A THREE-DAY INTERNATIONAL CONFERENCE ON

A PRIMER ON INTELLECTUAL PROPERTY RIGHTS.... (EMPHASIS ON COMPUTER ETHICS)



ORGANISED BY DEPARTMENT OF COMPUTER SCIENCE ANDHRA LOYOLA COLLEGE (AUTONOMOUS) "A college with potential for excellence" Re-accredited at A+ Grade with 3.66/4.00 points Vijayawada - 520008, A.P., India www.andhraloyolacollege.ac.in

On 9th, 10th & 11th March 2023

Message from Rector



Rev. Fr. Bala Showry. S. J., Rector Andhra Loyola College Vijayawada -5200 08

As the Rector of this institution, I believe it is essential that we understand the legal and ethical implications of our actions in the digital world. The issue of intellectual property rights and computer ethics is becoming increasingly important in our society, and it is essential that we are well-informed on these matters.

Intellectual property rights are fundamental to protect the creative work of individuals and organizations. This conference will provide a platform for us to discuss the legal framework of intellectual property rights, including copyright, patents, trademarks, and trade secrets. We will also explore the importance of respecting the rights of others and how to obtain permission to use their work.

Computer ethics is equally crucial in this digital age. We will examine the moral and ethical implications of technology and how it affects our lives. This includes the responsible use of social media, the prevention of cyberbullying and online harassment, and the protection of our privacy.

As an institution of higher learning, it is our responsibility to educate ourselves and others about these important issues. We must strive to use technology ethically and responsibly to create a better and more just society. I thank the department for taking the initiative to organize this conference.

I encourage all students and faculty members to attend this conference, and to actively participate in the discussions and activities. Together, we can create a better understanding of intellectual property rights and computer ethics and ensure a more just and ethical digital world for all.

Thank you, and I look forward to seeing you all at the conference.

Rev. Fr. Bala Showry. S. J., Rector Andhra Loyola College Vijayawada -5200 08

Message from Correspondent



Rev. Fr. Dr. M. Sagayaraj, S. J., Correspondent Andhra Loyola College Vijaywada - 5200 08

I feel greatly encouraged to see the Department of Computer Science taking initiative in conducting three-day international Conference on "A Primer on Intellectual Property Rights (Emphasis on Computer Ethics)" for making available yet another platform for the interested faculty, research scholars and student to learn from the deliberation during the conference. As you may know, intellectual property rights are legal protections that grant creators and innovators exclusive rights to their creations, inventions, and ideas. These rights include patents, trademarks, copyrights, and trade secrets, among others.

Intellectual property rights are important because they encourage innovation and creativity, and provide an incentive for individuals and companies to invest in research and development. By protecting these rights, society encourages individuals and companies to invest in new technologies, ideas, and creative works, which can lead to new products and services that benefit society as a whole. They also protect the interests of the creators or inventors by giving them the exclusive rights to their works, which can lead to economic benefits and increased market share.

However, there is a balance that must be struck between protecting intellectual property rights and ensuring that they do not impede innovation or harm consumers. Some individuals and organizations may use intellectual property laws to stifle competition or limit consumer choice, which can ultimately harm society's progress.

As we move forward, it is important that we continue to strike this balance and ensure that intellectual property rights are used fairly and responsibly to promote innovation, creativity, and economic growth. By doing so, we can continue to foster an environment of innovation and creativity that benefits society as a whole.

Thank you for your time and attention for participating to this conference.

Rev. Fr. Dr. M. Sagayaraj, S. J., Correspondent Andhra Loyola College Vijaywada - 5200 08

Message from Principal



Rev. Fr. Dr. G. A. P. Kishore, S. J., Principal Andhra Loyola College (Autonomous) Vijayawada – 5200 08

I am glad that our Department of Computer Science is organizing a three-day International Conference on "A Primer on Intellectual Property Rights (Emphasis on Computer Ethics)" in association with SOLETE (Society for Learning Technologies, India) to explore the intersection of these two critical topics - Intellectual Property Rights and Digital Technology – and the ways to protect and manage the intellectual property in this digital age.

As all of us know, the rapid advancement of Digital Technology has presented new challenges for the management and protection of intellectual property. The ease with which digital content can be copied and shared has made it more difficult to enforce intellectual property rights and prevent infringement.

This is where Computer Ethics come into play. As we navigate these new challenges, we must also consider the ethical implications of our actions when it comes to intellectual property. At their core, the intellectual property rights are designed to promote innovation, creativity, and economic growth. By protecting the rights of inventors, authors, artists, and other creators, intellectual property laws encourage the development of new ideas, products, and services that can create jobs, improve quality of our lives, and drive economic progress.

I sincerely hope that this Conference will discuss these critical issues in depth and find proper solutions for protecting intellectual property in this digital age while also ensuring that our actions are ethical and responsible.

Rev. Fr. Dr. G. A. P. Kishore, S. J., Principal Andhra Loyola College (Autonomous) Vijayawada – 5200 08

Message from Vice Principal



Rev. Fr. Dr. Lourdhraj Ignacimuthu S.J., Vice Principal, Andhra Loyola College, Vijayawada – 5200 08

I am pleased to welcome you to this conference on intellectual property rights and computer ethics. As we all know, technology is advancing at an unprecedented rate, and it is becoming increasingly important for us to understand the legal and ethical implications of our actions in the digital world.

Intellectual property rights are essential to protecting the creativity and innovation that drives our economy. We must ensure that we respect the intellectual property rights of others, including copyright, trademarks, and patents. This means that we cannot use or reproduce the work of others without their permission, and we must also ensure that we do not infringe on their trademarks or patents.

