A Two Day Virtual National Conference

on

"Recent Trends in Computer Science"

(RTCS - 2022)

19th & 20th March 2022

Organized by

Department of Computer Science

ANDHRA LOYOLA COLLEGE

[AUTONOMOUS] :: VIJAYAWADA - 520008

Accredited by NAAC A+, 34th Rank by NIRF, MHRD, Govt. of India

In Association with

SOLETE [Society for Learning Technologies]

Message from Rector

I am very much delighted to know that the Depts. of Computer Science and MCA in association with SOLETE is organizing a two-days National Virtual Conference on "**Recent Trends in Computer Science".** I felt that it is a highly useful and relevant topic in the present-day Scenario. I appreciate the efforts of all the Staff members who are directly or indirectly involved in conducting this Conference. My special appreciation to Dr. K. B. S. Sastry, Organizing Secretary for taking all possible efforts to conduct this Conference.

I extend my warm greetings to all the participants of the Conference and extend the very best wishes to all the young scholars. I take this opportunity to thank and congratulate Rev. Fr. Dr. M. Sagayaraj, SJ, Correspondent, Rev. Fr. Dr. G.A. Peter Kishore, SJ, Principal, and all the members of the Organizing Committee for making this Conference possible. May God bless all our relentless efforts to keep the flag of ALC high in the sky!

Rev. Fr. P. Bala Showry, S.J.
Rector
Andhra Loyola College
Vijayawada – 520 008

Message from Correspondent

Nature is the art of God-Says **Dante Alghieri**. Therefore, this art of God has to be experienced not only by reading about it in books, but also people walking in the woods and listening carefully, **to what they speak with the voice of God.**

I feel greatly encouraged to see the Dept. of Computer Science and MCA for conducting two-days National Virtual Conference on "**Recent Trends in Computer Science" (RTCS 2022)** for making available yet another platform for the interested faculty, research scholars and students to learn from the deliberations during the conference.

The emerging trends in IoT are majorly driven by technologies like artificial intelligence, blockchain, Cloud Computing and edge computing. Within this interconnected web of technological advances lies in the business value of recent applications like smart wearable's, smart homes and buildings, smart cities, automatic cars, smart factories, location trackers, wireless sensors and much more. This level of connectivity helps consumers to experience a comfortable secure household that they can control and monitor anytime. Artificial Intelligence also promotes healthcare, cost and energy savings. With the internet of medical things, the healthcare sector has increased its market and patient service. From a business point of view, IoT project succeeds by making operation management more efficient, improves the productivity from resources, and reduces human labor and above all, it provides vast business opportunities.

I do congratulate and place on record the Department staff for their laudable efforts in this regard.

Rev. Fr. Dr. M. Sagayaraj, S J.,
Correspondent
Andhra Loyola College,
Vijayawada -520 008

Message from Principal

I am glad that our Departments of Computer Science and MCA are organizing a National Seminar on Recent Trends in Computer Science in association with SOLETE (Society for Learning Technologies, India). The chosen topic of the Seminar suggests, as it could be expected and understood, that Computer Science is treading new paths and exploring new vistas in the ever expanding world of ICT. I congratulate our Departments of Computer Science and MCA for organizing this National Seminar on a topic so relevant to the current scenario. Computers Science, as all know, is sought after by millions of students across the globe as they wish to carve out a niche for themselves in the competitive world. The ever increasing globalization requires professionals, who are ever willing and open to learn to keep themselves up – to – date in Information and Communication Technology. In this context, it is hoped that this Seminar will throw the much needed light on various trends and challenges in the fast growing field of ICT. The dissemination of knowledge in this regard is the need of the hour and the efforts of the Organizers need to be applauded. I wish the Seminar a grand success and hope that it provides a platform for the Academicians, Research Scholars, Industry Experts to share with and learn from one another the Recent Trends in Computer Science.

