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Geojit CUSAT Centre of Sustainability Studies
GCCOSS

established by
DC KIZHAKEMURI FOUNDATION

organized by

DCSMAT INSTITUTIONS

(Affiliated to Mahatma Gandhi University)
One School Avenue,Pullikkanam P.O., Vagamon,Idukki District, Kerala - 685503

20-21 JUNE 2026

EVENT LOCATION
DCSMAT VAGAMON

MANAGEMENT DEVELOPMENT PROGRAMME

CIRCULAR ECONOMY - PRINCIPLES, PRACTICES AND TOOLS

" Navigating strategy, policy and innovation for circular economy"

About the MDP

The core focus of this Management Development Programme is "Circular Economy - Principles, Practices and Tools: Navigating strategy, policy and innovation for circular economy." Organized by DCSMAT Institutions, this programme is designed for professionals and leaders seeking to integrate circularity into their organizational DNA. The MDP provides actionable insights into how circular principles can foster business resilience while ensuring environmental stewardship. By re-imagining traditional business and design models, participants will gain the tools to drive sustainable innovation and create long-term value for their organizations and future generations.

Objectives

- To provide a strategic platform for professionals to explore the intersection of management, architecture, and design through the lens of circularity.

-To facilitate the transfer of practical knowledge and industry best practices for building sustainable, closed-loop environments and regenerative business models.

-To equip participants with the analytical tools and frameworks necessary to transition from linear operations to circular, resource-efficient systems.

-To foster collaborative networking between industry leaders and policymakers to accelerate the implementation of Sustainable Development Goals (SDGs) through innovative policy and strategy.

GCCOSS – DCSMAT Circular Economy MDP – Course Outline

DAY - 1

9:00 am to 9:45 am

The Circular Economy Imperative: Systems, Science & India's Strategic Position

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Learning objective :
Articulate the thermodynamic and ecological basis for the circular economy — why "waste" is a design failure, not an operational inevitability.

Locate India within the global circular economy landscape: material consumption trajectories, CE100 India participation, national CE policy signals.

Distinguish circular economy from recycling, green economy, and CSR — and explain why CE requires business model change, not just operational tweaks.

Connect CE imperatives to India's regulatory trajectory: EPR rules, BRSR Principle 2 value chain, CBAM, and India's CCTS.

9:45 am - 11:00 am

CE Frameworks in Depth: Butterfly Diagram, ReSOLVE, Waste Hierarchy & Circularity Metrics

GCCOSS-

Learning objective :
Apply the Butterfly Diagram to distinguish biological cycles (composting, anaerobic digestion, regenerative agriculture) from technical cycles (reuse, repair, remanufacture, recycle) in Indian industries.

Use the ReSOLVE framework (Regenerate, Share, Optimise, Loop, Virtualise, Exchange) as a structured scanning tool against a real Indian company's operations.

Interpret the Ellen MacArthur Foundation's Circularity Metric and India's Material Flow Accounting data to quantify sector-level circularity gaps

Map the nine waste hierarchy levels and identify where Indian firms currently operate vs. where value is being destroyed

11:00 am - 11:15 am

Coffee Break

11:15 am - 12:30 pm

Material Flow Analysis & Circular Value Chain Mapping

DCSMAT - Ar Shajeena along with MFA expert in urban planning.

Learning objective :
"Construct a simplified Material Flow Analysis (MFA) diagram for an Indian sector — identifying resource inputs, transformation losses, product outputs, waste streams, and recovery rates.

Identify hotspots of material loss using Sankey diagram logic applied to India's textile, construction, and food processing sector.

Practical example of MFA in an urban planning context.
Distinguish between system boundary choices in MFA and how boundary decisions a!ect CE strategy priorities."

12:30 pm - 13:30 pm

Lunch Break

13:30 pm - 14:45 pm

Life Cycle Assessment for Managers: Measuring Circularity with Digital Tools

DCSMAT - Ar Shajeena along with an LCA expert

Learning objective :
"Interpret a Life Cycle Assessment report — understand system boundaries, functional unit, impact categories, and hotspot analysis without needing specialist software skills.

