



ESCI

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DIRECTOR'S DESK

NATIONAL TECHNOLOGY DAY - CELEBRATING INNOVATION AND PROGRESS

In addition to the various commemorative days observed throughout the year, **National Technology Day** celebrated annually on **May 11th** holds special significance in India. This day is dedicated to honoring the visionary Scientists, Engineers and Innovators whose contributions have propelled the nation and the world towards technological advancement.

The journey of technology began over two million years ago with the invention of "**stone tools**" marking humanity's earliest efforts at innovation. One of the most revolutionary inventions in human history, the "**wheel**" emerged around the 4th millennium BCE drastically improved mobility and transportation. These innovations laid the foundation for the **Industrial Revolution** which catalyzed unprecedented technological and economic progress. In consequence, the emergence of **software technologies** and digital transformation has fundamentally reshaped modern society.



The theme of National **Technology Day 2025** is "**YANTRA i.e, Yugantar for Advancing New Technology, Research & Acceleration**". The term **YANTRA** reflects the nation's rich scientific heritage, commitment to innovation and ability to scale solutions for broader impact.

Technology encompasses a wide array of methods and tools in every aspect of modern life. On the other side, the technologies are also destroying human lives. Though the Technology offers many benefits, such as increased efficiency, improved communication, and access to information, we must also remain mindful of the ethical, social, and environmental implications. By fostering a balanced approach that embraces innovation while safeguarding human values, we can harness the power of technology to build a smarter, safer, and more inclusive future for all.

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

Events at ESCI

CCC Division



Field visits lead to solutions for public issues GHMC Commissioner R.V. Karnan during AEEs Induction Training in ESCI

The closing ceremony of the month-long induction training program for 115 newly appointed Assistant Executive Engineers of GHMC was held on 17-05-2025, at the ESCI convention centre. Speaking as the chief guest at the event, Commissioner RV Karnan said that every training program involves a cycle of *learning, unlearning, and relearning*. He urged the newly appointed AEE's to perform their duties with responsibility and strive for success.

Dr. G. Rameshwar Rao, Director of the ESCI said that during the AEE's induction training programme, each subject in each batch was delivered by subject experts on key topics like Standard Operating Procedures, e-Procurement tendering methods, Urban Infrastructure Development, Service Rules, M-Book recording guidelines, and water conservation techniques. As part of the field visit the participants were taken to Amberpet Sewage Treatment Plant, Khajaguda Lake Restoration works, and the Gachibowli Steel Bridge and flyover construction sites, where they were explained construction methodologies.



The program was conducted under the Supervision of Dr. Chandrakala, Head, Centre for Climate Change and faculty Dr. Naresh.

At the end of the program, GHMC Commissioner RV Karnan distributed participant certificates to the AEEs who completed the training.

Civil & Transportation Engineering Division

Strong Structures Need Strong Supervision- ESCI Director Dr. G. Rameshwar Rao

The Civil and Transportation Division of ESCI has conducted the one day seminar on “**Effects of Corrosion on TMT Bars and Building Structures**” held at ESCI seminar hall on 6th May, 2025 wherein 54 engineers from various construction companies participated. Dr.G.Rameshwar Rao, the Director Participated as chief guest stated that ESCI continuously provides updated training programs to engineers working across various regions of the country.

On this occasion, Mr. Rajeev Bisht, Chief of Devasree Ispat Ltd., stated that any structure built with cement would be



long-lasting and reliable only when it is constructed solidly and with trust. He emphasized that engineers must personally inspect the materials used in such constructions, otherwise, they would be held responsible for any resulting damages.

Prof. K. Ganesh Babu and Dr. Venkat Dilip served as faculty for the seminar. The event was conducted under the supervision of Dr. R. Venkat Reddy, Head of the CT Division, along with C.H. Tilak and Sunita.

2) The C & T Engineering Division organized Training and Development Programme on **“Innovations in Concrete Testing & its Applications for Green Building Materials” from 26 – 30 May, 2025**. The Participants attended from Directorate of Technical Education, Himachal Pradesh.