Rev. Fr. Dr.G.A.P.Kishore, S.J.
Principal
Andhra Loyola College
Vijayawada – 520 008

Message from Vice Principal

It is the matter of great pleasure and happiness to see that department Computer Science and MCA is organizing its Second National level Conference on "**Recent Trends in Computer Science**" **(RTCS 2022)**. The objective of the conference is to provide a platform for a profound discussion and presentations on state-of-the-art research, development, innovations and implementations of Communication and Internet of Things by the researchers nation-wide. There has been a tremendous advancement and innovations in Communication which is incomparable to what emerged traditionally. We use cell phones many times during a day-often, without even realizing it. Looking to its huge hope and dimensions, **RTCS 2022** brings together academics, industrial experts and education leaders from all over the nation to discuss an incredibly wide array of topics ranging from Foundation of advancements in Communication, Cloud computing and Machine Learning. I would like to express my sincere thanks and appreciation to the renowned Professors and prominent Researchers for having agreed to deliver the keynote session and share their knowledge during the Conference. My warmest thanks go to the organizing committee colleagues including the technical program committee members, the paper reviewers for their invaluable work in shaping the technical program and not the least all the authors who kindly submitted their papers to RTCS 2022. In summary, no doubt you all will appreciate the unique combination of cutting-edge technical program, with wonderful organization of the conference.

Rev. Fr. S. Raju, S.J
Vice Principal
Andhra Loyola College
Vijayawada – 520 008

Message from Vice Principal

I would like to extend a warm welcome to you all to participate in this conference **Organized by Computer Science Dept.**

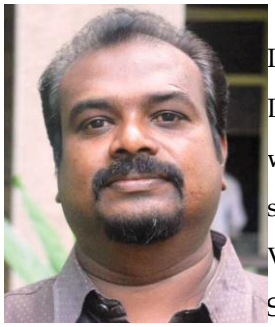
The objective of this conference is to provide a forum for faculty, researchers, engineers and the students to present and discuss the latest technology advancements as well as future directions and trends related to communication technologies and Artificial Intelligence with good computing methods.

Due to the rapid growth of technology, the problem of storing, processing, and accessing large amounts of data has arisen. Great innovation relates to the mutual use of the Machine Learning and cloud technologies. In combination, it will be possible to use powerful processing of sensory data streams and new monitoring services. As an example, sensor data can be uploaded and saved using cloud computing for later use as intelligent monitoring and activation using other devices. The goal is to transform data into insights and thus drive cost-effective and productive action.

The future of the Internet of Artificial Intelligence is limitless. It is no longer limited to computers, tablets, and smartphones; now a multitude of devices are connected to the internet. Researchers have transferred almost every analog device into a digital one. However, today almost every digital device is on its way to being a "smart" device. Apart from computers and watches, today washing machines, door locks, toasters, and vacuum cleaners come under the umbrella of the Internet of Things. It is projected that by 2025, there will be more than 21 billion IoT devices operating across the world. IoT is not separate from the Internet, but an expansion of it - a way of intelligently fusing the real and cyber worlds. This gives the idea about the future of inter-connectivity. It doesn't take a genius to figure out that artificial intelligence (AI) will be a dominating force in the future.

Rev. Fr. G. Rayappa, S.J
Vice Principal
Andhra Loyola College
Vijayawada – 520 008

Message from Convener (RTCS 2022)



When the world is fast thinking about Satellites, Robotics, Virtual Reality, Artificial Intelligence, Analytics, Cyber Security, Quantum Computing and Machine Learning, Andhra Loyola College, an institution par on excellence, want its students to compete and collaborate with the fast-growing technology. To keep pace with the emerging trends and changes in the IT sector and technology, the Department of Computer Science organized a two-day National Virtual Conference on "**Recent Trends in Computer Science**" (RTCS-2022) in association with SOLETE (Society for Learning Technologies, India). It is a well-known fact that computer-based technology has penetrated into many aspects of life and industry. Advances in computer vision and deep learning provide new solutions to the global challenge. The technology has advanced by leaps and bounds in the fields of science, astronomy and medicine challenging the man power. Though Artificial intelligence is another challenge to the natural intelligence, as Amita Ray, a pioneer of Compassionate AI Movement says, 'The coming era of Artificial Intelligence will not be the era of war, but the era of deep compassion, non-violence and love'. This seminar is planned to cover all the aspects related to the advancements in Science and Technology and to compete with the man-made machines.

