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2nd INTERNATIONAL CONFERENCE ON
INNOVATIONS IN COMPUTING

December 14-15, 2018

INNOVATIONS IN COMPUTING

http://icic2018.webs.com

Organized by
Department of Computer Science & Engineering
CGC College of Engineering, Landran,
Mohali 147301, (Punjab, INDIA)

Glimpse of ICIC 2017

Abstract Book

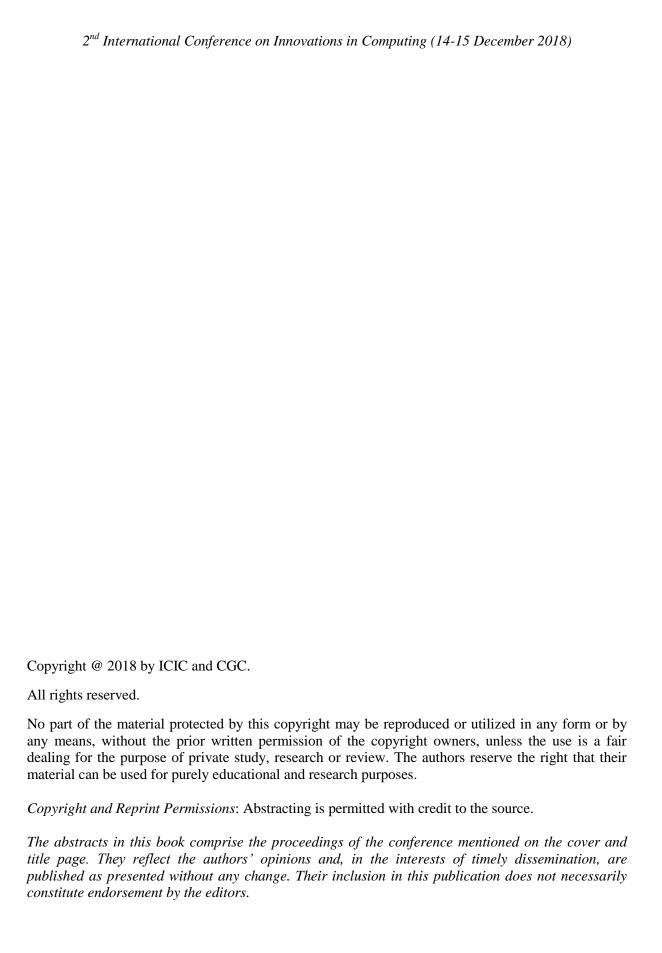## 2nd International Conference on Innovations in Computing

14 – 15 December 2018

Department of Computer Science & Engineering
CGC College of Engineering
Chandigarh Group of Colleges
Mohali-140307, Punjab, INDIA

Editors: Dr. Manish Mahajan, Dr. Anuj Kumar Gupta

Associate Editors: Mr. Sunil Kumar Chawla, Ms. Vandana Mohindru

CONTENTS

WELCOME TO ICIC 2018

ICIC 2018 – *2ndInternational Conference on Innovations in Computing* is the sequel to its first edition ICIC 2017, in the series to be continued in the upcoming years, to be held by Chandigarh Group of Colleges – College of Engineering, Mohali, Punjab, India. As few of you already know, the idea about ICIC that incepted in the year 2017. A similar thought has been carried over this year too. It is probably good to say a few words about the conference. This conference is based on the idea to bring together researchers, practitioners teachers, students, IT people and all interested in the topic are invited to share their results, experiences or products. The event aims to support the IT movement in order to improve tomorrow's education and research. We firmly believe that an interdisciplinary exchange of ideas and research in the field of IT and lifelong learning is of crucial importance to help solving contemporary societal problems. Furthermore, we should also not forget that we need an innovative educational and training infrastructure that is able to provide first class learning experiences to learners. In our opinion, new technology, new pedagogy and new role models in teaching and research are extremely important.

After passing a rigorous round of reviews by the Technical Program Committee, out of 125 submissions, a total of 66 manuscripts have been finally accepted after peer review. Out of these, 13 manuscripts have been considered for publication in Scopus indexed journal and 52 in UGC approved journal. In addition to this, 27 posters were also accepted for presentation. Reviewers from all around the world contributed in the review process and we would like to thank them for their valuable efforts. We would also like to thank the Keynote Speakers from within the country and abroad, who had given their consent to be share their experiences amongst the researchers from all around.

CREDITS AND ACKNOWLEDGEMENTS

Finally, the Conference Chairs would like to express their gratitude towards a considerable number of volunteers and helpers who have devoted their time and endless patience to the organization of this conference. CGC is a powerful and ever growing learning association of many enthusiastic people who have organized this conference for the first time and we are very grateful to be a small part of it. In particular, we have to thank the chairs, who were working on a voluntary basis for a whole year to make this conference a success.

We would also like to thank the 100+ members of the International Program Committee, who provided timely and insightful suggestions and reviews without complaint and little credit. Finally, we would like to thank the Advisory Board Members and Organizing Committee Members of the conference for their support in this amazing endeavor. These are the people who have worked incredibly hard behind the scenes to guide all the aspects of the conference. Special thanks go to Hon'ble Chairman S. Satnam Singh Sandhu and Hon'ble President S. Rashpal Singh Dhaliwal for believing in us second time and giving nod to organize such an event again. We would also like to take this as an opportunity to thank all those who have actively took part as local organizers of the conference. Last but not least, we would like to thank the Administration of CGC Group, Technical Partners, Publication Partners and our Sponsors for their timely support. We especially welcome conference delegates who are attending ICIC-2018 and hope you will enjoy it. We kindly ask all ICIC 2018 committee members to extend a heartiest and warm welcome to all the participants and research scholars, who are now becoming a valuable part of the constantly expanding CGC community.