Use the free OpenLCA or one-click LCA tool to run a simplified comparative LCA between a linear and a circular product scenario for an Indian sector product - For example Cement or Steel.

Distinguish between cradle-to-gate, cradle-to- grave, and cradle-to-cradle LCA scopes and understand which is required for BRSR disclosures, CBAM reporting, and green claims substantiation.

Commission an LCA study: scope, data requirements, timeline, cost — and avoid greenwashing through inadequate boundary setting."

14:45 pm - 16:00 pm

Circular Built Environment Design: Ecodesign Principles, Design for Disassembly & Demolition reuse

DCSMAT - Ar Shajeena, Subject Matter Expert, Architect Shankar with GCCOSS Case study on Wallmakers

Learning objective :
"Apply Circular Design Principles to Indian Construction
Apply Design for Disassembly, Longevity, Remanufacture, and Recyclability to buildings and infrastructure across Indian construction sectors — from affordable housing to industrial and urban utility projects.

Quantify Circularity Using MCI
Use the Material Circularity Indicator to score and compare two versions of the same building typology or infrastructure element, establishing a measurable baseline for circular design improvement.

Assess and Reduce Embodied Carbon in Buildings and Infrastructure
Calculate and compare the embodied carbon of structural and envelope systems across their full lifecycle — from material extraction to demolition — and identify design choices that reduce upfront carbon in Indian construction.

Design for Adaptive Reuse and Functional Longevity
Design buildings and infrastructure with future use flexibility in mind — using open floor plates, demountable partitions, and oversized structural tolerances — to extend functional life and defer demolition."

16:00 pm - 16:15 pm

Coffe Break

16:15 pm - 17:00 pm

Day 1 Synthesis: My Organisation's Circular Economy Baseline Assessment

DCSMAT - Dr Akhil along with an expert on industrial symbiosis

Learning objective :
"Complete a five-domain Circularity Baseline Assessment (materials, energy, water, products, reverse logistics) for your own organisation using a structured scoring template.

Identify the two highest-impact circular opportunities specific to your value chain — to serve as design inputs for Day 2 workshops

Formulate a "'Circular Challenge Statement"' — a one-sentence problem framing that anchors your Day 2 action planning"

DAY - 2

09:00 am - 10:15 am

"Circular Product Design: Ecodesign Principles, Design for Disassembly & End-of-Life Engineering"

GCCOSS along with an expert on Circular Product Design

Learning objective :
" Apply Design for Disassembly, Design for Longevity, Design for Remanufacture, and Design for Recyclability principles to products in Indian manufacturing sectors.

Evaluate India's auto remanufacturing policy (ARAI 2021) and electronic product ecodesign requirements as precedent for sector-specific circular product mandates.

Use Material Circularity Indicator (MCI) to score and compare the design of two versions of the same product — establishing a quantitative baseline for improvement."

10:15 am - 10:30 am

Coffee Break

10:30 am - 12:15 pm

"Circular Business Model Innovation: From Linear Revenue Logic to Circular Value Creation"

GCCOSS along with an expert on Circular Business Models

Learning objective :
"Apply the five circular business model archetypes (circular inputs, resource recovery, product life extension, sharing/access platforms, product-as-a-service) to Indian
sector opportunities.

Construct a Circular Business Model Canvas for a new CE concept — covering value proposition, key resources (reclaimed materials, reverse logistics), revenue streams (service fees, avoided disposal), and circular partnerships.

Stress-test the business model against three India-specific barriers: MSME supply chain fragmentation, consumer willingness to pay, and regulatory uncertainty.

Identify the minimum viable circular product (MVCP) — the smallest testable version of the circular model that generates proof of concept in an Indian market."

