Our Inspiration

Late. Tatyasaheb Gunjal
Founder, JCEI, Narayangaon

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JAIHIND COLLEGE OF ENGINEERING,KURAN

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A NATIONAL CONFERENCE ON EMERGING TRENDS IN ENGINEERING & SCIENCES (NCETES)

JCON-2023

12th & 13th May 2023

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PROCEEDING OF A NATIONAL CONFERENCE ONEMERGING TRENDS IN ENGINEERING & SCIENCES (NCETES)

JCON-2023.

12th-13th May 2023

Jaihind College of Engineering, Kuran

in association with Savitribai Phule Pune University,Pune.

MESSAGE

I'm happy that Jaihind College of Engineering, Kuran is contributing to the field of research by organizing this National e-Conference on Emerging Trends in Engineering and Sciences (NCETES) JCON-2023 in Jaihind College of Engineering. I hope this conference will bring together students, teachers, researchers, scientists and industrial, professionals to share their findings and discuss them in detail.

I congratulate all the delegates and participants and hope that this event nourishes and fosters the spirit of research, thereby catering to the wholesome development and enrichment of the society.

Wishing the event all success.

Hon. Shri. Jitendra M. Gunjal
Chairman, JCEI, Narayangaon

MESSAGE

It is noteworthy that JCEI's, Jaihind College of Engineering is progressing at a very fast pace. This year we are hosting the JCON-2023 National Conference in series in the Eleventh year of existence of the college. The response is very encouraging. The papers submitted by the students demonstrate the enthusiasm in their creations. Sponsorship of the Conference by the "Savitribai Phule Pune University" is a big blessing for all of us. Conference helps to reflect the work done by the students and the process of developing their minds to becoming an engineer. That is actually the aim and objective of education. The thought of our chairman that quality education to the poorest and needy children without being the burden on parents is being witnessed in the conference. Ultimate goal of the conference being to obtain views from others on the work projected by the students in their papers. These views will help students to improve upon and do a better job infuture. Finally, this conference is a step towards setting up of a good professional, satisfying life by the students and alleviation of poverty for the nation. We would like to express our deepest appreciation to the authors whose technical contributions are presented in these proceedings. It is because of their excellent contributions and hard work that we have been able to prepare these proceedings.Wishing a grand success to the conference.

Prof. S. D. Gunjal
Director
JCEI, Narayangaon

MESSAGE

Warm and Happy greeting to all.

I am immensely happy that our college is organizing an A National Conference on Emerging Trends in Engineering & Sciences (JCON 2023) on 12th and 13th May 2023 is going present a collection of various technical papers in the proceedings.

Under the guidance of our management JCOE continues to march on the way of success with confidence. The sharp, clear sighted vision and precise decision making powers of our management has benefited our college.

The dedicated HOD's and staff members and disciplined students of JCOE are the added features of our college. The role students in building nation cannot be overlooked and students at JCOE are trained in all aspects to become a successful engineers and good citizens. On this occasion I would like to wish all very best to all delegates.

I also congratulate to Convener, Organizing Committee and all Coordinators and students for their contribution and efforts for the success of the conference.

I wish the conference all the success.

Dr. D. J. Garkal,

Principal

Jaihind College of Engineering, Kuran

FOREWORD

It is my great pleasure to present the proceedings of the A National Conference on “Emerging Trends in Engineering and Sciences”, NCETES (JCON 2023).

I welcome the participants of JCON 2023. The main goal of organizing this conference is to share and enhance the knowledge of every individual of this world. We have given a good opportunity for those who have a desire in knowing the present technological developments and also share their ideas. Furthermore, this conference will also facilitate the participants to expose and share various novel ideas. The conference aims to bridge the researchers working in academia and other professionals through research presentations and keynote addresses in current technological trends. It reflects the growing importance of intelligent systems as a field of research and practice. You will get ample opportunities to expand your knowledge and network. Outside of the conference, I hope that you would enjoy some of the many attractions found in and around our beautiful campus of Jaihind College of Engineering. I wish that NCETES will keep on growing in coming years with more impact on the International research community. I thank the conference committee for extending their valuable time in organizing the program and all the authors, reviewers, other contributors for their bright efforts and their belief in the excellence of JCON 2023 and Jaihind faculty for Making a conference success.

Dr. V. M. Dhede
Convenor NCETES-2023

FOREWORD

Welcome to the 2023 A National Conference on Emerging Trends in Engineering & Sciences (NCETES-2023)' organized by Jaihind College of Engineering, Kuran (Pune), Maharashtra. This conference is scheduled to be held on 12th and 13th May 2023. The main aim of the conference is to provide a high level international forum to bring together industry professionals, academics, and individuals from institutions, industrial and government agencies to exchange information, share achievements, and discuss the advancement in the fields of Computing, Communication, and Information Security etc. This is one of the most prestigious conferences conceptualized in the fields of engineering and sciences. The conference features a rich collection of original research embodied through oral presentation, invited talk and interactive demos.

We received submissions from across the world for all track such as civil engineering, computer engineering, E&Tc engineering, Mechanical engineering, general science fields. Each submission was initially screened for conference scope, technical relevance and possible plagiarism by technical program committee. The papers successfully passed the screening stage were assigned to reviewers based on their area of expertise, Outcome of the reviewer were then examined by technical program committee for their recommendation on the paper to the organizing chair. The organizing chair communicated to corresponding author about status of the paper and changes in manuscript if any required. The conference received manuscripts from different states. The conference would not have been possible without vision and dedicated efforts of a number of people. I am indebted to the management of JCEI, Principal, Program committee members for their exceptional work.

I would like to thanks to all 139 authors who have submitted their research review articles for considering JCON 2023 as a platform to present and publish their work. I also would like to deploy acknowledge all the presenters. Session chairs and attendee who bring JCON 2023 a valid meaningful and potential encouragement.

Dr. R. M. Mulajkar
Convenor NCETES-2023

MESSAGE

JCON 2023 Conference has established as reference for the high-quality research in all expects for interaction and exchange of ideas. JCON 2023 fortunate to attract high interest among the community. The conference received papers from different fields the members of technical review committee work efficiently. We are grateful to thanks all authors and all committee members for their hard work and dedication.

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Prof. S. M. Mehetre
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Proceeding

of

A National Conference
on
Emerging Trends in Engineering and Sciences (NCETES)

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MECHANICAL ENGINEERING

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JCON2023_MECH_101

Design, Analysis and Development of 4- Cylinder IC Engine Exhaust Manifold

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Abstract: Exhaust manifold is an important component in anexhaust system of engine. It connects to each exhaust port on theengine' s cylinder head, and it funnels the hot exhaust down intoone simple exhaust pipe. With the help of the exhaust manifoldgaskets, it also prevents the toxic exhaust fumes from sneakinginto the vehicle and harming the occupants. This paper is relatedto design and finite element analysis of exhaust manifold of 4-cylinder diesel engine. Engine capacity is 5678cc. The finiteelement analysis in ANSYS software by using materials based ontheir composition viz. FG220MoCr and SG500/7. In FEA we findout the thermal as well as static structural properties material.Finally, the results are validated through experimentation onthermal analysis of material strength, Izod-Charpy impacttesting, and Metallurgical Microscope.

Keywords: Exhaust Manifold, Finite Element Analysis, Modal
Analysis.

JCON2023_MECH_102

Development of Material Handling trolley operated by the self-weight of the job

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Abstract:In modern competitive environment cost reduction across various functions of production is imperative, material handling being no exception. Material handling not only adds value to the product but an efficient material handling system leads to significant cost saving and improved work environment. However, material handling over a short distance is not given due attention whereas it has a significant impact on production efficiency. In present work, the objective was to design a simple and reliable material handling equipment operating over a short distance having low operating cost. A material handling trolley is designed which operates on self-weight of the job kept on it. On removal of job the trolley returns to the original position owing to spring force. A prototype was manufactured to realize the attainment of design objectives. It was found that the prototype trolley is capable of carrying payload of 30 kg over the distance of 1.35 m and return without any external propelling force. The equipment might be useful to transport the material over short distances such as in assembly lines, in sub-assembly line serving the main assembly lines, from finishing station to stack etc. with significant saving in energy and manpower. The transmission system of the trolley may be modified further to cater different target distances.

JCON2023_MECH_103

Fabrication of six leg kinematic walker for off Road

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Abstract— Research into legged machines is expandingrapidly. There are several reasons why this is happening atthis particular time. The main one is that it has recentlybecome popular and practicable to build on-boardcomputers into small vehicles. In the last few years, thedevelopment of computer-controlled machines, especiallyindustrial robots, has resulted in techniques which takentogether provide most of the technical base to make walkingmachines possible. For many years, walking machines havebeen thought of

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as rough-country vehicles. Generally, thewalking mechanisms are developed by imitating natures likeinsects' movement. Legged machine has been used for atleast a hundred years and are superior to wheels. Leggedlocomotion should be mechanically superior to wheeled orto tracked locomotion over a variety ofsoil conditions andcertainly superior for crossing obstacles.

JCON2023_MECH_104

Energy saving of melting furnace in die casting

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Abstract— Energy conservation is necessary to reduce theincreasing global warming. Individuals and organizationsshould conserve energy in order to decrease the energy costsand increase the economic security. Industrial andcommercial users can increase efficiency and thus maximizeprofit. The world has trimmed its energy budget by utilizinghigher efficiencies, while still growing economically, andhas realized the importance of protecting the environment.Industrial consumption will more result in Concentrationof greenhouse gases such as carbon dioxide, Sulphurdioxide, Nitrogen oxides and carbon monoxide which willhave more impact on earth climate. As manufacturers facean increasinglycompetitive environment, energy efficiencyimprovements can provide a means to reduce costs without
negatively affecting the yield or the quality of the product.

JCON2023_MECH_105

Smart Shopping Trolley with Payment Gateway

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Abstract— An automatic mobile trolley was a prototype ofa wheel robot that serves as a trolley or shopping cart. Thispaper proposed an automatic mobile trolley using ultrasonicsensors. It can follow human movement automatically. It didnot need to be encouraged or withdrawn. It would makeshopping easier for people as customers. The trolley iscontrolled by a microcontroller module unit. It can stop, turnright, turn left, forward and backward. It can follow whereverthey go, while they are in range.Based on the test results, thetrolley succeeded to move forward by 80%, movebackward80%, turn left, 70%, turn right 70%, and stop 80%.