Warm greetings and welcome to ICIC.

Dr. Manish Mahajan
Dr. Anuj Kumar Gupta
Conference Conveners

MESSAGE

S. Satnam Singh Sandhu
Chairman, Chandigarh Group of Colleges

"Computing is not about computers any more. It is about living."
— Nicholas Negroponte

It is my immense pleasure to writing this forward for the abstract book of 2nd International Conference on Innovations in Computing (ICIC-2018) being organized by CGC College of Engineering during December, 14-15, 2018. This event is aimed towards sharing innovations, challenges, latest trends and future scope in the field of computing. Researchers, Professionals, Educators and Students will be on a common platform addressing the needs of the hour.

I believe in the power of computing as today's era is witnessing the advancements in each and every field of daily life due to rapid developments happening through use of computers in technology.

We have always strived to achieve excellence, meeting expectations of delegates arriving to attend the conference in terms of quality of speakers, timeliness of invited talks and discussions, as well as knowledge sharing and networking opportunities have been our prime objective. This year, too, all efforts go in to making it an enriching experience for you.

I am pleased to note that researchers from various Institutes / Universities and Industries from different parts of the country and abroad are presenting their research papers on current aspects of Internet of Things, Computing, Machine Learning, Communication Network, System Design, Web based Learning, Green Computing and many more advanced areas.

I am sure that this conference would serve as a platform to connect various academicians, researchers and scholars to go beyond borders in search of new frontiers in researches of the millennium and as well to showcase their innovations and findings.

I take this opportunity to wish you all a great success of the International Conference ICIC-2018.

MESSAGE

S. Rashpal Singh Dhaliwal
President, Chandigarh Group of Colleges

"I do not fear computers. I fear lack of them."
— Isaac Asimov

With a pledge to achieve a sustainable success in the extremely competitive world of engineering and technology, CGC College of Engineering is organizing 2nd version of International Conference on Innovations in Computing (ICIC-2018).

In order to face various emerging challenges in different fronts of engineering and technology, it has become indispensable to explore diversely integrated and interdisciplinary engineering approaches.

I am sure that this conference would greatly benefit researchers, students and faculty. Young scientists and researchers will find the contents of the proceedings helpful to set roadmaps for their future endeavours. I welcome the delegates and also express my whole hearted congratulations to all the staff & students of CGC COE and wish the conference a grand Success.

I wish you success in your deliberations to make the event a successful one.

MESSAGE

Dr. P. N. Hrisheekesha
Campus Director, Chandigarh Group of Colleges

"The computer was born to solve problems that did not exist before."
— Bill Gates

I am pleased to welcome all the dignitaries from all around the globe on the occasion of 2ⁿᵈ International Conference on Innovations in Computing being organized by CGC College of Engineering.

I have also witnessed the initial version of the conference and I feel happy to announce that like last year, this year too, we are getting a huge response from the researchers from diverse fields of engineering, technology, and computation.

I am sure that this conference engrossed with the fresh ideas, enthusiasm and vision of the hosts, will definitely prove to be a wonderful experience for all the attendees.

Computing has reduced the gap between man and machine and it is going to continue to reduce this in future too. Will *"Artificial Intelligence"* control the human behaviour in future? Such questions are indeed a matter of concern in today's era.

In order to discuss more such trends, issues and algorithms in the field of computing, we have to get together on December 14-15, 2018 at CGC-College of Engineering. I hope the talks will be fruitful and researchers and delegates attending the conference will present the useful results.

I appreciate the efforts of teams involved in organizing the conference and wish them all the best for successful completion of the event.

MESSAGE

Dr. Vincenzo Piuri
University of Milan
Department of Computer Science
Milano, Italy

"By 2029, computers will have emotional intelligence and be convincing as people."
— Ray Kurzweil

Dear Colleagues,

I am honored and glad to welcome you at the 2nd International Conference on Innovations in Computing, held at the CGC College of Engineering, Mohali, India.

This event focuses on several advanced and emerging topics in the broad area of computing, especially on cloud computing, internet of things, machine learning, advanced computing system design, advanced communication networks, and security.

This conference is a unique opportunity for sharing advanced knowledge on these fundamental topics, which are the core of an increasing number of applications. These technologies will contribute to promote the economic and social development in India and in the world, with advanced knowledge, innovation, new services and products, new manufacturing processes, and new solutions for the daily life of citizens.

This conference is also a unique opportunity for people networking, for sharing knowledge and experiences and for establishing solid collaborations. Besides, the participation of researchers from academia and industry, industry professionals, entrepreneurs, and students will ensure a strong interaction to better understand the opportunities for exploiting technology and scientific advancements in the industry and in the daily life of people, thus boosting innovation in products and services.

This perspective will allow for creating a broad and pervasive awareness about technologies and their trends in research and industrial applications. This view will allow for stimulating the bright minds of the young generations, enabling them to become the leaders in technology and innovation.

Let's light together the lamp of knowledge! Let's share our knowledge! Let's contribute to the scientific, technical, economic and social development for the benefit of India and the entire humanity!

Namaste!

MESSAGE

Dr. Dharma P. Agrawal
OBR Distinguished Professor,
University of Cincinnati.

"Man is still the most extraordinary computer of all."
— John F. Kennedy

I am glad to find out that CGC College of Engineering, one of the Pioneer Institutions of Northern India is organizing 2nd International Conference on Innovations in Computing (ICIC-2018) for two days on 14th & 15th December, 2018.

This conference is expected to provide an opportunity to Academicians, Researchers and Industry Practitioners to share their research ideas and interact closely with each other.