Computer ethics, on the other hand, is about understanding the moral and ethical issues surrounding the use of technology. We must be aware of the impact our actions have on others, including online privacy, cyberbullying, and online harassment. It is our responsibility to ensure that we use technology in a responsible and ethical manner, and that we respect the rights and dignity of others.

As educators, it is important that we teach our students about these important issues. By doing so, we can help them become responsible digital citizens who understand the importance of intellectual property rights and computer ethics.

I hope that this conference will provide you with valuable insights and knowledge about these topics, and that you will be able to take this information back to your schools and communities. Together, we can help build a better and more ethical digital world.

Thank you for your attention, and I wish you all a productive and informative conference.

Rev. Fr. Dr. Lourdhraj Ignacimuthu S.J., Vice Principal, Andhra Loyola College, Vijayawada – 5200 08

Message from Organizing Secretary



Dr. K. B. S. Sastry Organizing Secretary (PIPR-2023) Department of Computer Science Andhra Loyola College, Vijayawada- 5200 08

I am pleased to invite you to our upcoming conference on intellectual property rights and computer ethics. As the Organizing Secretary of this event, I believe that it is essential that we understand the legal and ethical implications of our actions in the digital world.

Intellectual property rights are essential to protect creativity and innovation. The conference will provide valuable insights into copyright, trademarks, patents, and other legal issues related to intellectual property. We will also discuss the importance of respecting the rights of others and the importance of obtaining permission to use their work.

Computer ethics is an essential topic for discussion in our current digital age. We will explore the moral and ethical implications of technology and how it affects our lives. Cyberbullying, online harassment, and privacy concerns are just a few examples of the issues we will discuss.

As professionals, it is our responsibility to understand these issues and to educate others. This conference will provide an opportunity for us to exchange ideas and knowledge and to learn from experts in the field.

I urge you to join us for this important event and to share your insights and experiences. Together, we can help create a more just and ethical digital world.

Thank you for your attention, and I look forward to seeing you at the conference.

Dr. K. B. S. Sastry Organizing Secretary (PIPR-2023) Department of Computer Science Andhra Loyola College, Vijayawada- 5200 08

Message from Convener



Mr. S. A. B. Nehru Convener (PIPR-2023) Andhra Loyola College Vijayawada- 5200 08

I am delighted to welcome you all to our conference on intellectual property rights and computer ethics. As the Convener of this event, I believe that it is essential that we understand the legal and ethical implications of our actions in the digital world.

Intellectual property rights are crucial to protect creativity and innovation. This conference will provide valuable insights into copyright, trademarks, patents, and other legal issues related to intellectual property. We will also discuss the importance of respecting the rights of others and the importance of obtaining permission to use their work.

Computer ethics is a topic that affects us all in our daily lives. We will explore the moral and ethical implications of technology and how it affects our personal and professional lives. Cyberbullying, online harassment, and privacy concerns are just a few examples of the issues we will discuss.

As professionals, it is our responsibility to understand these issues and to educate others. This conference will provide an opportunity for us to exchange ideas and knowledge and to learn from experts in the field.

I urge you to take advantage of this opportunity and to share your insights and experiences with us. Together, we can help create a more just and ethical digital world.

Thank you for your attention, and I look forward to a productive and informative conference.

Mr. S. A. B. Nehru Convener (PIPR-2023) Andhra Loyola College Vijayawada- 5200 08

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THE POTENTIAL OF AI IN MEDICINE

Chilukoti Divya Chandrika (DAI-12)

Department of CS, Andhra Loyola College, Andhra Pradesh, India. <u>chilukotidc30@gmail.com</u>

Abstract

Artificial intelligence (AI) is a rapidly developing field of computer science concerned with creating intelligent machines capable of performing tasks, to do things like analyze data, make predictions that require human intelligence. Now it's presented in medicine. Before the advent of AI, the medical field was also characterized by manual processes & paperwork. Doctors had to go through a laborious process of collecting & nalyzing patient data. This was time-consuming and prone to errors, leads to inefficient care. Diagnoses were conducted by doctors & nurses, relying on their knowledge and experience to provide best possible care. And processes such as billing and scheduling were done by hand. With AI, the medical field has been revolutionized. AI-driven algorithms can quickly analyze data, identify patterns and detect potential disease markers. This is a tool that it can help doctors make more accurate diagnoses, medical imaging & make better decisions about treatments and preventive measures to give effective treatment for a particular patient. It can also automate processes of billing & scheduling, freeing up the time to focus on patient care. When COVID-19 pandemic disrupted the world, AI was used as a tool to develop predictive models that can help minimize the spread and used ML to make discoveries & create better vacines. AI is finding its place in healthcare robotics by providing unique assistance in surgeries. It is used to operate in small spaces that might otherwise require open surgery. Robots can be more precise around sensitive organs & tissues, reduce blood loss, risk of infection and post-surgery pain. Robotic surgery patients reports less scarring & shorter recovery time.

The advantages of AI that AI allows healthcare professionals to better understand patterns & patient needs through in-depth data analysis. As technology continues to develop in medical applications, doctors will be able to provide better guidance. And there also be some disadvantages. Some are, AI algorithms can be trained on biased data, which can lead to inaccurate diagnoses and treatment. It can also be expensive to implement & maintain and require a lot of computing power and data. And wrong Diagnosis, threat of data loss &losing personal approach. The future of AI is Bright. In future, AI will be used to detect diseases, diagnose diseases, provide treatment, surgical procedures, predict outcomes, and even provide personalized treatments. And its use in the medical field is likely to continue to grow in future. However, it is important to ensure that AI is used responsibly and ethically in order to ensure the best outcomes for patients.



