



# ESCI

## COMMUNICATIONS



Volume XXXIII

Issue 1

April 2024



## DIRECTOR'S DESK

### Sustainable Environment is Need of the Hour

In the recent past people started talking about ESG, which stands for Environmental, Social, and Governance. In other words, it's "a set of standards for measuring a business's impact on society, the environment, and how transparent and accountable it is". While we keep talking of financial performance in terms of profit, it's a framework used to measure a business's non-financial performance in environmental, social and governance categories. It's heart warming to note that awareness on ESG is growing among stakeholders and customers and it has become an integral part of assessing a company's value.

Companies doing well on ESG practices have reduced regulatory and legal interventions (fines and sanctions), higher financial growth, lower volatility, higher employee productivity, top-line growth, and cost reductions. Further, research studies also found that 88% of companies that adhered to social and environmental standards showed better operational development and integrating ESG in the organization system results in competitive advantage and ahead of the growth curve.

The key factors that contribute to environment impact are Green House Gas Emissions, Water Pollution, Air Pollution, Recycling Policy of the organization, and deforestation etc., Measures such as accurate and up-to-date carbon accounting, reporting, and decarbonization plans could help us in arresting degradation of environment.

Social impact is organizations human impact which includes employees, stakeholders, consumers to the communities within which the business operates. Good employee and employer relations, labour practices, maintaining health, safety standards, manufacturing standards, good mental health will result in superior quality of the product, good customer relations, and community relations.

Governance impact depends upon the leadership, compliance with audits, internal controls, risk management strategies of the top management, and protecting share holders rights. The top-management of the companies need to be transparent in their actions to build trust. They must bear one thing in mind that, be it an employee or society at large, once trust is broken they might be physically alive but clinically dead in terms of their impact or influence. Factors like composition of Board of Directors and their decision making, executive compensation guidelines, organization policy regarding political contributions, hiring and outsourcing practices and on boarding practices impact Governance of the organization. Organizations have to take measures for net-zero and manage their ESG impact through various innovative ways to be successful.

Lastly, we all need to remember that the purpose of business evolved from profit to triple bottom line -people, profit & planet. But now they have to take care of multiple stake holders like vendors, employees, share holders, customers etc. Give this background responsibility is all the more on all the concerned to focus on ESG.

I extend my heartiest wishes to one and all on the auspicious occasion of Telugu, Tamil, Lodi etc regional new year.

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



**Inauguration of ICE Centre at ESCI**

**Dr. G. Ranganath**, President of the Institute of Engineers (India) ceremoniously inaugurated the Information, Communication, and Education (ICE) Centre at the Engineering Staff College of India on 26th February, 2024. **Dr. Nutan Kumar Dash**, Vice President of IEI, **Dr. M. Chowde Gowda** Council Member, **M. Shyam Prasad Reddy**, Chairmen, ESCI Governing Council, **M. Nagaraj**, Vice-Chairmen, ESCI Governing Council, **Maj Gen. Mohan Jeet Singh Syali**, Secretary & Director General of IEI and **Dr. G. Rameshwar Rao**, Director, Engineering Staff College of India (ESCI) have graced the occasion. The primary objective of the ICE Centre is to create awareness and promote the activities of ESCI and establish positive engagement with skills and vocational programs organized under the Pradhan Manthri Kaushal Vikas Yojana (PMKVY). **Dr. R S S Prasanth**, Head, Design Prototyping and Mechanical Division presented the MSME activities to the dignitaries that ESCI is acting as Host Institute to MSME GoI, and actively engaged in promoting business incubation activities by helping young entrepreneurs to realize their novel ideas physically for common good of the society.

# Events at ESCI



## 9th Golden Peacock National Training Award to ESCI

The award was received by Dr.G.Rameshwar Rao, Director, ESCI on March 5, 2024 in Abu Dhabi, United Arab Emirates. The Director has shared the honor with the entire ESCI team acknowledging their invaluable contributions to this notable accomplishment.

