Institute of Public Enterprises, stated that pure water is mainly found in glacial regions like Antarctica, Greenland, North America, and India. She warned that the melting of glaciers would

lead to severe freshwater scarcity and rising sea levels. She also pointed out that in South Indian reservoirs, water levels are only at 25% of their full capacity, and in cities like Hyderabad, people are relying on water tankers. She attributed the depletion of groundwater, pollution, and climate change to the deteriorating water quality, leading to health hazards.

Former Chairperson of the Krishna River Management Board, A. Paramesham, stated that water allocation among Karnataka, Andhra Pradesh, Tamil Nadu, Telangana, and Maharashtra is inadequate, leading to water shortages. Retired Chief Engineer Jambul Reddy suggested that constructing a new project in the Shadnagar region could supply water to Hyderabad through gravity flow.

Former Chairman of the Institute of Engineers, Dr. Nagabhushan Rao, pointed out that environmental pollution, global warming, and water shortages are direct consequences of human negligence. Former President of the Institute of Engineers, G.L. Rao, emphasized the need for a well-planned water conservation strategy for several years to manage the crisis effectively.

Dr. G. Rameshwar Rao, Director of the Engineering College, highlighted the importance of conserving the five elements—earth, water, fire, air, and space—as they are naturally formed and must be protected by humans. He noted that the purest water sources on Earth are hidden in the Himalayan glaciers and that the United Nations has issued a warning through the 2025 World Water Day theme, “Glacier Preservation.”

V.L. Praveen Kumar, Director of the Metro Water Board, stated that Hyderabad requires 550 million gallons of water per day, urging citizens to use water judiciously. D.Sambaiah, retired CE, Sai Ramana, GM of water board and various others spoke on occasion

The seminar was organized under the Water Resource Development Department of ESCI with the participation of M. Rajasekhara Reddy, G. Naresh, Faculty, S.A. Kavitha, several college students, and officials.

Events at ESCI

Engineers' Contribution is Immense to the Nation's Prestige Dr. G. Rameshwar Rao, Director, ESCI on World Engineering Day

Dr. G. Rameshwar Rao, Director of the Engineering Staff College of India, stated that World Engineering Day will be celebrated globally every year on 4th March. Speaking on occasion, he emphasized that UNESCO and the World Federation of Engineering Organizations (WFEO) have designated March 4th as Engineering Day and every engineer should recognize the significance of this occasion. This year 2025, the Engineers day theme is **Shaping Our Sustainable Future through Engineering** means the crucial role of engineers play in achieving the Sustainable Development Goals of every country.

The Director has mentioned that engineering education has already diversified into numerous fields, and this day serves to acknowledge the crucial role of engineers play in shaping a better future for humanity. The invention of the wheel in ancient times marked the beginning of engineering innovation. He said. Over thousands of years, engineers have created countless Engineering marvels and masterpieces across the world including the Egyptian pyramids and now there is a need to provide new solutions and innovations that contribute to sustainable development.

He called upon young engineers to step forward and strengthen the engineering ecosystem, ensuring global welfare and progress. He emphasized the necessity for young engineers to contribute to the development of essential infrastructure, including clean water, efficient transportation, and robust structural facilities, thereby enhancing India's global reputation.

The young Engineers working in ESCI as faculty and HoDs, Sri G.Naresh spoke on Smart Infrastructure, Anita Agarwal on climate Change, Dr. NVVS Sagar on Advance Technology, P.Sai Kishore on Digital Transformation, Ch.Tilak on Smart Buildings and Roads, M.Srikanth on Clean Energy, L.Krishna on Mining, Ms. Jyothy & Sowmya on Information Technology addressed the gathering. Earlier, Dr. K. Bharat, another young and dynamic engineer emphasized the significance and necessity of engineering education in India, particularly in comparison to other advanced nations. He highlighted the immense scope for growth in the fields of Artificial Intelligence (AI) and Machine Learning (ML) in India, underscoring the need for increased focus and development in these areas. The meeting was also attended by engineers K.J. Amarnath, D. Sridhar Babu, Dr. Krishna Prasad Rao, Dr. Chandrakala, Dr. Rajarao, and several others.



Women: The Architects of Change ESCI's International Women's Day Celebrations on 8th March, 2025



Upcoming...



Two days National Conference by Environment Management Division

The Environment Management Division in ESCI has proposed to conduct a two day National Seminar on **“Sustainable Waste Management through Circular Economy and Technological Innovations”** on **21-22 May, 2025** at the Centenary Convention Centre in ESCI Premises.

The objective of the seminar is

- To raise awareness about the importance of circular economy principles in waste management
- To showcase technological innovations in waste treatment, recycling and resource recovery
- To facilitate dialogue and collaboration among stakeholders
- To identify policy gaps and recommend strategies for promoting sustainable waste management

The Target audience includes

- Researchers and academicians
- Policymakers and regulators from government agencies at the National, State and Local levels
- Industry professionals in the waste management and recycling sectors
- Representatives from NGOs and community organizations

Students and young professionals interested in environmental sustainability



"Creating Managers to make the World a place for Quality living"



ENGINEERING STAFF COLLEGE OF INDIA

Autonomous Organ of the Institution of Engineers (India)

School of Post Graduate Studies



Admissions are open for 2025-27 Batch
AICTE APPROVED TWO-YEAR FULL-TIME PROGRAMMES

PGDM Infrastructure Management

Civil | Transportation | Power
Telecommunication | IT

PGDM - General Management

Finance | Marketing | Business Analytics
HRM | Operations | IT

PGDM - Innovation, Entrepreneurship & Venture Development (IEV)



Salient Features

- ★ Industry interface and cutting edge curriculum.
- ★ Perfect blend of Management and Technology Education.
- ★ Intensive Industry Internship Programs.
- ★ World Class Infrastructure
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Management is doing things right, Leadership is doing the right things - Peter Drucker

Do not dwell in the past, do not dream of the future, concentrate the mind on the present moment.....Goutam Buddha



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