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| **Title:** | Design and Implementation of Regulated Oxygenation Based Ventilation System with Feedback Mechanism | | |
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| **Abstract:** |  |
| A multifunctional medical device for the aid of COVID affected patients are scarce. This paper proposes an automated medical device which is incorporated with a feedback mechanism and a GSM base emergency alarm system. The combined sensors in the prototype can acquire readings of a patient's temperature, heart rate, oxygen saturation (SpO2), respiratory rate (RR), and heart condition noninvasively and can send these vitals easily via SMS in real time. Based on the patient's SpO2 level and RR, the system can control the oxygen flow through a nasal canola with the aid of a servo motor mechanism. The system derives information from the sensors to operate automatically based on the degrading vitals of a patient. Due to its nature of user friendliness the protype can be operated without much prior medical knowledge. | |