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AI IN SPORTS

DAI 10 - P. RAJESWARI DAI 34 - B. SAI PRIYANKA SINGH

DEPT. OF COMPUTER SCIENCE, ANDHRA LOYOLA COLLEGE, VIJAYAWADA

Abstract:

As a confined subject mainly based on computer science, information technology and machine learning, AI is about the simulation, extension and expansion of human intelligence. Meanwhile, the enforced AI application research is helpful to improve the human brain functions, further unleash human intelligence, and give a great boost to the overall technological and reform innovations. The application of AI in sports can both avoid sports disputes, record memorable moments of sports events, and provide directions and guidance for sports scientific research. First, it makes sports competitions more professional. In sports events, the scientific application of AI technology makes it possible to accurately observe athletes physical conditions before, during and after the game, and provide strong support when coaches make real-time adjustments to technical tactics. It also helps to develop personalized training models and promote more scientific and effective competition strategies, thus increasing the competitiveness of athletes. In this way, big data is able to provide a strong support in China's pursuit of a strong sports power. In addition, with the strong support of intelligent technology, competitive sports can also have a more ideal and efficient development prospect. Second, it further strengthens the transformation and upgrading of the sports industry. The sports sector is a sunrise industry with favourable economic and ecological returns. With the support of AI technologies, the industry will see better utilization of capitals, helping build a more scientific and innovative business model and enhance customer service experiences. This will lay a solid foundation for the high-quality development of the sports industry, helping the traditional sports industry see an intelligent upgrading and enhancing the international competitiveness of China's sports industry. Third, the introduction of AI will promote personalized physical education. Through the support of AI, big data and other information technologies, schools can establish a novel and scientific physical education ecosystem, organize students to carry out personalized sports learning and training activities, and help teachers to provide students with more scientific teaching guidance. Big data greatly facilitates the harmonious communication between schools, society and the family.



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AN ADVANCED CKD DETECTION USING DEEP LEARNING

Mr Venkata Siva Narasimha G¹, Dr KBS Sastry², PVS Sairam³ ¹Assistant Professor, Department of Computer Science, Andhra Loyola College, Vijayawada. <u>gvsnarasimha@gmail.com</u> ²Associate Professor, Department of Computer Science, Andhra Loyola College, Vijayawada. <u>sastrykbs@gmail.com</u> ³Associate Professor, Department of Physics, Andhra Loyola College, Vijayawada. <u>alcsairam@gmail.com</u>

Abstract: Deep learning models are based on artificial neural networks, which are designed to mimic the structure and function of the human brain. These models can learn complex patterns and relationships in large datasets, allowing them to make accurate predictions or classifications. For CKD detection, deep learning models can be trained on large datasets of clinical and laboratory data to identify patterns and risk factors associated with the disease. One approach to using deep learning for CKD detection is to develop a predictive model that can classify patients as having or not having CKD based on their clinical and laboratory data. This can be done using supervised learning, where the model is trained on a labeled dataset of patients with and without CKD. The model can then be used to predict CKD status in new patients based on their data. Various deep learning architectures, such as convolutional neural networks (CNNs) or recurrent neural networks (RNNs), can be used for this task. Another approach is to use deep learning for image analysis of renal histology. Renal biopsy is often used to diagnose and stage CKD, and deep learning models can be trained to analyze renal tissue images and identify features associated with the disease.

Keywords: convolutional neural networks (CNNs), recurrent neural networks (RNNs), Chronic Kidney Disease (CKD).



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AI FOR DISABLED

 ¹K. PRAGATHI (DAI 18)
²S. VYSHNAVI BHAVANA (DAI 42)
^{1,2} Dept. of Computer Science, Andhra Loyola College(Autonomous), Vijayawada-8. Gmail: pragathikukkala@gmail.com , vyshnavibhavana21@gmail.com

Abstract

Artificial intelligence (AI) is the study of providing the ability for a computer or a robot controlled by a computer to think and do tasks which require human intelligence. Some of the AI applications are natural language processing, speech recognition, automation and machine vision. People with various impairments find it difficult to access a device and that device may go unusable for them making their daily activities even more hard. Accessibility tools and techniques is a limitation for which most of the disabled people cannot use technology without help. AI came up, finding ways to access technology for people with various disabilities, whether related to vision, hearing, mental health, learning, cognition, or mobility, can be permanent, temporary, or even situational. Necessity is the mother of Invention, disabilities designing new products with different levels of abilities in mind. Through inclusive design AI has ensuring that technology works out for everyone.

Artificial intelligence plays an important role in communication and interaction, it increases the accessibility and usability of technology to people with disabilities. Like giving voice commands to devices like Alexa, Google voice assistant, Siri etc through this disabled people can access devices like computers, mobiles comfortably and even control the whole environment just by sitting and giving voice commands. AI-based self-driving cars promise incredible freedom of mobility for house-bound individuals with disabilities and for people with motor impairments, autonomous vehicles developed by Google's Waymo, Uber, Lyft, Drive AI, and others could eliminate physical isolation and promote a more social lifestyle. Using robotic cars enables disabled people to leave the house without depending on others. Once driverless vehicles are fully integrated into society, motor impaired could ease independent mobility.

AI based solutions stand to make a real difference in the lives of people with disabilities, by providing them usability, accessibility and support in terms of using technology as well as in daily life activities. AI technology helps disabled people to gain new opportunities through accessibility, inclusion in society, and independent living which would be difficult or impossible to achieve without AI. As AI tends to grow further, it could unlock more advanced and innovative solutions for addressing the most complex challenges faced by disabled people and enabling more inclusion for them.