Keywords: Material handling, Spring, Gear, Mechanical
Design, Industry

JCON2023_MECH_106

Power Generation Using Maglev Wind Turbines

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Abstract - Renewable energy is generally electricity supplied from sources, such as wind power, solar power, geothermal energy, hydropower and various forms of biomass. These sources have been coined renewable

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due to their continuous replenishment and availability for use over and over again. The popularity of renewable energy has experienced a significant upsurge in recent times due to the exhaustion of conventional power generation methods and increasing realization of its adverse effects on the environment. It is estimated that renewable sources might contribute about20%-50% to energy consumption in the later part of the 21stcentury. Facts from the World Wind Energy Association estimates that by 2010, 160GW of wind power capacity is expected to be installed worldwide which implies an anticipated net growth rate of more than 21% per year. Lotso efforts have been made to develop the horizontal axis wind turbines but vertical axis wind turbines did not get much attention over the past couple of decades. Blade is the most important component of a wind turbine which controls the performance of a wind turbine and design of other components attached to it. The design of blade are made using Design software.

JCON2023_MECH_107

Solar Operated Grass Cutter

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Abstract— From time immemorial, the sun has been themajor source of energy for life on earth used for heat andlighting. Nowadays, solar energy is known as a renewableenergy source. It is an alternative energy to that of fossil fueland it can be collected from renewable resources such as sun,wind, hydro. Due to the continuous increase in the cost offuel and the effect of emission on gases from the burnt fuelinto the atmosphere, these necessitate the use of theabundant solar energy from the sun as a source of power todrive a grass cutter. A solar operated grass cutter wasdesigned and developed, based on the general principle ofmoving. The designed solar operated grass cutter comprisesof a direct current (D.C) motor, a rechargeable battery, asolar panel, a stainless-steel blade, and control switch. Thesolar operated grass cutter is operated by switch on theboard which closes the circuit and allows the flow of currentto the motor which in turn drive the blade used for moving.The battery recharges through the solar charging controller.

JCON2023_MECH_108

Regenerative Hybrid Electric Bike

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Abstract—The word “Hybrid” means a “Mix”, blendbetween two different things. In automotive industry hybrid isused to describe the powertrain of vehicle. A Hybrid ElectricVehicle (HEV) is a vehicle which is using two energy sourcesfor propulsion, at least one of the energy sources beingelectrical energy. The vast majority of hybrid electric vehiclesare using a combination of petrol (gasoline) engines andelectric motor(s). Regenerative braking is one of the newtechnologies applied in modern days used to improve fuel efficiency. Unlike frictional loss in conventional braking,regenerative braking coverts kinetic energy of vehicle intoelectrical energy

Keywords— Hybrid, Electric, Regenerative, energy, petrol, motor

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JCON2023_MECH_109

Improvement Of Cooling Effectiveness in Injection Molding Through Optimization Through Gun drilling

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Abstract— The cooling phase plays a critical role in theinjection molding process, influencing part quality, cycletimes, and overall production efficiency. Traditional coolingmethods often limitations in achieving optimal coolingeffectiveness, leading to uneven temperature distribution andlonger cycle times. This research investigates the application ofgun drilling techniques for optimizing cooling effectiveness in injection molding. By creating efficient cooling channelsthrough gun drilling, this study aims to enhance heatdissipation, reduce cycle times, and improve part quality. Theresearch begins with a comprehensive literature review,exploring the benefits and challenges associated withgun drilling in injection molding. Various studies havedemonstrated the potential of gun drilling to improve coolingefficiency, but there is a need to further investigate itsapplication and effectiveness.

JCON2023_MECH_110

Improve Machining Process and Cost of JobTooth Wheel

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Abstract - Tooth wheel which is used in the trainassembly in the Mosco train. In this job I have tried toreduce the set up because the more setup is releasedthe stress from the job and the job life was decrease. Dueto more setup the job is not dispatch on the date socustomer complaints are occurring. First in our industrythe plate material was used so the material taking moretime to come in company for machining. Also, the platematerial is not hard material so chips are not form andthis material is not machining so fast as compare toforging material. In forging material, the chips areformed and due to the hardening, the material this material is easy to machining.

JCON2023_MECH_111

Review and Analysisof Stainless-Steel SlatChain Conveyor

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Abstract: Conveyors are an integral part ofmaterial handling equipment, which are used fortransportation of goods from one location toanother. When high amount of material or ifmaterials subjected to high temperature (castingcomponents) needs to be transported, then slatchain conveyors are used. This research paperdiscusses Design, Development and Analysis ofStainless-Steel slat chain conveyor for carryingcasting components. In this paper we aresuggesting a modification in conveyor systemfor carrying casting component for a company.Material selection process and Numericalsimulation by Finite element analysis (FEA)were used in order to reduce the conveyor frameweight and to increase the Factor of safety ofshaft in

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order to prevent it from failing. With theproposed system cost of material for shaft and frame are reduced. This conveyor can carry 10casting components at a time.

JCON2023_MECH_112

ENGINE OPERATED CYCLE WEEDER WITH MULTIPLE TOOLS

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Abstract— the primary goal of cycle weeder machine isto improve productivity and quality in the farmingprocess. Cycle weeder have been introduced in thecountry from the 1960s. Most models of the cycleweeder being manufactured in India, is provided with afront or rear mounted powered rotary unit for forwardmovement as well as for weeding. The cycle weeder isbeing used for seedbed preparation and inter cultureoperation for wide spaced row crops like wheat, bajra,potato, flower, cotton etc. In order to assess theperformance of lightweight power weeder.

Keywords: -
Cycle weeder, Engine, Fertilizer tank, Fertilizer, Weeding efficiency.

JCON2023_MECH_113

Vibration Investigation of 3-Wheeler SpeedometerUsing Vibration Fixture

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Abstract- Vibrations are major problem in working ofmachine. Unwanted vibrations can cause resonance effectwhich can damage the delicate machine component, so whiledesigning the machine; vibrations are also considered. Aftermanufacturing of machine/machine component it undergoesvarious vibration test, Fixture transmit energy to test sample.Fixture design must be rigid simple lightweight and mostimportant economic. Speedometer is a gauge that measuresand displays the real-time speed of a vehicle. In this study, wewere investigating the vibration sustainability of 3-wheelerSpeedometer using vibration fixture. Electronic units whichare to be operated under a vibration environment need to bequalified for vibration levels that the unit will undergo duringits service life. In the present study the Speedometer fixture isto be subjected to a random vibration. FEA analysis of 3-wheeler Speedometer fixture is being done on ANSYSworkbench. Natural frequency of the 3-wheeler Speedometerfixture is observed. Modal and harmonic analysis will beperforming

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on ANSYS workbench. According to results ofFEA modification in Speedometer fixture will be done. If therange is between operating frequency, then the fixture I validated to be safe. For experimental validation of FE,Aresults, FFT analyzer & impact hammer will being use.

Keywords- Vibration fixture, Finite Element Analysis, FFT
analyzer, Speedometer, optimization,

JCON2023_MECH_114

Microstructural and Mechanical Characterizationof Friction Stir Weld on an Aerospace AluminumAlloy

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Abstract— Friction stir welding (FSW) is a relatively new solid-state joining process. This joining technique is energy efficient, environment friendly, and versatile. In particular, it can be used to join high-strength aerospace aluminum alloys and other metallic alloys that are hard to weld by conventional fusion welding. FSW is considered to be the most significant development in metal joining in a decade. Recently, friction stir processing (FSP) was developed for microstructural modification of metallic materials. In this review article, the current state of understanding and development of the FSW and FSP are addressed. Particular emphasis has been given to: (a) mechanisms responsible for the formation of welds and microstructural refinement, and (b) effects of FSW/FSP parameters on resultant microstructure and final mechanical properties. While the bulk of the information is related to aluminum alloys, important results are now available for other metals and alloys. At this stage, the technology diffusion has significantly outpaced the fundamental understanding of microstructural evolution and microstructure–property relationships.

JCON2023_MECH_115

CAD/CAM with New Trends and Advancementsusing Machine Learning

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Abstract—the total sums up and the best review which isconclude is that the CAD/CAM systems are the modern-dayrequirement. CAD/CAM systems work best in the integratedform and they are not only confined to the engineering worldbut to each and every corner of the process background. Integration of the system has given birth to the CAPP, ERP, DNC and Production and development. Designing has beenwell advanced and meets the requirements of the task, not onlybig but the system of CAD/CAM is sophisticated for the smallindustries. CAD/CAM is the requirement of the everymanagerial as well as engineering and processing

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industriesweather it is the process or operation handling or themanpower and resource handling or meeting the deadlines ofthe deliveries. Simulation is also carried out by this system andthe challenges in the modern-day world for the survival in thefast changing and growing world can be backed by theintegrated CAD/CAM systems. Prototyping, ReverseEngineering, Additive Manufacturing, Intelligent Managementall are the features of the CAD/CAM system. Machine learningcan help us to develop the designs which would have minimumerrors and after the rescans and checks the AI part of the software will totally eliminate the error. Designing on CADand Manufacturing techniques will be much more benefittedby sharing data between different systems in a firm will letmachines learn the trends and patterns and will optimize theprocess and advance it further

Keywords— CAD/CAM, Program language, ERP, CAP andMachine learning

JCON2023_MECH_116

Motor Operated Screw Jack

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Abstract— Here we are introducing the motorized screw jack. Weight after certain limits cannot be lifted by a person, in such cases we are in need of jack. When it is motorized, it becomes more convenient. In order to implement this idea, we have designed and developed a system called motorized jack operating through switch by having full control of the jack, we can easily lift it up and down by using the on/off. this helps to reduce the burden of the worker. The main reason to fabricate the motorized screw jack is to avoid the fatigue of human during lifting of the load. The project is less cost and good efficient for operating. Over the past decades upkeep in vehicle designing turn into a testing assignment among the specialists. Sparing economy has turned into the errand of most astounding need in our era. Plan alteration of existing item permits the work as much as less demanding than the past model. In this work, outline and manufacture of screw jack is created to lessen the power utilization and to diminish the human exertion. Tire cut can be ordinarily watched now-a-days. Motorized screw jack accompanies vehicles obliges clients to apply manual drive to lift a vehicle.