Recent advances in 4G wireless technologies have revolutionized the way we think and interact. Further enhancement of 5G allowing any digital device to communicate with any other digital device has complicated the matter further and we expect our refrigerator to talk to our washing machine in our house. This has opened up many questions like do you want any item to communicate with any one or limit that to meaningful interactions only. How do you secure stored data as you do not want your medical records to be revealed to others? On the other hand, you do not have to wait for 24 hours to get necessary data for a doctor to take necessary actions in saving life. You expect to have a mobile TV in your hand and how do you provide needed bandwidth? Many open questions have popped up and how future will shape up, could be a part of discussions during the meeting.

I wish all the success to the conference and I congratulate the organizers of the institute in taking a leading step in this direction.

MESSAGE

Dr. Kaoru Sakatani
Professor
Department of Electrical and Electronic Engineering
College of Engineering
Nihon University, Japan

"With all the abundance we have of computers and computing, what is scarce is human attention and time."
— Satya Nadella

Allow me to warmly thank the organizers of this important Conference for giving me the privilege of welcoming and addressing you all. For me it is an honour and a pleasure.

I hope ICIC 2018 will be magnificent and successful.

MESSAGE

Dr. Dharam Singh Jat
Professor, CSE,
Namibia University of Science & Technology, Namibia

"Computing is not about computers any more. It is about living."
— Nicholas Negroponte

I am elated to know about the sequel of ICIC. This conference provides a platform for those who wish to express their latest research results, innovative ideas, and experiences in the fields of Computing especially. The conference carries an excellent opportunity to meet experts, exchange information, and brace the collaboration among researchers, engineers, and scholars from both academia and industry.

I hope big success again for the conference.

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(IGI Global: International Publisher of Information Science and Technology Research)

International Journal of Information System, Modelling & Design
International Journal of Distributed Systems and Technologies
International Journal of Web-Based Learning and Teaching Technologies

Paper ID	Paper Title and Authors
IGI-1	Geo-Spatial Crime analysis Using Newsfeed data in Indian Context *Prathap Rudra Boppuru* Christ University, Bengaluru
IGI-2	Bug Model based Intelligent Recommender System with exclusive curriculum sequencing for Learner-Centric Tutoring *Ninni Singh* University of Petroleum and Energy Studies, Dehradoon
IGI-3	A Step Towards Smart Learning: Designing an Interactive Video-based Tool for University Learning Environment *Pijush Kanti Dutta Pramanik* National Institute of Technology, Durgapur
IGI-4	Donation Model Development based on the Methodologies of Blockchain *Meng-Hsuan Fu* Shih Hsin University, Taipei
IGI-5	An Analysis in Tissue Classification for Colorectal Cancer Histology Using Convolution Neural Network and Colour Models *Shamik Tiwari* University of Petroleum and Energy Studies, Dehradoon
IGI-6	Power Transmission Analysis in Wireless Sensor Networks Using Data Aggregation Techniques *Hradesh Kumar* Jaypee University of Information Technology
IGI-7	Towards Risk Based Effort Estimation - A Framework to Identify, Analyze and Classify Risk for Early Identification at Requirement Engineering Phase *Chetna Gupta, Priyanka Chandani* Jaypee Institute of Information Technology
IGI-9	A Congestion Controlled and Load Balanced Selection Strategy for Networks on Chip *Ashima Arora* The North Cap university, Gurugram
IGI-10	Novel Class Detection with Concept Drift in Data Stream *Jay Nirmalbhai Gandhi* Parul University, Ahmedabad
IGI-11	Effect of Information Architecture on the Usability of a University Website: A Comparative Study of Selected Websites of Punjab (India) *Bhim Sain Singla* College of Engineering and Management, Punjabi University Neighborhood Campus, Rampura Phul

Paper ID	Paper Title and Authors
IGI-12	An Effective Regression Test Case Selection using Hybrid Whale Optimization Algorithm *Arun Prakash Agrawal* Guru Gobind Singh Indraprastha University, New Delhi
IGI-13	A Distributed Intrusion Detection Scheme for Cloud Computing *Nurudeen Mahmud Ibrahim* Universiti Teknologi, Malaysia
IGI-14	A Performance Study of Moving Particle Semi-Implicit Method for Incompressible Fluid Flow on GPU *Kirankumar V Kataraki* KLE Dr. M.S. Sheshgiri College of Engineering and Technology, Belgaum, Karnataka

LIST OF ACCEPTED PAPERS IN UGC JOURNAL

LIST OF ACCEPTED POSTERS

PAPER ABSTRACTS

Paper ID:	4
Paper Title:	Waveguide Diplexer: Design and Analysis for 5G communication
Authors:	Sohni Singh, Joginder Singh, Deepika Dhiman and Ravdeep Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Diplexers circuits are recurrently used for mobile communications for 5G and satellite communication and used to separate the high power wide-band of transmission band from the error prone reception frequency range. Various telecommunication services like navigation system or television systems are based on satellite communication. for speed considerations, and in order to manage IoT devices diplexer devices are used. Diplexer is improvement over the microwave filters. This paper presents the analysis of simulated WR-28 waveguide that is used for Ka-Band. The cut off frequency in dominant mode is 29 GHz. The design is simulated over a frequency ranging from 20 to 50 GHz.