The conference received many submissions from all over India, out of which the best selected papers presented during these two days. The Conference Proceedings will be published by Elsevier SSRN. RTCS 2022 is an effort of Andhra Loyola College, Management, our beloved Jesuit fathers. All the paper submissions have gone through a careful anonymous review process aided by Technical Program Committee members and Advisory Board. The RTCS 2022 Conference includes prominent Keynote addresses by Prof. A. V. Senthil Kumar, Director and HOD Department of MCA, Hindusthan College of Arts and Science, Coimbatore, Tamil Nadu. Dr. R. Vijaya Kumari, HOD, Computer Science, University College of Arts and Science, Krishna University, Machilipatnam, Dr. B. V. Subba Rao, HOD, Information Technology, Prasad V. Potluri Siddhartha Institute of Technology, Vijayawada, Dr. Sowmya Koneru, HOD, Information Technology, Dhanekula Institute of Engineering & Technology, Vijayawada.

I would like to thank everyone who has given his or her time, energy and ideas to assist in organizing this event including all members of organizing committee, Technical Program Committee members and all the advisory Committee members and our distinguished keynote speakers who have agreed to address the conference attendees. I also wish to thank all our students and department staff. It is through the collective efforts of these individuals and organizations that we are able to bring this conference a great event! Looking for the great success of the Conference to enrich the knowledge. I am sure that the deliberations in the seminar would provide good insights and inspire the faculty, students and research scholars.

S. A. B. Nehru

Convener (RTCS 2022)
Andhra Loyola College
Vijayawada – 520 008

Message from Co-ordinator (RTCS 2022)

I am immensely happy that the department of computer Science and Master of Computer Applications(MCA) of our est**eemed institution are jointly organizing the two days National Virtual Conference on "**Recent Tends in Computer Science" (RTCS 2022) on 19th & 20th is always an endeavour of any educational institution to keep itself abreast with changing times, technology and teaching methods and uphold its position in the global world. With a vision to educate and empower the young minds, Andhra Loyola College, forays to organize workshops, seminars and conferences that would enhance the skills of the students. Human development in recent decades has been accompanied by rapid changes in science and technology. New technologies have created more jobs as industries, corporate offices, national banks and other government organizations are all accelerated by the technological advancements. To progress and forge ahead, it is necessary to cope up with the recent advancements in the field of Computer Science. This seminar is going to address the various issues and concerns related to advancements in Science and Technology. As Isaac Asimov says, 'I do not fear computers. I fear lack of them', may be every human brain should be a super computer advancing the features and memory to compete with the international standards.

I express my indebtedness and heartfelt thanks to all the scholars and educationists who shared their views and expertise in this seminar through their scholarly articles.

Dr. R . Poonam
HOD, MCA (RTCS 2022)

Andhra Loyola College
Vijayawada

Message from Organising Secretary (RTCS 2022)

It is always an endeavour of any educational institution to keep itself abreast with changing times, technology and teaching methods and uphold its position in the global world. With a vision to educate and empower the young minds, Andhra Loyola College, forays to organize workshops, seminars and conferences that would enhance the skills of the students. Human development in recent decades has been accompanied by rapid changes in science and technology. New technologies have created more jobs as industries, corporate offices, national banks and other government organizations are all accelerated by the technological advancements. To progress and forge ahead, it is necessary to cope up with the recent advancements in the field of Computer Science. This seminar is going to address the various issues and concerns related to advancements in Science and Technology. As Isaac Asimov says, 'I do not fear computers. I fear lack of them', may be every human brain should be a super computer advancing the features and memory to compete with the international standards.

I express my indebtedness and heartfelt thanks to all the scholars and educationists who shared their views and expertise in this seminar through their scholarly articles.

