



Bhagwan Parshuram Institute of Technology
School of Business Administration
In Association with
Aurel Vlaicu University of Arad
Presents
2nd INTERNATIONAL CONFERENCE
ON
A PARADIGM SHIFT IN MANAGERIAL PRACTICES AND
INNOVATIONS: LEADING THROUGH TECHNOLOGY AND
BUSINESS MODELS
TUESDAY, 6th DECEMBER, 2022



Organized by
BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY
SCHOOL OF BUSINESS ADMINISTRATION
PSP Area 4, Sector 17, Opp. Sector 11,
Rohini, New Delhi- 110089
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BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY (BPIT)

In view of the national and international scenario of the growing demand of qualified technical personnel in different streams of engineering technology and management, Bhartiya Brahmin Charitable Trust in 2005 laid the foundation of Bhagwan Parshuram Institute of Technology (BPIT). BPIT is approved by the Ministry of Human Resource Development, Government of India and the Directorate of Training and Technical Education, Government of National Capital Territory, Delhi. It is affiliated to Guru Gobind Singh Indraprastha University, Delhi and offers courses of Bachelor of Technology (B.Tech), Master of Business Administration (MBA) and Bachelor of Business Administration (BBA), which are approved by the All India Council of Technical Education (AICTE). All B.Tech. programmes are accredited by NBA.

भगवान परशुराम



ॐ परशुरामाय नमः



SCHOOL OF BUSINESS ADMINISTRATION (SBA)

School of Business Administration (SBA), under the aegis of Bhagwan Parshuram Institute of Technology, began with one post graduate programme- MBA in the year 2008. After successfully running MBA programme, SBA has also ventured into undergraduate programme- BBA in the year 2016. The MBA programme run by the School of Business Administration is approved by All India Council of Technical Education affiliated to Guru Gobind Singh Indraprastha University and the Government of NCT, Delhi. The faculty is highly qualified with research degrees from premier institutes of the country and highly experienced in running such programmes. In the curricular work innovative teaching learning methodologies are incorporated within the prescribed MBA syllabus of GGSIP University, Delhi.

AUREL VLAICU UNIVERSITY OF ARAD

Aurel Vlaicu University of Arad is a public university founded in 1990 in Arad, Romania. It was named in honor of the Romanian engineer and aviation pioneer Aurel Vlaicu. Started in 1972, as the Arad Institute of Sub-Engineers, the institution was accredited on 18 May 1990 to grant university degrees. Over the years, Aurel Vlaicu University has developed new specializations, with new faculties, which meet the terms of quality standards. The 2009–10 academic year marks the establishment of the Faculty of Design and the specializations: psychology, computer science, economics, marketing, and fashion and fashion design. Thus at the beginning of academic year UAV has 9 departments, 38 specialties license, 19 master's programs, field IOSUD (Institution organizing PhD studies) in Philology, and 12 departments.

ABOUT CONFERENCE

INTERNATIONAL CONFERENCE ON “A PARADIGM SHIFT IN MANAGERIAL PRACTICES AND INNOVATIONS: LEADING THROUGH TECHNOLOGY AND BUSINESS MODELS” to be held on **TUESDAY, 6th DECEMBER, 2022**, will bring together delegates from across the globe for an insightful discussion on a paradigm shift in managerial practices and innovations. The core objective of the conference would be to bring forth the technological changes and the new business models that have redefined the way business is done. The conference also intends to determine the road blocks for innovative business practices in the future.

This conference will serve as a platform to explore pertinent issues, innovative approaches that can create change in the most significant way so that the upcoming problems can be solved in a collaborativemanner for national as well as global development.

The aim of the conference is to provide a special forum to present and discuss research based knowledgeamong academicians, people from industry and practitioners on the turnaround in the different managerial practices and innovations in the varied dimensions of doing business, particularly the technological advancements and the new business models that have been trending and have reshaped thebusiness scenario all together.

Please note that you can participate in the conference with the submission of an abstract only. However, authors, who wish to get their research paper/case studies published in the edited book/journals, need to submit their full research paper/case studies.

