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Dr. Ali Hanafiah Rambe, S.T., M.T. was born in Medan on August 26, 1978, and is a lecturer in Electrical Engineering at Universitas Sumatera Utara. He completed a Doctoral Program in Physics at the Faculty of Mathematics and Natural Sciences of Universitas Sumatera Utara in 2014.

Publications

2021

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE

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

Jurnal internasional bereputasi

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

2019

Jurnal internasional bereputasi

A Passive Cooling System for Increasing Efficiency of Solar Panel Output

ALI HANAFIAH RAMBE , SUHERMAN

2023

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE , Moch. Najib

2022

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE

2023

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE

2019

Prosiding seminar internasional

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

SUHERMAN , ALI HANAFIAH RAMBE

2025

Prosiding seminar internasional

Circular Patch Antenna Classification Based on Radiation Pattern

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

2025

Prosiding seminar internasional

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

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

2020

Jurnal internasional bereputasi

Design and simulation hybrid filter for 17 level multilevel inverter

SYAFRUDDIN HS , ALI HANAFIAH RAMBE , SUHERMAN

2020

Tulisan ilmiah

Underground Radio Signal Attenuation at 109.8 MHz

ALI HANAFIAH RAMBE , SUHERMAN , NAEMAH MUBARAKAH

2023

Jurnal internasional bereputasi

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

2024

Jurnal nasional terakreditasi

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

2017

Jurnal nasional terakreditasi

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

MUHAMMAD ZULFIN , RISWAN DINZI , ALI HANAFIAH RAMBE

2023

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , FAHMI

2021

Prosiding seminar internasional

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

SYAFRUDDIN HS , ALI HANAFIAH RAMBE , SUHERMAN , RISWAN DINZI

2023

Jurnal internasional bereputasi

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

MAKSUM PINEM , ALI HANAFIAH RAMBE

2018

Prosiding seminar internasional

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

2018

Prosiding seminar internasional

Computer simulation and implementation of defected ground structure on a microstrip antenna

ALI HANAFIAH RAMBE , SUHERMAN

2020

Prosiding seminar internasional

Data transmission period consideration on the internet of thing node

ALI HANAFIAH RAMBE , SUHERMAN , NAEMAH MUBARAKAH

2022

Jurnal internasional bereputasi

Generation of OAM Waves and Analysis of Mode Purity for 5G Sub-6 GHz Applications

ALI HANAFIAH RAMBE

2019

Tulisan ilmiah

Link quality decrement and spectrum crowded impacts to wireless local area network performances

SUHERMAN , ALI HANAFIAH RAMBE , NAEMAH MUBARAKAH

2018

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , RAJA HARAHAP , SUHERMAN , HABIB MUHARRY YUSDARTONO

2025

Jurnal internasional bereputasi

Design and studies of monopole antenna integrated with metamaterial-based CSRR and rectangular spiral shaped for super wide band application

NURHAYATI , MUHAMMAD FAUZAN EDY PURNOMO , FITRI YULI ZULKIFLI , ALI HANAFIAH RAMBE , ROHIM AMINULLAH FIRDAUS

2018

Jurnal internasional bereputasi

Underground radio propagation on frequency band 97 MHz - 130 MHz

ALI HANAFIAH RAMBE , SUHERMAN

2020

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , MAKSUM PINEM , MUHAMMAD ZULFIN , SUHERMAN

2025

Jurnal internasional bereputasi

Mapping the Machine Learning Landscape in Autonomous Vehicles: A Scientometric Review of Research Trends, Applications, Challenges, and Future Directions

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

2018

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , SUHERMAN , RAHMAD FAUZI , ANDIKA ISKANDAR MAX DUNIA

2025

Prosiding seminar internasional

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

2025

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE , Shehab Khan Noor , Arif Mawardi Ismail , Nassrin I. M. Elamin , Moch. Najib , Mohamed Nasrun Osman , Ping Jack Soh , Nurulazlina Ramli , Adel Y. I. Ashyap

2022

Jurnal internasional bereputasi

Harvesting Systems for RF Energy: Trends, Challenges, Techniques, and Tradeoffs

ALI HANAFIAH RAMBE

2018

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE , AFANDI SAHPUTRA , Novita Jendra Sibarani