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BRAIN TUMOR DETECTION USING DEEP LEARNING

A.Radhika¹, A.Lakshmi Prasanna² ¹Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>aradhikaalavala@gmail.com</u> ²Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>info.rafasoft@gmail.com</u>

Abstract: Brain tumor detection is an important task in medical diagnosis, and using deep learning algorithms, particularly ensemble deep learning algorithms, can be an effective approach to achieve high accuracy in brain tumor detection. Ensemble deep learning algorithms involve combining multiple models to make more accurate predictions. The two most common types of ensemble methods are bagging and boosting. Bagging involves training multiple models on different subsets of the data, and then aggregating their predictions to make a final prediction. Boosting involves training multiple models sequentially, with each model focusing on the data that was misclassified by the previous model. To use ensemble deep learning for brain tumor detection, the first step is to gather a large dataset of brain images. This dataset should include a mix of images that contain tumors and images that do not contain tumors. The images should be pre-processed and normalized to ensure consistency across the dataset. Once the dataset is prepared, the next step is to train the ensemble deep learning model. This involves selecting the appropriate architecture for the neural network, such as convolutional neural networks (CNNs), and tuning hyperparameters such as learning rate, batch size, and number of epochs. After the model is trained, it is evaluated using a separate test dataset to determine its accuracy in detecting brain tumors. The performance of the model can be further improved by fine-tuning hyperparameters or by using data augmentation techniques to increase the diversity of the dataset.

Keywords: neural network, convolutional neural networks (CNNs), Bagging, Boosting.



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FACE MASK PREDICITION USING DEEP LEARNING TECHNIQUES

¹Manubolu Greeshma Priya (DPM-51) ²Kopanathi .Lavanya(DPM-53)

^{1,2}Dept of Computer Science, Andhra Loyola College (Autonomous), Vijayawada-8

Abstract

Medical researchers around the globe provide evidence that COVID19 pandemic diseases transmitted through droplets and respirators of respiratory aerosols and wearing a face mask is an efficient infection control recommendation process. In addition, many public and private service providers demand that consumers use the service only if they wear masks properly. However, a few research studies have been found on face mask detection based on the technology of Artificial Intelligence (AI) and Image Processing. In this project, we propose, Predicition of Mask, which is a deep learning-based multi-phase face mask detection model for preventing human transmission of Two different face mask datasets along with more than 5,200 images have been utilized to train and test the model for detecting with and without a face mask from the images and video stream. Experiment results show that with 770 validation samples Face Mask achieves an accuracy of ~ 93% whereas with 276 validation samples it attains an accuracy using classification techniques many public and private service providers demand that consumers use the service only if they wear masks properly. However, a few research studies have been found on face mask detection techniques many public and private service providers demand that consumers use the service only if they wear masks properly. However, a few research studies have been found on face mask detection based on the technology of Artificial Intelligence (AI) and Image Processing.



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LIVER DISEASE PREDICTION USING MACHINE LEARNING

¹P Dhana Lakshmi(DCM-39), ²Macharla Pallavi(DPM-61) ^{1,2}Dept of Computer Science, Andhra Loyola College (Autonomous), Vijayawada-8

Abstract:

Machine learning is a part of man-made consciousness that utilizes an assortment of measurable, probabilistic and enhancement methods that enables PCs to "learn" from past precedents and to identify hard-to-recognize designs from huge, boisterous or complex informational indexes. This capacity is especially appropriate to restorative applications, particularly those that rely upon complex proteomic and genomic estimations. Therefore, machine learning is every now and again utilized in disease conclusion and discovery. All the more as of late machine learning has been connected to disease guess and forecast. This last mentioned approach is especially intriguing as it is a piece of a developing pattern towards customized, prescient drug. Diagnosis of liver disease at a preliminary stage is important for better treatment. It is a very challenging task for medical researchers to predict the disease in the early stages owing to subtle symptoms. Often the symptoms become apparent when it is too late. To overcome this issue, this project aims to improve liver disease diagnosis using machine learning approaches. The main objective of this research is to use classification algorithms to identify the liver patients from healthy individuals. This project also aims to compare the classification algorithms based on their performance factors



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DEEP LEARNING FOR COMPUTER VISION

Sk. Firoz (DCM03), N. Dange Naveen (DCM36), N. Naga Pavan (DCM05) Dept. of Computer Science, Andhra Loyola College, Vijayawada, 520008

Abstract:

Computer vision is a field of artificial intelligence (AI) that enables computers and systems to derive meaningful information from digital images, videos and other visual inputs — and take actions or make recommendations based on that information. If AI enables computers to think, computer vision enables them to see, observe and understand. Computer vision works much the same as human vision, except humans have a head start. Computer vision trains machines to perform these functions so that it can quickly surpass human capabilities.

Computer vision needs lots of data. It runs analyses of data over and over until it discerns distinctions and ultimately recognize images. For example, to train a computer to recognize automobile tires, it needs to be fed vast quantities of tire images and tire-related items to learn the differences and recognize a tire, especially one with no defects.

Two essential technologies are used to accomplish this: a type of machine learning called <u>deep learning</u> and a convolutional neural network (CNN). Machine learning uses algorithmic models that enable a computer to teach itself about the context of visual data. If enough data is fed through the model, the computer will "look" at the data and teach itself to tell one image from another. Algorithms enable the machine to learn by itself, rather than someone programming it to recognize an image.

A CNN helps a machine learning or deep learning model "look" by breaking images down into pixels that are given tags or labels. It uses the labels to perform convolutions and makes predictions about what it is "seeing." The neural network runs convolutions and checks the accuracy of its predictions in a series of iterations until the predictions start to come true. It is then recognizing or seeing images in a way similar to humans.