Original research papers and case studies are invited on current issues in any of the following subthemes:

CALL FOR PAPERS

Track 1 MANAGERIAL PRACTICES AND INNOVATIONS IN MARKETING

- Marketing Analytics, Social & Digital Media Marketing, E-Commerce Marketing & Digital Platforms, Emojis & Non-Verbal Marketing Communication, Rural Consumers & Marketing Strategies, Gratification marketing, Integrated Marketing Communications, International Marketing, The emergence of “new markets” under the changed global scenario, Green Marketing, Retailing, Consumer psychology, Rural marketing, CRM, Marketing during crisis, Marketing analytics etc.

Track 2 MANAGERIAL PRACTICES AND INNOVATIONS IN ECONOMICS, FINANCE AND ACCOUNTING

- Best practices in creative economy and industries, Sustainable, Macroeconomics and Monetary Economics, International Economics, Environmental Finance and Investment Innovations, International Finance, Market Micro-structure, Financial Innovations/Engineering, Sustainable Finance, Cryptocurrencies, Block chain and Fintech applications in finance, Financial Modelling and Analytics, Capital Markets.

Track 3 MANAGERIAL PRACTICES AND INNOVATIONS IN OB AND HRM

- New –Age HR Strategies for Organizational Excellence, Performance measures and metrics in business management, Benchmarking business performance, HR Strategies in Uncertain Times, Organizational Behaviour, Talent and Competency Management, Knowledge management for improved performance, Employer Branding, Employee Engagement, HR Analytics, HR Accounting, HRIS.

Track 4 MANAGERIAL PRACTICES AND INNOVATIONS IN OPERATIONS AND SCM

- Six-Sigma, QFD, Taguchi methods and TQM, Data warehousing and data mining in business excellence, World class business and operational strategies and techniques, Process design and management, SCM, Optimization Techniques, Project Management, Technology Management, Applications of analytics in operations.

Track 5 MANAGERIAL PRACTICES AND INNOVATIONS IN IT

- Building a cognitive enterprise through AI-powered transformation, Examining A.I. use across industries and the lessons they hold for all, Applying new ICT tools for business, Decision Support, Experts Systems, IoT, Analytics and IT, Business Intelligence & Automation.

Track 6 MANAGERIAL PRACTICES AND INNOVATIONS IN STRATEGY AND ENTREPRENEURSHIP

- Entrepreneurship, Intrapreneurship, Socio Entrepreneurship, Techno Entrepreneurship and Women Entrepreneurship, Globalisation and environmental degradation, Indigenous enterprises and the global economy, Corporate Ownership, Governance Control and Business Ethics, Inclusive Growth- Strategy and Policy, CSR, The new age start-ups SMEs for sustainable and global development.

GUIDELINES FOR AUTHORS

MANUSCRIPT SUBMISSION

- A soft copy of the manuscript should be mailed at bpitconference@gmail.com not later than
June 30, 2022.
- Abstracts must include a clear indication of the purpose of research, methodology, major results, implications, and key references.
- All the papers should be mailed at **bpitconference@gmail.com**
- The paper should begin with a title page including title, author(s) names, Institutional address along with email.
- All tables, charts, and graphs should be placed wherever required along with the respective text and numbered continuously as Table 1 / Figure 1/Graph 1 & so on, at the top of the table/figure/graph (centre aligned). The sources, wherever necessary, should be mentioned at the bottom. References should be in line with the APA (American Psychological Association) Guidelines.

Authors should adhere to the following:

Length	:	3000-4000 words excluding title/cover page and references
Font	:	Times New Roman
Font Size	:	12 points
Spacing	:	1.5
Title page	:	Title, author(s), affiliation(s), contact details

REVIEW PROCESS

All papers will be evaluated through a double-blind review process by experts from Institutions/ Universities/ Organizations of repute in and outside India.

Only original, unpublished work is sought. Any proposal submitted to present identical or substantially similar work already published, under review for another conference or publication will not be considered. In the covering letter accompanying the manuscript, the contributors should certify that the manuscript has neither been published anywhere nor is it at present being considered anywhere for publication.