12:15 pm - 13:15 pm

"Industrial Symbiosis & Circular Ecosystems: Building Cross-Sector Material Loops in India"

"DCSMAT Dr Akhil along with an expert on Industrial Symbiosis."

Learning objective :

"Define industrial symbiosis and distinguish it from waste trading — the role of proximity, trust, and information platforms in enabling material exchange networks.

Map India's existing industrial symbiosis infrastructure: NICER (National Industrial Cluster and Eco-industrial park Resource Cluster and Eco-industrial park Resource recovery) portal, TERI's Industrial Symbiosis Programme, and cluster-based CE pilots in Pune, Ludhiana, and Coimbatore.

Apply the IS opportunity matching methodology — identifying waste-to-resource pairs across sector clusters using a structured compatibility matrix.

Use AI-assisted waste exchange matching concepts to understand how platforms like Rubicon and India's NICER portal identify symbiosis opportunities at scale"

13:15 pm - 14:15 pm

Lunch Break

14:15 pm - 15:15 pm

Digital Traceability: IoT, Blockchain & Digital Product Passports for Circular Compliance. AI & IoT for Circular Operations: Waste Intelligence, Predictive Loops & Smart Reverse Logistics.

GCCOSS along with a Digital expert on AI, IOT, Blockchain

Learning objective :

"Explain how IoT-enabled tagging (RFID, QR, NFC) enables real-time material flow tracking from production to end-of-life — and how this supports EPR producer compliance in India.

Evaluate blockchain's role in immutable traceability for EUDR deforestation due diligence in India's spice, rubber, and palm oil export chains.

Prototype a Digital Product Passport (DPP) structure for a product in your sector — identifying the data fields, verification
mechanisms, and end-of-life routing information required.

Assess the practical feasibility of deploying digital traceability in India's MSME-dominated supply chains — cost, infrastructure, literacy barriers and workarounds.
Evaluate how AI-powered waste stream classification (computer vision + ML) improves material recovery rates in MRFs and industrial facilities — with Indian deployment examples.

Apply IoT sensor network logic to design a real- time material flow monitoring system for a time material flow monitoring system for a production facility — identifying where sensors
reduce material loss and extend product life.

Assess AI's role in demand forecasting for remanufactured components — reducing overproduction in technical cycles.

Use a pre-built AI waste audit tool (live demonstration) to analyse a photograph of an Indian factory's waste stream and generate a recovery opportunity report."

15:15 pm - 15:30 pm

Coffee Break

15:30 pm - 16:30 pm

"Financing the Circular Transition in India: Green Finance, CCTS Carbon Credits & Investment Cases"

GCCOSS along with a Banking Expert on Circular Economy.
Dr Ashique Muhammed to support from DCSMAT

Learning objective :
" Map India's CE-relevant green finance ecosystem: SEBI green bond framework, SIDBI CE lending windows, RBI's Sustainable Finance taxonomy, NaBFID infrastructure green bonds.

Assess India's Carbon Credit Trading Scheme (CCTS) revenue potential for CE projects — which circular activities qualify, how credits are calculated, and current market pricing signals.

Structure a three-part investment case for a circular initiative: (1) avoided cost of waste disposal/raw material, (2) EPR compliance cost avoidance, (3) CBAM/EUDR market access premium.

Identify the minimum evidence set needed to attract a green NBFC or impact investor to a circular economy startup or pilot in India."

6:30 pm - 17:30 pm

Concluding Ceremony

Who can attend

This Management Development Program (MDP) is specifically curated for mid-level managers looking to bridge the gap between tactical execution and strategic leadership, as well as senior architects aiming to expand their influence beyond technical design into organizational decision-making. Whether you are navigating complex team dynamics or aligning large-scale systems with business goals, this program provides the essential leadership frameworks and cross-functional insights required to excel in these pivotal roles.

Patrons

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Chief Facilitator, DCSMAT Institutions

Brig. MC. Ashok Kumar,
Sr. Director, DCSMAT Institutions

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