

1. Record Nr.	UNINA9910627279103321
Titolo	Optical and wireless technologies : proceedings of OWT 2021 // Manish Tiwari [and three others], editors
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore Pte Ltd., , [2023] ©2023
ISBN	981-19-1645-4
Descrizione fisica	1 online resource (438 pages)
Collana	Lecture notes in electrical engineering ; ; Volume 892
Disciplina	621.3827
Soggetti	Optical communications Wireless communication systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Preface -- Acknowledgments -- Conference Committee Members -- Invited Speakers -- Contents -- About the Editors -- Design and Analysis of All-Optical Universal Logic Gates Using 2D Silicon Photonic Crystal Structures -- 1 Introduction -- 2 Structure Design and Numerical Analysis -- 3 Design Procedure and Optimization -- 3.1 NOT Gate -- 3.2 NAND Gate -- 3.3 NOR Gate -- 4 Conclusion -- References -- Effect of Super Gaussian Parameter on Soliton Interaction Length in Highly Nonlocal Media -- 1 Introduction -- 2 The Mathematical Model -- 3 Soliton Interaction -- 4 Conclusion -- References -- Simulation of Optical FBG Based Sensor for Measurement of Temperature, Strain and Salinity -- 1 Introduction -- 2 Design and Mathematical Modelling -- 3 Simulation Results -- 3.1 Strain Sensor -- 3.2 Temperature Sensor -- 3.3 Salinity Sensor -- 4 Conclusion -- References -- Study of Underwater Wireless Optical Communication Link Performance for Different Water Channels -- 1 Introduction -- 2 System Model of UWOC Link -- 3 Mathematical Channel Modeling -- 4 Simulation of UWOC System -- 5 Results and Discussion -- 6 Conclusion -- References -- Simulation of Power Transfer in Plasmonic Waveguide Coupler -- 1 Introduction -- 2 Modeling and Simulation -- 3 Conclusion -- References -- Analysis for Cost Optimized EO Design of a Reversible Boolean Function Using MZIs -- 1 Introduction -- 2 Literature of Electro-optic MZI Based Reversible

Gates -- 3 Selection of Boolean Function and Its EO MZI Realization Using Reversible Gates -- 3.1 Optimized Fredkin Gate and Feynman Gate -- 3.2 Modified Fredkin Gate and Feynman Gate -- 3.3 Fredkin Gate and Modified Fredkin Gate -- 3.4 Fredkin and Feynman Gate -- 4 Power Modelling and Truth Table Validation -- 5 Conclusion -- References -- TIR-ORQPM Technique for Generating Highly Efficient Second Harmonic -- 1 Introduction.

2 Operational and Structural Analysis of Proposed Work -- 2.1 Geometrical Topology -- 2.2 Numeric-Analytical Study of the TIR-ORQPM Approach for SHG -- 2.3 Losses and the Interference Effect of the Nonlinear Law of Reflection -- 3 Simulation Outcomes -- 3.1 Parameter Specification -- 3.2 Results Obtained for SHG on Y2O3 Coated MgO:LN Rectangular Slab -- 3.3 Influence of Incident Angle -- 3.4 Affect of Thin Film Thickness -- 3.5 Influence of External Electric Field -- 3.6 Influence of Input Power -- 3.7 Comparison Chart -- 4 Discussions -- 5 Conclusion -- References -- Multi Band Cactus Shaped Monopole MIMO Antenna for Wireless LAN and X Band Satellite Communication Applications -- 1 Introduction -- 2 Layout and Evolution Mechanism of Cactus Shaped Antenna -- 2.1 Evolution Mechanism of Proposed Cactus Shaped Antenna -- 3 Proposed Cactus Shaped MIMO Antenna Geometry -- 4 Results and Discussion -- 5 Performance Comparison of Proposed Cactus Shaped MIMO Antenna -- 6 Conclusion -- References -- Experimental Analysis of ACO with Modified Firefly and Modified Genetic Algorithm for Routing in FANETs -- 1 Introduction -- 2 Existing Algorithms -- 2.1 Ant Colony Optimization (ACO) -- 2.2 Firefly Algorithm -- 2.3 Genetic Algorithm -- 3 Parameters and Methods -- 4 Results and Discussion -- 5 Conclusion and Future Scope -- References -- Theory of Characteristics Mode Based Design of a Planar Monopole Antenna with Polarization Diversity for FSS and SAR Application -- 1 Introduction -- 2 Design Procedure of Antenna -- 3 Simulation Justifications and Discussions -- 4 Conclusion -- References -- A Survey Paper on Evolution of Vanet Towards IOV -- 1 Introduction -- 2 Literature Survey -- 2.1 VANET Routing Protocols: Proposed Challenges and Solutions -- 2.2 Security in VANET -- 2.3 Mobility Models -- 2.4 Implementation of VANET -- 3 Discussion -- 3.1 Features of VANET.

3.2 The IEEE 802.11p/WAVE System -- 4 Applications -- 5 Conclusion -- References -- Beam Forming Impact on the Next Generation Wi-Fi IEEE802.11ay in mm Wave Frequency Band -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Uniform Linear Array -- 3.2 Uniform Rectangular Array -- 4 Results -- 4.1 2D-Simulation of ULA -- 4.2 3D-Simulation of ULA -- 4.3 3D-Simulation of URA -- 5 Conclusions -- References -- Superstrate Microstrip Antenna for 5G Wireless Communication Applications -- 1 Introduction -- 2 Design -- 3 Conclusion -- References -- Evolution of TDM-PON to WDM-PON Using Downstream MSK and Remodulated Upstream ASK -- 1 Introduction -- 2 TDM-PON and WDM-PON Co-existence Architecture -- 3 Simulation Setup -- 4 Result and Discussion -- 5 Conclusion -- References -- Broadband Light Source for Optical Communication Applications Using Silicon Nanowire Embedded Pentagonal Photonic Crystal Fiber -- 1 Introduction -- 2 Material and Design -- 3 Numerical Method -- 4 Results and Discussion -- 4.1 Tailoring the Characteristics of the Proposed PCF -- 4.2 Characteristics Comparison of the Three PCF Design -- 4.3 Pulse Propagation Analysis -- 5 Conclusion -- References -- Disaster Management System Using Free Space Optical Communication -- 1 Introduction -- 1.1 Literature Survey -- 2 Proposed Work -- 3 Methodology -- 4 Results and Discussion -- 5