The manuscripts approved by the review committee will be selected for presentation and

publication. Abstract of the paper should be mailed at bpitconference@gmail.com not later than **June 30, 2022**. Acceptance of the manuscript implies that at least one of the authors will attend the program and present the paper.

No TA/DA will be paid to any delegate who presents the paper in the conference. Registration fees include all taxes. Participation certificate will be given to each participant.

All the paper presenters would receive a “Certificate of Presentation” and winners would receive “Certificate of Appreciation” also. Best paper in each technical session would be awarded a certificate and cash reward as best paper in that specific session.

Extended version of selected conference papers will be considered for publication in:

International Journal of Business and Globalisation, Inderscience Publishers, (Scopus Indexed) ISSN No. 1753-3627.

All accepted research papers will be considered for publication in BODH: BPIT International Journal of Technology and Management, ISSN 2454-8421.

SCHEDULE OF EVENTS

Abstract Submission	June 30, 2022
Full Paper Submission	Sep 16, 2022
Last date of registration	Oct 31, 2022
Conference Date	December 6, 2022

REGISTRATION DETAILS

Corporate/ Industry	1500 INR
Faculty/Academicians	1000 INR
Research Scholars/ Students	500 INR
Foreign Delegates	100 USD

Note: The registration fee includes the conference kit, lunch, tea & coffee.

PAYMENT MODE:

Registration fee can be sent through the following on-line payment

gateway: A/c Name: BPIT Students welfare

A/c No.:

6542850527

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ADVISORY PANEL/ KEY-NOTE/ EMINENT SPEAKERS

- Prof. Leopoldo Eduardo Cárdenas-Barrón, Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico
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- Prof. Biswajeet Sarkar, Yonsei University: Seodaemun-gu, Seoul, Korea
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- Prof. Asha Chawla, GVM College, India
- Maj. Gen. (Retd.) S.S. Chahal, India
- Dr. Abdul Wahid A Hashed, Dept. of Accounting, Prince Sattambin Abdulaziz University, Saudi Arabia
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For queries contact Conference Convener:

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Dr. Mamta Gupta 9971287815

**4th International Conference on
Computing Informatics & Networks
(ICCIN-2022)**

(15th-16th December, 2022)

Website: <https://iccin.co.in/>



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Important Dates

Last Date of Paper Submission:

30th September, 2022

Paper Acceptance Notification:

31st October, 2022

Last Date of Early Bird Registration:

10th November, 2022

Last Date of Registration:

15th November, 2022

CRC Submission:

30th November, 2022

Conference Dates:

15th – 16th December 2022

Call for Contributions

ICCIN-2022 accepts regular papers of length 6-8 pages including figures and references. At-least one author registration is mandatory, once the paper is accepted. Papers not presented at the conference will not be included in the conference proceedings. **In ICCIN-2022, accepts papers in the following tracks:**

1. Big Data Analytics and Business Intelligence
2. Network & Information Security
3. Machine Learning & Soft Computing
4. High Performance Computing
5. Internet-of-Things and Environmental Monitoring
6. Computer Applications and Technological Innovations in Social Sciences Healthcare
7. Computational Mathematics

This time it's a great opportunity for the authors to publish their work in two series of ICCIN-2022.

The accepted papers will be submitted for publication in:

ICCIN-BODH Conference Proceedings

ICCIN-AIP Conference Proceedings [Scopus Indexed]

Registration

ICCIN-BODH Conference Proceedings [For papers up to 8 pages]		
	Early Bird Registration	Last Date of Registration
Regular Authors including Faculty, Students & Research Scholars	INR 1500 (INR 500 Extra per page)	INR 2,000 (INR 500 Extra per page)
Industry Participants	INR 4,000 (INR 1400 Extra per page)	INR 4,500 (INR 1400 Extra per page)
Foreign Authors	100 USD* (10 USD Extra per page)	100 USD* (10 USD Extra per page)
ICCIN-AIP Conference Proceedings [Scopus Indexed] [For papers up to 8 pages]		
	Early Bird Registration	Last Date of Registration
Regular Authors including Faculty, Students & Research Scholars	INR 15,000 (INR 2000 Extra per page)	INR 16,000 (INR 2000 Extra per page)
Industry Participants	INR 18,000 (INR 4000 Extra per page)	INR 19,000 (INR 4000 Extra per page)
Foreign Authors	230 USD* (100 USD Extra per page)	260 USD* (100 USD Extra per page)

Submission

Paper Submission Link:

<https://easychair.org/conferences/?conf=iccin2022>.