## Workshop On “Blockchain Technology”

A 3-Day Workshop on “Blockchain Technology” was organized from 21 to 23 March, 2024 for students of Pondicherry University. The workshop was inaugurated by Dr. G. Rameshwar Rao, at ESCI wherein he highlighted the transformative potential of emerging technologies and the role of AI in enhancing the work efficiency and productivity in sectors such as healthcare, education, Occupational safety, and security while minimizing costs.

Sri Ashfaq Shaik, Vice President of Blockchain Centre for Excellence, Broadridge, emphasized how traditional database technologies posed challenges for recording financial transactions, whereas blockchain technology offers advanced mechanisms for transparent information sharing within business networks and prevents unauthorized modifications.

Sri Madhu Vadlamudi, Practice Manager of Miracle Software System emphasized importance of emerging technologies in today’s educational landscape system.

### Editorial Team:

**Shri K. J. Amarnath**  
**Shri K.Manohara Chary**  
**Mrs. S. Rajeshwari**  
**Shri Vamsi Krishna**



## International Women’s Day Celebration

On 11<sup>th</sup> March, 2024, International Women’s Day celebration was held at Engineering Staff College of India. Dr. G. Rameshwar Rao, ESCI, Dr.Sindhu, Principal of University College of Management, JNTU-H, Dr.Leela and Dr.Ramani from M.N. J Cancer Hospital, Dr. A. Jagan Mohan Reddy, Principal of the School of Post Graduate Studies, ESCI addressed the occasion.

Dr. G. Rameshwar Rao emphasized on the equality of women for the progress of society and stressed the pivotal role of education in fostering societal development. He underscored traditional values **Matru Devobhava, Pitru Devobhava, Acharya Devobhava, and Athidhi Devobhava** and asserting that empowering women economically is paramount for national progress.

Dr. Sindhu, articulated the importance significant contributions of women to the nation’s social economic growth. She highlighted the critical role of women across various sectors, including agriculture, construction, manufacturing and the IT industry in driving India’s economic aspirations towards a 10 trillion milestone.

Dr. Leela and Dr.Ramani provided insights into preventive measures against cervical cancer underlining the importance of womens’ health and well-being in the broader context of societal progress.

Dr. A. Jagan Mohan Reddy, emphasized the substantial contribution of women to India’s GDP.

Sri S. Laxmi Kantha Rao reiterated the imperative of honouring and respecting women, acknowledging their fundamental role in the creation and sustenance of life itself.



## Environment Management Division



### World Water Day

World Water Day celebrations were held on 22nd March, 2024 at ESCI. Sri M. Jagadishwar, Retired Principal Secretary, former Managing Director of Hyderabad Metropolitan and Sewerage Board (HMWSSB), who was the Chief Guest, highlighted the grim situation of inadequate water resources on this planet to meet the needs of increasing population thereby creating a potential for peace and security challenges.

Dr. G. Rameswar Rao, Director, ESCI & former Director(Operations), HMWSSB informed that about 35% of drinking water is getting wasted in the city due to negligence and this should be curtailed. ESCI is conducting many programs on the importance of usage and conservation of water and thousands of citizens have already been made aware.

Mrs. Anita Agarwal, Head of the Environment Division, ESCI was the Chief anchor for conducting this program. Faculty and other staff participated enthusiastically on the occasion.

- Central Pollution Control Board Sponsored a 2- Day Training Programme on **“Management of Biomedical Waste as per Bio-Medical Management Rules, 2016”** from 16 to 17 January 2024 which was successfully conducted at ESCI Campus, Hyderabad. The programme was inaugurated by Dr. G. Rameshwar Rao, and the topics dealt in the programme include Biomedical Waste (Management) Rules 2016, revised Guidelines & Concepts, Secured Landfill for Incineration: Waste Design Criteria, Guidelines and Criteria to Set up Common Biomedical Waste Treatment Facility (CBWTF), Infection Control and Surveillance & Biomedical Waste Management – Case Study, Future Challenges for Biomedical Waste Management, Environmentally Sound Management Techniques etc.. A technical field visit to Ramky Bio Medical Waste Management Facility was also organized.