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CIVIL ENGINEERING

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Rainwater Harvesting System for Jaihind Campus

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Abstract: Rain water harvesting (RWH) is an excellenttechnique of water conservation of future needs and also torecharge ground water. Due to alarming population burden,climate change, uneven distribution of rainfall and abruptvariation of metrological parameters, the surface and groundwater resource are continuously depleting in India. Hence adoption of different water conservation techniques at individualistintuits and community level has become imperative to cater tothe needs. The study was aimed at designing a rooftop andsurface runoff rainwater harvesting structure for the Jaihindcampus, Kuran, Located in Maharashtra state of India. Allpossible catchment areas are considering for rain waterharvesting. Further, different parts of RWH system wheredesigned based on standard guidelines it was observed from theanalysis that implementation of RWH system in Jaihind Campus,Kuran can resolve the water scarcity during non-monsoon season by recharging the huge quantity of 18614.22 m3in a year in theJaihnd campus. This initiative can increase the water supply forgardening purpose and will help in artificial recharge of groundwater thus enriching both surface and ground water resources

Keywords— Rooftop and surface runoff rainwater harvesting, Jaihind Campus, Kuran, Water Scarcity.

JCON2023_CE_102

Reuse of Plastic Waste in PaverBlocks

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Abstract – The aim of this project is to replace cement withplastic waste in paver block and to reduce the cost of paver block when compared to that of convention concrete paver blocks. At present nearly 56 lakhs tones of plastic waste is produced in India per year. The degradation rate of plastic waste is also a very slow process. Hence the project is helpful in reducing plastic waste in a useful way. In this project we have used plastic waste in different proportions with quarry dust, coarse aggregate and ceramic waste. The paver blocks were prepared and tested and the results were discussed.

Keywords – Paver block, Plastic waste, Ceramic waste

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Design A System For Treatment of The Drained Saline Water From Agriculture Prajwal S. Tamboli, Prof. Supekar G. S., Bhor Prasad Dattatray,Chavan Ajay Suresh,Landge Shivraj Rajesh,Doke Sanket Bajarang,Wagh Vipul Rajemdra

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Abstract: Soil salinity is one of the major land degradations problems in Indian agriculture which adversely affects the productivity of agricultural land. In India, saline soils occur in 29, 56,809 ha area spread in 12 states and Andaman and Nicobar Islands. Out of which Haryana has 49157 ha area affected by soil salinity. To sustain and enhance the agricultural productivity in waterlogged saline soils, subsurface drainage technology and improved irrigation management, has been identified as the most appropriate strategy. But installation cost of subsurface drainage technology is very high and an individual farmer cannot adopt this technology in small scale. However, this technology can be implemented in large scale with the support of government or other financing agency. Haryana operational pilot project has played a major role in installing this technology in Haryana. It has a target of installation of the technology in one thousand hectare per annum. The present study is an attempt to work out the cost of installing subsurface drainage system and to examine the economic feasibility and financial viability of this technology in the long run. The findings of the present study revealed that,44.24 per cent reduction in soil salinity, 49.50 per cent reduction in drain water salinity and a remarkable reduction of water table depth (35.80%). The study was also recorded a considerable 20.32 per cent increase in cropping intensity, shift in the cropping pattern towards more remunerative crops and significant increase in crop yields. The yield increase in rice,cotton, wheat and mustard crops were 20.46, 16.26, 19.75 and 15.01 per cent, respectively. The combined result of these changes was a substantial increase in farm income after the installation of subsurface drainage technology in farmer's field. Along with significant increase in yield of major crops in the project area, a maximum area of 26.60 per cent of fallow land was brought under cultivation. These gains from drainage are helping to increase land productivity, providing employment to the farmers and, hence increasing their farm income. The installation cost was estimated as 62,000 per ha. The financial analysis carried out on four alternative crop rotations, of which rice-wheat cropping system provides highest benefit with a net present worth of 1,12,862 and a three years payback period. The internal rate of returns estimated to 39.64 per cent and benefit-cost ratio was 2.71. Thus, the subsurface drainage technology, proved technically feasible, financially economical and socially beneficial in waterlogged saline soils of Haryana.

Keywords—Sub-surface technology, Payback period, Feasibility analysis, Benefit cost ratio

JCON2023_CE_204

STUDY OF PHYSIOCHEMICAL PARAMETER OF GROUND WATERQUALITY AT JUNNAR TALUKA

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Abstract—Drinking water is an important constituent for all types of living beings. Groundwater is one of the most valuable natural resources, which supports human health, economic development and ecological diversity. Groundwater is a valuable dynamic and replenishes able natural resource in present day and limited in extent. Groundwater resource assessment of a region involves a detailed study of the sub-surface water, including geology and hydrogeology, monitoring and production of well data. The water quality guidelines provide a Limit Value for each parameter for drinking water. It is necessary that the quality of drinking water should be checked at regular time interval, because due to use of contaminated drinking water, human population suffers from varied of water borne diseases. The availability of good quality water

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is an indispensable feature for preventing diseases and improving quality of life. It is necessary to know details about different physio-chemical parameters such as color, temperature, acidity, hardness, pH, sulphate, chloride, DO, BOD, COD, alkalinity used for testing of water quality. Heavy metals like Pb, Cr, Fe, Hg etc. are of special concern because they produce water or chronic poisoning in aquatic animals. This review article summarized some water analysis reports with physic-chemical parameters which have been reported. Guidelines of different physic-chemical parameters also have been given for comparing the value of real water sample. There is lot of parameters for drinking water quality parameter like world health organization (WHO), Indian Standard IS 12500:2012, Environmental Protection Agency (EPA), Environmental Quality Standards (EQA). In present study, Drinking Water Quality, were analysis by various standards and analytical methods.

Keywords- Drinking Water, Physio-chemical analysis, TDS of Water, pH of water, Hardness of water, Human health, Environment Effect's, Quality of water,

JCON2023_CE_205

Influence of Steel Slag Addition on Strength Characteristics of Clayey Soil

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Abstract: The disposal of industrial waste or by-products have become more difficult and expensive as a result of the increasing environmental regulations and shortages of suitable disposal sites. When molten steel is separated from impurities in steel making furnaces, steel slag is produced as a by-product of the process. In the construction industry, steel slag has long been used in various applications in the construction industry such as aggregates in road construction, railway ballast and hydraulic protection structures. Using steel slag for soil stabilization is a modern application of steel slag. In this study the main approach is to investigate the effect of steel slag on the strength characteristics of clayey soil. Steel slag is blended with clayey soil in amounts of 10%, 15%, 20%, 25%, and 30% of dry weight. In our study, the optimum content of steel slag was determined by considering the maximum unconfined compressive strength.

JCON2023_CE_206

To Validate or ensure the availability of recyclingprogram for damaged ship-submarine in Indian Navy.

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Abstract-As all countries have dominance on land and now some countries also want to establish their dominance on water and in future the countries whose navy is strong and big will maintain their water dominance. Therefore, all countries have strengthened the nuclear attack capabilities air craft carrier ship conventional diesel electric submarine etc. In future other countries like China and Pakistan wants to rule on our country our India's biggest area comes under ocean so we can' t denies future possibilities of war

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and ship submarine accidents, economic balance and its effects and cost of submarine is very high and there is many losses of submarine and for that submarine recycling program is important. In this project we are going to ensure recycling program foe damage submarine in India.
Keywords— (Ship Recycling Program, Indian Navy)

JCON2023_CE_207

To Enhance Performance of Bitumen BasedPavement By Effective Utilization of Waste Plastic And Steel Slag

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Abstract:
The work includes experimental investigation of the use of waste P.E.T (plastic) and steel slag in construction of roads. It is our moral responsibility to have concern about some of the frequent problems faced in India regarding roads and environmental safety such as formation of potholes, rutting, decreased durability of the pavements are of major concern in Indian villages as well as in metropolitan cities; this study also states an evergreen solution to it. This study investigates use of plastic waste with bitumen to replace it to a limited extent and also the steel slag of a particular type in the form of aggregates along with conventional stone aggregates, its effects and an economical method for its implementation. Marshall Specimens were prepared at bitumen contents of 3.0, 3.5, 4.0% by weight to find optimum bitumen content, with P.E.T content of 0%, 4%,6%, 8%, 10% by weight of bitumen and with steel slag aggregate content of 5%, 10%, 15% and 20% to find out respective limits and their properties. Marshall Stability, Flow values etc. were further determined and observed.
Keyword: Plastic waste, Bitumen, Steel slag, P.E.T (Polyethylene Terephthalate)

JCON2023_CE_208

Design Of Signalized Intersection

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Abstract: The signals communicate with each other and adapt to changing traffic conditions to reduce the amount of time that vehicles spend idling. With the application of this new system the vehicular chaos on roads and at intersection can be effectively reduced and controlled, breaking of law & chances of accidents can be reduced. The data required for our project was recorded on WADALA NAKA in Nashik City for a duration 40 days. The readings were recorded for a duration of 1hour 30 minutes. The movement

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of Right turning vehicles, Straight going vehicles and Left turning vehicles was recorded separately. Further calculations were made based on the number of vehicles passing though that signal in a specific direction (i.e. either right or left or straight going vehicles). Initial results from this study are encouraging. The amount of time that vehicles spent idling at signal lights was reduced by 20% to 50% by using this new method, enabling smooth traffic flow.

Keywords- Design, Intersection.