Contact Us:

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**4th International Conference on Computing Informatics and Networks
(ICCIN-2022)**

**Organized by
Bhagwan Parshuram Institute of Technology, Delhi, India
Department of Computer Science and Engineering**

**Sponsored by
Guru Gobind Singh Indraprastha University, Dwarka, Delhi**

**Scheduled on
December 15-16, 2022
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Table of contents

A Short Study on Cosets and Normal Subgroup using Imprecise Set Definition By Sahalad Borgoyary, Jaba Rani Narzary, Jili Basumatary, Bhimraj Basumatary	3
CloSe: A Survey on Cloud Security Issues By Amit Kumar Singh Sanger, Rahul Johri	4
A Wideband Slotted Antenna Backed With Substrate Integrated Waveguide (SIW) Cavity For 5G Communications By Lalit Kumar and BVR Reddy	5
Pivotal Study about the Sentimental Analysis and its Application on News and its Psychological Effects on our Life By Pankaj Lathar, Shailendrasingh Gaur, Shipra Varshney, Chandramauli Sharma and Shivangi Rajput	6
Deploying HR-Bot in e-HRM for Elevated Employee Experience: Case Study in Manipal Hospitals By Syed Rizwan Naqvi, Puja Sareen and Tanuja Sharma	7
A Deep Learning Framework to Identify Abnormal Activity in Closed Space By Rashmi Chaudhary and Manoj Kumar	8
A Novel Method for Real-Time Group Detection in Medium-Density Crowd By Rashmi Chaudhary and Manoj Kumar	9
Brain Stroke Prediction Using Machine Learning By Rashmi Kuksal and Kapil Joshi	10
Analyzing CT Scan Images of Pneumonia using Transfer Learning By Sanchi Kaushik, Ruchi Verma	11

A Short Study on Cosets and Normal Subgroup using Imprecise Set Definition

Sahalad Borgoyary,^{1, a)} Jaba Rani Narzary,^{1, b),*} Jili Basumatary,^{2, c)} and Bhimraj Basumatary^{2, d)}

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Abstract: In this paper, we shall apply the definition of imprecise set-in general group theory and introduce the notion of imprecise right and left cosets, normal imprecise subgroups. Further, we obtain some results analogous to some of the basic theorems of classical group theory. In this paper, the main purpose of our work is to redefine the existing definition of fuzzy cosets[12-15], normal FS_G concerning MF[16-18], and RF since the existing definition of an FS is lacking in defining the complement of an FS. Moreover, we established some results of imprecise cosets and normal imprecise subgroups.

Keywords: Cosets, Normal Subgroup, Classical Group Theory, Fuzzy Sets

CloSe: A Survey on Cloud Security Issues

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Abstract: Cloud makes use of a huge volume of data storage to offer a la carte web services. The leading potential benefits of cloud technology are the client does not have to invest in expensive hardware and that the expenses on the resources are curtailed. Within the last few years, cloud technology has just been merging with enterprise and a variety of several other disciplines, prompting academics to look at new related technologies. Cloud users and businesses are gradually shifting their software applications, content, and offerings to the database servers on the cloud irrespective of the provisioning of services and adaptability for computational processes. Despite its upsides, the transition from on-premises to cloud-based infrastructure has raised a number of security issues and potential barriers for service providers and customers alike. Most cloud resources are offered by a service provider, introducing extra security issues. The cloud vendor delivers its resources via the Internet and makes use of a collection of web services, each of which brings up additional security risks. This study discovers the essentials of cloud technology, in addition to security challenges, attacks, and counteracts. As far as we know, this paper is the first ever that highlights multiple important facets of cloud technology, with the cloud infrastructure model, deployment and service framework, cloud platforms, cloud-based security standards, jeopardy, attacks, and finally yet importantly it uncovers diversified future study paths in cloud computing security.