The development of self-driving vehicles relies on computer vision to make sense of the visual input from a car's cameras and other sensors. It's essential to identify other cars, traffic signs, lane markers, pedestrians, bicycles and all of the other visual information encountered on the road.

Keywords: Computer Vision, Artificial Intelligence, Convolutional Neural Network (CNN), Deep Learning, automation



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CREDIT CARD FRAUD DETECTION USING ADABOOST AND MAJORITY VOTING

¹G.Chandan Sai(DMC 47), ²T.Mohan Teja (DMC 45)

^{1,2}Dept of Computer Science, Andhra Loyola College(Autonomous), Vijayawada-8

Abstract

Credit card fraud is a serious problem in financial services. Billions of dollars are lost due tocredit card fraud every year. There is a lack of research studies on analyzing real-world credit card dataowing to confidentiality issues. In this paper, machine learning algorithms are used to detect credit card fraud. Standard models are firstly used. Then, hybrid methods which use AdaBoost and majority voting methods are applied. To evaluate the model efficacy, a publicly available credit card data set is used. Then, a real-world credit card data set from a financial institution is analyzed. In addition, noise is added to the data samples to further assess the robustness of the algorithms. The experimental results positively indicate that the majority voting method achieves good accuracy rates in detecting fraud cases in credit cards.



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DRIVER DROWSINESS DETECTION

¹G.Sravani(DMC 39), ²K.Raja Rajeswari(DMC 40)

^{1,2}Dept. of Computer Science, Andhra Loyola College(Autonomous), Vijayawada-8

Abstract

The main idea behind this project is to develop a nonintrusive system which can detect fatigue of any human and can issue a timely warning. Drivers who do not take regular breaks when driving long distances run a high risk of becoming drowsy a state which they often fail to recognize early enough. According to the expert's studies show that around one quarter of all serious motorway accidents are attributable to sleepy drivers in need of a rest, meaning that drowsiness causes more road accidents than drink-driving. This system will monitor the driver eyes using a camera and by developing an algorithm we can detect symptoms of driver fatigue early enough to avoid the person from sleeping. So, this project will be helpful in detecting driver fatigue in advance and will give warning output in form of alarm and pop-ups. Moreover, the warning will be deactivated manually rather than automatically. For this purpose, a de- activation dialog will be generated which will contain some simple mathematical operation which when answered correctly will dismiss the warning. Moreover, if driver feels drowsy there is possibility of incorrect response to the dialog. We can judge this by plotting a graph in time domain. If all the three input variables show a possibility of fatigue at one moment, then a Warning signal is given in form of text and sound. This will directly give an indication of drowsiness/fatigue which can be further used as record of driver performance.



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ENHANCING CLOUD SECURITY USING ORDER PRESERVING ENCRYPTION AND AUDIT SERVER BASED VERIFICATION

¹Ramanjaiah Ganji, ²Dr.Suresh Babu Yalavarthi

¹Department of Computer Science and Engineering, Research Scholar, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India. ²Professor, Department of Computer Science, J.K.C College, Guntur, Andhra Pradesh,

India.

 $E.Mail: {}^{1}ramanjaiah@gmail.com, {}^{2}yalavarthi_s@yahoo.com$

Abstract:

By the use of the internet and cloud computing, customers may keep their data on the cloud and access it at any time. There is a tremendous amount of data on the computers that cloud storage services employ. To see all the data under the current system, the data owner must upload the files to a cloud server. If a data owner has the ability to edit any data, Third Party Arbitrary (TPAR) will be able to detect any altered or absent data. If the cloud-stored data remains unchanged, TPA will generate the verification report and provide it to the data owner. The management of the information and the administrations on the cloud aren't entirely moral, nevertheless. Guaranteeing the information uprightness is a requesting errand. Numerous plans like "Proofs of Retrievability" and "Provable Data Possession" have been created yet they can't bolster dynamic information i.e. they are produced to dissect static archieve data. By and large a significant number of the peril models accept that having a fair data owner and they are concentrating on the exploitative cloud authority organization. In any case, there are a few shots that the customer might be untrustworthy for the getting the advantages by means of pay from the supplier. The open inspecting plan that provides information assistance and acceptable discretion in data safety matters is the main emphasis of this study. It takes into account the fact that data owners cannot view all of the uploaded files immediately. Only the data owner is able to examine files associated with a term by using keywords. Hence, when someone logs into the account of the data owner, they cannot view the file. Only after conducting a keyword search may files be accessed. The owner's data is kept secure by this suggested system.

Keywords: Cloud Computing, Data Owner, TPA, Third Party Arbitrator, OPE, Data verification, Dispute Arbitration.



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ENHANCING FASTAG WITH SOFTWARE

Jalaluddin Pathan UG student, department of CS, Andhra Loyola College, Andhra Pradesh, India. jalaluddinpathan@yahoo.com

Abstract

Fastag was founded on 4 November, 2014 by Ministry of Road Transport and Highways. Fastag came into its complete existence by the maintenance of National Highways authority of India as of September 2019[1]. Fastag is being used as an electronic toll collection in India, since its existence. The main reason behind the introduction of fastag was to eliminate the cash payments, avoid the traffic jams at the toll gates across India, to save time from the manual process of tax collection, and to save the environment by reducing the usage of paper.