3) The CTE Division has also organized Training and Development Programme on **“Testing of Civil Engineering Materials” from 26 – 30 May, 2025**. The Participants were from Irrigation and Water Resources Department, Uttar Pradesh & Road & Buildings Department, Gujarat.

Environment Management Division

State-level workshop under AMRUT 2.0 at Ranchi, Jharkhand



On May 9th, 2025, a crucial one-day state-level workshop under AMRUT 2.0 focused on urban water body rejuvenation took place in Project Building, Dhurwa, Ranchi, Jharkhand. Executive officials of the State Government benefited from insightful sessions led by Ms. Madhulika Sharma Choudhary from Hyderabad who is fondly called as “Lake Lady”. The event was graced by Chief Guest Shri Sunil Kumar, IAS, Principal Secretary, UD & HD, Jharkhand, and also featured Smt. Jyotsana Devi, Deputy Director, SUDA. Expertly coordinated by Pushpa Martin and organized by Anita Aggarwal, Environment Management Division from Engineering Staff College of India, Hyderabad.

Faculty Development Cell

ESCI Shines Bright with National Recognition for Skill Excellence

Under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 4.0, the Engineering Staff College of India (ESCI) has achieved remarkable progress and received commendation from the Ministry of Skill Development, Government of India. In a review meeting held on 23rd May, 2025 at the Ministry of Skill development Office in New Delhi, Dr. G. Rameshwar Rao, Director of ESCI, along with Mr. P. Sai Kishore, Head of FDP division represented the institution.

Speaking on the occasion, the Director stated that under the Ministry of Skill Development, ESCI had successfully provided training to 960 students of various colleges during the last one year. The training covered various skill development related subjects among youth including Artificial Intelligence & Machine Learning, 5G Technology, Cyber security, Green Hydrogen, and Drone Technology, with sessions conducted by senior faculty members well-versed in these subjects.

As part of the program, national and international seminars were also organized with the participation of senior officials from several corporate companies. The Director said that the third Skill Graduation Ceremony was also organized in the convention centre at the ESCI Premises just few days



Events at ESCI



back in the month of May, 2025 in the presence of prominent corporate leaders wherein Dr. R. Hafeez Basha, IT Advisor to the Government of Telangana also attended

Sri Amit Meena, IAS, Director of PMKVY along with senior officials from the Government of India's Ministry of Skill Development, as well as representatives from various state governments, participated in the meeting.

Power & Energy Division

1) P& E Division conducted a 4-Day CPDP on " **Electrical Safety Procedures & Accident Prevention** " from **27 – 30 May, 2025** wherein 15 participants attended from BESCO, PTCUL, WBPDC and SJVNL

As a part of this training, a Lecture -Cum-Demonstration on Fire Fighting Techniques, Electrical & Oil fires have also been conducted by the DFO, Telangana Fire Department.

A Lecture -Cum-Demonstration on First **Aid for Accidents due to electric shocks & Emergency Treatment Procedure** for Recovery/ Resuscitation including Cardiopulmonary



Resuscitation (CPR)- Demo. has been conducted by Dr. G.Ravikumar from St. John's & his team.

Sri Ch. Chakrapani, CE(Op.) Metro zone, TGSPDCL, Dr.A.Manikyala Rao, DGM, DAE, EM Chakravarthy, DE, TGSPDCL delivered the lecture during the 4 days session.

2) Fire Department's Demonstration on Prevention of Accidents

A demonstration organized by the Fire Department on 30th May 2025, captivated the participants attending the ongoing training program on electrical safety protocols and accident prevention at the Engineering Staff College of India (ESCI),

Employees from various states representing organizations such as Bangalore Electric Supply Company, Power Transmission Corporation of Uttarakhand Ltd., West Bengal Power Distribution Company Ltd., and Sutlej Jal Vidyut Nigam Ltd. attended the program. The demonstration by the Madhapur Fire Department not only attracted attention but also raised awareness on how to handle accidents caused by electricity.

On this occasion, ESCI Director Dr. G. Rameshwar Rao stated that human life is deeply connected with electricity. Lights, fans, air conditioners, and mobile phone charging have become an inseparable part of our daily lives. Most electrical accidents are caused by short circuits, often in large buildings. Sometimes, fires break out in moving vehicles, and with a little awareness among people, many of these incidents can be prevented.