Conclusion and Future Scope -- References -- Vision-Based Assistive Systems for Visually Impaired People: A Review -- 1 Introduction -- 2 Investigation of AI-Based Vision Assistive System for VI People -- 3 Conclusion -- References -- Secure Visible Light Communication Using ZCC Codes for the Underwater Communication -- 1 Introduction -- 2 SAC-OCDMA System -- 3 Channel Modeling -- 4 Results and Discussion -- 5 Conclusion -- References -- Wireless Technology Contribution for Aviation Safety -- 1 Introduction. 2 Wireless Technologies for Aviation Safety -- 2.1 5G -- 2.2 Wireless Augmented Reality (AR) -- 2.3 AeroMACS -- 2.4 Wireless Avionics Intra-Communications (WAIC) -- 2.5 IoT in Aviation Safety -- 2.6 System Wide Information Management (SWIM) -- 3 Challenges with Wireless Technology for Aviation -- 3.1 Radar Altimeters -- 3.2 Managing the RF Emissions of Consumer Electronics -- 3.3 Radio Interference -- 3.4 Security -- 3.5 Reliability and Latency -- 3.6 Energy Efficiency -- 3.7 Natural Disturbing Factors -- 4 Conclusion and Future Scopes -- References -- Comparing the Performance of ANFIS, LOG10-ANFIS and LOG10-PSO-ANFIS for Universal Theoretical Wireless Signal Propagation Prediction Modelling -- 1 Introduction -- 1.1 Statement of the Problem -- 1.2 Research Objectives -- 2 Literature Review -- 2.1 Introduction -- 2.2 Methods used in Signal Prediction -- 2.3 Artificial Neural Networks -- 2.4 Adaptive Neuro-Fuzzy Inference System (ANFIS) -- 2.5 Particle Swarm Optimization (PSO) -- 3 Research Methodology -- 3.1 Setup for Obtaining RSSI -- 3.2 Modified ANFIS with log10d -- 3.3 Data Analysis -- 4 Findings and Discussions -- 4.1 Results -- 4.2 Discussions -- 5 Conclusions and Recommendations -- 5.1 Conclusion -- 5.2 Areas of Further Study -- References -- Different Approaches of Diagnosing Depressed and Non-depressed Patients -- 1 Introduction -- 2 Problems and Challenges -- 3 Depression Diagnosis on the Basis of Machine Learning Approach with EEG Dataset (A Single Modality Approach) -- 4 Depression Diagnosis on the Basis of Multimodal Approach -- 5 Comparative Analysis of Signal Modality and Multimodalities Approach Depression Detection -- 6 Conclusion -- References -- Enabling Real-Time Vehicle-to-Vehicle (V2V) Communication for Intelligent Transportation System (ITS) -- 1 Introduction -- 2 Literature Review -- 3 Research Gap -- 4 Methodology Proposed. 4.1 Traffic Monitoring -- 4.2 Determination of Reliable Path -- 4.3 Calculation of Reliability Value of a Path -- 4.4 Routing of Data Packets -- 5 Implementation -- 5.1 Based on Number of Nodes -- 5.2 Based on Routing Updation Time Period -- 6 Comparison with Existing Work -- 7 Conclusion -- References -- Dual Band - Notch Elliptic Shaped Monopole UWB Filtering Antenna -- 1 Introduction -- 2 Design Specifications of UWB Antenna -- 2.1 UWB Antenna Design -- 2.2 Resonators Design -- 2.3 UWB Filtering Antenna Design -- 3 Parametric Analysis -- 3.1 Major Axis of Elliptic Patch -- 3.2 Minor Axis of Elliptic Patch -- 3.3 Length of U-Shaped Resonator -- 3.4 Width of U-Shaped Resonator -- 4 Results and Discussion -- 4.1 Reflection coefficients of proposed Filtering Antenna -- 4.2 Gain and Efficiency of proposed Filtering Antenna -- 4.3 Far-field pattern of proposed Filtering Antenna -- 4.4 Surface current distributions of proposed Filtering Antenna -- 5 Conclusion and Future Scope -- References -- A Low-Profile Dual-Band Meander-Line Antenna for Sub-6GHz 5G Applications -- 1 Introduction -- 2 Antenna Design -- 3 Results and Analysis -- 4 Conclusion -- References -- Design of Closed Loop Mach-Zehnder Interferometer for Path Length Stability -- 1 Introduction -- 2 PID Controlled Closed Loop Optical Interferometer -- 3 Experimental Results and Observations for Closed Loop M-Z

Interferometer -- 4 Conclusion -- References -- Distributed Raman
Amplifier in O, E, S, C & L Band DWDM Network -- 1
Introduction -- 1.1 Raman Scattering and DRA Model -- 1.2 Realization
of DRA -- 1.3 Results and Discussions -- 2 Conclusions and Future
Aspects -- References -- Recent Research in Optical Characteristics
of Nitride Based Nanoscale Heterostructures for UV Applications -- 1
Introduction -- 2 Categorical Review of Different UV Laser
Heterostructures.
2.1 Ultraviolet Multiple-Quantum-Well Laser at Room-Temperature.