Paper ID:	6
Paper Title:	An New Approach For Image Steganography Using LSB and BPSO Optimization
Authors:	Chetna Sharma and Inderdeep Kaur
Affiliation:	GGSCMT Kharar, Mohali
Abstract:	Presently, the technologies are evolving with high speed and everyday new innovations are done. As large amount of information shared between different users over the internet therefore the sharing of information is increasing day by day. In the conventional techniques of image steganography the idea of DCT and LSB approaches are used. But this technique is not optimum for securing the information. Thus, the BPSO optimization technique is proposed to determine the optimum bit or position in the data of the specific image. Benefit associated with the proposed technique is that every time the BPSO technique will determine the appropriate position to hide the information content and this is not the way as the LSB technique performs therefore the proposed technique improves the security of data as it is not an easy task for the malevolent user to find out the bits inside the encoded message in the image. The proposed technique is compared with the traditional method in terms of PSNR (Peak Signal to Noise ratio), MSE (Mean Square Error) and results obtained has shown that it is quite higher than the conventional work. Comparison is also done in terms of Entropy and the result has shown that the proposed technique is effective than the traditional work.

Paper ID:	7
Paper Title:	Medical Image Fusion Using Fuzzy Logic and DHT Based Feature Extraction
Authors:	Ravneet Kaur and Inderdeep Kaur
Affiliation:	GGSCMT Kharar, Mohali
Abstract:	The traditional medical image fusion techniques suffer from various issues such as these techniques did not detect the relevant information from the image as the whole image is considered as important whether it is meaningful to the user or not. Thus a novel fuzzy based image fusion technique is developed in this work to fuse the MRI and PET images. Before fusing the images, the 2DHT, HIS transformation and ROI is applied to the input images and then the image fusion is done on the basis of the selected ROI from the PET images. A comparison analysis of proposed and traditional image fusion techniques is driven in the terms of discrepancy value, average gradient and overall performance. After simulating the work, it is observed that the proposed work outperforms the traditional techniques. To ensure the quality of the performance of the proposed work, the analysis is also done by considering the 100 various sample images.

Paper ID:	17
Paper Title:	Modified Genetic Algorithm for Performing the Regression Testing
Authors:	Lata Dubey and Seema
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Software Testing is an approach where deferent errors and bugs in the software are identified. To test software we need the test cases. The re-execution of all test cases throughout the regression testing is expensive and time consuming. And even though several of the code based planned techniques by researchers address technical programs. In our research work we proposed a regression test case selection for optimizes the selected test case with Genetic Algorithm. We are executing genetic algorithm upon different crossover rates (CR) and analyzed the results on number of iterations. The test cases are automatically generated through path crawler tool. We have taken 100% path coverage of the given source code. The effectiveness of the approach was evaluated calculating Average Percentage of Modified Genetic Algorithm (MGA) over Simple Genetic Algorithm (SGA). Proposed Approach (PA) provides significantly improved outcome in term of average percentage.

Paper ID:	29
Paper Title:	A Study on Planar Inverted F Antennas (PIFAs) for Mobile Communication
Authors:	Namita Sharma and Dishant Khosla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Now a days, most of the portable wireless devices requires low profile antennas to be incorporated in the device body. Planar inverted F antenna (PIFA) is one of the most popular antennas used in wireless devices due to its advantages. In this paper a brief literature study is performed on the planar antennas designed for 4G LTE bands. Some of the MIMO antenna systems are also discussed. The study reveals several interesting techniques to achieve good antenna and MIMO performance.

Paper ID:	30
Paper Title:	Dynamic Systems for Performance Analysis of Information Interchange
Authors:	Vikash Kumar Garg, Ashish Oberoi and Manish Arora
Affiliation:	RIMT University, Gobindgarh
Abstract:	Data surpasses to the storing and processing capacity is termed as Big data. Big data is a catchword that defines the cumulative volume of data neighboring every phase of human life cycle. It states to the concept that each and every sector that perform task can be enumerated and logged in a series of data that is growing at an extraordinary rate. This big data is all about finding the needle of values in a haystack of structured, semi-structured and unstructured information. In fact, there are nearly as many types of information as there are hairs on the human head. So, Big data is major area of research in these days. This paper provides overview of Big data, Hadoop, Data analytics tools and helps those who want to start their research in the field of Big data.

Paper ID:	31
Paper Title:	Image Denoising Using IBP n Filter
Authors:	Vanmala Jarial and Harpreet Kaur
Affiliation:	GGSCMT Kharar
Abstract:	The ultrasound images are blurred by the multiplicative noise that is the Speckle pattern. It decreases the contrast and resolution of ultrasound images those outcomes in weak interpretation of image characteristics. In several image processing mechanisms like segmentation, classification and pattern recognition the speckle is a significant part. The conventional methods calculate the computation of LBP on gradient. The limitation of this technique was that the LBP mechanism divide the image into different sets of three blocks individually and in this procedure the variation of previous block did not consider while creating other block. Thus these variations affect the quality of the final images.

Paper ID:	32
Paper Title:	Cyber Situational Awareness : State of The Art
Authors:	Pardeep Bhandari
Affiliation:	Doaba College, Jalandhar
Abstract:	Cyber-attacks are becoming more complex and sophisticated new solutions are required to support mission critical systems to maintain their availability. To maintain working condition of the network, to defend against the attacks and to retaliate, cyber operators need to maintain Situational Awareness (SA) of the network. SA is concerned with perception, comprehension and projection of events and entities in the near future. SA is extensively used in the field of aviation, plant operation and defense operations. In this paper we have presented state of the art of Cyber SA. Section I deals with description of cyber SA. Section II discusses requirements of SA at different levels of an organization. Section III deals with various challenges being faced in providing SA in cyber operations. Section IV explores research and development needs for effective cyber SA. Section V followed by conclusion, discusses and compares various SA models.