JCON2023_CE_209

Energy Generation by Speed Breakers

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Abstract— In the present situation power becomes basic need for human life. Energy is responsible for major developments of any country's economy. Conventional energy sources generate most of the energy of today's world. But the population is increasing day by day and the conventional energy sources are diminishing. Moreover, these conventional energy sources are polluting and responsible for global warming. So, non- conventional sources are needed to be developed for power generation which are clean, environment friendly and sustainable. In this research we propose a renewable non-conventional energy source based on speed breaker mechanism. Our project is to enlighten the streets utilizing the jerking pressure which is wasted during the vehicles passes over speed breaker in roadside. We can tap the energy generated by moving vehicles and produce power by using the speed breaker as power generating unit. The kinetic energy of the moving vehicles can be converted into mechanical energy through rack and pinion mechanism and this mechanical energy will be converted to electrical energy using generator which will be used for lighting the street lights. Therefore, by using this mechanism we can save lot of energy which can fulfill our future demands.

Keywords— kinetic energy, speed breaker, rack & pinion, generator, non-conventional energy, street light.

JCON2023_CE_210

Reuse of Plastic Waste in PaverBlocks

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Abstract – The aim of this project is to replace cement with plastic waste in paver block and to reduce the cost of paver block when compared to that of convention concrete paver blocks. At present nearly 56 lakhs tones of plastic waste isproduced in India per year. The degradation rate of plastic waste is also a very slow process. Hence the project is helpful in reducing plastic waste in a useful way. In this project we have used

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plastic waste in different proportions with quarry dust, coarse aggregate and ceramic waste. The paver blocks were prepared and tested and the results were discussed.

Keywords – Paver block, Plastic waste, Ceramic waste

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Manufacturing of Low-Cost High Strength BricksUsing W.T.P Sludge

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Abstract— In this paper different type of benefits, process and main function of Manufacturing of Bricks Using WTP Sludge is discussed. Increased environmental awareness among people exerts high-pressure on water production industry for safe disposal of residues generated in water treatment plants. To study if the sludge which has similar properties of that of soil can be used to replace clay in brick manufacturing. This paper reports the use of sludge as new and non-conventional construction materials as an alternative means of sludge disposal. Due to the similar mineralogical composition of clay and water treatment plant sludge, this study focused on the reuse of sludge in clay brick production. The use of sludge as partial substitute for clay in brick manufacturing.

Keywords— Water treatment plant sludge, Sludge disposal, Compressive strength, bricks, clay.

JCON2023_CE_212

STRUCTURAL AUDIT OF ANJAIHIND COLLAGE OF ENGINEERINGBUILDING

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Abstract: The life cycle of a building can be broadly divided into four phases i.e., architectural planning, structural design, construction and maintenance in most of the building almost care is taken in first three cases but the maintenance is forgotten. Ignoring to maintenance causes severe structural distress in building over period of time. This paper deals to create awareness amongst the resident, owner of building, civil engineers towards the health examination of existing concrete building and current status of the building. Every structure has its own service life and it should stand firmly on its position during its complete service life. But now a days due to lack in the quality in construction process and the low-quality material used in the
construction has decreased the life of the structure and it also has increased the rate of failure of structure which leads to lose the life of the people. There is the various demand from the society and from the government for appropriate action and measure to be taken to prevent it from the collapse of structure, to save the life of the occupant and to improve the life of the structure. The reinforced cement concrete is used as a construction material all over the world because of its high-strength and cost ratio, its application, it is

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easy to use. As the time passes the strength of the rock members get decreased. This decrease in strength increases the risk of the structural to collapse. So as to prevent this type of the collapse necessary precaution should be carried out and this type of the procedure is known as Structural Audit.

Keyword: - Structural audit, Non-destructive testing, suggestion and repairs.

JCON2023_CE_213

ACCIDENT STUDIES AND PREVENTION ATKATRAJ TO KHADI MACHINE CHOWK ROAD

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Abstract—Structural health monitoring (SHM) aims to assess the behavior of structures and evaluate the performance of materials during the life cycle of the structures. Such assessment should include the different parts of the structure and full assembly of the structure as a whole under different cases of loadings. SHM involves the integration of sensors, smart materials, data transmission, computational power, and processing inside the structure. Therefore, sensor properties and characteristics are essential parameters to detect the accurate behavior of structures. In addition, time and frequency domain analyses for structures' members or performance of materials should be evaluated to assess the full behavior of structures.

Keywords—Accident, Prevention,

JCON2023_CE_214

"STABILIZATION OF ROAD CONSTRUCTION USIN VARIOUSPLASTIC WASTE"

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Abstract:Abstract and Figures. The idea of using waste plastics in road construction is relatively new. Laboratory tests have shown positive results when a small amount (5-10% by weight) of plastic is incorporated in bituminous mixes (asphalt), resulting in improved pavement stability, strength, and durability.

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ELECTRONICS AND TELECOMMUNICATION ENGINEERING

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Automatic Motion Detection Led Tube Light Using Microwave Sensor

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Abstract: This research paper proposes an Automatic LED TUBELIGHT using Arduino and HWM10sensor. The proposed system is designed to control the room lighting by detecting the presence of a person in the room using a Microwave Motion Detection sensor. The proposed system offers energy savings by automatically turning off the lights when the room is vacant.

JCON2023_ETC_302

Smart Public Dustbin System

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Abstract — The Internet of Things (IoT) changes our way of life and offers us smarter, more efficient, and more effective solutions for everything from transportation to healthcare. One of the areas where IoT can have a big impact, especially in cities where the amount of waste increases every year, is waste management. In this review paper, we explore the potential of an IoT-based smart bin system to increase the efficiency and sustainability of urban management. The smart system in the public sector has a network of connected devices and devices that can monitor the collection level at any time and send this information to the central control. This information can be used to improve the way waste is collected, reduce the fuel and labor required to collect waste, and reduce unnecessary travel by ensuring that bins are only emptied when full. Smart bin systems can also be used to improve public health and hygiene. By reducing the frequency of garbage collection, the system can help reduce the amount of waste generated in bins, thus reducing the risk of insects and bad odors. In addition, the system can be equipped with sensors that detect when the container is full and automatically close the lid to prevent waste from flowing out. Overall, IoT-based smart bin systems have the potential to revolutionize urban waste management by providing more efficient, effective, and hygienic solutions to the growing waste problem. With the development of new sensor technology and

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the popularity of wireless connectivity, we will see more cities using smart garbage systems in the next few years. However, there are challenges to overcome, such as the need for robust and secure data management and the potential cost of deploying these systems at scale. However, the results of this process are clear and we will see important developments in this area in the coming years.
Keywords— Dustbin, Internet of Things, Lid, Public, Server

JCON2023_ETC_303

Micro-strip Patch Antenna Using SIW Technique

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Abstract— with the help communication, transmission of the signal wired or wireless. It is growing with all the medium transfer of data information without using wire over distance is known as wireless communication. Propose work focused on an antenna communication with substrate integrated waveguide structure, will be used to enhance and antenna performance parameter. Propose work consist of study of different parameter of antennas like frequency, bandwidth, wavelength etc. The purpose of single antenna & array has simulated for VSWR, return loss, Bandwidth, Directivity which is suitable for wireless application.
Keywords –Antenna, Bandwidth, Frequency, Gain, Micro-strip.

JCON2023_ETC_304

Railway Track Crack Detection

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Abstract—This project is concerned with a process for monitoring the condition of railway tracks, with the goal if identifying defects detected by monitoring equipment on the tracks to be examined, allowing maintenance crews to find these defects later on. When power is applied to the device, the relay driver circuit activates the DC motor. Two Infrared Sensors are mounted in the front of the railway to detect track cracks. Each sensor will generate a single based on its position in relation to rail. If the track position is normal, both sensors produce the same sensed output. If any sensor causes its output condition to fail, there is an error on that site. The sensor will notify you by using the GSM module and send the location via GPS module.
Keywords— Crack detection – IR sensor; GPS module; GSM module; Alarm; LCD display; Motor driver; Motor.

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Study of Audio Amplifier

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Abstract —This study develops a method to reduce staticelectricity consumption of class d audio equipment usedin public spaces and evaluates its effectiveness. Thearchitecture of a conventional Class D audio power amplifier has been modified to allow a full and efficientdynamic selection of low power modes.
Keywords— Amplifier, Audio, IC4440, power-Amp., Pre-amplifier

JCON2023_ETC_306

Automatic Room Light Controller Using Arduino and PIR Sensors

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Abstract— This research paper proposes an Automatic Room Light Controller using Arduino and PIR sensor. We design this proposed system to control the room lighting by detecting the presence of a person in the room using a Passive Infrared (PIR) sensor. The system is implemented using an Arduino microcontroller board, which processes the sensor data and controls the lighting accordingly. The proposed system offers energy savings by automatically turning off the lights when the room is vacant.
Keywords— Arduino, Energy Saving, Automatic, PIR Sensor,Lightning.

JCON2023_ETC_307

Attendance Monitoring System using RFID

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Abstract— RFID is an acronym for “radio-frequency identification” RFID technology is an automatic wireless
identification system that works by the help of two components: a card and a reader. Using the RFID technology, the conventional system of taking attendance can be completely transformed to be more in line with strides in digitalization. This system will help the authorities manage the attendance system in a more methodical, efficient and time saving manner. In classrooms, time is wasted in roll calls as it is done manually. In this proposed system, authorized student is given an RFID tag. Thus, the data stored in this card is referred as the identification/attendance of the person. Once the student places the card in front of the RFID card reader, it reads the data and verifies it with the data stored in the Arduino. If the data matches, then it displays Name, Roll no, Date and Time of user if it doesn’t match buzzer gets turn ON. The design of the system is simple, cost effective and agile making it a good candidate for commercial and academic purposes.
Keywords— Radio frequency identification, RFID Tag/Card Arduino, Attendance system

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Automatic fan control using Visitor Counter

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Abstract— in today's world, there is a continuous need forautomated appliances. With the increase in the living standards,there is an immediate need for developing circuits that wouldchange the complexity of life to simplicity. This circuit will do thetask of tallying the number of persons in a room bi-directionally.The aggregate number of people will appear on the LCD. In thecircuit an Arduino UNO Board is utilized. This will help in theaccurate measurement of the visitors and is less complexcompared to a microcontroller. The Arduino will get signals fromthe Infrared (IR) and temperature sensors and those signals workunder the control of a programming code which is put away inthe ROM of the Arduino. The Infrared Receivers willcontinuously monitor any entity which passes both outside theroom and inside the room. According to the number of guests inside the room, fan will be triggered on and off. This automationwill save lots of electricity. There will also be a temperature andhumidity sensor which will detect the temperature of room.

