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## Publications

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2021

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### **Investigation on Wearable Antenna under Different Bending Conditions for Wireless Body Area Network (WBAN) Applications**

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2025

Prosiding seminar internasional

### **Analysis of Flux Distribution Effect on Mitred and Butted Transformer Core**

ALI HANAFIAH RAMBE , SATRIYO WIBOWO PANJI WIROTOMO , Syafruddin Hasan

2024

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### **Time-Shifted Gramian Angular Field and Recursive Plot Convolutional Neural Network to Adapt Solar Cell Dataset Overfitting in Hybrid Power Generation**

SUHERMAN , ALI HANAFIAH RAMBE , NISMAH PANJAITAN , Ahmed Saeed Alfakeeh

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### **A Passive Cooling System for Increasing Efficiency of Solar Panel Output**

ALI HANAFIAH RAMBE , SUHERMAN

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### **Higher Order OAM Mode Generation Using Wearable Antenna for 5G NR Bands**

ALI HANAFIAH RAMBE , Moch. Najib

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### **Wearable UWB Antenna-Based Bending and Wet Performances for Breast Cancer Detection**

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### **A Patch Antenna with Enhanced Gain and Bandwidth for Sub-6 GHz and Sub-7 GHz 5G Wireless Applications**

ALI HANAFIAH RAMBE

2019

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# **Design of Rectangular Microstrip Patch Antenna Using Aperture Coupled Fed for S-Band Application**

SUHERMAN , ALI HANAFIAH RAMBE

2025

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## **Circular Patch Antenna Classification Based on Radiation Pattern**

MUHAMMAD ZULFIN , Sarveshini Devadass , Surentiran Padmanathan , Allan Melvin Andrew , ALI HANAFIAH RAMBE

2025

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## **Gain Optimization of 2×4 Rectangular Microstrip Patch Antenna Based on Feed Line Configuration**

ALI HANAFIAH RAMBE , MUHAMMAD ZULFIN , MAKSUM PINEM , YULIANA MUNTHER

2020

Jurnal internasional bereputasi

## **Design and simulation hybrid filter for 17 level multilevel inverter**

SYAFRUDDIN HS , ALI HANAFIAH RAMBE , SUHERMAN

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## **Underground Radio Signal Attenuation at 109.8 MHz**

ALI HANAFIAH RAMBE , SUHERMAN , NAEMAH MUBARAKAH

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## **Machine learning-based technique for resonance and directivity prediction of UMTS LTE band quasi Yagi antenna**

ALI HANAFIAH RAMBE , Md. Ashrafal Haque , Dipon Saha , Samir Salem Al-Bawri , Liton Chandra Paul , Md Afzalur Rahman , Ali Alhazmi , Faisal Alshanketi , M.A. Zakariya

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## **Analysis of the Surface Matrix of Copper Cable in Jointing as the Effect of Increasing Current and Heating on Fire Application**

SUPIYANI , SYAFRUDDIN HS , ALI HANAFIAH RAMBE

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## **Pencapaian Lebar-Pita Antena Mikrostrip dengan Tingkap Tergandeng untuk Frekuensi 2, 4 GHz**

MUHAMMAD ZULFIN , RISWAN DINZI , ALI HANAFIAH RAMBE

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## **Size reduction of the square microstrip patch antenna with Koch fractal for 1.575 GHz applications**

ALI HANAFIAH RAMBE , FAHMI

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## **Design of Rectangular Microstrip Patch Antenna 2-Elements Array for Dual Broadband Applications**

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## **Estimation of Path Loss Propagation Model on Homogeneous Vegetation for 2100 MHz Mobile Communication Networks**

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## **Bandwidth enhancement of rectangular patch microstrip antenna using left handed metamaterial at 2.4 GHz**

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### **Miniaturization of rectangular patch microstrip antenna by using complementary split ring resonator**

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### **Underground radio propagation on frequency band 97 MHz - 130 MHz**

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### **Characterization of path loss for radio wave propagation over the sea in 4G network**

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Muzammil Jusoh , MD. KAMRUL ISLAM , MAHBUB HASSAN , MD. EMTIAZ KABIR , EDRIS ALAM , MOSTAFA SAMEER , ALI HANAFIAH RAMBE

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### **Harmonic Distortion Evaluation and Derating Factor Determination for Dry-Type Transformers in Port Crane Operations**

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## **A novel experimental design approach to generating orbital angular momentum waves using wearable textile antenna for sub-6 GHz 5G**

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## **Design aspects microstrip patch antenna offour application for automatic dependent surveillance broadcast (ADS-B)**

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## **Optimizing Rectangular Patch Antenna with Microstrip Line Feed Using Single Stub**

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## **Analysis of Harmonics and Quality of Distribution Networks and Transformers on Public Electric Vehicle Charging Station**

ERWIN SUTANTO , SYAFRUDDIN HS , PRADINI PUSPITANINGAYU , ALI HANAFIAH RAMBE , FAHMI , AGUS PRABOWO

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## **A Comprehensive Survey of Adaptive Traffic Signal Control: Methods, Applications, Challenges, and Future Research**

ALI HANAFIAH RAMBE , MAHBUB HASSAN , Turjoy Das Turjo , Muzammil Jusoh , MD. KAMRUL ISLAM , M. M. Hafizur Rahman , Md Shafiu Alam , Muhammad Muhitir Rahman

