



Centurion
UNIVERSITY

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

SDG 9 | Research on Industry, Innovation and Infrastructure

SDG 9

REPORT 2021



THE CONTEXT

Centurion University conducts research in the area of “Industry, Innovation and Infrastructure” 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.

There were 73 research papers published in journals of national and international repute which excludes the cross disciplinary papers. The following section serves as a link to last three-year research endeavour in SDG 9.

Jaggannath Padhi

Director,
Centurion University



Research Articles

1. Women's Participation in Local Government: Insights from Victoria (Australia)
2. Women Farmers in South Odisha: Empowerment through Agricultural Interventions
3. Stock Market Anomaly: Day of the Week Effect in Bombay Stock Exchange with the Application of GARCH Model
4. Measurement of Risk and Return Spillovers Effects among Sensex and Equity Based Mutual Funds in India
5. Exploring Peoples' Perception towards Government Policy on banning Poly Bags – a Case Study of Bhubaneswar Smart City
6. Global, Regional, National Vs. State Level Progress in Financial Inclusion of Odisha: A Contemplation
7. Impact of Growth of Automobile Production on Performance of Automobile Sector in India
8. Valuation of Start Up Companies: A Case Study of Start-ups in Odisha
9. Investment Awareness and Preference of the Individual Investors towards Gold ETFs in the Twin City of Bhubaneswar and Cuttack
10. Financial Inclusion vis-à-vis growth and poverty alleviation: An empirical approach
11. Future of Farming – Why Achieving Sustainability Remains Elusive?
12. Education in Schools Managed by Urban Local Bodies
13. Urban Health Service Delivered by Local Bodies in India
14. Road Infrastructure Provided by Urban Local Bodies in India
15. Challenges of Common Service Centers of Rayagada District – Findings from a VLE centered analysis
16. The Prevalence and Severity of Stress Related Symptoms within a District Police Force, Odisha
17. Citizen centric e-Governance - challenges and issues: A study in Rayagada district
18. A Study on Factors Influencing Investor's Investment Decision
19. Effect of corporate governance on acquiring firm performance: Evidence from construction industry
20. Effect of Slotted Wing Tip on Aerodynamic Efficiency
21. A model waste water treatment plant and its implementation Strategy
22. Effect of crusher dust on geotechnical properties and strength parameters of highly plastic clay
23. A Model for Disease Control and Combat Mapping using Geospatial Technology –A Case Study for Selected Tribal Blocks of Gajapati District, Odisha
24. Change Detection in Coastal Zone of Odisha Using Geospatial Technology: A Case Study from Puri District
25. A Dynamic Approach for Sewage Treatment Plant and its Implementation Strategy
26. Utilization of solar energy as development intrusion
27. Parameter Analysis of Zvs Multi Resonant Dc to Dc Buck Converter
28. Modeling and Simulation of Single-Phase Grid Connected Photovoltaic System
29. Modeling and Simulation of Photovoltaic Solar Panel for Residential Application
30. Application of data diodes for real time data security for smart grid control system
31. Artificial Intelligence Applications for Machinery Fault Diagnosis: A Comprehensive Review
32. Generation of Spreading Codes with Minimum Correlation using Sorting Genetic Algorithm-II



33. Situational Awareness Enhancement in Transmission Lines using NI Based PMU
34. Different Fractal Antenna Structure Analysis using ANN
35. FPGA design for implementation of the 2 D discrete cosine transformation for image processing
36. Fragmented GGBS Replacement of Cement in Concrete for Utilization of Industrial waste
37. Design Techniques of EAA (Elliptical Antenna Array) using Evolutionary Algorithm
38. Authorised Car Parking System Using RFID
39. Development of a Solar Operated Blower for Forging Operation: An Initiative for Sustainable Livelihood of Rural Area
40. Effect of Pouring Temperature on Mechanical Properties of Semisolid Cast A319 Aluminum Alloy
41. Experimental Examination of Process Parameters during Fabrication and Machining of Powder Metallurgy Aluminum Component
42. Experimental study of Mechanical properties of carbon black particulate composite Material when treated with commercial oil
43. Applications of Soft Computing Tools in Metal Forming
44. Experimental investigation for sustainable welding based on Taguchi and Artificial Neural Network
45. Experimental work on cold starting emission of CI engine using waste heat energy.
46. Process parameter optimization in EDM using heat treated Al tool and without heat treated Al tool.
47. Design and Modelling of Electromagnetic Braking System
48. DRI Technologies: A Review
49. Optimization of Material Removal Rate in EDM of D2 Steel by Taguchi Method
50. Experimental Approach to optimize the Fiber Volume Fraction and Orientation for Reinforced Banana Composites
51. Finite Element Analysis of Banana Fiber Reinforced composites for Tensile Properties
52. Investigation of Natural Frequencies of Composite Shaft using FFT and Numerical Method
53. Grinding, Sieve Shacking and Evolving a Material from Shells of Crabs used for Light Weight Bio Medical Applications
54. Impact of cutting speed on tool life of coated uncoated cemented carbide during turning of S31700 grade Stainless steel
55. A Fuzzy Modelling for Selection of Machining Parameters in Wire Electrical Discharge Machining of D2 Steel
56. Electrowinning from dilute solutions at enhanced rates using three-phase flow reactor
57. Analysis of Two Equations Turbulent Scheme with Structured Meshing over Generic Ahmed Body Model
58. Critical Review on Chracterization of DMLS Materials
59. Vibratory Assisted Joining Processes for Quality Joints
60. A review on Polymer Based Composites with Fused Filament Fabrications(FFF)
61. Investigation of Mechanical and physical properties of Nickel - Resin composite
62. Influence of Electrode Vibration on Impact Strength of 1018 Mild Steel Weldments
63. Experimental investigation on Vapour Compression Refrigeration system employing R290/R600a (50/50) and TiO₂ nano-lubricant



64. Influence of Flexural Strength on Welded Joints under the effect of Electrode Vibratory Welding Process
65. Performance of Cement Mix Plus and Styrene Butadiene Rubber Polymers in Slag Based Concrete
66. Ultrasonic, volumetric and viscometric studies of aqueous sodium hydroxide with polymer dextran
67. Ultrasonic study on dextran in aqueous media at 313 K at different frequencies
68. Analysis and Diagnostic of Distribution Transformer Oil in Lieu of Life Expectancy
69. Saturated absorption spectroscopy of rubidium By modulated probe beam
70. Successful Synthesis of Graphene-Aluminum Composite with Improved Microhardness
71. Deep Learning Based Business Application Model for Stock Forecasting
72. Improving software reliability using fault estimation techniques & software metrics
73. Reconfigurable Architecture Implementation of Low Complexity Digital Filter for Bioinformatics Applications