Keywords— Arduino, Digital bi-directional visitor counter,IR rays, LCD, DHT11, Alarm, Electronic applications.

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Laser Security System

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Abstract — Laser security systems have become increasingly popular due to their high accuracy and reliability in detecting intruders. In this paper, we present a novel laser security system that utilizes a laser beam and a photoelectric sensor to detect and alert any unauthorized entry. The proposed system employs a unique algorithm that analyzes the changes in the reflected laser beam to distinguish between moving objects and stationary objects, thereby reducing the number of false alarms. We also incorporate a simple and user-friendly interface that allows for easy system configuration and monitoring. Our experiments demonstrate that the proposed system achieves a high accuracy rate of 95% and outperforms existing security systems in terms of reliability and efficiency. This laser security system is suitable for a wide range of applications, including residential, commercial, and industrial settings, and has the potential to enhance overall security and safety.

Keywords— Internet of Things, Laser, LDR, Server,Telegram

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IOT Based Grass Cutting Machine Using Solar Panel

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Abstract— The project proposes an innovative idea that aims to construct a Solar grass cutter. It is a machine that utilize sliding edges to cut a yard, that assist human with cutting grass consequently. Significantly more refined gadgets are there in every field. The development or the way of the Solar grass cutter depends on a way arranging method. Sun powered grass cutter is an extremely
valuable gadget which is exceptionally basic in development. In our venture, we are utilizing Node MCU, Bluetooth module, DC engine, sunlight powered charger. For this grass cutter, Node MCU microcontroller is used as the microcontroller. Our fundamental point in contamination control is achieved through this. Untalented activity can work effectively and keep up with the grass exceptionally fine and uniform surface look.
Keywords—Solar panel; charging circuit; Rechargeable Battery; Node (MCU); DC motors; D2826-6 motor driver; Ultrasonic sensor; Grass cutter.

JCON2023_ETC_311

Air Quality Monitoring System

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Abstract— An air quality monitoring system using Arduino Nano with Dust Sensor, DHT11, MQ135, and MQ7 is a low-cost and accessible solution for measuring air quality metrics such as carbon monoxide concentration, harmful gas concentration, temperature, humidity, and particle concentration. The system is easy to assemble and program, making it suitable for indoor and outdoor air quality monitoring applications in homes, offices, schools, and urban areas. The system provides real-time data that can be displayed on an LCD screen or transmitted wirelessly for further analysis. This system can help individuals and organizations make informed decisions about their health and safety by providing accurate information about air quality.
Keywords- air quality, monitoring system, Arduino Nano, Dust Sensor, DHT11, MQ135, MQ7, carbon monoxide, harmful gas, temperature, humidity, particle concentration, real-time data, LCD screen, wireless transmission, health, safety, environmental monitoring.

JCON2023_ETC_312

Smart Robot -Sweep Cleaner

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Abstract— Manual work is done bythe robot technology and many of therelated robot appliances are used also.Here the project represents thetechnology that proposed the working ofrobot for Floor cleaning or surfacecleaning. Households of today arebecoming smarter and more automated.Home automation delivers

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convenienceand creates more time for people.Domestic robots are entering the homesand people's daily lives, but it is yet arelatively new and immature market.This robot makes floor cleaning processeasy and fast utilizing a wireless roboticcleaning system. This wireless systemconsists of a transmitter application thatruns on an android mobile app whichallows the robot to follow commandsgiven by the users through thetransmitter app. The proposed robotconsists of Arduino NANO controllerwhich has a 14 digital input/output pins,robotic arm with cleaning pad with awater sprayer for efficient cleaning. TheArduino NANO, on receiving thecommands from android device throughBluetooth receiver module, decodes thegiven commands and controls the motorsto achieve the desired movement anddirection.

Keywords— Arduino NANO, DC Motor, Water Pump, Bluetooth module, Battery, etc…

JCON2023_ETC_313

Detection of Sign Language

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Abstract- acknowledgement of gesture-based co-immunization is a significant exploration issue for empowering correspondence with hearing hindered individuals. This task presents an effective and quick calculation for recognizable proof of the number of fingers opened in a motion addressing a letter in order of the Double Communication via gestures. The framework does not need the hand to be impeccably adjusted to the camera. The undertaking utilizes picture handling framework to recognize, particularly English alphabetic gesture-based communication utilized by the hard of hearing individuals to convey. The fundamental target of this project is to foster a PC based shrewd framework that will empower imbecilic individuals essentially to speak with any remaining individuals utilizing their normal hand motions. The thought com framework utilizing picture handling, AI and man- made reasoning ideas to take visual contributions of communication through signing' s hand motions and produce effectively conspicuous type of results. Subsequently the goal of this venture is to foster a shrewd framework which can go about as an interpreter between the sign language and the communicated in language powerfully and can make the correspondence between individuals with hearing disability and typical individuals both viable and effective. The framework is we are carrying out for Double sign language yet it can recognize any gesture-based communication with earlier picture handling.

Keywords: Convolutional Neural Network, Deep Learning, Feature Extraction, Image Processing.

JCON2023_ETC_314

Research on Histogram Based Resolution Enhancement of an Image by using ANN

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Abstract— High resolution (HR) images have moredetail in them than low resolution (LR) photos do. Instead of just one LR image, several low-resolutionimages can be instantly obtained. Since each LR imagecontains distinctive information, an HR image can beproduced by combining several LR photos.Reconstructing an HR image from a single, less-detailedLR image is still more difficult. This study proposes aneural network-based approach to improve resolutionbased on feature extraction from a single image. Foreach smaller block that is produced from each LR andHR image, the histogram is generated as a feature. Thesimulation was run on a collection of brain MRIpictures, and the findings demonstrate that the PSNRand RMSE have improved thanks to the neural networkmodel that was produced.
Keywords— Digital Image Processing,Resolution, Histogram, Neural Network.

JCON2023_ETC_315
Automated Diagnosis of Skin Lesions using Deep Learning

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Abstract— Skin lesions are a common occurrence and canoften be indicative of serious medical conditions such as skincancer. Traditional methods of diagnosing skin lesions rely onvisual examination by a dermatologist. However, this processcan be time-consuming and subject to human error. Theemergence of deep learning technology has presented a hopefulsolution to the issue of automated diagnosis of skin lesions using artificial intelligence. By leveraging this advancedtechnology, it is now possible to train deep learning models onextensive datasets containing labeled images of skin lesions.These models can effectively detect patterns and accuratelyclassify various types of skin lesions. These models can behighly accurate and have the potential to provide fast andreliable diagnoses. Additionally, automated diagnosis usingdeep learning has the potential to increase access to medicalcare in underserved areas. However, there are still challengesto be addressed in the development and implementation ofautomated skin lesion diagnosis. These include the need forlarge and diverse datasets for training and testing, addressingbias and fairness concerns, and ensuring the ethical use of AIin healthcare. The application of deep learning in automateddiagnosis of skin lesions has immense potential to enhancehealthcare outcomes and broaden medical accessibility.Continuous research and development in this domain will playa pivotal role in ensuring the ethical and effective utilization of this technology, leading to improved healthcare services andoutcomes for patients.
Keywords— CNN, Deep Learning, Feature Extraction, Image Processing, Image Classification, Skin Cancer, SkinLesions Detection

JCON2023_ETC_316
Heart attack prediction using machine learning

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Abstract—: Many diseases impact people nowadays as a resultof the status of the world and how people behave. In order tolessen the severity of such diseases, it is essential to identify andpredict them in their early stages. This type of analysis extrapolatesfrom the analysis of existing phenomena, regulations, or diverse entities in order to foresee something that hasn't been done, tested,or planned earlier. This is an excellent chance to determine howadept your students are at formulating predictions. The mainemphasis of the analytical report is the patient's elevated risk ofhaving a cardiovascular illness, which is supported by a number ofmedical factors. We frequently build a cardiovascular diseaseprediction system to ascertain whether the patient is most likely toacquire cardiovascular disease. In this paper using differentmachine learning techniques like Logistic Regression, LinearRegression, Decision Tree, Random Forest and previous study nowcan predict the risk of heart attack.
Keywords— Heart Disease, Machine Learning, FeatureSelection, Decision Tree, Classification, logistic Regression,predictive model

JCON2023_ETC_317

Android Based Smart Notice Board

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Abstract-In the contemporary world, traditional notice boards are widely utilized in a variety of locations, including offices,schools, colleges, and train stations. Since their creation, they haven't been improved, though. Schools and colleges waste a lot of paper on notice boards. Current notice board management is a laborious and time-consuming operation. Some typical issues with managing conventional notice boards include the need to print documents, physically attend to the location of the boards to modify notices, and organize paper pins and clips for every new announcement. It requires a lot of time and labor from people.In this project, we introduced a new concept of digitization of traditional notice board system. With this system we can display notices in the form of sliding images on the smart television.
Keywords- Smart TV, Android application, cloud storage, Realtime database.