The Fire station Officers Mr. Karim, Mr. Prashant, and Mr. Kishan Lal from Madhapur demonstrated the event.

Mr. U. Vidyasagar, HoD of Power and Energy, Dr. V. Vidyasagar Rao, Mr. Srikant, Ms. Sharada Devi and Saraswati along with the trainees participated in the event.



Artificial Intelligence is the Future for Youth – ESCI Director Dr. G. Rameshwar Rao

Artificial Intelligence (AI) and Machine Learning (ML) have gained significant importance in the modern world, and it has become essential for every young student transitioning from school to college to gain awareness and understanding of this advanced technology, said Dr. G. Rameshwar Rao, Director of the Engineering Staff College of India (ESCI).

Inaugurating a student gathering held on 7th May, 2025 at the college's convention center seminar hall, Dr. Rameshwar Rao emphasized that the day Indian youth embrace rapidly evolving modern technologies, India will take a leading position on the global map.

Dr. Rameshwar Rao launched the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 4.0, a skill development initiative aimed at unemployed youth. Students from Mahatma Gandhi Institute of Engineering and Technology (MGIET) participated in the session. Speaking on the occasion, MGIET Principal Dr. Chandra Mohan Reddy expressed his gratitude to ESCI for offering courses that are highly relevant to today's youth.

The event also saw the participation of T.V. Rajanikant, Rajesh Parshat, M.K. Gandhi, and others. The entire program was conducted under the supervision of Faculty Development Cell Head Sai Kishore along with the supporting staff.



ESCI's Participation in Bihar e-procurement Portal

Engineering Staff College of India (ESCI) has successfully participated in the Expression of Interest (EOI) through the Bihar e-Procurement portal for the Empanelment of Training Partners to conduct Recognition of Prior Learning (RPL) programs for registered workers under the Bihar Building and Other Construction Workers Welfare Board (BBOCWFB).

This initiative reaffirms ESCI's commitment to skill development and workforce empowerment by recognizing and certifying the existing skills of construction workers, thereby enhancing their employability and livelihoods. ESCI brings to the table its vast experience in training, capacity building, and technical education across various sectors, aligning perfectly with the objectives of this important initiative by the Government of Bihar.



Director's participation in Jubilance 2025 along with Sri Jayesh Ranjan, Special Chief Secretary, ITE&C and others during their District 126's Annual Conference held at the IEI Centenary Convention Centre, ESCI on 24th & 25th May, 2025.

Events at ESCI

Information & Technology Division

1) The CPDP conducted on Cyber **Security Best Practices for Managers and Executives (Offline/Online)** from 19 – 21 May 2025 at ESCI Campus.

The Objective of the Program is to provide knowledge and skills to protect information assets, knowledge and skills to preventing cybercrimes and ensuring network security.

Participants attended from Directorate General of Quality Assurance (DGQA), Drunk Green Power Corporation Limited (DGPC), Bhutan, North East Transmission Company Ltd. (NETCL)



2) The another CPDP conducted on **GeM Procurement Procedures – GeM Account operation from Basic to expertise (Buyer module) (Offline/Online)** from 19 – 21 May 2025 at ESCI Campus.

The Objective of the Program is to understand the different GeM for Procurement Procedures, explore the procurement process of GeM Portal, to understand the



benefits and challenges of Government e Marketplace (**GeM**)

The Participants attended from Directorate General of Quality Assurance (DGQA), Tata Institute of Fundamental Research (TIFR),

Quality & Productivity Division

The Q&P Division had conducted a 4 days Hybrid CPDP on **"ISO 9001:2015 QMS – Effective Implementation & Internal Auditor Training"** held from **05-08 May 2025** at ESCI Campus, Hyderabad. Wherein 7 (including 3 online) participants were attended from SSPL-DRDO, Delhi, BHEL (R&D) Hyderabad, CQA(M), Ichapur, QAE(WE), Delhi, CQAE(WE), Bengalore.