Dr. K. B. S. Sastry
Organising Secretary (RTCS 2022)

Andhra Loyola College
Vijayawada

Index

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A Synthetic Minority over Sampling Technique for Identifying Abnormality of Gene Expression Levels in Colon Cancer

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Abstract: "Genomics" refers to the study of all the genes in the cell individually. The view of "gene" has changed significantly over the past 20 years. From the point of genomics, Colon Cancer is not a single disease but which is a heterogeneous group of malignancies arises from the colon. Colon cancer development mainly due to intrinsic genomic instability of cells present at the level of human colon crypts. The existence of this genomic instability is directly supported through the analysis of individual human colon crypts derived from healthy individuals of different ages and about half of million people die every year die due to Colon Cancer. In most instances, it requires an examination of the stool to identify tumour specific changes. Initially start as small, the benign cluster of cells called as [8] adenomatous polyps later convert to cancer cells. A colon is one of the major constituents of the large intestine and its cancer is the major reason for the deaths of many peoples. The prevalence is such that it is one of the major causes of deaths in the United States and India. The lifetime probability of colon cancer is increasing day by day in the patients. With the advancements in science and technology, there are treatments but it is not tolerated and accepted by the people. [2]Data from national Polyp study suggest only 76% removal of polyps that too at high risk. Many reasons colloid with the Colon cancer issues like eating red meat, smoking, alcohol, low intake of vegetables and fruits, the historical record of the patients. If the expression levels are abnormal then there is a chance of un identifying the stages of cancer hence we apply machine learning techniques to identify the expression levels. The goal of the work was to find what genes, whether they had abnormally low or high expression levels, corresponded to a positive case of colon cancer.

Keywords: SVM, PCA, RF, LR, KNN.

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Secure medical image transmission using modified leading diagonal sorting with probabilistic visual cryptography

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Abstract

Information is subsisting through open channels and the security of this information has been primary considerations. Away from multidunious repeated cryptographic ways, Visual Cryptography (VC) styles have likewise being used for information and data security. VC is a sneak sharing system as it breaks the first image into sharing images in order, when the shares are piled on each other. A retired secret image is uncovered. A (k,n) –threshold secret image sharing(SIS) scheme protects a secret image by dividing it into n shadow images; when any k or further shadow images are collected, the secret image is reconstructed. While any (k-1) or smaller must give no indication about the secret. Still, all former SIS schemes don't deal with secure secret image recovery over Distributed Cloud Network (DCN). The VC fashion is a secure fashion that encodes a secret train or image by breaking it into share images. Cloud computing is a progression model for large scale systems. Security for medical image transmission has been an ongoing computational Problem from Image recovery to its processing, storehouse, and reclamation with the advancement of data in the medical sector and Healthcare systems into the cloud.

Keywords: Visual Cryptography (VC), threshold secret image sharing(SIS), Distributed Cloud Network (DCN)

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RPL Protocol to protect DDoS attacks in Internet of things

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Abstract

Internet of Things becomes very popular in present days. It is the new generation of traditional wireless sensor network devices and it offers wide variety of applications in different areas like military, medicine, home automation, remote monitoring, etc. The behavior of IoT device is very easy to access , this will lead to connect various devices that lead to several attacks in IoT. Due to their wide usage and Large-scale DDoS (Distributed Denial Of Service) attacks using millions of these devices security of these devices have become an important aspect. Security implementation needs to be power efficient considering the limited power resource available to these IoT devices. Since attackers can control these IoT devices remotely using smart phone or a computer, any attack on these devices can create a problem. One of the most widely used routing protocol in IOT communication is Routing protocol over low power loosey network (RPL). This paper addresses different DDoS attacks on RPL protocol and proposed a secure RPL protocol which detect and mitigate the impact of the different attacks. Most of the existing models works with mitigating any one of DDoS attack. Results shows that the proposed model is better compared to previous models.

Keywords: RPLprotocol, DDoS attacks, Internet of things, LLN networks.