Paper ID:	39
Paper Title:	Image Denoising by Sigma Estimation Base Convolution Neural Network
Authors:	Amanjot Kaur and Gagan Deep
Affiliation:	Punjabi University, Patiala
Abstract:	Image denoising process gains more attention due to its effective denoising performance. This paper proposed the convolution feedforward network with sigma estimation and without sigma estimation to provide the prior information to the CNN and without sigma, it does not come to CNN. The outcomes with CNN and without CNN use image denoising and reduce the MSE and enhance the PSNR.

Paper ID:	41
Paper Title:	A novel approach for performance analysis on dynamic information integration
Authors:	Vikash Kumar Garg, Ashish Oberoi and Manish Arora
Affiliation:	RIMT University, Gobindgarh
Abstract:	The limitation of RDBMS is improved by using the combination of UDF & HQL in Hive. With the help of this approach, many calculations that are outside the scope of built in RDBMS operations and functions in Hive like query many columns, combine several column values into one and transformations that are taking more time in RDBMS, can be solved easily. In the proposed work seven different data sets are taken from web for experimental results. Aggregating queries using RDBMS and Hive are run on these data sets with the combination of UDF. The results obtained on these data sets shows that combination of UDF with HQL is better than RDBMS when aggregation queries are fired on horizontal data and to join many columns in one. In the proposed work datasets of varying sizes have been analyzed using RDBMS i.e. MySQL and MSSQL and then using Hive. Different comparison has been done which shows the advantage of using Hive over RDBMS.

Paper ID:	45
Paper Title:	The Undeniable Importance of Mobile Applications and Its Global Impact
Authors:	Kapil Mehta, Yadwinder Garg and Ankita Thakur
Affiliation:	CGC College of Engineering, Mohali
Abstract:	This paper presents the uses and effect of mobile application in individuals, business and social area. The world is humming to the tune of mobile apps where there is a solution for anything and everything with Smartphone. The technological innovation by the various Mobile App Development Companies suggests that as more and more people are getting addicted to mobile apps to fulfill so many requirements while on the move, life has become so easier. This paper demonstrates that how individual mobile user facilitate using mobile application and the popularity of the mobile application. Here we are presenting the consequence of mobile application in business sector. This paper also presents some effect of mobile application on society from the ethical perspective.

Paper ID:	46
Paper Title:	Synthetic Iris as a Vulnerability of Iris Recognition System
Authors:	Sunil Chawla, Vijay Kumar Lamba and Surender Jangra
Affiliation:	CGC College of Engineering, Global College of Engineering & Technology, GTB Govt College
Abstract:	Vulnerability usually refers to a security flaw due to a program failure, manual interruption or the like and means a state in which the system security can be compromised against illegal access from the outside world. Iris Recognition systems have been used as a means of authentication for quite some time now. Recently, it has been found that iris recognition systems can be tricked. The tried ways of befooling iris recognition systems use fake irises made through gelatin or rubbery material, synthetic irises reverse engineered from iris codes, presentation attack using high-definition prints or photographs or cosmetic as well as non-cosmetic contact lenses with someone's iris printed on it. This work tries to investigate synthetic iris as an important vulnerability of iris recognition system that needs to be addressed so that iris recognition can be deployed in a more secure way and with less number of challenges left unsolved.

Paper ID:	47
Paper Title:	Investigation on various routing protocols in ad-hoc network
Authors:	Dishant Khosla, Harmandeep Mangat and Gurwinder Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	This paper diligently investigates and analysis recent works on ad-hoc network protocols and gives an in-depth comparison of all protocols, thus suggesting which one to use for higher performance. In recent years more emphasis is being laid on wireless ad-hoc networks that is MANET (Mobile Ad hoc Network) or WANET (Wireless ad hoc Network). This evolution has undergone a remarkable and unstoppable change of trend. As the topology of ad-hoc networks is dynamic, thus proper understanding of the routing protocols is necessary for achieving remarkable results with minimal wastage of resources.

Paper ID:	49
Paper Title:	Minimization of Energy consumption In Cloud Computing
Authors:	Gurpreet Singh and Manish Mahajan
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Cloud computing gives processing force and assets as an administration to clients over the globe. This arrangement requires huge data centres to be firmly combined with the framework, the expanding utilization of which yields substantial utilization of vitality and gigantic discharge of CO2. Since energy has been the prime concern in near future, this issue created the significance of green cloud computing to lessen the energy wastage by consolidating its reuse. In this paper we discuss various techniques to reduce energy consumption in cloud data centres thereby reducing emission of CO2 and thereby helping to make green clouds. We start with discussing about cloud computing and it's infrastructure, after which we discuss about various concerns related to environment caused due to energy consumption and heat produced by cloud computing and finally we discuss about various key technologies which helps to make cloud a green cloud.

Paper ID:	50
Paper Title:	Edge Computing: An Era of Advance Computations in Internet of Things
Authors:	Anu Aujla, Paridhi Naithani and Jagjit Kaur
Affiliation:	CGC College of Engineering, Mohali
Abstract:	With the rapid increase in the demand of IoT users, centralized cloud computing model faces several issues such as delay in response, poor latency and network failure. To overcome these challenges, a new computing model is introduced which provides computations at the edge of network. The edge computing provides processing of data and storage locally at the IoT devices present at the edge of network instead of sending them to the cloud .In this paper we will discuss about edge computing, Its benefits over cloud computing and various types of edge computing. We will also present several challenges in the field of edge computing as well as its future scope.