Keywords: Cloud Computing, Security, Cloud Architecture, Security Risks

A Wideband Slotted Antenna Backed With Substrate Integrated Waveguide (SIW) Cavity For 5G Communications

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Abstract: An Integrated substrate Waveguide (SIW) backed slot antenna for a 5G millimeter (mm) wave band is discussed and simulated in the present research. The presented antenna has a wide frequency bandwidth of 3.9 GHz (18.51%) and a peak gain of 7.48 dB. Two equal-sized L-type slots are engraved on the ground plane, and two shorting vias other than the SIW cavity vias are added below the slots to achieve wideband characteristics. A low-profile, 0.787 mm thick RT/Duroid 5880 used as the substrate. The antenna operates in the spectrum for 5G communication from 25.1 GHz to 29 GHz. In the presented research, the antenna's analysis, performance and design aspects are discussed and investigated using simulated results on HFSS. The antenna is excited with a 50 Ω microstrip transmission line to SIW transition taper for proper impedance matching to achieve superior electrical performance. The proposed antenna shows dual resonating features at 26.1 GHz and 28.5 GHz. The dimension of the complete antenna is 14×18×0.787 mm³. The reflection coefficient (S11), current density, and peak gain of the proposed antenna give insight into the antenna's working. The suggested antenna is ideal for 5G applications because of its broad spectral coverage, small size, and high gain.

Keywords: Wideband, 5G antennas, slotted antenna, millimeter-wave, modified microstrip-to-SIW transition.

Pivotal Study About the Sentimental Analysis and its Application on News and its Psychological Effects on Our Life

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Abstract: Sentiment Analysis plays an important role in the text mining field. Therefore, our main research work is focusing on the various parameters like dialogue and words used in a movie and how to visualize it using Sentimental Analysis. We are mainly concentrating on the frequent words used for computing the words of the sentiments. This research paper is also analyzing the news sentiments using the geographic entity on a daily and weekly basis and the impact of that in our life about positive and negative news.

Keywords: Geographic entity, Sentiment analysis; Sentiment classification; Emotion detection; Transfer learning, and resources.

Deploying HR-Bot in e-HRM for Elevated Employee Experience: Case Study in Manipal Hospitals

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Abstract: Automating processes with artificial intelligence (AI), chatbots and other technological innovations have created new opportunities. We examined the deployment of HR-Bot in the modern HR context along with its immediate causes and implications. Case-based analysis of Manipal hospitals is the research philosophy employed in the study. The current exploratory study relies on secondary data. The study's findings demonstrate the enhancement of employee experience by using AI-based HR bots. Future researchers may include quantitative testing of the proposed design of a pleasant employee experience.

Keywords: HR-Bot, case study, Manipal Hospitals, Chatbot

A Deep Learning Framework to Identify Abnormal Activity in Closed Space

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Abstract: In today's world, it's getting common to have security breaches in closed and restricted activity areas like ATMs and banks. this framework has been proposed to get over these problems. with this proposed framework the system will be able to identify the face as well as the full body parts of such intruders or abnormal actor to say. we have used open cv and other 3 models to work on our framework. we have used MTCNN (multi-task cascade convolutional neural network) as one of our models instead of the basic CNN.

Keywords: Image processing, OpenCV, SVM, MTCNN, Object detection

A Novel Method For Real-Time Group Detection In Medium Density Crowd

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Abstract. Group detection in a crowded scene is done with the help of background subtraction and morphological operations. To further improve the quality and to reduce the background noise, we have used an algorithm with adaptive threshold ViBe based on the basic ViBe (visual background extractor) algorithm. Our method works well in a complex environment and with real-time data. Results have shown that with Vibe the method is more efficient in comparison to our basic framework.

Keywords: Image Processing, Machine Learning, ViBe, Anomaly, Crowd Density.

