Ρ

90

Total Hours : Т

-

L

19PC015 SOCIETAL-CENTRIC AND **INDUSTRY RELATED PROJECTS**

Hours Per Week :

L	Т	Р	С
0	0	6	3

DESCRIPTION AND OBJECTIVES:

The major objective of the societal-centric projects is to connect students to society through their technical knowledge. The prerequisite to start the project is to submit a report pertaining to the Societal-centric or industry related problem in the preceeding semester.

COURSE OUTCOMES:

Upon completion of the course, student will be able to achieve the following outcomes:

COs	Course Outcomes	POs
1	Study the problems which are related to the society in their production / occupational activities.	2
2	Work on technology applications which can either solve the problems or make the activities less stenuous.	3
3	Design an implement or process to achieve the second outcome.	4

LIST OF SOCIETAL-CENTRIC AND INDUSTRY RELATED PROJECTS

- Biodiesel preparation and testing.
- Flood monitoring & detection system.
- Mini windmill power generation.
- Ignition interlock device for motorcycles.
- Air pollution monitoring (IoT). •
- Monitoring water leakage system.
- Ultrasonic navigation system for the blind.
- Irrigation system using solar power.
- Fabrication of robotic vacuum cleaner.
- Fabrication of automated wheel chair with bed facility.
- Conversion of waste bagasse to bio-oil by pyrolysis.

Technology -	Manufacturing 191	
Cyber Physical Production Systems	XX	Human Centric Manufacturing
/ Internet of Cyber Physical Things Sustains		Erganomics
Manufacturing Control Systems	Research	Wellbeing
Industrial Data Mining Robotics	Focus	Knowledge Management
Scheduling Manufacturing Automation		Work Life Balance Interaction
Automatic Setup	X	Learning
· · · · · · · · · · · · · · · · · · ·	Manufacturing	Survey and

Source: https:// www.google.com/ search?safe=strict&biw

- Solar powered agricultural dryer for farmers.
- Fabrication of portable biogas plant.
- Design and fabrication of multipurpose agricultural equipment.
- Manually operated multi-nozzle pesticide sprayer pump.
- Fabrication of smart bins.
- Artificial leg mechanism for above-knee amputees.
- Auto whiteboard cleaning for physically handicap teachers.
- Automatic multilevel car parking system.
- Fabrication of human pedaling dress washing machine.
- Air pollution monitoring system using IoT.
- Design and fabrication of aqua silencer.
- Design and fabrication of automatic scrap collecting vehicle.
- Electrical power generation using speed braker mechanism.
- Fabrication of electric bicycle.
- Fabrication of automatic seed sowing machine.
- Automated portable hammering machine.
- Design & fabrication of attachable wheelchair automator.
- Design and fabrication of motorized 2 wheel scooter project.
- **NOTE:** The afore mentioned list is not exhaustive and the objective is to provide an idea of some of the projects that can be executed by students pertaining to societal or indus try related problems. Students are given full flexibility to choose any project of their choice under the supervision of faculty mentor.