Fastag also allows users to maintain the records of toll expenses. Fastag comprises the usage of RFID (Radio Frequency Identification Device) at the toll lanes of the toll gates across India. RFID system consists of radio transponder, a transmitter, and a radio receiver. RFID system has two main devices, a tag, and a reader [2]. Tag contains a RFID transmitter, which is sticked on to the mirror of the vehicle, and the reader is placed in the toll line. Reader provides radio waves as energy to the passive tag and receives the digital data through the receiver. This has made a revolutionary change in the progress of National Highway Authority of India. Unfortunately, this system of Fastag contains some flaws which give discomfort to the vehicle owners and also makes a long-term financial effect on National Highway Authority of India. Fastag is comprised with maximum usage of hardware components. After long usage, hardware components like receivers and radio transponder wear out due to many reasons. This is an expected problem and a problem being faced now. Fastag receivers and transponders are wearing out due to some conditions. Considering the failure rate of RFID, National Highway Authority of India, has introduced portable RFID receivers, and if the portable devices wear out, entry into particular line needs to be prohibited and the vehicles need to be sent into the line using the manual process. The NHAI technical staff has to collect the toll tax manually by feeding the vehicle registered number in the system which is the old practice. This creates trouble to both the vehicle owners and also to the NHAI staff. This problem can be fixed by appending a software solution to the present hardware system. Since software does not wear out [3], relying on software is wiser than relying on hardware. The usage of QR system can completely end the above problems and enhance the Fastag system in a productive and easy way, by considering all the problem facers in present fastag system. This research paper consists of deep report of present Fastag architecture, problem faced by people using fastag, and the solution to the problems, and its advantages.



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ETHICS OF COMPUTER SCIENCE IN MODERN ERA

Polimetla vinay ,Student Andhra Loyola College ,Vijayawada Mail id <u>-vinaypolimetla7286@gmail.com</u> Mob:-9966416421

Abstract

Advancement of computer technology has proved as double edged knife, simultaneously it helps in the development and became curse in our lives in the name of betterment. Improvement in computer science and technology since twenty years and created ethical dilemmas, some similar to many other professionals and some unique to the computer field

In past years alone society experienced computer virus, interruption of power, and invasions of privacy, cyber- pornography, phishing, and many thefts. This paper brings out the basic instructional issues and provides primary ways to professionals who demand both technical knowledge and the ability of understanding of ethical principles and skills.

Finally, this paper comes out with a valuable framework for the study of ethics and social principles and skills in summarized form.

Keywords: Computing Ethics, Computer abuse, Ethical principles and skills, Cyber laws



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EXPRESSION DETECTION USING ENSEMBLE MODELS

LNageswari Devi¹, A.Sandhya Rani² ¹Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>lankenageswari@gmail.com</u> ²Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>rani.amarlapudi@gmail.com</u>

Abstract: Expression detection is a common application of machine learning that involves identifying the emotions or sentiments expressed by individuals in images, videos, or text. Ensemble models are a popular approach to improving the performance of expression detection models by combining the predictions of multiple models. Ensemble models work by training multiple models on the same dataset, but with different variations in the model architecture or training process. These models are then combined in a way that maximizes their collective predictive power. In this paper, an ensemble model used the multiple models are trained and their predictions are combined using a meta-model. The meta-model is trained on the outputs of the base models, and the final prediction is made by the metamodel. To use ensemble models for expression detection, a dataset of labeled images or videos can be used to train multiple models using different architectures or training techniques. For example, one model could be trained on raw pixel data, while another could be trained on extracted features. These models can then be combined using one of the ensemble methods described above to improve the accuracy of the overall prediction. Ensemble models have been shown to be effective in improving the accuracy of expression detection models, and are commonly used in industry and research applications. However, it is important to note that ensemble models can be computationally intensive and require careful tuning of hyper-parameters to achieve optimal performance.

Keywords: Expression detection, Ensemble model, Deep Learning.



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HOUSING PRICE PREDICTION USING LINEAR REGRESSION

¹S.Yamini Durga (DMC-41) ²M.Niharika (DMC-50)

^{1,2}Dept. of Computer Science, Andhra Loyola College (Autonomous), Vijayawada-8

Abstract:

Investment is a business activity on which most people are interested in this globalization era. There are several objects that are often used for investment, for example, gold, stocks and property. In particular, property investment has increased significantly. Housing price trends are not only the concern of buyers and sellers, but it also indicates the current economic situation. There are many factors which has impact on house prices, such as numbers of bedrooms and bathrooms. Even the nearby location, a location with a great accessibility to highways, expressways, schools, shopping malls and local employment opportunities contributes to the rise in house 3price. Manual house predication becomes difficult, hence there are many systems developed for house price prediction. We have proposed an advanced house prediction system using linear regression. This system aim is to make a model which can give us a good house pricing prediction based on other variables. We are going to use Linear Regression for this dataset and hence it gives a good accuracy. This house price prediction project has two modules namely, Admin and User. Admin can add location and view the location. Admin has authority to add density on the basis of per unit area. User can view the location and see the predicted housing price for the particular location.



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INTELLECTUAL PROPERTY RIGHTS AND CHALLENGES BEFORE HIGHER EDUCATION

Dr. Poornima Ravinathan Asst. Professor, Department of Political science Andhra Loyola College, Vijayawada Dr. Chandrasekar .K Associate professor, Department of chemistry, School of applied sciences and humanities, Vignan university, Vadlamudi,

Abstract

With the implementation of NEP-2020, the chances of innovation and new technologies keep rising as the policy focuses mainly on research at the early stages of study. This positively will bring in controversies if the work is not registered under intellectual property rights. This gives the research fraternity full control of their respective work and that can bring in lot of new life saving schemes without much issues. This study will focus on the odds that present education policy offer in comparison to the new NEP which is expected to fill in the gap as it progresses in long run with respect to research and IPR. It's not only the scientific community that has to be accounted here, apart from them researchers from other platform like literacy, journalism, social sciences do as well the odds in all these areas and how important it is to have their work documented has to be emphasised.