Brain Stroke prediction Using Machine Learning

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Abstract: When the flow of blood in any section of the brain is interrupted, a brain stroke happens. If blood flow is stopped prolonged period of time, the brain is depleted of blood and oxygen, and brain cells can perish, which impairs the functions controlled by that area of the brain. Estimating the likelihood of an illness or diagnosis, assessing the prediction or result of diseases, and supporting physicians in prescribing therapy for diseases are just a few of the numerous prediction methods that have been extensively used when making clinical decisions. However, due to their inability to simulate the difficulty of feature representation in the healthcare issue domains, standard predictive models or techniques are still insufficient for capturing the underlying knowledge. The classifier from Adaboost was used on a dataset of cardiac conditions in this study to report predictive analytical techniques for stroke illnesses. Atrial fibrillation signs and symptoms in people with heart disease are a significant risk element for stroke, and they share the same factors to anticipate stroke. The results of this study are more precise than existing medical grading procedures for alerting cardiac patients who are at risk for stroke.

Keywords: Stroke illness, Predicting methods, Classifier Adaboost

Analyzing CT Scan Images of Pneumonia using Transfer Learning

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Abstract: A serious disease known as pneumonia, which can occur in one or both lungs, is frequently brought on by bacteria, fungi, or viruses. Based on the x-rays we have, we will be able to identify this lung illness. In this study, we conduct an investigation and comparison of the identification of lung illness with the use of several deep learning methods. This study uses four adaptable and effective deep-learning methodologies, and a chest X-beam image to predict and identify a patient with and without the condition. VGG-16, Res-Net, Inception-Net, and Dense-Net. In this study models CNN(5 layers), Dense-Net, VGG-16, and Res-Net, Inception-Net achieve validation accuracy of 92.5, 90, 80,85, and 83.3.

Keywords: Deep-Learning, VGG-16, Res-Net, CNN



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Table of contents

Modeling and Control of Photo Voltaic Emulator by Robust Controller By Simmi Sharma and Dheeraj Joshi	3
XPEN – A Voice Powered Expense Tracker Full Stack Web Application By Kritika Balihar, Himani Sharma and Shikha Bhalla	4
Optimization: Background and Existing Challenges By Neha Khanduja	5
DRD-CNN: Diabetic Retinopathy detection using CNN By Aman Singh, Raman Chola, Ashish Negi, Keshav Agarwal and Neha Sharma	6
FRecS -FINANCIAL RECOMMENDER SYSTEM By Charu Gupta and Palak Girdhar	7
Development of Student Interaction Platform By Suman Arora, Siddhant Chadha and Tushar Jain	8
E- voting system using Blockchain By Ms. Akanksha Dhamija, Mugdha Sharma and Richa Sharma	9
DICGM: A Deep Learning based Novel Image Caption Generator Model By Bhawna Suri, Shweta Taneja and Savneet Kaur	10
Bulletin Cognizance Scorn Analysis using NLP By Preeti Arora, Tanisha Madan and Nikita Nijhawan	11
A Study on Suicidal Rate Detection with social media using Deep Learning By Abhishek Singh, Akshay Khare, Anand Kumar Jha, Shikhar Kannoja and Shimpy Goyal	12

Modeling and Control of Photo Voltaic Emulator by Robust Controller

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Abstract: This research presents signal flow graph method for transfer function calculation and emulating V-I and P-V characteristic of PV panels. The usage of a robust sliding mode controller, a diode model, and a lookup table add to this. If several panels are to be replicated on the same model, the system does not require complicated calculations. Circuits with non-ideal components will also benefit from the proposed method, which will make mathematical modeling easier. The testing and installation process for solar electricity in rural and distant areas will thus be accelerated. To achieve a viable solution for this Nonlinear model, a sliding mode controller is implemented with stability constraints. The use of a diode model will incorporate variables such as temperature change and partial shading. The suggested system provides a simple and stable testing environment 24 hours a day, seven days a week for Non-linear PV panels before installation to save time and money. The MATLAB results match the actual shell 115 PV panel properties, demonstrating model and control correctness.