2013

Jurnal internasional

Optimizing Rectangular Patch Antenna with Microstrip Line Feed Using Single Stub

EDDY MARLIANTO , NASRUDDIN MN , ALI HANAFIAH RAMBE

2018

Prosiding seminar internasional

Passive filter design for reducing harmonics in light emitting diode bulb

ALI HANAFIAH RAMBE , MUHAMMAD SAFRIL , SUHERMAN

2018

Prosiding seminar internasional

Power wireless transferbased on a royeroscillator

ALI HANAFIAH RAMBE , SYAFRUDDIN HS , SUHERMAN , RICKI ANANDA

2020

Prosiding seminar internasional

Frequency selection for ground monitoring using propagation characteristics

SUHERMAN , NAEMAH MUBARAKAH , ALI HANAFIAH RAMBE

2021

Jurnal internasional bereputasi

Low Complexity Linear Detectors for Massive MIMO: A Comparative Study

ALI HANAFIAH RAMBE

2021

Prosiding seminar internasional

Modeling of transient caused by lightning strike at Nias high voltage substation using ATP-EMTP case study

SURYA HARDI , ALI HANAFIAH RAMBE

2020

Prosiding seminar internasional

Numerical simulation of a rectangular microstrip patch antenna for 3.35 GHz applications

MUHAMMAD ZULFIN , SUHERMAN , ALI HANAFIAH RAMBE , MAKSUM PINEM

2023

Prosiding seminar internasional

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

2020

Prosiding seminar internasional

Received signal consideration for the through the earth radio-based underground object detection

NAEMAH MUBARAKAH , ALI HANAFIAH RAMBE , SUHERMAN

2026

Jurnal internasional bereputasi

The role of two-stage powders mixing and tungsten element on mechanical and electrical properties of the CuNiFe-xW alloys

SUPRIANTO , SUTRISNA , ALI HANAFIAH RAMBE , M. RAFLI , ARDY AFRIANDY GINTING

2026

Jurnal internasional bereputasi

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

Jurnal nasional

Antena Mikrostrip: Konsep dan Aplikasinya

ALI HANAFIAH RAMBE

2022

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE

2022

Jurnal internasional bereputasi

A Review of Orbital Angular Momentum Vortex Waves for the Next Generation Wireless Communications

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2020

Prosiding seminar internasional

Design and simulation of rectangular patch microstrip antenna with inset feed for S-band application

ALI HANAFIAH RAMBE , RAJA HARAHAP , SUHERMAN

2023

Prosiding seminar internasional

Ultrasonic Sensor Analysis on Metal Objects

SYAFRUDDIN HS , ALI HANAFIAH RAMBE , THEA FITRI ASTARANI

2023

Prosiding seminar internasional

Design of 8 Elements Aperture-Coupled Rectangular Microstrip Patch Antenna Linier Array for S-Band Applications

ALI HANAFIAH RAMBE

2025

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE , Fitri Yuli Zulkifli , Nurhayati

2023

Prosiding seminar internasional

Simulation and design of the circular polarization microstrip antenna with CSRR metamaterial structure

ALI HANAFIAH RAMBE , EMERSON PASCAWIRA SINULINGGA

2023

Jurnal internasional bereputasi

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

of Things (IoT) Applications

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Prosiding seminar internasional

Impact humidity monitoring based watering to planted tomatoes

SUHERMAN , ALI HANAFIAH RAMBE , SOEHARWINTO , NAEMAH MUBARAKAH

2018

Prosiding seminar internasional

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

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2019

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , SUHERMAN

2022

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , MAKSUM PINEM

2017

Prosiding seminar internasional

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

ALI HANAFIAH RAMBE , RAHMAD FAUZI , SUHERMAN

2021

Jurnal internasional bereputasi

Increasing transmission control protocol speed by reducing the acknowledgement collision probability

ALI HANAFIAH RAMBE , SUHERMAN

2018

Prosiding seminar internasional

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

MUHAMMAD ZULFIN , ALI HANAFIAH RAMBE

2022

Jurnal internasional bereputasi

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

ALI HANAFIAH RAMBE

Researches

2024

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

2024

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

2023
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

2021

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

2011

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

2023
Ipteks Bagi Masyarakat

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

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

2020
Ipteks Bagi Masyarakat

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

FAKHRUDDIN RIZAL BATUBARA , RISWAN DINZI , MAKSUM PINEM , MUHAMMAD ZULFIN , ALI HANAFIAH RAMBE , ARMAN SANI , SYAFRUDDIN HS , EMERSON PASCAWIRA SINULINGGA , RAHMAD FAUZI , KASMIR TANDJUNG

2019

Pengenalan Diagnosa Otomotif Berbasis Arduino

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

2024

Ipteks Bagi Masyarakat

Ketua Badan Kemakmuran Masjid Abu Bakar Shiddiq

ALI HANAFIAH RAMBE