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COMPUTER ENGINEERING

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JCON23_COMP_201

Implementation of IOT Based Sensor Gloves for Impaired People

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Abstract— Abstract—In the past, the system relied solely on computer vision, requiring the user to stand infront of the camera and make hand gestures so that the system could predict the gesture. The primary concernof today's less intelligent people is how to communicate their ideas to other intellectually challenged peopleand to other everyday people. In the proposed system, a flex sensor is a piece of hardware that the user canwear in his hand, and the system verifies the gesture based on the reaction. These guidelines will aid suchpeople by providing a means of instruction. Devices like microcontrollers and flex sensors areused to carry it out.
Keywords— Gesture, flex sensor, microcontroller

JCON23_COMP_202

Neural Network Based Live Fire Detection

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Abstract-Abstract—This project's main objective is fire detection. The project aims to spot fires early andtake preventive measures to reduce losses from hazardous fires. Sensor network is localized and cannotunderstand live situation at fire location and it is adequate to activate the alarm system, but because damageto the sensor cannot be seen by the human eye, With Camera network over ethernet system live situation canbe seen at any location it cannot be used as a reliable fire prevention tool. The suggested system's goal is toinform people when fire incidents happen utilizing the Neural Network approach and notification. Earlywarning is the primary benefit of image processing-based fire detection systems. For object detection, thisstudy recommended using the Raspberry Pi, a better convolutional neural network (CNN), and YOLO (YouOnly Look Once). This technology uses a camera to detect flames. The Raspberry Pi controller analyses thecamera's data and locates fire using heat signatures. The system first analyses the camera input to identifyflames. Images are used to recognize heat signatures and fire illumination patterns so that, in the event of afire, the proper measures can be taken. When a fire is detected, the system goes into emergency mode andwarns the users. This system can be installed practically anywhere for the purpose of detecting fires,including malls and many other public areas.
Keywords- Fire Detection, CNN, YOLO, IOT, Image Pro-cussing

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Data-Driven Optimization for Pet Grooming Centers: A Sales Analysis and Strategy Underquote

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Abstract-Prescriptive analysis and sales insights are two important areas of data analysis that are critical forbusinesses looking to optimize their operations and improve their bottom line. Prescriptive analysis involvesusing data to identify the best course of action to take in order to achieve a particular goal or outcome. Itcombines predictive analytics, which uses data to make predictions about future outcomes, with decisionscience, which provides a framework for making optimal decisions. Sales insights, on the other hand,involve analyzing data to gain a better understanding of customer behavior, preferences, and purchasingpatterns. This information can be used to develop more effective sales strategies, improve customerengagement, and increase revenue. In this abstract, we provide an overview of the concepts and techniquesinvolved in prescriptive analysis and sales insights, and discuss how these approaches can be applied to drivebusiness success.
Keywords- Prescriptive Analysis, Sales Insights, Business Revenue, Predictive Analysis

JCON23_COMP_204

Blockchain-Based Authentication: Safeguarding Against Counterfeit Products

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Abstract-Currently, Counterfeit Products have become a principal and worldwide problem as customers are being mis-guide into buying illusive products with no way to check Correct-ness. lately, Blockchain hasbecome well known as it Encourages belief between suspicious contributor(donor). This paper uses
blockchain technology to oppose the biding of duplicate products. We use blockchain to permit manufactureror composer to add (involve) genuine product serial numbers onto the balance sheet; users can then use theserial numbers to verify(check)the veracity (correctness,accuracy) of product before buying it. Blockchainplays a crucial role in establishing, that data was not dabbled with producing a trusted environment. Thissystem uses SHA - 256 algorithm to which helps to Identify Counterfeit products.
Keywords- SHA-256 Algorithm, QR Code, Anti-Counterfeit, Blockchain**.**

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JCON23_COMP_205

Customer Churn Prediction in Telecom SectorUsing Machine Learning Techniques

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Abstract-Customer churn prediction is nothing but predicting customers which are likely to cancel theservice. Another name for churn prediction is attrition, is the number of paying customers who fail tobecome repeat customers. Nowadays data is important in each and every sector, which makes churnprediction the biggest challenge for many sectors/organizations. There are many reasons for leaving the
company or services such as switching to other service, canceling their subscriptions due to poor services,
leaving the company due to poor facility, poor connectivity. Customer churn prediction can be found out byusing various machine learning algorithms. Previously used algorithms such as Logistic Regression,
Decision Tree, etc. which does not provide high accuracy. There are other supervised learning algorithms
which can provide better accuracy and are efficient than previously used algorithms. The main purpose ofthis research is to sustain the customer from getting churn and not only predicting the customer churn butfinding the reasons behind customer dissatisfaction.
Keywords-Customer Churn, KNN, Random Forest, SVM, Churn, No Churn.

JCON23_COMP_206

IOT Based Flood Monitoring and Alert System

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Abstract-Floods are one of the most common catastrophic catastrophes that may leave a country completelydesolate. They are frequently caused by precipitation and river overflow, especially during a very rainyseason. This project attempts to use IOT to monitor flood conditions and deliver alerts when there is a risk offlooding. To identify a flood, rising water levels are measured. Three sensors are used by the system tomonitor temperature, humidity, and water levels at each step. The Arduino is used to process the sensorreadings that are discovered, and then it transmits the data to the IOT through a BT module. The plannedIOT-based system provides real-time flood analysis so that the authority can keep an eye on flood- affectedregions. The Flood Observatory System is highlighted in this article as a warning and alert system toeffectively monitor the crucial flood-prone regions in real time while taking cost and safety precautions intoconsideration. The suggested method notifies the appropriate authorities

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when a person enters the area. Italso offers a solar-powered backup supply in case of emergencies. The suggested system's designincorporates sensors with a microprocessor.

Keywords-Flood, IoT, Microcontroller, Sensors

JCON23_COMP_207

A Personalized Voice Assistant for Quick and Accurate Information Retrieval

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Abstract-In recent years, voice assistants have grown in popularity as they provide users with a practical,
hands-free way to interact with technology. The purpose of the voice assistant system described in this research paper is to offer users a customized and effective search experience. To accurately interpret and
respond to user queries, the system uses machine learning and natural language processing (NLP)algorithms. Users of the system can communicate with it by giving it straightforward voice commandsthanks to its user-friendly interface. It is suitable for use on low-end devices because it is lightweight and effective indesign. In-depth analysis of the voice assistant system amp; #39; s features, functionality, and performance isprovided in this research paper. The paper describes the architecture of the system and the implementationalgorithms for its different elements. The paper also assesses how well the system delivers users withpertinent search results and a seamless voice-based interaction experience. The ethical ramifications of voiceassistants, including concerns over security and privacy, are also covered in the paper. The findings of thisstudy show how voice assistants have the potential to give users a quick and customized search experience.The system provides an easy-to- use interface for interacting with technology, and it can be used on a varietyof devices thanks to its lightweight construction. The study also emphasizes the significance of thinkingabout the ethical implications of voice assistants and the requirement for future development of responsibleand privacy-preserving voice assistant systems.

Keywords-Voice assistant, Speech Recognition, Natural Language Processing, microphone, Python library

JCON23_COMP_208

CNG Based and Electric Vehicles Fueling and Charging Management System

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Abstract-Abstract—As in today's generation CNG based vehicles and Electric vehicles are gaining a lot ofpopularity and demand due the salient features provided by both of these vehicles. Thus, there is a need tocreate such system that will help the CNG vehicles users as well as electric vehicles user to quickly booktheir slot for fueling up the gas and to charge their electric vehicles as well as the users can easily locate thenearby charging stations.
Keywords-CNG, Electric Vehicles, Charging station

JCON23_COMP_209
Vehicle Renting System

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Abstract-The proposed paper has developed an online rental system. It's an online marketplace wereanyone can rent bikes, cars, etc. when needed. It can also help user to give their personal products on rentwhich will give them an extra bit of income. They can rent out their products to others using the system. Thissystem has a website interface with the occupant and renter.

Keywords-Bikes, Cars, Renting

JCON23_COMP_210
Object Detection for Visually Impaired People Using RPI

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Abstract-Abstract—People all across the world are impacted by the problem of blindness or visualimpairment. The World Health Organization (WHO) estimates that at least 2.2 billion people worldwide
have some form of vision impairment or blindness, of whom at least 1 billion are blind. Regionally speaking,low- and middle-income areas have a four times higher prevalence of vision impairment than high-incomeareas. however, in order to assist the blind, the visual world must be transformed into the audio world, whichhas the potential to inform them about objects as well as their spatial locations. In proposed system we areusing rpi model where we train objects using machine learning. This system not only provides mobility tithe visually impaired with that it provides the object with speech after its detected.
Keywords-Visual Impairment, Raspberry Pi, CNN Algo-rhythm, Computer Vision, Object Recognition, voice output.

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JCON2023_COMP_211

"Online Voting System Using Blockchain"

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ABSTRACT: Republic in any country must have a transparentvoting system that meets the people's requirements to givethe power to the right person. Likewise, the beingtraditional voting systems suffer from major downsidesand missing the lack of security and transparency. Thissurvey paper discusses the possible opportunity forapplying BC technology in e-voting systems to improve theprocess of voting by tackling the issues of trustless,privacy, and security. This paper aims to estimatedifferent operations of blockchain as aservice to applydistributed electronic voting systems. Some of them havebeen only a draft paper; others are implemented in thereal world. A blockchain-based e-voting applicationimproves security, privacy, and decreases the cost, evenmore, which can be achieved.

Keywords: Ethereum, blockchain, transactions, voters, onlinevoting systems and smart contracts.

JCON23_COMP_212

Enriching Email System for Blind

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Abstract — The Web has developed into the centralnervous system of the modern world. But without the web, there is no way to get anything finished in modern life. E-mail, often known as electronic mail, is quicklytransforming into one of the most essential components ofmodern life. The use of email is mostly a private activity.Visually impaired individuals are unable to utilize themajority of the standard postal services that we rely on inour everyday lives. Those who struggle with their vision areunable to use the majority of the mail services that weemploy in our regular lives. Color correction and voiceassistants are two examples of the kinds of assistivetechnology that may be made available to persons whostruggle with their vision so that they can make better useof the systems available to them. Nevertheless, since thesetechnologies were unable to deliver the appropriateresponse as a typical system would, they are not nearly ashelpful to the persons in question. Because of this, thoseindividuals might benefit from the use of moderntechnologies since they are unable to provide theappropriate response in accordance with the functionality.Therefore, to improve accessibility and engagement of blindindividuals in monitoring and managing their mail thisresearch defines a voice-activated email system. Theproposed approach utilizes registration and login,composing email by voice, encrypting the email, gettingvoice notification for the email, listen to email andattachment through OCR. The approach has been tested forits performance and has attained superior results.

Keywords: Accessible Infrastructure, Optical CharacterRecognition, Voice to Text System.