Keywords:

XPEN – A Voice Powered Expense Tracker Full Stack Web Application

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Abstract: Budgeting is an integral part of society. From the beginning of civilization, humans have been selling and purchasing goods. Since then, it has become an essential and irreplaceable part of our lives. We have to track our daily budget to avoid debt. Tracking our expenses daily can save our amount, but it can also help us set financial goals for the future. Most of us have a fixed income and we get it on time (i.e., daily, monthly, annual, etc.). In addition, everyone follows a strict budget of spending. Generally, the budget is assembled according to categories like food, entertainment, transportation, education, health, clothing, and so on. For this reason, we need to keep track of our expenses so that they do not exceed our budget. People often track expenses using pen and paper methods or take notes on a mobile phone or a computer. These processes of storing expenses require further computations and processing for these data to be used as a trackable record. In this work, we are proposing an automated system named XPEN to store and calculate these data. XPEN is a web application that aims to assist a user in managing personal or family finances by offering not only a basic expense check but also a brief analysis of income and expenses. All operations are performed in private through a personal account. Voice capabilities are also added to this application with the help of which users can save their expenses by just speaking. The application solves all of the problems that occur with old ways of entering data. It uses voice to traverse the app. This application filters the keywords from the user's voice and saves the amount and description for further processing. All transactions of the user are accumulated to the daily, weekly and monthly total sum and visualized as a histogram. The user then gets a better understanding of the weekly, monthly and yearly fluctuation of incomes and expenses. XPEN can manage daily expenses much faster than any other traditional app in the market which takes manual input. Overall, this is a smart automated solution for tracking expenses

Keywords:

Optimization: Background and Existing Challenges

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Abstract: Researchers working on problems in engineering, computer science, biology, and the physical sciences are developing advanced mathematical methods for control. Technological advances have had a major impact on the use of new analytical methods for dealing with nonlinear problems. One of the most challenging parts of control theory is tuning the parameters of nonlinear systems for an optimum solution. In the past, metaheuristic methods were tried to address this problem. They have proved to be useful when dealing with complex systems. Metaheuristic optimization techniques, unlike deterministic algorithms, excel at addressing problems with uncertain search spaces. Optimization-based control is now favored over conventional or intelligent control.

Keywords: Optimization, metaheuristic optimization, local search, global search

DRD-CNN: Diabetic Retinopathy detection using CNN

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Abstract: Diabetes, often known as diabetes mellitus, is a metabolic disorder in which the body generates insufficient amounts of insulin, resulting in elevated blood sugar levels. Up to 80% of persons with diabetes who have had it for 10 years or more will develop diabetic retinopathy (DR), an eye disease brought on by the disease. In this study, we use U-Net segmentation with region merging and Convolutional Neural Network (CNN) to automatically diagnose various stages of diabetic retinopathy. then group high-resolution retinal images according to the severity of the disease into 5 phases. The CNN model is trained using training datasets, and CNN will provide the likelihood that a diabetic has infected the eye. In order to effectively determine the severity of diabetic retinopathy disease, the initial goal of the model is to train it by providing the training datasets.

The Kaggle coding website provided the testing dataset, which includes over 80,000 photos with an average of 6 million pixels per image and retinopathy scales. Images from patients representing a wide range of ages, ethnicities, and lighting conditions were included in this dataset. The Proposed technique is more efficient than the existing techniques.

Keywords: Deep Learning, CNN, Kaggle, Diabetes

FRecS -FINANCIAL RECOMMENDER SYSTEM

Charu Gupta and Palak Girdhar

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Abstract: People invest their income in different schemes and funds for future use and to fulfill their daily requirements. In today's fast paced life, recommender systems are gaining a lot of attention because they help people in finding a product or information about the things they desire. In the literature, no system is available for recommending a person on how to save their money and at the same time know that they are getting the right product. With FRecS, we presents a Collaborative Filtering (CF) approach which is a method used for generating high quality and accurate recommendations to the user. CF uses a subset of users which are called neighborhood users for getting filtered recommendations for the current user. Moreover, this system uses simple heuristics to generate the result list. This helps the user to get better recommendations without giving a great number of details about themselves. Empirical assessment of the system is based on the online evaluation as well as the impact that two recommender techniques have.