Paper ID:	51
Paper Title:	Study of various Cloud Service Platforms: A Comparison
Authors:	Sumit Kumar, Sunil Kumar Chawla, Manpreet Singh Bajwa and Himani Sharma
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Cloud computing is most recent new computing paradigm where IT services, records and applications are provided over internet. It is faster to deliver on demand services. They are demanded over internet and are described as internet centric software. Cloud provides scalability for application by providing virtualized resources dynamically. Schedulers for cloud computing determine on which processing resource jobs of a workflow should be allocated. Scheduling theory for cloud computing is in advance a lot of awareness which includes increasing popularity among cloud era. In cloud environment it is known as platform as a service (PaaS).

Paper ID:	53
Paper Title:	Comparative Study of Different Scheduling Algorithms In Cloud
Authors:	Paridhi Naithani and Anu Aujla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Cloud computing is one of the emanate computer technology in IT that provides shared resources like databases, storage, servers, softwares to the users according to need on rental basis which results in no initial setup cost. Scheduling is one of the critical aspects that influence the system performance. Scheduling algorithm is said to be efficient if it minimizes the completion time of the task, with limited resource usage and is also cost effective. There is hardly any algorithm that provides optimal results in less time. In this paper various scheduling algorithms like FCFS, Genetic Algorithm, PSO, Ant Colony Optimization etc. are analyzed and discussed. Comparative study is done among these algorithms based on different factors like execution time, cost, makespan etc.

Paper ID:	54
Paper Title:	A Review on Algorithms of Cluster Head in Mobile Ad-Hoc Networks
Authors:	Simarjot Kaur, Jagjit Kaur and Chinkita
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Mobile adhoc networks consists of mobile nodes that communicates with each different with none mounted topology. Cluster head choice, energy consumption and security may be a great challenge for Manet recently. Optimizing Cluster head choice minimizes the energy consumption during a specific network and in addition reduces the information transmission overheads. There are several algorithms for cluster head choice that are supported many parameters. For higher utilization of energy, bandwidth, secure and quick transmission with less network traffic there should be a cheap algorithmic rule for cluster head choice. In this paper we tend to study completely different cluster head choice algorithms for security and energy consumption of a particular cluster that maintains the period of time of the network

Paper ID:	55
Paper Title:	Detection of every kind of Blackhole Attacks in Manet: A Novel Control Packet Approach
Authors:	Seema Chaudhary, Lata Dubey, Nitin Khanna and Chinkita
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Manet could be a network that's infrastructure-less and therefore the nodes during this network will solely communicate with farther nodes in multi-hop manner. Because of this characteristic nature of Manet. The foremost hazardous and customary among those attacks is Blackhole attack that could be a reasonably packet drop attack. The variation of Black-hole attack additionally proves to be unsafe once dead intelligently. The variations of Blackhole attack like Grayhole attack and co-operative attack in conjunction with commonplace Blackhole attack becomes a bottleneck within the potency of secure Manet routing. During this paper, a mechanism is planned which will mitigate the result of every kind of Blakchole attack and its variations. This work is compared with printed work EDRI and TLTB mechanism against parameters like Packet Delivery quantitative relation.

Paper ID:	56
Paper Title:	Elaborate Business Dimension of Business Oriented Business Rule Framework
Authors:	Deepak Kumar Sharma, Manish Mahajan, Dheerendra Singh and Naveen Prakash
Affiliation:	Venture7 Technology Limited, CGC COE, CCET, The North Cap University
Abstract:	We explore business rules from the business perspective with the aim of developing information/ software systems. We underpin our work with a four-dimensional framework of business rules consisting of the business, system, representation, and application dimensions. We focus on the business dimension here and elaborate it at three levels. These levels consist of the generic model, the business-independent governance model, BIGm, and the business-specific governance model. At the generic level, we assume that business rules define business governance and develop a meta-model of governance that consists of governance objects, governance criteria, and the governance relationship between these. We obtain a business independent model by instantiating the generic meta model with concepts of the Business Motivation Model. Finally, the business specific governance model is an instantiation of BIGm and we obtain business rules for guiding business functions.

Paper ID:	57
Paper Title:	Single Page Application: Architecture & Applications
Authors:	Reecha Sood, Sunil Chawla and Gurpreet Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Single Page Application (SAP) also called as Single Page Interface (SPI), it is a type of web application which is presented to the user through a single HTML PAGE to be more responsive so that it more closely replicates a desktop application. It retrieves all the HTML, JavaScript and CSS code on the initial load dynamically, which will update in response to the user interaction. Other web applications in contrast, present the user with an initial page which is linked to other parts of the application present on separate HTML pages. SPA uses HTML5, Asynchronous JavaScript and XML (Ajax) for smooth transition and dynamic response to the user's requests, which lets the content to update immediately on the same page rather than directing us to a new page. Once the page is loaded the interactions are performed through Ajax calls and then the data is returned in JavaScript Object Notation (JSON) format, so that page updates with the requirement of reloading the page again and again.

Paper ID:	58
Paper Title:	Analysis for Ranking of Web Pages
Authors:	Ashok Kumar, Manish Mahajan and Dheerendra Singh
Affiliation:	IKG PTU Jalandhar, CGC COE, CCET
Abstract:	The success of the search engine depends upon its ability to rank Web pages given in the result The objective of the ranking mechanism is to arrange the results according to their relevance. There are several ranking techniques for efficient ranking of the web page has been proposed. With the help of a literature survey, it has been tried to know the strengths and weakness of each algorithm.

Paper ID:	60
Paper Title:	Attacks Surfaces and Attacks in Cloud Computing
Authors:	Usvir Kaur, Manish Mahajan and Dheerendra Singh
Affiliation:	IKG PTU Jalandhar, CGC COE, CCET
Abstract:	Cloud computing is changing the shape of business industry by providing resources in sharable, scalable, elasticity manner. It resembles with the concept of distributed system and uses the basis of networking. This leads to the vulnerability to different security attacks. This paper discusses various types of surface attacks which presents the participation of various entities in the attack. Various types of attacks, their target area and defense measured are studied.