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Early Diagnosis of Covid-19 using Advanced Learning Algorithms

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[2]HOD, Dept of Computer Science, Andhra Loyola College (Autonomous), Vijayawada-8.

Abstract

COVID-19 is called as corona virus firstly discovered in Wuhan city, china and this spreads all over the world very fastly since January 2020. This is very dangerous chronic disease that created the panic situation in many countries across the world. Still many countries are facing health issues with COVID-19. It is very difficult to detect this disease in the early stages with the traditional tests. Testing of this disease becomes more complicated in the beginning. To diagnosis COVID-19 the reverse transcription-polymerase chain reaction (RT-PCR) is most widely used by the labs. Symptoms such as fever, body pains, dry cough etc. Some of the symptoms that is non-specific such as headache, no taste or smell, vomiting etc. This disease will transmit from person to person very fastly. Still there is lack of accuracy in results. It is very important to diagnose the CT scan images for accurate results. In this paper, a decision based learning approach is introduced to improve the accurate results. The performance is calculated by using Precision, Recall, Accuracy, Cohen kappa score (CKP), Pearson coefficient (PC). The proposed approach shows the huge accuracy.

Keywords: Covid-19, RT-PCR, CKP, PC.

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System Biology

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Abstract

Systems biology is a newly emerging biological field that aims to understand various complex life phenomena at a system level. The traditional biology has a tendency to break down the observable life phenomenon into a list of parts and for determining their interactions (reductionism), whereas system biology attempts to describe the complex and dynamic wiring of all the elements in a system and detect the emergent properties of it (holism). Systems biology has become realistic with the accumulation of large mass of biological data by use of the high-throughput omics technologies (e.g. genomics, transcriptomics, proteomics and metabolomics). This review provides an overview of major themes in the current research trends of systems biology, summarizing some of major strategies to generate, analyse and integrate the high-throughput data to make them useful information capable of predicting complex biological behaviours.

Keywords: reductionism , holism , biological data

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Internet of Things

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Abstract:

The Internet of Things (IOT) describes a kind of network which interconnects various devices with the help of internet. Iot plays the role of an expert's technical tool by empowering physical resources into smart entities through existing network infrastructures. Its prime focus is to provide smart and seamless services at the user end without any interruption. The Iot paradigm is aimed at formulating a complex information system with the combination of sensor data acquisition, machine learning, artificial intelligence, big data, and clouds. Thus, new challenges of using and advancing existing technologies, such as cloud computing, smart vehicular systems, protective protocols.

Keywords: IoT; smart environment; security and surveillance

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Future with Big Data

[1]Ch.Teja (NMCA-05)
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Abstract:

Big data is a potential research area receiving considerable attention from academia and IT communities. In the digital world, the amounts of data generated and stored have expanded within a short period of time. Consequently, this fast growing rate of data has created many challenges. Furthermore, decision makers need to be able to gain valuable insights from such varied and rapidly changing data, ranging from daily transactions to customer interactions and social network data. Such value can be provided using big data analytics, which is the application of advanced analytics techniques on big data. The process of research into massive data to reveal secret correlations named as bigdata analytics. Big Data is a data whose complexity requires new techniques, algorithms, and analytics to manage it and extract value and hidden knowledge from it.

Key words:

Big Data, Digital World, Advanced Analytics, Massive Data, Algorithms and Techniques.

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Web Development

[1]K.Jayanth (NMCA-07)
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Abstract:
The applications can access functionalities through newly defined application programming interfaces. The functionalities include support for multimedia, dynamic graphic rendering, geolocation, multithreading, local data storage etc. HTML5 also introduces semantic markup, which can be used for marking the document structure as well as its elements and data. The new version of HTML enforces strict separation of the page content from its style. The styling can only be done using CSS (Cascading Style Sheets) language. The new CSS version, i.e. CSS3, has a modular structure, in which different modules define different styling features. The development cycles of the individual modules are independent as well as their support and implementation in various browsers.

Keywords: Programming interfaces, Multithreading, Dynamic graphicrendering, HTML5, CSS.