The fact that IPR for any inventor is the highly coveted asset that can potentially reap a financial pay out to the owner has to be emphasised and inculcated in the young minds at the higher education level where they can choose research as an potential carrier similar to engineering and medicine. IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create. This can actually make the research community cherish for their discoveries and flourish with more innovations and technologies.

The contributions from the funding agency to the institution to the licencing authority and to the individual or the original contributor has not to be underestimated when the technology heads towards commercialisation and with increasing contribution challenges and potential conflict of % sharing too increases. This can be sorted out with the advent of IPR which has to been approved by the Indian government. This could be credited to the National IPR Policy approved by the Union Cabinet in May 2016, which was the first ever IPR policy framed by the Government of India.

The main focus of this Policy is towards promoting innovation and creativity, particularly amongst entrepreneurs and in higher education institutions. The Policy brief specifically mentions synergising all forms of IPR, concerned statutes and agencies for tapping the creativity and innovative energies in India with a special emphasis on start-ups and educational institutions.

The main aim of this paper is to highlight the need for the Indian universities and our Research and Development organizations to address, propose and develop policies relating to the IPRs. Secondly, to present some reflections about the need for additional emphasis on university instruction in IP issues and the training of scholars to undertake research in the area. This can end up in new startups which paves way for new national and international ventures to increase the economy.



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INTELLECTUAL PROPERTY IN HIGHER EDUCATION

T.NagaPrasada Rao – Head Of The Dept Cs t.nagaprasadarao@gmail.com - +91 9866803938 AG & SG Siddhartha Degree College of Arts & Science Vuyyuru Krishna Dist A.P 521165

Abstract:

The importance of intellectual property (IP) in today's world cannot be overstated and, indeed, it is receiving a great deal of attention worldwide. To advance the cause of the rights and wrongs of the laws that promote and protect intellectual property at the national and international levels, education in intellectual property is required and must be advocated. We must make individuals, industries, and governments aware of the concept of intellectual property, and only then can they take positions on the issue in order to effect change. This paper explains the concept of intellectual property rights and provides a detailed overview of the state of IP education worldwide. The discussion divides the globe on the basis of economic distinctions between nations and studies the question in the context of their developmental levels: developed, developing, or underdeveloped.

Intellectual property should be a day-to-day business decision due to its value, but increasingly, a number of institution are still not aware of the importance. Intellectual Property (IP) and its value are often not adequately appreciated. In the increasingly knowledge-driven economy, IP is a key consideration in day-to-day business decisions because new ideas and products appear almost daily in the market, which results in continuous innovation and research. Therefore, this paper will focus on the importance of IP for universities of technology and also further demonstrates how IP can become an economic tool and the challenges faced by these universities in implementing an IP system.

Keywords—Intellectual property, institutions, challenges, protection, IP Education and Government



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MOBILE ADDICTION IN ADOLESCENTS

K. Anthony Raju¹, Rai Prakash², A. Srinivasa Rao³

 ¹Student, Department of Computer Science Andhra Loyola College, Vijayawada tonykondaveetirajusj@@gmail.com
²Student, Department of Computer Science Andhra Loyola College, Vijayawada prakashrai72718@gmail.com
³Student, Department of Computer Science Andhra Loyola College, Vijayawada addakatlasrinivasarao@gmail.com

Abstract: India counts 38% of all networked devices by 2022, compared to 26% in 2017. Statistics acknowledge that adolescents have a high ratio of usage of smart devices. This count increased during the COVID pandemic as most of them ought to attend classes online. At the same time, it has become considerably tricky for parents and guardians to monitor screen time. There were noticeable cases of Smartphone addiction leading to death, yet limited research has been done to address this serious issue. In this context, we began our study with 250 students on addictive usage associated with their academic performance. We found that 75.7% of adolescents buy the maximum number of devices as they deem that it speaks of their economic status in society. 61.6% of them believe smartphones are only their source of entertainment. The saddening conclusion is that most of them are educated about EMR (Electromagnetic Radiation) that their devices release and yet are driven to sleep with their Smartphones. Though the purpose of smart devices is more of academics for most users, most of the time is poured into gaming and other entertainment leaving them with poor academic results and inadequate time to spend on academics. Thus, dependence on Smartphones may be a definite risk factor for poor academic performance. Longitudinal research could be used to confirm our study and supply evidence for directionality.

Keywords: Smartphone addiction, academic performance, adolescents



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PHISHING WEB SITES FEATURES CLASSIFICATION BASED ON MACHINE LEARNING

¹M.Raj Kumar (DMC-48), ²D.Mohith (DMC-43)

^{1,2} Dept. of Computer Science, Andhra Loyola College (Autonomous), Vijayawada-8

Abstract:

Phishing is one of the most common and most dangerous attacks among cybercrimes. The main aim of these attacks is to hack the user information by accessing the credentials that is used by individuals and any of the organizations. Phishing web sites contain various hints among their contents and web browser-based information. The victim's confidential data is expected by the phishing sites by deriving them to surf a phishing web sites that resembles to legitimate websites, which is one of the criminal attacks prevailing in the internet. Phishing websites is similar to cyber threat that is targeting to get all the credential-based information accessed from the credit cards and social security numbers. The purpose of this project is to perform Extreme Learning Machine (ELM) based classification. There are different types of features based on web pages. Hence, to prevent phishing attacks we must use a specific web page feature. Here, a model based on Machine Learning techniques like Naïve Bayes is used to detect phishing web pages.