- A Conference on **“Environment Management and Detriment of Environment and Public Health”** was organized by EM division for the Officials of District Magistrate and Public Prosecutors at Puducherry on 5th January 2024 which was sponsored by Department of Science, Technology & Environment at Puducherry. The invited guest **Dr. N. Ramesh**, Member Secretary, Puducherry Pollution Control Committee, Prosecution of offences under Environmental Law, Environment Management. Addressing Gaps in Detriment of Environment & Public Health etc. are the topics discussed in the conference.
- CPCB Sponsored Training Programme on **“Construction & Demolition Waste Management Rules-Case Studies and Legal Requirements”**: was successfully conducted during 30-31 January 2024 at ESCI Campus, Hyderabad. Status of Waste Management in India and Guidelines, Rules 2016 (C&D-Amendments, Significance, Implementation, Extended Producer Responsibility, Guidelines on Environmental Management of Construction & Demolition Waste, Sustainable C&D Waste Management, Construction & Demolition Waste (CDW) and its relevance to Climate Change & Green House Gas Emissions etc. are the subjects covered in the course. A technical field visit to C&D Waste Management Facility Unit was also organized.
- Specific Training Programme on **“Integrated Capacity Building Programme Sponsored by MoHUA, GoI, under AMRUT 2.0 - Exposure Visit to Best Practices in and around Telangana State for the City Managers of State Government of Jharkhand”** was successfully conducted during 21-23 February 2024 at ESCI, Hyderabad. The topics covered during the programme were -Guidelines and Action Plan on Restoration of Water Bodies, Case Study on “Watershed Development” - Nekkampur lake role model under “Best Restoration Practices” and **Field Visits to Nekkampur Lake, Water Supply Treatment Plant – Kodandapur, Rain Water Harvesting Theme Park** etc were organised



# Events at ESCI



## Management & Technology Division

### New Programmes announced by the Division

- Occupational Health and Safety (OH&S) Management System, 07-10 May 2024 Occupational Health and Safety Management

System exposes engineers to efficiently prevent and mitigate work place hazards. Every engineer working in production, welding, R&D units, process planning, designs, maintenance and Quality Control / Quality Assurance in manufacturing and process industries like heavy equipment fabrication sectors, automobile, defence, aeronautical, electronics, power sectors (Generation-Thermal, Nuclear, Gas) medical products & precision instruments, petrochemicals, fertilizers, ordnance factories, public & private sectors will be highly benefited by attending the programme. This is a very important topic that should be educated in this field.

*Dr Hari Sarvothaman, Retired Dy. Director General, GSI delivering lecture on 21 February 2024 during the program "Key Technology in Land & Mine Surveying"*

- "Development of Safety Culture in Mines" during 29 – 31 January 2024. Delegates from Ultra-Tech Cements, Singareni Collieries CCL, and ERM Group have participated in the training.
- "General Management Programme for Supervisors in Mining Industry was conducted during 7 – 9 February 2024. Delegates from Mining 360 and OCPL have attended the training program.
- A 3-Day National Seminar on "Optimization of Resources in Opencast & Underground Mining" was organized during 28 February – 1 March 2024. Dr S K Chaurasiya, GM-R&D, NMDC Limited, Mr S K Jain, CGM, NMDC Limited, Mr B Sahoo, Executive Director (PC & S), NMDC Limited, Chief Guest, and Dr V Balaram, invited speaker have participated in the Inaugural Session on 28<sup>th</sup> February

## Mining Engineering Division

The Division conducted the following training programs during January –March 2024:-



*The Technical Volume was released by the Chief Guest Mr B Sahoo, Executive Director (PC&S), NMDC Limited*

### Artificial Intelligence and Machine Learning-

In collaboration with the Ministry of Skill Development and Entrepreneurship under the Prime Minister Koushal Vikas Yojana (PMKVY), ESCI hosted a one-day skill training programme on the importance of Artificial Intelligence (AI) and Machine Learning (ML) on Friday, April 12, 2024 wherein 200 Engineering students from various colleges have participated.

Dr. G. Rameshwar Rao, highlighted the significance of AI and ML in today's engineering landscape and emphasized that they, play a pivotal role in enabling machines and systems to learn and improve from experience.