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Development of Native Mobile Application Using Android Studio for Cabs and Some Glimpse of Cross Platform Apps.

[1]John paul (NMCA-36)
[2]Kavitha (NMCA-47)
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Abstract:

The Cab application developed using Android Studio new version. It also include about the Cross Platforms on which development of android and IOS both platforms application can be done. Cross platforms Paper also includes an example of Cab application which will show its working and its uses. Cab Application is an Android Application which is build in Android Studio 8.0.1. Android Studio is a official integrated development tool or environment for Google's Android operating system. It is build on JetBrains' IntelliJ IDEA software. The main motive of building Cab Application is to provide employment and also make drivers, owners and customer's life easy. So basically we are trying to connect peoples (customers, Drivers and Owner's of the cabs) can be mutually benefited. In this Application number of services available, so the customer can easily select the services, date of service, time of service etc.

Keywords: Android Studio, Cab Application, Cross Platform Application.

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Cyber security and threats

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Abstract:

The rapid developments of technology have provided huge areas of new opportunity and potential sources of efficiency for organizations of all sizes, these new technologies have also brought unprecedented threats with them. However, multimedia editing tools can be used to efficiently and seamlessly alter the content of digital data, thus compromising the credibility of information. Cyber security defined as the protection of systems, networks and data in cyberspace to preserve the original data and to remove all doubt about genuineness. In business this is a critical and challenging issue in the cyber world. Cyber security will only become more important as more devices the internet of things become connected to the internet. This paper focus on types of cyber security, types of vulnerabilities and cyber threats techniques, techniques to avoid threats. Finally ends up with advantages of cyber world.

Keywords: multimedia, cyber security, vulnerabilities

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ARTIFICAL INTELLIGENCE IN AGRICULTURE

[1]D.V.S.Sumanth (NMCA-31)
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Abstract:

Agriculture is the largest sector in the world. Agriculture is the backbone of Indian economy. Government of India has set a target of doubling of farmer's income by the year 2022 .The technologies like Artificial Intelligence provides Drones, robotic tractors with accurate and timely information regarding crops, land, weather and insect-pest etc. to the farmers; therefore, it may improve the crop productivity with reduced risk resulting the improved income of the farmers.

Keywords: Artificial Intelligence, Crops, Weather, Drones, Agriculture.

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DIGITAL TRUST

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Abstract
Along with the invention of computers and interconnected networks, physical societal notions like security, trust, and privacy entered the digital environment. The concept of digital environments begins with the trust (established in the real world) in the organization / individual that manages the digital resources. This concept evolved to deal with the rapid growth of the Internet, where it became impractical for entities to have prior offline (real world) trust. The evolution of digital trust took diverse approaches and now trust is defined and understood differently across heterogeneous domains. This paper looks at digital trust from the point of view of security and examines how valid trust approaches from other domains are now making their way into secure computing. The paper also revisits and analyses the Trusted Platform Module (TPM) along with associated technologies and their relevance in the changing landscape. We especially focus on the domains of cloud computing, mobile computing and cyber-physical systems. It will explores our proposals that are competing with and extending the traditional functionality of TPM specifications.

Keywords: Trusted Platform Module (TPM), interconnected networks, physical societal notions

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BlockHDFS: Blockchain-integrated Hadoop distributed file system for secure provenance traceability

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Abstract
Hadoop Distributed File System (HDFS) is one of the widely used distributed file systems in big data analysis for frameworks such as Hadoop. HDFS allows one to manage large volumes of data using low-cost commodity hardware. However, vulnerabilities in HDFS can be exploited for nefarious activities. This reinforces the importance of ensuring robust security to facilitate file sharing in Hadoop as well as having a trusted mechanism to check the authenticity of shared files. This is the focus of this paper, where we aim to improve the security of HDFS using a blockchain-enabled approach (hereafter referred to as BlockHDFS). Specifically, the proposed BlockHDFS uses the enterprise-level Hyperledger Fabric platform to capitalize on files' metadata for building trusted data security and traceability in HDFS.