Paper ID:	61
Paper Title:	SIW based Leaky Wave Antenna: Design and Analysis for Silicon
Authors:	Pankaj Palta, Dishant Khosla, Sohni Singh and Sumeet Goyal
Affiliation:	CGC College of Engineering, Mohali
Abstract:	The ongoing demands for higher data rate support to cope with the mobile data crunch has triggered research on the next generation (5G) wireless communication technologies SIW which has Low cost and small in size and it can easily radiate via the leaky wave structure. In this paper, Substrate Integrated Waveguide based Semi-C Leaky wave Antenna is modeled and analyzed for frequency ranging from 7.5 GHz to 11 GHz with Silicon as dielectric substrate. the results obtained from simulation showed electric field generated, gain, return loss and transmission loss of modeled antenna at frequency equal to 9.8 GHz.

Paper ID:	62
Paper Title:	Approach towards making Cloud Green Cloud: A Review
Authors:	Gurpreet Singh, Reecha Sood, Sunl Kumar Chawla and Sumit Kumar
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Cloud computing become a most famous and trendy concept of present days. Cloud computing is an emerging modal which delivers its services/product over the internet and fullfil the demand/s of user. The meteoric growth of cloud computing model has led to establishing countless data centers around the world wide that consumes huge amounts of power-energy. The energy consumption and the emission of co2 become the major issue in data centers. Our researchers continuously working onto find the solution of this problem. One of the most popular and adapted solution is virtualization which is adopted by IT companies and its data centres to reduce the emission of carbon dioxide and power consumption by applying efficient techniques. The main objective of this paper to introduce different techniques of VM placement in comparative way which is used in distributed data centers with PUE's value and different carbon footprint rates.

Paper ID:	63
Paper Title:	Boot Sector Analysis of NTFS File System
Authors:	Tejpal Sharma, Gaurav Goel, Jagbir Singh, Upinderpal Singh, Gagan Singla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	With the vast growth of Information Technology, criminals are using new techniques to commit crimes that include computer systems. This paper is based on the computer forensic analysis of NTFS file system that will be helpful for the collection of digital evidences related to crimes. In this paper we proposed techniques that will be helpful to explore the data hidden by the criminals on the hard disk having NTFS file system that is not extracted by the system. And system does not perform any check on the hidden places through its functioning. This technique is basically check the boot sector and copy of the boot sector of partition for the hidden data that may be helpful to collect evidence related to cybercrime cases.

Paper ID:	64
Paper Title:	Practical Implementation of Routing Protocol in Mobile Ad hoc Networks
Authors:	Upinderpal Singh, Tejpal Sharma, Jagbir Singh, Gaurav Goel, Gagan Singla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Plethora of work has been done in the past to find out the solution of problems and major difficulties faced by the mobile adhoc networks. Currently , the mobile adhoc networks faces the problem of routing mechanisms [1] , power consumptions, rapid topology changes due to mobile nature of the MANETS node. This paper describes about the various steps of configurations that are needed to implement the route agreement protocol like AODV. This paper describes about the practical creation of the actual scenario to measure the performance of routing protocol under various environment constraints. The Opnet Modeler 14.5 is used to implement routing Protocol. The File transfer protocol application is used as source of traffic in the simulation.

Paper ID:	65
Paper Title:	Multi Base Station optimized positioning for Black hole attacks in Wireless Sensor Networks
Authors:	Gagan Singla, Sourav Garg, Jagbir Singh Gill, Gaurav Goyal, Tejpal Sharma and Upinder Pal Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	A wireless sensor network (WSN) consists of distributed autonomous sensors to monitor environmental or physical conditions, such as temperature, sound, pressure, etc. and to pass your data to the main location through the network data through the network to the main location. Modern networks are bidirectional. They also allow control of sensor activity. So, the main problem for this is security, since some attacks are presented in the network to capture the information. One of the attacks is a black hole that is an attack that is mounted by an external adversary on a subset of the sensor nodes (SN) in the network. The adversary captures these nodes and reschedules them so that they do not transmit any data packets, that is, the packets they generate and the packets of other SNs that they must forward. In this approach, we successfully deliver the packets in the presence of a black hole attack by using multiple base stations with an optimized position using a genetic algorithm (GA).

Paper ID:	66
Paper Title:	Research on Access Control Model in Cloud Computing Environment
Authors:	Rini Mahajan, Manish Mahajan and Dheerendra Singh
Affiliation:	Quest group of Institutions, CGC COE, CCET
Abstract:	There are numerous advantages of cloud computing; it has changed the perspective of information storage worldwide, still it has not fully matured. Security, privacy and access control of the stored data is the biggest concern in the IT industries and these are the major research areas in the field of cloud computing. Although many researchers have proposed variety of access control methods, still there is a scope of improvement. The main objective of this paper is to study the limitations of formerly proposed access control methods and to propose a better new access control method. Proposed method not only concentrates on access control, it is also linked with authentication. It is the combination of Attribute based access control (ABAC), Hierarchical Role based access control (HRBAC) and Policy based authentication. As a result we got a fine grained access control method. Moreover it removes the problem of back up of data. To improve the efficiency and to simplify the complexity of system, multi factor authentication is used which is based on privilege level policies. It also includes the feature of role delegation which is very important in present scenarios. Comparative analysis shows that proposed method combined many new features with existing access control methods to make the system sound.

