



ELDER PATIENT OBSERVING SYSTEM



A PROJECT REPORT

Submitted by

DHIVAKARAN.M(710419106006)

GAYATHRI VARSHINI.R(710419106008)

VASANTHAKUMAR.K(710419106030)

in partial fulfillment for the award of the degree of

of

BACHELOR OF ENGINEERING IN

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

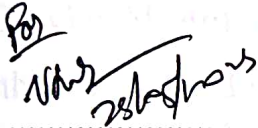
**CHRIST THE KING ENGINEERING COLLEGE KARAMADAI,
COIMBATORE- 641104**

ANNA UNIVERSITY: CHENNAI 600 025

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BONAFIDE CERTIFICATE

Certified that this project report “ELDER PATIENT OBSERVING SYSTEM” is the bonafide work of “DHIVAKARAN.M, GAYATHRIVARSHINI.R, VASANTHAKUMAR.K” who carried out the projectwork under my supervision.



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SIGNATURE

Dr.A.KINGSLY JABAKUMAR M.E.,Phd.,
HEAD OF THEDEPARTMENT,
Department of ECE,
Christ The King Engineering
College,Karamadai, Coimbatore –
641104.



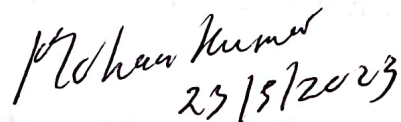
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SIGNATURE

Mr.J.SARANRAJ,M.Tech
SUPERVISOR,
Department of ECE,
Christ The King Engineering
College,Karamadai,
Coimbatore – 641104.

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INTERNAL EXAMINER



23/5/2023

EXTERNAL EXAMINER

ABSTRACT

After surgery time we need to monitor elder people. Our project help to doctor to keep track of surgeon people and will provide the intimation to the respective person. Here using a sensor technology to keep watch on recovery patient in case of any emergency and the person on worst condition or need to take immediate action to recover patient. In this paper we present a wireless remote vital sign monitoring system with audio/video data transmission. Vital signs include; blood pressure (systolic and diastolic), heart rate, pulse, oxygen saturation, body temperature, lungs air volume and blood glucose level. In addition, a two-way audio/video communication link connects patients to their healthcare providers. The proposed system employs a computer-based software application that effectively incorporates current data with electronic medical record in order to enhance patient care. We evaluated this system with 10 individuals for assessing its acceptability by the users and its compatibility with other medical devices. A clinical trial with more than 30 participants aged over 65 years is also in progress at a local hospital.

Conclusion

The proposed system is a good early-screening tool for long-term dementia risk-monitoring for the elderly for the following reasons: (i) it provides an accurate detection and prediction function; (ii) it is non-invasive, easily to install, and comfortable for elderly use as a long-term monitoring system; (iii) it presents minimal concerns with respect to personal privacy issues; and (iv) it is affordable for most elderly participants. Even though in our sample population of 18 elderly participants there were only four elderly subjects with low MMSE score, and the results for detecting the high risk of dementia might be biased by the small sample size, our results for early detection of mentally-related disorders are promising in terms of enabling caregivers to provide timely interventions. Since the number of samples tested was small, we must seek to find more elderly participants to improve and validate our results, so as future work we intend to apply our algorithms to a larger group of elderly and to include wearable devices. The proposed methodology can be further developed to include an algorithm for predicting different levels of dementia.