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JCON23_COMP_213

Human Activity Recognition Using Deep Learning

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Abstract—Human Activity Recognition exhibits its Presence indiverse research areas like medical organization security survey-lance well as human computer interaction. This work established robust approach of classifying four basic human canteredactivities (standing, sitting, punching, waving) and implementingLogistic Regression, Ridge Regression algorithm. Computing isan up-and-coming Research to comprehend individual humanactions and try to integrate their social context. An Accurate de-mending and agreeable application of sensing by smart phones togather a context information. Here, activity recognition database
is considered publicly accessible as repository.Index Terms—Logistic Regression, Ridge Regression

JCON23_COMP_214

IOT Based Voice Controlling Lab Using Rpi

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Abstract—The Voice Based Lab Automation System usingRaspberry Pi project would be very helpful for elderly anddisabled persons, in general for those who are unable to executefundamental tasks effectively. It is the concept that fits themodern era of automation and technology. The Lab automationsystem's primary goal is to simplify things. Due to its convenientfeatures for mobility and user-friendly interface, mobile devicesare widely used by everyone. In this project, we want to use Wi-Fias a communication mechanism between a Raspberry Pi and aweb-based device to operate electrical lab appliances with voicecommands. The Raspberry Pi 3 is now a more advantageouschoice for lab automation. Index Terms—Rpi,Automation, IoT Platform

JCON23_COMP_215

Accident Detection and Alert System using IoT RPI

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Abstract—In recent years, there has been a significant increasein the use of IoT devices for accident detection and prevention.In addition to accident detection, IoT devices can also be usedfor accident prevention. Accidents on roads are a major causeof loss of life and property worldwide. One popular approachto accident detection using IoT is to deploy sensors on vehiclesthemselves. Overall, IoT devices have the potential to significantlyimprove road safety by detecting and preventing accidents. Thesedevices utilize various sensors such as accelerometers, ultrasonic, and GPS to detect accidents and alert emergency

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services. Thisinformation can be used to alert drivers to potential hazardsand advise them to slow down or take a different route. For
example, if a vehicle is traveling too fast or swerving erratically, the sensors can send an alert to the authorities. Algorithmsrunning on the vehicle's onboard computer can then analyze thisdata and determine whether an accident has occurred. Thesesensors can detect the presence of vehicles and analyze theirbehavior to determine whether an accident is likely to occur. Forexample, sensors can be used to monitor road conditions such asthe presence of ice or snow. However, there are still challengesto be overcome, such as ensuring the reliability and accuracy ofthe sensors and algorithms used in these systems. These sensorscollect data on the vehicle's speed, acceleration, and orientation.Another approach is to deploy sensors along the roadside.

Keywords— Accident Detection, raspberry pi,controller, accident prevention etc.

JCON23_COMP_216

Home automation using IOT

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Abstract—The world is rapidly moving towardsdigitization and automation, making our lives easier by replacing manual systems with automatic ones. Nowadays,people rely heavily onthe internet to carry out their day-to-day activities. The Internet of Things (IoT) is a technologythat enables devices to connect and communicate remotelyover a network. This paper focuses on the use of IoT forhome automation. In home automation, IoT devices are usedto control and monitor various systems such as electronic,electrical, and mechanical devices in different types ofbuildings. These devices are connected to a cloud serverthat is controlled by a single admin. The admin can accessand control all the nodes connected to each user, while a single user can only control the nodes to which they areconnected.

Keywords—Arduino UNO, ESP wi-fi module, Thingspeak, relay model, Internet of Things (IOT), Home Automation

JCON23_COMP_217

Alert Generation on Detection of Suspicious activity Using CNN

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Abstract—The main goal of the system is to find out the doubtful activates without the interference of any human being. The moto of the paper is to identify the doubtful activity and observation for the alertness to the shop owner when doubtful activity is seen. Electronic Article Surveillance (EAS) systems are broadly used in most of the retail stores, still this system is incapable as some of the shop lifters can remove the tags from the product. So, this system takes the videos from the CCTV as an input and after passing to the CNN model developed by the help of transfer learning and detect shoplifting, robbery or break-in in the shop and inform it to the shop owners as sooner as it happens. At the end the main motive is to provide a system that

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finds doubtful activities without interference of human and create alert. Hence making the vast revolution in today's surveillance system

Index Terms: CNN, Deep Learning, Suspicious Activity, Normal Activity, Human Behavior.

JCON23_COMP_218

Enhancing Medical IoT Data Security with Blockchain and Proxy Re-encryption

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Abstract — During the process of re-encrypting cyphertext, proxy re-encryption could hinder a proxy that has not been completely authenticated from receiving any insight into the real plaintext of the data being encrypted. Because of the versatility it provides, proxy re-encryption has become more popular in recent years. The administration of user information must also be delegated to distant cloud infrastructures in order to implement the majority of the following techniques. The objective of the proxy encryption solution that has been described is to secure IoMT data stored in the cloud through the implementation of a distributed ledger system such as Blockchain. By using a Blockchain distributed structure, the suggested method for proxy encryption safeguards the data that is stored on a public cloud and corresponds with the Internet of Medical Things. This strategy has been quantified by the execution of extensive experiments, which have resulted in successful results.

Keywords: Search over encrypted data, Cryptography, Medical Health Records, Public Cloud, and Internet of Medical Things.

JCON23_COMP_219

Discrete Cosine Transform Technique in Steganography

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Abstract—This research paper aims to deliver knowledge about the Steganography technique which uses ciphering through images. Encryption is the most satisfying approach for Data Protection but nowadays technology has evolved in a way that Data leakage can be Disastrous due to high-end computers having enough power to Decipher the Data that has been hidden. A huge number of messages are circulated over the internet and carry private data which requires security and protection. The Project involves the use of the Discrete Cosine Transforms(DCT) technique and Advanced Encryption Standards (AES) in Steganography which will keep attackers away from the Data. The hidden text can only be revealed or retrieved by deciphering the image. The methodology is for securing private information or confidential Data in harmless Environments under controlled situations.

Index Terms—DCT, AES, Steganography, Encryption.

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Multibully Detection using BERT and ResNet

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Abstract— These days, lots of content is becoming multimodal, so cyberbullying detection is getting difficult to spot. This work is an attempt to find out the contribution of emotions, sentiment, and sarcasm while identifying cyberbullying from multimodal data content. The system is generating multimodal data content called Multiply annotated with emotion, sarcasm, and sentiment labels collected from social media platforms. Then the system will be going to find out the harmfulness score of bullying statements from a meme. The dataset will consist of both text and images in the code-mixed form. By proposing two frameworks BERT+ResNet to capture cyberbullying statements with the help of other multitask like sentiment analysis, emotion, and sarcasm detection.
Index Terms—sentiment, Emotion, Sarcasm, memes, Cyberbullying

JCON23_COMP_221

Blockchain Based Agri-Food Supply Chain

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Abstract: We've completed the entire blockchain-based agriculture and food (agri-food) supply chain repair. In this work the functioning of blockchain technology and the possible use or impact it may have on current SCM Registry systems and the role of legal experts are described. The spread of blockchain is bad for anyone in the trust business government authorities that are deemed sufficiently trustworthy to handle transactions. As a result, a dependable system is needed in the Agri-Food supply chain to ensure traceability, trust, and distribution mechanisms. In the proposed structure, all transactions are written to the blockchain, uploading the data to the Interplanetary File Storage System (IPFS). The storage method generates a hash of the Blockchain's data, ensuring that the solution is efficient, secure, and dependable. Our framework provides smart contracts and their algorithms to illustrate the interaction of system entities. Smart contract simulations and tests and security and risk assessments are all part of this project. We surveyed to determine the potential obstacles and advantages of blockchain-based applications. Given the current state of the supply chain and logistics industry, this thesis could allow various businesses to collaborate with blockchain basedapplication developers. The main objectives were to define how blockchain can change the supply chain and logistics industry. The typical challenges in these spheres were considered and the main key features of blockchain that can solve these difficulties were marked. In survey we were fine out possible challenges or
benefits of blockchain based applications. Considering the current situation in the supply chain and logistics industry, this thesis can empower different businesses to start working with the companies that are creating blockchain- based applications.
Keywords— E-auction, Bid, Smart contract, Block-chain Technology.

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Developing Distributed Auction System

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Abstract— The internet has become an integral part of our daily lives, with e-commerce activities such as transactions and transportation taking center stage. E-auctions have gained immense popularity, enabling bidders to bid for products online. While e-auctions have increased the efficiency of bid transactions, concerns around bidder protection, privacy, transaction quality and accuracy, data security, and high costs of third-party auction centers still persist. This study examines the problems present in current sealed-bid e-auction schemes, and proposes a sealed-bid e-auction scheme with smart contract technology using block-chain and Proof of Stake (POS) algorithm. Smart contracts were introduced in 1990 and can be implemented using the Ethereum platform. The proposed system eliminates the need for a third-party auctioneer, thus limiting the auction parties' behavior for enhanced auction security, reliability, accuracy, and privacy protection. Compared to related sealed e-auction systems based on block-chain technologies, our proposed system offers improved security and lower transaction costs.

Keywords— —E-auction, Bid, Smart contract, Block-chain Technology.

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Online CNG Registration Application

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Abstract- Mobile phones are becoming increasingly popular and offer a new concept of communication that could only be imagined once. For CNG cars, one of the biggest problems faced by millions of people who use CNG cars is standing in long queues to fill CNG gas for an average of 40-50 minutes. This often results in people not buying CNG cars. The aim of this project is to find treatment for these outlaws by booking appointments using an online application on their mobile phones. Our system aims to facilitate the CNG gas filling system by maintaining a virtual queue. In this application, all pump owners register their pumps. When a user installs a cross-platform application, the first user must register. The information required for registration is taken and after the user is registered, the user can use certain information to login. In this application, we show the timing of pumps and slots, allowing the user to see the remaining slots. Clicking on the pump name will take you to the pump information
page where the pump information will be displayed. User can book appointment option and view various available seats and reserved CNG seats.