As distinguished guests of honor, Mr. Pramod, Co-founder of Futurely Inc and Faight Club, and Mr. Nitin Kishore, a Staff Data Scientist and Machine Learning Engineer from Walmart Labs and Faight Club, shared their insights on the widespread applications of AI across various sectors



They emphasized that AI not only drives innovation but also creates new job opportunities while urging the youth to aspire for greatness and stay updated with the latest advancements in the field.

The event also featured keynote address by Mrs. J. Maria Shanthi, Associate Professor in AI & ML from Joginapally Bhaskaer Institute of Engineering Technology, and Mrs. Durga Bhawani, who emphasised the importance of continuous learning and professional development in AI and ML.

Sri P. Sai Kishore, Head of the Faculty Development Programme Cell at ESCI, extended a warm welcome to all guests and participants, reaffirming commitment of ESCI in fostering excellence in engineering

## Centre for Climate Change

Centre for Climate Change division conducted CPDP program on "Industrial Decarbonisation in India," featuring a two-day training program aimed at equipping professionals, particularly officers from state pollution control boards, with the tools and techniques necessary for addressing industrial decarbonisation. The course covered a range of topics, including carbon capture, utilization, and storage, understanding sector-specific measures to reduce greenhouse gas (GHG) emissions through energy-efficient technologies, international and domestic climate finance for cleaner technologies in industries, case studies, and discussions focused on achieving a zero-carbon industry by 2070.

In next quarter, are conducting CPDP programs on "Impact of Climate Change on Water Resources: Monitoring and Management", "Nature based Solutions for Sustainable Development", "Climate Change and its Impact on Soil Biodiversity". The targeted audience include: researchers and academicians in the fields of climate science, hydrology, and environmental studies. Water resource managers, Policy makers and planners from governmental and non-governmental organizations involved in water resource

management. Industry professionals working in water-related sectors. Environmentalists, NGOs, and community leaders concerned about climate change impacts are requested to participate and share their views / discuss in these knowledge sharing platform.

## Water Resources Division

### New Programme

- The division designed a new programme on "**Flood Analysis Using Advanced Software Techniques**" with an objective to enhance knowledge and skill of engineers and officers on river dynamics and river engineering problems and effectively utilize the HEC RAS Software.

The program is scheduled from 27 – 31 May, 2024 at ESCI Campus for Engineers from Water Resources, Irrigation Flood Control Departments, Disaster Management Authorities, NHPC, CWC, Urban Development Authorities, Municipal Corporations, Academics, Research and Development Organizations and others involved in flood control and management.

- As a Key Resource Center, Water Resources Development division organized a 4 day residential training programme on Community Level Stakeholders (Level-3) to Kerala Water Authority under JJM at Srichakra International Hotel, Palakkad, Kerala from 26 – 29 February 2024. The training programme has been inaugurated by Er.A.S.Raju, Member Secretary, Kerala Water Authority along with ESCI officials and JJM Team of Palakkad

- As a Key Resource Center, under JJM, WRD division, ESCI organized a One Day Refresher training programme to Community (Level-3) Stakeholders on 5<sup>th</sup> March 2024 at Wow Hotel, Badnagar Block, Ujjain District, Madhya Pradesh State.. The programme was sponsored by Public Health Engineering Department, Govt. of Madhya Pradesh and conducted





# Events at ESCI

## Power & Energy



*Dr.G.Rameshwar Rao, ESCI with Sri S. Satyanarayana, I.A.S., Commissioner, and other Senior officials from Endowments Department, Government of Andhra Pradesh at Examination Centre.*

The division had bagged an assignment from A.P Endowments Department for conduct of Recruitment Written Examination for Assistant Executive Engineers in Civil & Electrical and Technical Assistants- Civil. The examinations were conducted on 21st January 2024 in V.R. Siddhartha Engineering College at Vijayawada. Total 1152 members have appeared for the examinations. Total 65 members were selected.



*Dr Rameshwar Rao, Er K J Amarnath & Er Praveen Kumar of ESCI meeting Mr N Balram, IRS, Chairman and Managing Director, The Singareni Collieries Company Ltd.,*

**Andhra Pradesh State Energy Conservation Mission (APSECM), GoAP**, has invited tenders for Conducting of Three one day workshops Awareness Programs for farmers to promote the adoption of Energy Efficient (EE) Pumpsets & Two one day Technical Training programs to pump or Equipment technicians under Agriculture Demand Side Management (AgDSM) in the state of Andhra Pradesh.

