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(57) Abstract :

The present disclosure provides a system to produce and supply oxygen (O₂) in hospitals, which includes; chambers to store, mixture of oxygen producing plant and water. Pipeline is provided to supply carbon dioxide (CO₂), from CO₂ cylinder, to chambers, as per requirement detected by CO₂ sensor where, upon supplying artificial light, oxygen producing plants undergo photosynthesis to produce residue as Biomass and O₂. Due to high density, biomass is accumulated at bottom of chamber and extracted by opening a tap lock, while lightweight O₂, accumulates at top. Further, ongoing photosynthesis increases pressure of O₂ at the top of chamber, hence it passes through pipeline and gets collected in O₂ cylinder which has IoT enabled sensor to measure amount of O₂ and based on requirement of patient, O₂ is supplied to patient by controlling automated regulator knobs directly. The system provides a more proficient and automated way to produce and supply oxygen.

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