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DESIGN OF LOW NOISE AMPLIFIER FOR WIRELESS APPLICATIONS

As the demand for wireless network access increases so does the need of the high performance wireless Local Area Network (LAN) transceivers. The Low Noise Amplifier (LNA) was designed for wireless Local Area Network (LAN) applications. The purpose of the amplifier is to amplify the received RF path signals of Wireless Local Area Network (WLAN). The design methodology required the analysis of the transistor stability and proper matching network selection. The low noise amplifier is designed with certain specifications as Gain > 8dB, Noise figure < 2.5dB, VSWR < 2.0, Return loss < -15db, Bandwidth is 4.75GHz to 5GHz (500MHz). We choose FHX35LG over others due to the simplest configuration it offers, for an amplifier design which satisfy our design specifications. Microwave Office (AWR Design Suit 2009) is used for design and simulations and thus to verify the performance of the designed amplifier.

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DESIGN OF CIRCULAR ARRAY SMART ANTENNA

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SAR- ASSESSMENT AND MEASUREMENT OF TEMPERATURE CHANGE ON HUMAN HEAD DUE TO RADIATIONS BY MOBILE PHONE ANTENNA

Development of mobile phone communication infrastructure in the world has promoted which lead public concern over possible health effect exposure to radio frequency electromagnetic energy (RFEME) emanation from mobile phone antenna. The Micro-strip patch antenna plays an important role in electromagnetic energy transmitting and receiving phenomena in mobile phone. This paper makes an effort to assess the mobile radiation exposure effect on 4 years child, 8 years child and an adult head model. Hand held device model having micro-strip antenna is used for human interaction. The software simulation performed by the computer simulation technique (CST) software based on Finite difference Time Domain Technique yields specific absorption rate and 3D-thermal distribution on spherical human head.

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AIRBORNE ARTIFICIAL INTELLIGENCE REMOTE SENSING STATUS AND DEVELOPMENT USING LIDAR

Airborne remote sensing instrumentation is used to measure high degree of accuracy in aircraft landing system. Airborne observation platform is to enable the understanding impact of climatic changes, land use change the flight angle is shown in single computer, the technology used in aircraft landing system is embedded system, software is used in ALS is Microsoft visual based version 6.0. Lidar is a remote sensing technology that measures distance by illuminating a target with laser and analyzing the reflected light from the aircraft. By analyzing the high intensity of reflected light can observe that the aircraft landed safely. We would like to integrate the existing system which is wide spread in the airport today and leads to misguiding of aircraft. We would like to present an economically affordable solution for perfect take-off and landing system for airports. To have a reality demonstration of our idea we have employed the state of art embedded controller technology along with associated hardware required for input and output. We would like to develop angular position of the aircraft from mid of run way, rotation technic of radar, landing angle of the aircraft, humidity, wind speed, wind direction and much more. For audio, visual effects, multimedia will be used along the visual basic software. We would like to develop[the auto pilot system during risk time.

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GENERIC DESIGN AND IMPLEMENTATION OF ADVANCED SECURITY ALERTING SYSTEM USING RASPBERRY PI

This project is aimed at presenting an advanced security system using Raspberry Pi which is modified from the previous security system. Even when needed, having a security camera may sometimes be impossible due to expensive cost for installation. The Raspberry Pi is a credit card size computer that has the capability to become a camera security system when its own camera board is used. It contains the software motion which enables the Pi's camera to detect motion and save the images as well as view live streaming from the camera. A Python script,

then directs the Pi to send email notification every time motion is detected. With these component, a cost effective and efficient security camera system is made and reported here. The camera used in this project is USB camera which can be easily interfaced with Raspberry Pi board. The detected image will be sent to mail, Way to SMS.

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