The Expert Speakers Er.D Srinivasa Rao, Er. D Sheshadri, Er. Hemamalini, Mr. Sivaish, & Er.H S Kalsi attended as faculty. Dr.US Jyothi, Sr.Faculty (M&T), Dr.K.Bharat, Faculty and G.Ram Murthy, officer have monitored the four days event.



2) The Q&P Division has also conducted the 4 days Hybrid CPDP on **"Industry 4.0 quality Aspects"** held from **13-16 May 2025** at ESCI Campus, Hyderabad. Wherein 5



(including 2 online) participants were attended from BDL Hyderabad, DQA (WP), Delhi & CQAE (WE), Mumbai

The Expert Speakers Mr. P Mohan, Mr. Phani Kishore YVN, D Srinivasa Rao, Mr. Ambrish & Dr.Rakesh were attended as faculty. Dr.US Jyothi, Sr .Facutly (M&T) Dr.K.Bharat, Faculty monitored the four days event.

Water Resources Development Division

Dam Safety Guidelines - Monitoring and Protection Measures and Emergency Action Plan from 19 - 21 May, 2025

The objective of the training is providing an opportunity to the Engineers involved in Operation and Maintenance of Irrigation Dams to enhance their knowledge on effective operation and Maintenance of dams during the floods, Monitoring of the seismic activities, preparation of Emergency Action Plans, Dam Safety Inspections and Structural reviews etc. The Engineers attended from West



Field Visit at Nagarjuna Sagar Dam

Bengal State Electricity Board and Bhakra Beas Management Board. As Part of exposure visit Nagarjunasagar Dam visited and learned the dam maintenance procedures, Gate Operations, Reservoir Sedimentation Studies and safety inspections including SCADA System.

Geological Information System

Internship for Civil Engineering Students at ESCI

Dr. G. Rameshwar Rao, Director of the Engineering Staff College of India, stated that as part of the Government of India's initiative to strengthen geospatial technology applications for the year 2025-26, a National Geospatial Mission has been established. This mission aims to promote urban planning, modernize land records, and conserve underground resources across the country.

In alignment with this mission, the Water Resources Development division of ESCI conducting 4 to 6-week internship training program in Geographic Information Systems (GIS) for civil engineering students.

Dr. G. Rameshwar Rao said that students pursuing a civil engineering degree or diploma, currently in their second, third, or fourth year are eligible to join the six-week training which is conducted under the guidance of GIS experts. The course fee for the six-week program is Rs.6,000/- It includes four weeks of GIS software training followed by two weeks of project work.

Further details could be obtained from M. Rajasekhar Reddy & Dr. P. Sridhar, Senior faculty member the Heads of the Water Resources Development department. The four-week GIS software training students pursuing civil engineering degree or diploma, or those doing M.Tech project work are also eligible. The fee for the four-week course will be Rs. 5,000. For Ph.D. scholars, GIS training is also available at a fee amount of Rs. 7,000/-.

All courses begin on the first Monday of every month. Interested candidates are advised to contact the Water Resources Development department of the Engineering Staff College of India or visit the ESC website for more details.

Memories to cherish

ESCI extend a warmest wishes to Mrs. K.Sarada Devi for a happy, healthy, joyful and fulfilling retired life



Mrs. Kondapalli Sarada Devi, who is served for 33 years in the Engineering Staff College of India, has retired on 31st May, 2025 on attaining the age of superannuation.

Participating as the chief guest, Dr. Rameshwar Rao, the Director of ESCI said that Sarada Devi joined the ESCI in the year 1992, when the ESCI still in its early stages and witnessed its growth over the past three decades. He noted that Sharada Devi played a significant role in the college's development through each of its phases.

Mr. U. Vidyasagar, the HoD and Senior Faculty of Power & Energy said that Mrs. Sarada Devi played a major role in the growth of the P&E section. He appreciated her swift handling of various responsibilities like dealing with consultancies, preparing reports, communicating with faculty, and organizing field visits, all of which enhanced the section's reputation. He expressed his special thanks for her dedicated service. Mrs. K. Sarada Devi, the outgoing staff said she always prioritized office duties first than any personal works during her 33-year service. She expressed pride in witnessing the growth of ESCI before her eyes. She thanked every officer and director who supported her in her duties.