In response to the Tender invited by APSECM, among the eligible bidders the said Work was awarded to Power & Energy division of Engineering Staff College of India.. ESCI had successfully conducted one day workshops for 250 members at Ananthapur, Guntur and Ongole and one day Technical sessions for 125 Technicians at Ongole and Punganuru in Chittoor district

## Why CSIR is asking employees across India to avoid ironed clothes on Mondays

The Council of Scientific and Industrial Research (CSIR) has initiated the 'Wrinkles Achche Hai' campaign, urging its network of labs and personnel across India to embrace unironed attire every Monday until May 15. This unorthodox step comes amidst a wider effort to raise awareness about energy conservation and environmental sustainability within the scientific community and is aimed at tackling carbon emissions linked to daily routines.

The campaign, which translates to 'Wrinkles Are Good,' highlights the substantial carbon footprint associated with conventional ironing practices. According to CSIR's circular issued on May 3, ironing clothes can emit significant amounts of carbon dioxide, a greenhouse gas contributing to climate change.

Dr. N Kalaiselvi, the secretary of the Department of Scientific and Industrial Research and CSIR's first woman director general, talked about the motivation behind the initiative, stating, "Ironing each set of clothes amounts to emission of 200 g of carbon dioxide. So, by wearing non-ironed clothes, one can prevent emission of carbon dioxide to the tune of 200 g."

The circular, issued by CSIR and Central Leather Research Institute (CLRI), Chennai, stated, "The challenge requires to refrain from wearing ironed clothes at least one day in a week, which means, actually not ironing clothes as also to embrace wrinkles to reduce energy consumption and show collective commitment to environment sustainability."

*Story by Money control News*

# Future Programs

## TRAINING CALENDAR DURING MAY - JUNE 2024

Sl#	Name of the Course	Dates
<b>Centre for Climate Change</b>		
1	Nature based Solutions for Sustainable Development	15 - 17 May 24
2	Climate Change and its Impact on Soil Biodiversity	05 - 07 Jun 24
3	Remote Sensing and GIS applications in Global Warming and Climate Change	19 - 21 Jun 24
<b>Civil / Transportation Engineering</b>		
1	Concepts on Design, Construction & Maintenance of Culverts	13 - 17 May 24
2	Recent Advances in Planning, Design, Construction & Maintenance of High-Rise Buildings	10 - 14 Jun 24
<b>Design Prototyping Center and Mechanical</b>		
1	Advances in Design & Optimization of UAV's for Industrial Applications (Defense, Mining & Construction)	06 - 09 May 24
2	Geometric dimensioning and tolerancing	06 - 08 May 24
3	Applications of Python for Mechanical Systems	13 - 15 May 24
4	Coating & Paint Technology	03 - 05 Jun 24
5	Coding for CFD simulations using Python	25 - 27 Jun 24
6	Engineering Optimization: Traditional Vs Non-Traditional Methods	25 - 27 Jun 24
<b>Environment Management</b>		
1	Conducting EIA Study and Preparation of EIA reports - Case study & Group Discussion.	07 - 09 May 24
2	Sustainable Storm Water Drainage System	20 - 22 May 24
3	Air Pollution Monitoring & Modeling using Software Applications - Theory & Practical's.	05 - 07 Jun 24
4	Application of GIS, GPS & RS in Environmental Data Management.	19 - 21 Jun 24
5	Land use Management - Land Reclamation & Rehabilitation	26 - 28 Jun 24
<b>Faculty Development Programme Cell</b>		
1	Executive Development Programme in Digital Transformation Strategies: For Future Ready Organizations	15 - 17 May 24
2	Integrated Scientific Project Management	28 - 30 May 24
3	Skill Enrichment Programme for Technical Officers of Defence, Government and PSU's	11 - 13 Jun 24
4	Personality Development(An Ordinary to Extraordinary Personality Empowerment)	25 - 27 Jun 24
<b>Information Technology</b>		
1	Big Data Analytics Using MS Excel & Power BI	14 - 17 May 24
2	Network & Security Administration	27 - 31 May 24
3	Effective Utilization of ChartGPT Office Administration	10 - 14 Jun 24
4	Cyber Security Tools & Security Audit	19 - 21 Jun 24
5	GEM Procurement Procedures - Gem Account operation from Basic to expertise (Buyer module)	24 - 28 Jun 24
<b>Management &amp; Technology</b>		
1	Occupational Health and Safety (OH&S) Management System	07 - 10 May 24
2	Vibrations, Balancing, Alignment and Condition Monitoring of Rotating Equipment (Theory and Practical Orientation with Technical Visit)	27 - 31 May 24
3	Organizational Culture Assessment, Change Management & Strategic Leadership (Developing a Positive Culture where People and Performance Thrive)	10 - 13 Jun 24
4	Industrial bearings Revisited- Maintenance, Condition Monitoring, Analysis and Prevention of Failures	18 - 21 Jun 24
5	Advanced Course on Effective Spares Parts Inventory Management	25 - 28 Jun 24
<b>Mining</b>		
1	Trends in Mechanization & Technology in Underground and Opencast Mining for Improved Productivity and Safety	8 - 10 May 24
2	Sustainable Practices in Mining: Environmental Laws & Policies, Land Acquisition, Social Impact Assessment, Rehabilitation & Resettlement, District Mineral Foundation, Application of Geographic Information System and Remote Sensing for Monitoring	15 - 17 May 24