2012

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## **Antena Mikrostrip: Konsep dan Aplikasinya**

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## **Triple-Band Circularly Polarized Dielectric Resonator Antenna (DRA) for Wireless Applications**

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## **Super-wideband antenna with modified elliptical-shaped for broad spectrum capability in software-defined radio applications**

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## **A Compact 2.4 GHz L-Shaped Microstrip Patch Antenna for ISM-Band Internet**

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## A low profile rectangular patch microstrip antenna for dual-band operation of wireless communication

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## Clustered beacon signal cell breathing for load balancing in mobile and wireless networks

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## Microstrip rectangular patch antenna design for Medan aviation polytechnic ADS-B receiver technology

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## Measuring the power consumption of social media applications on a mobile device In

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## Increasing transmission control protocol speed by reducing the acknowledgement collision probability

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## Design and analysis microstrip dipole using fractal Koch for 433 MHz applications

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## Analysis of Symmetric Two and Four-coil Magnetic Resonant Coupling Wireless Power Transfer

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## Researches

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Penelitian Kerjasama Antar Perguruan Tinggi

## Super WideBand Monopole antenna dengan struktur Metamaterial untuk aplikasi Pertahanan Keamanan

ALI HANAFIAH RAMBE , NURHAYATI , FITRI YULI ZULKIFLI , YULIANA MUNTHE , Moch. Najib

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Penelitian Dana Lokal Perguruan Tinggi

## Penggunaan Kecerdasan Buatan Untuk Mendukung Peningkatan Kinerja Transmission Control Protocol Di Jaringan TCP/IP

NISMAH PANJAITAN , ALI HANAFIAH RAMBE , SUHERMAN , MUHAMMAD EKO NUGROHO , Ahmed Saeed Alfakeeh

2018  
Penelitian Hibah Bersaing

## **Rancang Bangun Sistem Wireless Power Transfer Menggunakan Rangkaian Royer**

ZULKARNAEN PANE , ALI HANAFIAH RAMBE , SYAFRUDDIN HS

2014  
Penelitian Hibah Bersaing

## **Perancangan dan Realisasi Antena Mikrostrip Triple Band untuk Aplikasi WiMAX**

MAKSUM PINEM , MUHAMMAD ZULFIN , ALI HANAFIAH RAMBE

2020  
Penelitian Fundamental

## **Rancang Bangun Antena Mikrostrip Untuk Aplikasi Radar Pemindai Tanah**

ALI HANAFIAH RAMBE , ARIF MILANDO SETIAWAN

2017  
Penelitian Fundamental

## **Penggunaan Defected Ground Structure (DGS) pada Antena Dualband (LTE dan WLAN) Array 2 Elemen**

RISWAN DINZI , ALI HANAFIAH RAMBE

2018  
Penelitian Unggulan Perguruan Tinggi

## **Rancang Bangun Antena Mikrostrip Susun Untuk Aplikasi Radar Maritim**

RAJA HARAHAHAP , ALI HANAFIAH RAMBE , SUHERMAN

## **Community Services**

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Ipteks Bagi Masyarakat

## **PELATIHAN PEMBUATAN SISTEM KEAMANAN KUNCI LOKER BAGI SANTRI BERBASIS IOT DENGAN MENGGUNAKAN APLIKASI TELEGRAM DI MA'HAD TAHFIDZ YATIM DHUAFA KITABINA DESA SAYUM SABAH DELI SERDANG**

MAKSUM PINEM , MUHAMMAD ZULFIN , ALI HANAFIAH RAMBE , ARMAN SANI , HENDRA ZULKARNAIN

## **Pelatihan Pembuatan Alat Pengukur Suhu dan Kelembaban dengan Menggunakan Mikrokontroler ESP32 Pada Siswa SMK**

FAKHRUDDIN RIZAL BATUBARA , RISWAN DINZI , NISMAH PANJAITAN , YULIANTA SIREGAR , SOEHARWINTO , ZULKARNAEN PANE , ALI HANAFIAH RAMBE , SUHERMAN , EMERSON PASCAWIRA SINULINGGA , KASMIR TANDJUNG , NAEMAH MUBARAKAH

## **Sosialisasi dan Bimbingan Pemberdayaan Teknologi Informasi dalam Membangun Sistem Informasi Pengolahan Data Nilai Siswa**

MAKSUM PINEM , MUHAMMAD ZULFIN , ALI HANAFIAH RAMBE , SURYA TURMUZI KASIM , RAHMAD FAUZI

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## **Upaya Pencegahan Kebakaran dan Gangguan Melalui Pelatihan Elektrikal Safety Bagi Siswa/i**

MAKSUM PINEM , ALI HANAFIAH RAMBE , SYAFRUDDIN HS , MUHAMMAD SAFRIL , HENDRA ZULKARNAIN

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## **Workshop Pembelajaran Online dengan Menggunakan Google Class Room di SMA Negeri 5 Medan**

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2019

# Pengenalan Diagnosa Otomotif Berbasis Arduino

MAKSUM PINEM, ALI HANAFIAH RAMBE, TIGOR HAMONANGAN NASUTION, SUHERMAN, FAHMI

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Ipteks Bagi Masyarakat

## Ketua Badan Kemakmuran Masjid Abu Bakar Shiddiq

ALI HANAFIAH RAMBE