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RAYS OF INTELLECTUAL PROPERTY RIGHTS IN INDIA AND ITS PROGRESS

Dr. Baby Rani Bommadevara, HOD, Department of Economics, Andhra Loyola College, Vijayawada. b.babyrani@gmail.com 9948102726

Abstract

Intellectual property is defined as property created by the human mind and intellect. Any essential progress of human knowledge, such as artistic, academic, specialized, or logical development, is managed by Intellectual Property (IP). The creator's lawful rights to validate their invention are granted under Intellectual Property Rights (IPR). Intellectual property rights (IPR) are critical to a country's development. This paper looks at Intellectual Property Rights and the relation they have with economic growth. Its aim is to analyze the impact of a strong IP regime on the economic development of a nation. Today, IP rights are recognized as an important economic mechanism, an 'intellectual currency' of sorts, that encourages research and development (R&D), creation and innovation in several significant ways. So innovation is important for economic growth, but IPR protection is important for innovation, this way IPR protection becomes important for the economic growth too.

Keywords: Intellectual Property Rights, IPR Protection, Economic Growth, Innovation, R&D



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RISK PREDICTION IN DEEP LEARNING

K.Aparnaa¹, J.Satyanarayana² ¹Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>koppolu.aparna@gmail.com</u> ²Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>js.narayan25@gmail.com</u>

Abstract: Risk prediction is a critical task in many fields, including healthcare, finance, and insurance. Deep learning has shown great promise in accurately predicting risk, but there are many challenges associated with applying deep learning to risk prediction. This paper presents an overview of recent advances in deep learning for risk prediction, including the use of convolutional neural networks, recurrent neural networks, and attention mechanisms. We also discuss important considerations when applying deep learning to risk prediction, such as data quality, feature selection, and interpretability. Finally, we highlight some of the current limitations and future directions for research in this area. Overall, deep learning has the potential to significantly improve risk prediction in many domains, but careful attention must be paid to the specific challenges and considerations associated with each application.

Keywords: Deep Learning, Risk prediction, disease prediction.



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SENTIMENT ANALYSIS USING DEEP LEARNING

Mr. S.A.B. Nehru ¹, Mr. K Anil ² ¹Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>sabnehru@gmail.com</u> ²Assistant Professor, Department of Computer Science Andhra Loyola College, Vijayawada <u>anilkasula66@gmail.com</u>

Abstract

Sentiment analysis, also known as opinion mining, is the task of identifying the sentiment or emotion expressed in a given text. It has numerous applications in various fields such as marketing, customer feedback analysis, and political analysis. In this paper, we propose the use of radial basis function networks (RBFNs) for sentiment analysis. RBFNs are a type of artificial neural network that are particularly suited for function approximation and pattern recognition tasks. They consist of an input layer, a hidden layer with radial basis functions as activation functions, and an output layer. The RBFNs are trained using a supervised learning algorithm, such as backpropagation. We evaluate the proposed RBFN-based sentiment analysis method on a standard sentiment analysis dataset and compare it with other popular machine learning methods such as support vector machines (SVMs) and naive Bayes (NB) classifiers. The results show that the RBFN-based method outperforms the other methods in terms of accuracy, precision, and recall. In addition, we investigate the effect of different parameters such as the number of hidden nodes, the width of the radial basis functions, and the regularization parameter on the performance of the RBFN-based method. The experiments show that the performance of the RBFN-based method is sensitive to these parameters and that the optimal values depend on the characteristics of the dataset. Overall, our results demonstrate that RBFNs are a promising approach for sentiment analysis and that they can outperform other popular machine learning methods. Further research is needed to explore the use of RBFNs in other natural language processing tasks and to investigate the interpretability of the learned models.

Keywords: support vector machines (SVMs) and naive Bayes (NB), radial basis function networks (RBFNs).



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STUDY ON COMPUTER ETHICS

G.Bhavana ¹, Y.Jessy Veena ², **B.Deepika**³ Students, Department of Computer Science Andhra Loyola College, Vijayawada ¹gulipallibhavana @gmail.com, ² yadalajessyveena @gmail.com, ³deepikaswameru@gmail.com</sup>

Abstract: Computer ethics is a branch of applied ethics that deals with the ethical issues that arise from the use of computer and technology. It involves the study of moral, social and legal issues related to the use of computers and technologies. The field of computer ethics has becomes more integrated into our daily life.

In 1950,MIT professor Norbert Wiener published "The human use of human beings", which considered for the first time a series of ethical issues, questions and topics within Computer Science. Some of the key issues in Computer ethics include privacy, security ,intellectual property and access to information. Privacy concerns arise from the collection and use of personal data by companies and governments. Security issues arise from cyber-attack and the need to protect information. Theft are the unauthorised distribution of digital content, copyrighted content and intellectual property is an on-going issue online, with everything from art and entertainment media to software and innovative products shared illegally online. Access to information issues arise from digital divide and the need to ensure that everyone has equal access to information.



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STUDY ON DEEP LEARNING

G. Pradeep kumar ¹, G. Prasanna kumar ², A. Vazra dany³

Students, Department of Computer Science Andhra Loyola College, Vijayawada

Abstract:

Deep learning is a sub set of the Machine learning which is essentially a neutral network with three or more layers Deep learning is an emerging area of machine learning (ML) research. It comprises multiple hidden layers of artificial neural networks. The deep learning methodology applies nonlinear transformations and model abstractions of high level in in large databases. The recent advancements in deep learning architectures within numerous fields have already provided significant contributions in artificial intelligence. This article presents a state of art survey on the contributions and the novel applications of the deep learning. The following review chronologically presents how and in what major applications deep learning algorithms have been utilized. Furthermore, the superior and beneficial of the deep learning methodology and its hierarchy in layers and nonlinear operations. The state of the art survey further provides a general overview on the novel concept and the ever increasing advantages and popularity of deep learning.

Keywords: Deep learning, Machine Learning, Applied Deep Learning