



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

SDG 4 | Research on Quality Education

SDG 4

REPORT 2021



THE CONTEXT

Centurion University conducts research in the area of “Quality Education” through its various schools and research centres. Faculty and students are engaged in and publish many research articles striving towards the standalone topic and others which are cross disciplinary. the University's production units, industry sponsored action learning laboratories and community engagement provide an excellent basis for research in this area.

In the year 2020, there were 43 research papers published in journals of national and international repute which increased by 10 and 2 in the year 2021 and 2022. The following section serves as a link to last three-year research endeavour in SDG 4.

Jaggannath Padhi

Director,
Centurion University



Research Articles

1. Omicron (B.1.1.529 variant of SARS-CoV-2); an emerging threat: current global scenario
2. Lung Cancer Detection using an Integration of Fuzzy K-Means Clustering and Deep Learning Techniques for CT Lung Images
3. Molecular basis of insect resistance in plants: current updates and future prospects
4. Auxin and Cytokinin Interplay during Leaf Morphogenesis and Phyllotaxy
5. Modeling of an Electric Vehicle's Powertrain with a 1KW BLDC Motor and STM Controller
6. Natural Preservative Efficacy of Cured Betel Leaf Essential Oil in Sapota Juice: Effect on Physicochemical, Microbial and Sensory Properties
7. In silico studies on phytochemicals to combat the emerging COVID-19 infection
8. Repurposing benzimidazole and benzothiazole derivatives as potential inhibitors of SARS-CoV-2: DFT, QSAR, molecular docking, molecular dynamics simulation, and in-silico pharmacokinetic and toxicity studies
9. Transition Metal-Catalyzed Carboamination of Alkenes and Allenes: Recent Progress
10. Metal-Free Intramolecular Hydroalkoxylation of Alkyne: Recent Advances
11. Rice husk and Rice straw based materials for toxic metals and dyes removal: a comprehensive and critical review
12. Quality Assessment of Groundwater in the Western Parts of Chhattisgarh (Rajnandgaon District), India
13. Contemporary Drowning Cashew Trade of India
14. On a Geometric sequence ideal using Orlicz function
15. ON CERTAIN GENERALIZED NEW GEOMETRIC DIFFERENCE SEQUENCE SPACES
16. Analytical treatment of unsteady MHD flow with heat and mass transfer in presence of heat source and chemical reaction
17. The Effects of Plastic Bags & Bottles Waste Materials Usage as Partial Replacement of Sand on the Strength & Physical Properties of Road Side Pedestrian Walkway Paving
18. Review of Ensemble Learning Method in Hyper-Spectral Image Classification for Agricultural Domain
19. Green Supply Chain Management Practices in Indian Aluminium Industries
20. Optimization of Surface Roughness in Turning of Aluminium 6061 Alloy
21. Rainfall variability under climatic anomalies using SVM, PSO hybrid model of Bhubaneswar Smart City; India
22. Impact of Electrification and Particle Loading on Velocity Profile of Dusty Fluid Flow Over a Stretching Sheet
23. Stability, Boundedness and Oscillatory Behaviour of Second Order Nonlinear Difference Equations
24. Riverbank Old Cities Housing-crisis Solution by Removal of Shoals: the Mahanadi near Cuttack: India
25. The Drowning City and Climbing Vulnerability of Capital City, Odisha, India
26. Classes of new geometric difference sequence spaces
27. Using Buongiorno's model buoyancy effect on nano-fluid flow induced by a stretching permeable surface



28. Radiation and Dissipative Effects on MHD Stagnation Point Nano-Fluid Flow past a Stretchable Melting Surface
29. Optimization of three-level production inventory model for deteriorating items with shortages under fuzzy environment
30. Minimization of Inventory Cost for Items having Fuzzy Demand with Backlogged Shortages in Positive Lead time.
31. Inclusion of two summability methods for improper integral
32. Cluster Priority Based Holistic Trust Management Protocol for Ubiquitous and Pervasive IoT Network
33. Generalized Lipschitz class of a function and Trigonometric Approximation of conjugate series of its Fourier series by product summability
34. Generalized Lipschitz class of a function and Trigonometric Approximation of its Fourier series by product summability
35. Arabidopsis DCP5, a decapping complex protein interacts with Ubiquitin-5 in the processing bodies
36. Studies on the medico-botany plants used in Hawan in Jajpur district of Odisha.
37. A Model for Disease Control and Combat Mapping using Geospatial Technology –A Case Study for Selected Tribal Blocks of Gajapati District, Odisha
38. Change Detection in Coastal Zone of Odisha Using Geospatial Technology: A Case Study from Puri District
39. Data Breach in Cloud: Challenges, Countermeasures and Future Directions
40. Human Face Recognition using LBPH
41. Security vulnerabilities in Application layer protocols for Machine-to-Machine (M2M) Communication
42. Teaching Learning Based Optimized Support Vector Regression Model for Prediction of Indian Stock Market
43. Novel Texture Feature for Content Based Image Retrieval
44. Segmentation of Hard Exudates in Retinal Fundus Images using Deep Convolutional Neural Network
45. Prediction of different Stages in Diabetic Retinopathy from Retinal Fundus Images using RadialBasis Function based SVM
46. A Review Paper on Applications of Data Mining and Data Analytics on Diabetology
47. Analysis of Infectious Hepatitis Disease with High Accuracy Using Machine Learning Techniques
48. Weather Forecasts Based on Rainfall Prediction Using Machine Learning Methodologies
49. Identify Occurrence of Substance Object of a Certain Classification in Fractional Videos and Pictures
50. Essentialism of Translation in Foreign Language Teaching
51. Application of the Principles of Andragogy in Developing English for Specific Purposes Curriculum
52. ESL Students' Proficiency in Reading Skills: An Experimental study
53. Attitude of Engineering Students towards English Language Learning,
54. Interpersonal and Communication Skills: A Correlational Study
55. A review on cyclone resistant plants found in cyclone prone Odisha, India



