

Batch 2020–2024

Sl No.	Project Title	Factors considered	Relevant PO(s)	Relevant PSO(s)	SDGs addressed
1	Carbonation-cured concrete with steel slag	Environment (CO ₂ utilization, waste reuse), sustainability, cost, standards (material codes)	PO1, PO2, PO3, PO6	PSO1, PSO2	SDG 9, SDG 12, SDG 13
2	Glasscrete pavement blocks	Environment (glass waste reuse), sustainability, cost-effectiveness, standards (pavement/material specs), safety (strength/durability), type: application	PO1, PO2, PO3, PO6	PSO1, PSO2	SDG 9, SDG 12
3	Building blocks using Kuttanad clay	Environment (local material use), sustainability, cost, Strength, standards (building material codes)	PO1, PO2, PO3	PSO1	SDG 9, SDG 11, SDG 13
4	Road safety audit at accident-prone intersection	Safety (primary), standards (IRC road safety guidelines), cost (improvement measures), ethics (public safety)	PO2, PO3, PO6, PO10	PSO3	SDG 3, SDG 11
5	Fibre reinforced soil under flood stagnation	Safety (stability), sustainability, environment (flood resilience), standards (geotechnical codes)	PO1, PO2, PO4, PO6	PSO1, PSO2	SDG 13, SDG 11
6	Crushed brick–rice husk fly ash–lime mix for pavement subbase	Environment (waste utilization), sustainability, strength parameters for safety verification, cost, standards (pavement codes)	PO1, PO2, PO3, PO6, PO7	PSO2	SDG 9, SDG 12
7	Groundwater contaminant spatial distribution	Environment, sustainability (water protection), ethics (public health), standards (water quality norms)	PO2, PO3, PO6	PSO2	SDG 6
8	Scale deposition in irrigation pipelines	Cost (maintenance reduction), Societal problem solving (Ethical compliance) sustainability (efficient water delivery), standards (water system guidelines)	PO1, PO2, PO6	PSO2	SDG 6, SDG 2, SDG 12
9	Heavy metal risk assessment in urban waterbody	Environment, ethics (health risk), sustainability, standards (BIS/WHO limits)	PO1, PO2, PO6, PO7	PSO2	SDG 6, SDG 14, SDG 15

10	Drought intensity mapping	Environment, sustainability (water resource planning), ethics (societal impact), standards (climate indices)	PO2, PO3, PO6	PSO2	SDG 13, SDG 15
11	Waste bin route optimization using GIS	Sustainability (fuel/time savings), environment (reduced emissions), cost optimization, ethics (efficient service delivery)	PO3, PO5, PO10	PSO3	SDG 11, SDG 12
12	Sediment source fingerprinting	Environment (erosion control), sustainability (watershed management), standards (sampling protocols)	PO1, PO2, PO4, PO6	PSO2	SDG 6, SDG 15
13	Noise mapping of Thrissur City	Environment (noise pollution), safety/health, standards (noise limits CPCB/WHO), ethics (public welfare)	PO2, PO3, PO6	PSO2	SDG 11
14	Urban sprawl mapping	Environment (land use impact), sustainability (urban planning), ethics (equitable	PO2, PO3, PO6	PSO2	SDG 11, SDG 15
15	Flood stagnation effects on beach sand	Environment (coastal processes), sustainability (coastal management), safety (erosion/flood risk)	PO1, PO2, PO4, PO6	PSO1, PSO2	SDG 11, SDG 13
16	Self-healing concrete with admixtures	Sustainability (extended service life), cost (maintenance reduction), standards (material	PO1, PO2, PO3, PO4	PSO1	SDG 9, SDG 12
17	Carbonation-cured concrete with steel slag	Environment (CO ₂ utilization, waste reuse), sustainability, cost, standards (material codes)	PO1, PO2, PO3, PO6	PSO2	SDG 6, SDG 11, SDG 13
18	Glasscrete pavement blocks	Environment (glass waste reuse), sustainability,	PO1, PO2, PO6, PO7	PSO2	SDG 6