# Future Programs

Sl#	Name of the Course	Dates
3	Effective Utilization of Organizational Resources in Opencast Mining Projects: Total Productive Maintenance of Machinery, OITDS, Machine Utilization, Standard Operating Procedures, Design of Haul Roads, Tyre-Care, Conservation of Fuels & Energy, Mine Wastes to Resources ISO-50001:2018	22 - 24 May 24
4	Emerging Trends in Drilling & Blasting Operations in Mining & Civil Engineering Projects	5 - 7 Jun 24
5	Reliable Mine & Land Surveying through Advanced Technology - Total Station, DGPS, 3D Laser Scanner, LiDaR, Drones, GIS, Remote Sensing Demonstration and Hands-on Training on Instruments	18 - 21 Jun 24
<b>Power &amp; Energy</b>		
1.	Electrical Safety Procedures & Accident Prevention	07 - 10 May 24
2.	Power Plant Chemistry for Chemists and Operation Engineers	14 - 16 May 24
3.	Rooftop Solar PV Grid - Design, Erection, Commissioning & Maintenance	28 - 31 May 24
4.	Best Practices in Energy Auditing of T&D Systems	04 - 07 Jun 24
5.	Substation Automation and Smart Grids	11 - 14 Jun 24
6.	Environmental Issues, Challenges and Pollution Control Strategies in Thermal Power Plants	25 - 27 Jun 24
<b>Quality &amp; Productivity</b>		
1	Good Laboratory Practices	22 - 24 May 24
2	Total Quality in Vigilance	10 - 12 Jun 24
3	Road map for getting NABL accreditation	19 - 21 Jun 24
<b>Water Resources Development</b>		
1	Smart Irrigation Technology for Better Water Use Efficiency	13 - 15 May 24
2	Flood Analysis Using Advanced Software Techniques	27 - 31 May 24
3	Digital Surface Modeling using GIS Techniques-Hands on Practice	10 - 14 Jun 24
4	Dam Safety Guidelines - Monitoring and Protection Measures and Emergency Action Plan	24 - 28 Jun 24




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**Contact:**  
 The Director  
**Engineering Staff College of India**  
 Old Mumbai Road, Gachibowli,  
 Hyderabad 500 032. Telangana State  
 Tel: 040-66304102  
 Visit: [www.escihyd.org](http://www.escihyd.org) | [www.esci.edu.in](http://www.esci.edu.in)  
 Email: [director@escihyd.org](mailto:director@escihyd.org) | [ic@escihyd.org](mailto:ic@escihyd.org)