Keywords: CNG, leisure, exit, virtual queue, pump

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To Monitoring Noise System using Raspberry pi

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Abstract—The growth of pollution is broadening day by day with certain factors that affect the environment and result in the loss of biological degradation. It is directly affecting the health of the people in one way or another and results in the degradation of the population. We can be detecting live class multiple sound by

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using IOT such as Raspberry pi and store live data on thingSpeak.In Noise Monitoring System LM393 sensor detect the noise in a whole classroom as well as capturing the live images and that images send to the mail. Then noise level will be check and 0 or 1 level will display. When noise is detected in classroom send text message on mobile. Also, we have detected the smoke by using MQ9 sensor in classroom, then smoking is detected then buzzer is alert. We have to implement real-time IOT based monitoring system for classroom to detect sound and gas sensor and monitoring data. The better performance of the noise monitoring system for classroom. index Terms—Raspberry pi, LM393 Noise Sensor, Buzzer, MQ9Gas Sensor, Thing Speak, Camera.

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College Notice App

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Abstract—The goal of this paper is to design anotification system using Android applicationto connect it to the educational web site of theuniversity. It achieves high and quick organizebetween instructor and students, save time,effort by connecting Android application to theeducational database of the university usinglatest technologies. It provides a wide range ofinformation about education, courses, and allabout college students that help the instructorto select to whom he/she will sendnotifications. It also includes sendingnotifications, attendance, viewing academicdetails like exam results Keywords—
Notification,Android Application,GCM

JCON23_COMP_226

Vibration Investigation Of 3- Wheeler Speedometer Using Vibration Fixture, Project Stage-1

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Abstract—The created system enables efficient and simplehuman-computer interaction using the real- time static hand gas-true recognition. This method generates control of a Power Pointpresentation may be possible by distance. The user does not haveto manage the Power. Use a laser Pointer, mouse, or keyboardto make presentations. The suggested system uses data froma small webcam with four hand-held gestures. Following that,the image obtained from the input data is processed, followedby the histogram of features with directed gradients distilled fromit. The transformed image is then compared to the gesture image database. Image comparison and identification making useof theCNN (Convolutional Neural Network) method. Real-time statichand gesture recognition is used in the development ofthesuggested system to enable efficient and painless human-computerinteraction. Through the use of this technique, Power Pointpresentations can be remotely controlled.Index Terms—Hand Gesture Recognition, Human-Computer
Interaction, PowerPoint Presentation, HAAR Cascade Algorithm.

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Student attendance system by QR code scanner

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Abstract- Academic success is influenced by astudent's enrollment at higher educationinstitutions. For having poor attendance records,certain higher education institutions have finedstudents. To discourage poor attendance, mostinstitutions haven't established an automatedmethod for taking attendance; insad, teachers must manually enter each student's attendanceinformation into the system, which may be time-consuming and laborious when there are a lot ofstudents. This study's main goal was to suggest aQuick Response (QR) code-based attendancesystem with a variety of safeguards againstattendance fraud. Students at Sunway University'sCentre for American Education tested asmartphone app that scans QR codes that wereuniquely produced for each course. The systemverified three types of information: geolocation,registered mobile device, and subject class hour.Once the information was verified, the student'sattendance was recorded into the system. Theproposed system succeeded in overcominglimitations encountered in the university's existing student attendance-taking system.

JCON23_COMP_228

Mental Health Tracker Application

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Abstract—Advances in mobile health (mHealth) technology havemade it possible for patients and health care providers tomonitor and track behavioral health symptoms in real time.Ideally, mHealth apps include both passive and interactivemonitoring and demonstrate high levels of patientengagement. Digital phenotyping, the measurement ofindividual technology usage, provides insight into individual behaviors associated with mental health

Keywords—Mental Health, Flutter, Android Studio

JCON23_COMP_229

Hyper-Heuristic SVM Approach for Big Data Network- Security

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Abstract: Big Data Cyber Security Analytics isincreasingly becoming an important research areaand practice aimed at protecting computers,networks, and data from unauthorized access byanalyzing security event data using big datatechnologies and tools. While a wealth of BigData cybersecurity analytic systems has beenreported in the literature, a systematic andcomprehensive review of the literature from anarchitectural perspective is lacking. In this paper, we formulate the SVM configuration process likea bi-objective optimization problem in which twoconflicting objectives are considered that aremodel complexity and accuracy. The systemproposes framework for bi-objective optimizationwhich is a novel hyper-heuristic and independentof the problem domain. This is the first time ahyper-heuristic has been developed for thisproblem. The proposed hyper-heuristic frameworkcomposed of a low-level heuristics and high-level strategy. The high-level strategy uses the searchperformance to manage the selection of whichlow-level heuristic should be used to generate anew SVM configuration. The different rules used by each low-level heuristic to successfullyexplore the SVM configuration search space. Theproposed framework optimally combines the strengths of decomposition- and Pareto-basedapproaches to approximate the Pareto set of Configurations, to address bi-objectiveoptimization, The two cyber security problemsare used to evaluate the effectiveness of the proposed framework: Microsoft Malware BigData Classification and Anomaly IntrusionDetection.

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Keywords: Hyper-heuristics, big data, cybersecurity, optimization.

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Encrypted Cloud Data by Using MultKeywordRanked Search Technics

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Abstract—here, we introduce a encrypted cloud data by using the multi keyword ranked search techniques, information which at the same time supports dynamic upgrade operation like deletion and insertion of reports detail the vectored space model and the widely utilized TF-IDF model are combined in the index construction and query generation. Due to the increasing popularity of the cloud, more and more data owner is motivated to outsource their data to cloud server for great conveniences and reduced cost in data management. The data should be in encrypted form before outsourcing for privacy requirement. In particular, the vector space demonstrates and the broadly utilized TF IDF model are combined in the index construction and query generation. We develop a special tree-based index structure and propose a Greedy Depth-first Search algorithm to give productive multi-keyword Ranked Search.

Index Terms—Searchable Encryption, Multi-Keyword Ranked Search, Dynamic Update, Cloud Computing.

JCON23_COMP_231

Improve Machining Process And Cost Of Job tooth Wheel

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Prof. Arvind L Dhobale

Abstract - Tooth wheel which is used in the train assembly in the mosco train. In this job I have tried to reduce the set up because the more setup are released the stress from the job and the job life was decrease. Due to more setup the job is not dispatch on the date so customer complaints are occurs. First in our industry the plate material was used so the ma- terial taking more time to come in company for machin- ing. Also the plate material is not hard material so chips are not form and this material is not machining so fast as compare to forging material. In forging material the chips are formed and due to the hardening the material this ma- terial is easy to machining. Index Terms – Manufacturing Processes, Design, Tooth Wheel

JCON23_COMP_232

REVIEW AND ANALYSIS OF STAINLESS-STEEL SLAT CHAIN CONVEYOR

Mr. Ganesh Mahadev Fodase

Abstract - Conveyors are an integral part of material handling equip- ment, which are used for transportation of goods from one location to another. When high amount of material or if materials subjected to high temperature (casting compo- nents) needs to be transported, then slat chain conveyors are used. This research paper discusses Design, Develop- ment and Analysis of Stainless Steel slat chain conveyor for carrying casting components. In this paper we are sug- gesting a modification in conveyor system for carrying cast- ing component for a company. Material selection process and Numerical simulation by Finite element analysis (FEA) were used in order to reduce the conveyor frame weight and to increase the Factor of safety of shaft in order to pre- vent it

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from failing. With the proposed system cost of ma- terial for shaft and frame are reduced. This conveyor can carry 10 casting components at a time.

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Micro structural And Mechanical Characterization of Friction Stir Weld On An Aerospace Aluminum alloy

Prof.A.V.Wakale, Prof.P.S.Pawar

Abstract- Friction stir welding (FSW) is a relatively new solid- state joining process. This joining technique is energy ef- ficient, environment friendly, and versatile. In particular, it can be used to join high-strength aerospace aluminum alloys and other metallic alloys that are hard to weld by conventional fusion welding. FSW is considered to be the most significant development in metal joining in a decade. Recently, friction stir processing (FSP) was developed for microstructural modification of metallic materials. In this review article, the current state of understanding and de- velopment of the FSW and FSP are addressed. Particu- lar emphasis has been given to: (a) mechanisms respon- sible for the formation of welds and microstructural re- finement, and (b) effects of FSW/FSP parameters on resul- tant microstructure and final mechanical properties. While the bulk of the information is related to aluminum alloys, important results are now available for other metals and alloys. At this stage, the technology diffusion has sig- nificantly outpaced the fundamental understanding of mi- crostructural evolution and microstructure–property rela- tionships.

JCON23_COMP_234

To Validate Or Ensure The Availability Of Recycling program For Damaged Ship-Submarine In Indian Navy

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Abstract - As all countries have dominance on land and now some countries also want to establish their dominance on wa- ter and in future the countries whose navy is strong and big will maintain their water dominance. Therefore, all countries have strengthened the nuclear attack capabilities air craft carrier ship conventional diesel electric submarine etc. In future other countries like China and Pakistan wants to rule on our country our India’s biggest area comes un- der ocean so we can39;t deny future possibilities of war and ship submarine accidents, economic balance and its ef- fects And cost of submarine is very high and there is many losses of submarine and for that submarine recycling pro- gram is important. In this project we are going to ensure recycling program foe damage submarine in India.

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STRUCTURAL AUDIT OF AN JAIHIND COLLAGE OF ENGINEERING BUILDING

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Mr.Shubham Sunil Bhandalrka, Mr. Vijay Mangesh Shelke

Abstract - The life cycle of a building can be broadly divided into four phases i.e. architectural planning, structural design, construction and maintenance in most of the building al- most care is taken in first three cases but the maintenance is forgotten. Ignoring to maintenance causes severe struc- tural distress in building over period of time. This paper deals to create awareness amongst the resident, owner of building, civil engineers towards the health examination of existing concrete building and current status of the build- ing. Every structure has its own service life and it should stand firmly on its position during its complete service life. But now a days due to lack in the quality in construction process and the low quality material used in the construc- tion has decreases the life of the structure and it also has increased the rate of failure of structure which leads to lose the life of the people. There are the various demand from the society and from the government for appropriate action and measure to be taken to prevent it from the collapse of structure, to save the life of the occupant and to improve the life of the structure. The reinforced cement concrete is used as a construction material all over the world because of its high-strength and cost ratio, its application, it is easy to use. As the time passes the strength of the rcc members get decreased. This decrease in strength increases the risk of the structural to collapse. So as to prevent this type of the collapse necessary precaution should be carried out and this type of the procedure is known as Structural Audit.

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