Keywords: Recommender system, Matrix factorization, collaborative filtering

Development of Student Interaction Platform

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Abstract: Higher education, especially in the field of computer science and information technology, requires continuous learning, as there is always something new to learn. Web development is an excellent example of this. The students have experienced that sometimes it can be difficult to keep up with the pace. Learning new things can be burdensome, so this paper proposes an idea to help our college students cooperate and connect on the basis of shared domain interests. Students usually want to learn something new that will help them progress in their careers. This paper proposes a solution to address the issues of current students by creating a platform where student communities would aid an institution in growing with their talent. Students can use the proposed platform, "TechBPIT" to learn, share their skills, collaborate, and design projects. Through collaborative learning, interaction with peers and teachers, students shape their perception of social media and mobile devices, and it has a significant impact on student's academic performance. A user can register or log into their timeline and communicate with other users. Users can communicate, post, share, and update others on activities and events that take place online or in the real world. Users can also join a specific group (SIG) based on their interests and learn about the latest technology. Mentors can also manage community events to develop students' professional skills.

Keywords: Chat, Multiple-user, NodeJS, Socket.io, Student Interaction, Engagement Learning, Communities, Efficient

E- voting system using Blockchain

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Abstract: There's no doubt about the pervasive impact that digitalization has had on the lives of people, globally. However the electoral system still uses paper in its conventional implementation. The paper based centralized system (offline) has its own disadvantages like lack of transparency and a security threat. The general elections are organized by a centralized authority that has complete access of the database collected, which in turn can be tampered for considerable benefits. The revolutionary concept of Blockchain tends to digitally solve the problem due to its decentralized nature. It embraces the decentralized system and not any single authority holds the database. The adoption of blockchain in the distribution of databases on e-voting systems can reduce one of the cheating sources of database manipulation. This research discusses the recording of voting result using blockchain algorithm from every place of election. The Ethereum platform is a smart contract that makes blockchain more reliable to be used for products of daily services. Smart contracts are meaningful pieces of codes, to be integrated in the blockchain and executed as scheduled in every step of blockchain updates. On the other hand, e-voting is a very volatile and crucial issue, therefore handling it with robust and secure concept of smart contracts turns out to be a viable solution to develop smarter, cheaper, secure, transparent and convenient electoral systems. The major benefit of using Ethereum is its consistency, widespread use and provision of smart contract logics. The system uses proof of work because of the hard to find solution to the problem property and once found, it can be easily verified.

DICGM: A Deep Learning Based Novel Image Caption Generator Model

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Abstract: Image caption generator is a task that involves computer vision and natural language processing concepts to recognize the context of an image and describe them in a natural language like English. It is used in a variety of applications like describing images to People with Visual Impairment (PVI's), web development, describing real-time videos etc. With the advancement in Deep learning techniques, availability of huge datasets and computer power, we can build models that can generate captions for an image. In this work, we propose a fully automated approach that uses deep neural networks to build an image caption generator model – DICGM. The image features are extracted from Xception which is a CNN model trained on the ImageNet dataset and then fed to the LSTM model, which is responsible for generating the image captions. We have proposed A Deep Learning based Novel Image Caption Generator Model (DICGM) where both CNN and RNN together create an automated image captioning model that takes in an image as input and outputs a sequence of text that describes the image. DICGM is tested using Flickr8k_Dataset. It contains a total of 8092 images in JPEG format with different shapes and sizes. Of which 6000 are used for training, 1000 for test and 1000 for development. DICGM works really well with a small number of photos. For production-level models, we need to train on datasets larger than 100,000 images which can produce better accuracy models. This proposal is a work in progress and we are convinced that with more extensive tuning and precise configuration the results will improve.

Keywords: *Deep Learning, Convolutional Neural Networks (CNN), Recurrent Neural Networks(RNN), Long short-term Memory (LSTM)*