On this occasion, College Director Dr. Rameshwar Rao and the P&E Division felicitated Sarada Devi with a shawl, memento and Citation in honor of Superannuation. The entire staff of the ESCI especially the colleagues and the contemporaries of Smt. K.Sarada Devi, Sri Sudhakar, Sri Raghuvveera Reddy, Smt. Rajeshwari and Smt. Saraswathi and others spoke about her dedicated services done to the ESCI.

College Chief S.Laxmikantha Rao, Dy.Chief Dr.P.Raja Rao and various staff members participated in the farewell function.

Water Wizard..Shaping the Future

(On the occasion of Sir Thomas Cotton's birthday on 15th May 1803)

Sir Arthur Thomas Cotton, best known for his work on irrigation and water management in India during the 19th century developing irrigation systems along the Godavari and Krishna rivers in southern India transformed barren lands into fertile agricultural areas, benefiting millions of people. Given the ongoing challenges of climate change and water resource management globally, it's worth reflecting on Cotton's contributions and how innovative engineering can still provide solutions today. He's also often called "The Delta Architect". Sir Arthur Thomas Cotton was born on **15 May 1803** in **Combermere**, United Kingdom.

Cotton was appointed to serve in India and was initially attached to the Chief Engineer's office in Madras where he served as the Superintending Engineer in the Tank Department. His contributions included a **marine survey of the Pamban passage** between India and Ceylon. In **1828**, he was assigned to investigate the **Cauveri Scheme**, focusing on irrigation challenges. He worked on enhancing the **Kallanai Dam**, one of the oldest water-regulation structures in the world. In **1844**, Cotton recommended the construction of a new **anicut (dam)** and drafted plans for the

development of **Visakhapatnam port**. His most significant contribution came with the **Godavari Anicut**, constructed between **1847 and 1852** at **Dowleswaram**, which remains functional and instrumental in regional agriculture. His other notable projects include the **Kurnool-Kadapa Canal (K.C. Canal)**.

His vision extended beyond individual projects. In **1858**, he proposed an ambitious plan to interlink India's major rivers and canals to mitigate drought and improve irrigation on a National scale. He also recommended drought-relief strategies for **Odisha**. In recognition of his outstanding service, he was conferred the title of **Knight Commander of the Order of the Star of India (KCSI)** in **1877**.

Sir Arthur Cotton passed away on **24 July 1899** in **Dorking, United Kingdom**. His legacy continues to be celebrated in India, showcasing engineering tools and images related to his work.



(ESCI Honoring the legacy of Sir Arthur Cotton)

ESCI Signs MoU with Sarvejana Foundation for Road Accident Prevention



In a significant step towards preventing road accidents and saving human lives, the Engineering Staff College of India (ESCI) entered into a Memorandum of Understanding (MoU) with Sarvejana Foundation on 9th May, 2025. The MoU was signed between Dr. G. Rameshwar Rao, Director of ESCI, and Dr. B. Janardhan Reddy, Chief Executive Officer of Sarvajana Foundation held at the Board Office.

On occasion, Dr. Rameshwar Rao stated that in collaboration with the Civil and Transportation and the Faculty Development Cell divisions at ESCI, a dedicated session on road accident prevention will be included in every training program conducted throughout the year. Faculty members involved in these sessions will include members of Sarvejana Foundation, officials from the Transport Department, doctors, lawyers, and traffic police officers will contribute to road safety awareness and accident prevention.

Speaking on the occasion, Dr. Janardhan Reddy, CEO of Sarvejana Foundation, emphasized that victims of road accidents are extremely unfortunate. He pointed out that while some people lose their lives, others suffer permanent disabilities that cause lifelong suffering. Reckless driving not only endangers the driver's own life but can also destroy the lives of others, he said.

The Sarvejana Foundation was established under the leadership of renowned orthopedic surgeon Dr. A.V. Gurava Reddy, and has been conducting awareness programs through teams of medical professionals on prevention of the Road accidents.

The meeting was attended by Dr. K. Siddharth, Road Safety Program Manager, and G. Anil from Sarvaeana Foundation. Representing ESCI were Dr. R. Venkat Reddy, Head of CTE, P. Sai Kishore, Head of FDP.



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