Keywords: Big data, Hadoop, Blockchain, Hyperledger fabric, Hadoop distributed file system (HDFS), Traceability, Security, Privacy

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Quantum Computing

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Abstract:
Quantum computing is the use of quantum mechanics, such as entanglement and superposition, to perform computations. It uses quantum bits (qubits). Quantum computers have the potential to solve problems that would take the worlds most powerful supercomputers millions of years.

Companies including IBM, Microsoft and Google are all in competition to build reliable quantum computers. In fact, In September 2019, Google AI and NASA published a joint paper that claimed to have achieved & quot; quantum supremacy quot;. They also have the potential to accelerate the development of artificial intelligence, virtual reality, big data, deep learning, encryption, medicine and more. Despite current limitations, its fair to expect further advances from Google and others that will help make quantum computers practical to use.

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METAVERSE

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ABSTRACT: METAVERSE is a new type of Internet application and social form that integrates a variety of new technologies. It is a virtual world, featuring avatars, digital objects, functioning economies, where technology is not just a tool, but something that is all encompassing.

These include virtual reality (VR), augmented reality (AR), and brain-computer interfaces (BCI), which together position themselves as the next computing platforms in their own right ended reality (VR, AR, and BCI) technologies are emerging as the computing platforms for the METAVERSE. It connecting people from different places, separate universes, or spheres of life and allowing them to interact with one another.

Keywords: virtual reality (VR), augmented reality (AR), METAVERSE

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MEDICAL INFORMATICS

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Abstract

Medical information have become increasingly important in the practice of medicine today. Computer technology is developing to achieve this goal. This had led to the emergence of a new specialty, medical informatics, the basic science of the use of computers in medicine. Areas of patient care to which medical informatics has been applied include history taking, medical records, medical data base information retrieval, test performance, test result retrieval, decision support, patient monitoring, medical education, quality assurance and utilization review, medical research, and medical office and financial management. It is important that these applications become integrated with existing medical information systems and that physicians take a leading role in developing and maintaining these systems

Key words: Hospital services , Medical informatics , awareness, Health.

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ROBOTICS

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Abstract
This article surveys traditional research topics in industrial robotics and mobile robotics and then expands on new trends in robotics research that focus more on the interaction between human and robot. The new trends in robotics research have been denominated service robotics because of their general goal of getting robots closer to human social needs, and this article surveys research on service robotics such as medical robotics, rehabilitation robotics, underwater robotics, field robotics, construction robotics and humanoid robotics. The aim of this article is to provide an overview of the evolution of research topics in robotics from classical motion control for industrial robots to modern intelligent control techniques and social learning paradigms, among other aspects.

Keywords: industrial robotics , mobile robotics , classical motion control, modern intelligent control

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History of robotics

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Abstract
Robotics plays an important role in our everyday lives. Although the science of robotics only came about in the 20th and 21th century. The 21st century is also the century for Asia; robotics is set to play an ever increasingly important role in society for its influence in every aspect of life in Hong Kong, including medicine and healthcare, building service, manufacturing, food production, logistics and transportation. The characteristics of the robots belonging to each generation are mentioned, and the evolution of their features is described. The most significant milestones of the history of industrial robots, from the 1950's to the end of the century are mentioned.

