

**Batch 2022–2026**

| Sl No. | Project Title                                                               | Factors considered                                                                                                                            | Relevant PO(s)                                      | Relevant PSO(s)  | SDGs addressed        |
|--------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------|-----------------------|
| 1      | Effective rainwater management system for the college campus                | Environment, sustainability, water conservation, cost-effectiveness, standards (rainwater harvesting and drainage guidelines), public welfare | PO1, PO2, PO3, PO5, PO6, PO7, PO11, PO12            | PSO1, PSO2, PSO3 | SDG 6, SDG 11, SDG 13 |
| 2      | Effect of flood water stagnation on nylon fibre reinforced soil             | Safety, durability, sustainability, standards (geotechnical testing procedures), cost-effectiveness, disaster resilience                      | PO1, PO2, PO4, PO5, PO7, PO12                       | PSO1, PSO2       | SDG 9, SDG 11, SDG 13 |
| 3      | Assessment of pedestrian safety in indian urban roads using microsimulation | Safety, standards (IRC guidelines), sustainability (walkability), public welfare, modern tool usage, traffic efficiency                       | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO11             | PSO1, PSO3       | SDG 3, SDG 9, SDG 11  |
| 4      | Scientific validation of nellipalaka in improving water quality in wells    | Environment, sustainability, public health, ethics, standards (water quality norms), use of indigenous knowledge systems                      | PO1, PO2, PO4, PO6, PO7, PO8, PO12                  | PSO1, PSO2       | SDG 3, SDG 6, SDG 12  |
| 5      | A QGIS-based approach to landslide susceptibility mapping and early warning | Safety, disaster risk reduction, sustainability, standards (hazard mapping guidelines), modern tool usage, public welfare                     | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO11, PO12       | PSO1, PSO2, PSO3 | SDG 9, SDG 11, SDG 13 |
| 6      | Smart buoy based lake water quality and eutrophication detection system     | Environment, sustainability, public health, real-time monitoring, modern tool usage, standards (water quality monitoring protocols)           | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO10, PO11, PO12 | PSO1, PSO2, PSO3 | SDG 6, SDG 9          |