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Millimeter-wave Bandpass Filter by Open Loop Elliptical Ring Resonators

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Abstract - This paper presents a bandpass filter using two elliptical open loop ring resonators (EOLRR) at the resonant frequency of 28 GHz. It is well suited for the next generation 5G application. Coupled resonators were developed with the expectation of pairing parasitic resonance of various degenerate modes operating close to the fundamental mode in the suggested structure of filter. The frequency response of the design is approximated using CST software. The frequency response of the filter characterizes with low insertion loss and good rejection performance. The fabrication of the EOLRRs is also easy as there is no use of via or defected ground structure. The proposed structure offers a simple and compact design while exhibiting wide stop-band characteristics. Additionally, the geometrical parameters of the proposed filter design can simply tune the bands to the chosen level. The proposed EOLRRs demonstrate worthy broadband characteristics.

Keywords: *Millimeter-wave; bandpass filter; 5G applications; resonant frequency 28 GHz; open loop ring resonator*

Identification of Classification Method for Sudden Cardiac Death: A Review

Paper ID: 1570556281

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Abstract - Even in this new millennium, SCD still remains one of leading and unresolved problems in clinical cardiology. One of the most important factors in determining heart conditions is ECG parameters because ECG signals are the most common technique for doctors in analyzing SCD. For detecting and predicting SCD, there are many methods various classification have been proposed to expose. Remainder of this paper to list out methods classification for SCD used Systematic Literature Review (SLR). SLR was carried out and reported based on the preferred reporting items for systematic reviews. 13 papers were retrieved by manual search in four databases. 6 primary studies were finally included to identification and analyzed. The Classification method for SCD from primary studies is -Nearest Neighbor (kNN), Decision Tree (DT), Support Vector Machine (SVM), Probabilistic Neural Network (PNN), Naive Bayes, Multilayer Perceptron (MLP) Neural Network, and Long Short Term Memory (LSTM) Recurrent Neural Network (RNN). The review provides researchers with some guidelines for future research on this topic

Keywords: *SCD, classification Method, SLR*