Keywords: Robotics, medicine and healthcare, industrial robots

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PHYSICS

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Abstract:
In this volume we have gathered papers in view of the introductions given at the Global Meeting on Virtual experiences in Material science and then some (CSP2015), held in Moscow, September 6-10, 2015. We trust that this volume will be useful and deductively intriguing for readers. The Meeting was coordinated interestingly with the normal endeavors of the Moscow Organization for Gadgets and Arithmetic (MIEM) of the Public Exploration College Higher School of Financial aspects, the Landau Establishment for Hypothetical Physical science, and the Science Place in Chernogolovka. The name of the Gathering underscores the multidisciplinary idea of computational physical science. Its techniques are applied to the expansive scope of flow research in science and society. The decision of scene was propelled by the multidisciplinary character of the MIEM. It is a previous autonomous college, which has as of late turned into the piece of the Public Exploration College Higher School of Economics. The Meeting Programmatic experiences in Material science and then some (CSP) is intended to be coordinated twice per year. The current year's Gathering highlighted 99 introductions, including 21 whole and welcomed talks going from the examination of Irish fantasies with ongoing techniques for factual physical science, to registering with novel quantum PCs D-Wave and D-Wave2.This volume covers different areas of computational physical science and arising subjects inside the computational physical science local area. Each segment was gone before by welcomed talks introducing the most recent calculations and techniques in computational physical science, as well as new logical outcomes. Both equal and banner meetings really focused on mathematical strategies, applications and results.

Keywords: Virtual experiences, CSP, MIEM

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IMPORTANCE OF TELEHEALTH TECHONOLOGY

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ABSTRACT

Telehealth aims to revolutionize health care by migrating health care from hospitals and satellite clinics directly into the home and onto mobile devices . Several technologies are being deployed for telehealth including mHealth (or mobile health), video and audio technologies, digital photography, remote patient monitoring (RPM), and store and forward technologies . Almost overnight, the health care system has shifted toward providing care through telehealth platforms to avoid the catastrophic consequences of "doing business as usual," making telehealth a leading modality of health care delivery.

KEYWORDS: Telehealth, Remote Patient Monitoring (RPM), Patient communication, EHR integration, Telehealth reimbursement.

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EVOLUTION OF CLOUD COMPUTING

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ABSTRACT
Cloud computing has become an interesting topic among the IT industry, Business intelligence and users. Network storage and server these all facilities provided by cloud computing through internet is called cloud computing. cloud computing is an internet based computing which has powerful computational architecture and it offers universal services to the customers and it has several benefits over grid and other computing .It is not a location depending computing in which shared servers provides all the data. software and services to computer and some other required devices like mobile phones, PDA's etc., In this paper, we have given a review on evolution of cloud computing and its comparison with grid computing and various approaches to cloud computing.

KEYWORDS:
Cloud ,SAAS ,PAAS ,IAAS ,Cloud Computing Grid Computing.

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Virtual Reality Applications

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Abstract:
Virtual reality (VR) is a powerful and interactive technology that changes our life unlike any other. Virtual reality, which can also be termed as immersive multimedia, is the art of simulating a physical presence for the audience in places both real and imaginary. It usually involves two senses namely sight and sound. The key property that distinguished psychological VR from all previous media types is "presence". Presence is the sense of "being there", of actually being immersed in and surrounded by in the environment. This discussion is an attempt to give an overview of the current state of environment-related VR, with an emphasis on live VR experiences. The technology, art and business of VR are evolving rapidly. The various fields of VR are discussed to get a better view about it. The next development based on virtual reality is augmented reality.

KEYWORDS: Virtual reality (VR), immersive multimedia

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ROLE OF CLEAN TECHNOLOGY

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ABSTRACT
The main objective of this paper is role of clean technology. It refers to avoiding environmental damage at the source through use of materials, processes, or practices to eliminate or reduce the creation of pollutants or wastes. It can reduce pollutants and dirty fuels for every company, regardless of which industry they are in, and using clean technology has become a competitive advantage. Through building their Corporate Social Responsibility (CSR) goals, they participate in using clean technology and other means by promoting Sustainability.

KEYWORDS
Sustainability, technology, environment, economic approach.

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Artificial Intelligence

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Abstract:
"The science and engineering of making intelligent machines, especially intelligent computer programs". Artificial Intelligence is an approach to make a computer, a robot, or a product to think how smart human think. AI is a study of how human brain think, learn, decide and work, when it tries to solve problems. And finally this study outputs intelligent software systems. The aim of AI is to improve computer functions which are related to human knowledge, for example, reasoning, learning, and problem-solving.

Key words: Reasoning, Learning, Problem Solving, Perception, Linguistic Intelligence etc.,