



# ATAL Academy Sponsored Faculty Development Program

on

## CIRCULAR PRODUCT DEVELOPMENT STRATEGIES FOR RESPONSIBLE CONSUMPTION, PRODUCTION AND END- OF-LIFE DISPOSAL



**February 12-17 , 2024**



Organized  
by

*School of Mechanical Engineering*  
**Vellore Institute of Technology**  
**Vellore -632014, Tamilnadu-India**

### Co-ordinators

**Dr. Jayakrishna K**

Professor  
School of Mechanical Engineering  
Vellore Institute of Technology,  
Vellore, Tamilnadu



**No Registration Fee**

**Dr. Rajyalakshmi G**

Professor  
School of Mechanical Engineering  
Vellore Institute of Technology,  
Vellore, Tamilnadu

### Course Contents

Introduction to Circular Economy, Circular and sustainable product development approaches, Material flow for circularity, Material selection for circularity, Production methods for circularity, End-of-Life disposal strategies, Re-manufacturing operations, Design for re-manufacturing, reuse, repair, recycle, Life Cycle Analysis, Role of Digitalization in ensuring product circularity, Case discussion, National Education Policy (NEP) 2020 Implementation

**REGISTRATION LINK: <https://atalacademy.aicte-india.org/signup>**

# Course Schedule

12 Feb Day 1	13 Feb Day 2	14 Feb Day 3	15 Feb Day 4	16 Feb Day 5	17 Feb Day 6
9:00 – 9:30 Inauguration	9:30 – 12:00 Session 3	9:30 – 12:00 Session 5	9:30 – 12:00 Session 7	9:30 – 1:00 Industrial visit	9:30 – 12:00 Session 10
9:30 – 12:00 Session 1  Li-ion battery recycling  <b>Dr. Amit Barnwal</b> Research Scientist C-Met, Hyderabad	Life Cycle Analysis  <b>Dr. Vimal KEK</b> Assistant Professor, NITT	Design for Environment  <b>Dr. Senthikumar K</b> IIITDM Kancheepuram	End-of-Life Disposal Strategies  <b>Dr. Deepak M</b> Assistant Professor LIBA		Role of Digitalization in Ensuring Product Circularity  <b>Dr. Anil Kumar</b> London Metropolitan University
12:00 – 1:00 Article Discussion	12:00 – 1:00 Article Discussion	12:00 – 1:00 Article Discussion	12:00 – 1:00 Article Discussion		12:00 – 1:00 Article Discussion
1:00 – 2:00 Lunch	1:00 – 2:00 Lunch	1:00 – 2:00 Lunch	1:00 – 2:00 Lunch	1:00 – 2:00 Lunch	1:00 – 2:00 Lunch
2:00 – 4:30 Session 2  Guidelines for Circular product design and development  <b>Dr. Vimal KEK</b> Assistant Professor, NITT	2:00 – 4:30 Session 4  Footwear Circular Economy  <b>Mr. Vikash Bajargyan</b> Country General Manager, Ortholite , Ambur	2:00 – 4:30 Session 6  Design for re-manufacturing, reuse, repair, recycle  <b>Dr. K Mathiyazhagan</b> Associate Professor Thaigarajar School of Management	2:00 – 4:30 Session 8  National Education Policy (NEP) 2020 Implementation  <b>Dr. Renukadevi S</b> Professor NITTTR, Chennai	2:00 – 4:30 Session 9  Case discussion	2:00 – 4:00  MCQ, Reflection Journal and Feedback & Interactions
4:30 – 5:30 Practical sessions/Labs  Solidworks Sustainability Xpress simulation	4:30 – 5:30 Practical sessions/Labs  Solidworks Sustainability Xpress simulation	4:30 – 5:30 Practical sessions/Labs  Open LCA Simulation tool	4:30 – 5:30 Practical sessions/Labs  GaBi Simulation tool <b>Mr. Krishna Mani</b> Director, Honeywell Sustainability Centre of Excellence	4:30 – 5:30 Practical sessions/Labs  GaBi Simulation tool	4:00 – 5:00 Valedictory Session

**Venue: Rajaji Hall, MGR Block, VIT Vellore**

**Resource Persons:** Faculty from leading Institutes and Industry will deliver lectures and conduct hands-on sessions. International experts are also invited to deliver Online lectures.

**How to Apply:** Eligible candidates may apply through the ATAL portal (<https://atalacademy.aicte-india.org/signup>).

Registration is Open to:

- Faculty members/Scholars in all disciplines of Engineering, Sciences, Mathematics, Life sciences, Management, Post-Doctoral Fellows, Research Scholars, PG students, and UG students who have an aptitude to work in circular product development and related topics.

**Contact: Dr. Rajyalakshmi G, SMEC, Email: [rajyalakshmi@vit.ac.in](mailto:rajyalakshmi@vit.ac.in), Mobile: 7708234836**



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**Li-ion battery recycling**

**Dr. Amit Barnwal**

Research Scientist, C-Met, Hyderabad

**Guidelines for Circular product design and development and LCA**

**Dr. Vimal KEK**

National Institute of Technology, Tiruchirappalli



**Footwear Circular Economy**

**Mr. Vikash Bajargyan**

Country General Manager, Ortholite, Ambur

**Design for Environment**

**Dr. Senthikumaran K**

IITDM, Kancheepuram



**Design for re-manufacturing, reuse, repair, recycle**

**Dr. K Mathiyazhagan**

Thaigarajar School of Management, Madurai

**End-of-Life Disposal Strategies**

**Dr. Deepak Mathivathanan**

Loyola Institute of Business Administration, Chennai



**National Education Policy (NEP) 2020 Implementation**

**Dr. Renukadevi S**

NITTTR, Chennai

**GaBi Simulation tool**

**Mr. Krishna Mani**

Honeywell Sustainability Centre of Excellence



**Role of Digitalization in Ensuring Product Circularity**

**Dr. Anil Kumar**

London Metropolitan University, UK