Paper ID:	67
Paper Title:	Intelligent Processing with NLP (Natural Language processing)
Authors:	Jagjit Kaur, Simarjot Kaur and Anu Aujla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Natural language processing is a branch of computer science and artificial intelligence which involve machines or robots to understand and process the language that human speaks or which is concerned with interaction between computer and human languages. Natural Language Processing put great efforts for making computer interfaces so that it will become easier to operate the machine through natural language rather than commands. There are various languages that support NLP like Python for example. Google assistant works on voice recognition for the natural language processing. A programming language makes our job easier to train a machine. The vast computer science field deals with the interactions between human language and computers that call it as Natural Language Processing, or NLP. NLP is a component of artificial intelligence (AI).

Paper ID:	68
Paper Title:	Insights to Big Data and Hadoop: An Introductory Review
Authors:	Deepika Sood, Sukhjinder Kaur and Sunil Chawla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	In today's modern era, the availability of a plethora of online products like web-sites, web-portals, shopping sites, social networking sites, etc. give rise to a collection of extremely large and complex data set known as Big Data. It has emerged with unrevealed opportunities and challenges to deal with humongous amount of data. BIG DATA has earned quite a name in today's fast paced technological world and is becoming the new base area for researches. To extract useful information from enormous amount of data, we first have a need to analyze the data. Big Data makes sure that the accuracy and knowledge from the data are generated rapidly and provides benefit and a major convenience to the organizations, researchers, and consumers. This paper concentrates on background and application of Big Data and Hadoop along with its components like HDFS, Map Reduce, Pig, Hive, Hbase, and Sqoop.

Paper ID:	69
Paper Title:	A Novel Approach Towards Trust Enhancement in a Cloud System
Authors:	Sukhjinder Kaur, Deepika Sood and Ramandeep Sandhu
Affiliation:	CGC College of Engineering, Mohali
Abstract:	In today's world, consumer of a service is prior and top significant part of a business. Cloud computing is an efficient technology with a vast amount of momentum, and its unique parameters are exacerbating various security and privacy concerns. Going from computations to the "Cloud" is making computing calculations easier towards the users, at the same time it will bring some new security concerns regarding the safe and reliable use of data of end users or customers using the cloud. Trust is a genuine and giant consideration point which is accepted as the backbone of cloud system, or it is a representation of satisfaction of cloud users. This paper firstly provides an analysis report about the trust and its boundary values which are assumed as those important features which directly/indirectly influences the satisfaction level based on the Service level Agreement (SLA). In this paper, we have provided a trust mechanism called "Online Feedback Channel- OFC" at the end of cloud users. This factor can be easily used by Cloud Service Users (CSU) to express their level of satisfaction.

Paper ID:	70
Paper Title:	SOCGPVC: Secure Outsourced computation of geometric progression on Vicious Cloud
Authors:	Gaurav Goel, Tejpal Sharma, Jagbir Singh Gill, Upinderpal Singh and Gagan Singla
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Cloud Computing provides environment to individual, organization and business to store their sensitive data on cloud. One can store their data on cloud due to cost factor. But sometime data can be lost and leaked by suspicious data owner. Individual can also use cloud for platform purposes means cloud can also be used for computation purpose. Computation can be expensive on standalone desktop when resources are limited. In this paper, approach is using secure and efficient way of using malicious cloud for linear algebra computation of geometric progression. Time complexity to run geometric progression is $O(n)$. Proposed approach will work to compute this linear algebra computation securely and efficiently on vicious cloud.

Paper ID:	72
Paper Title:	A Framework on Healthcare Monitoring System
Authors:	Amandeep Kaur and Anuj Kumar Gupta
Affiliation:	BHSBIET Lehragaga, CGCC COE
Abstract:	Healthcare Monitoring System reduces healthcare expenses by remotely monitoring the health of patients. Healthcare applications gaining high popularity due to the features like mobility, flexibility and ease of monitoring the patient. Nowadays various type of HMS are available in market from which some are based on WSN (Wireless Sensor Network), WBAN (Wireless Body Area Network).This type of system is mostly implemented in urban areas rather than rural areas. But there is a large need to implement HMS in rural areas due to unavailability of doctors in these areas. This research work will focus on framework for health monitoring system in rural areas of Punjab.

Paper ID:	73
Paper Title:	Ant-Optimized Scheduling for Efficient-Energy Coverage in WSN
Authors:	Dapinder Kaur and Neeraj Battish
Affiliation:	CGC College of Engineering, Mohali
Abstract:	In Wireless Sensor Network, Sensors are the primary units but the nature of sensors are not inheritable and because of this limitation there is dependably an indispensable concern while in transit to use confined vitality successfully. So, Efficient-Energy Coverage (EEC) settlement is an important concern for Wireless Sensor Network (WSN). The solution of this problem is scheduling of the different activities of the devices in the network and helps to save energy as well as improve lifetime of the network. So, in this work a new optimized algorithm is proposed which works on the principle of Ant Optimized Scheduling Algorithm (AOSA) and reduces the problem of energy by optimizing the selection. In addition, Probability Sensor Detection Module is also used in the heterogeneous sensor set that also help to solve EEC issue. To test this proposed algorithm different scenarios are generated and simulation is done. Results shows that this AOSA based scheduling mechanism perform better than existing methods and solve the issue of EEC.

Paper ID:	74
Paper Title:	Smart Robotic Arm
Authors:	Sachin Krishan Khanna, Pratibha Khanna, Gurpreet Kaur, Dishant Khosla and Manvinder Sharma
Affiliation:	CGC College of Engineering, Mohali
Abstract:	This is a research paper on a smart robotic arm which provides technical information & introduction about this robotic arm. The robotic arm is a issue which is being researched by due to problems facing in day to day life. Nowadays there are variety of robotic arms available in the market. This research was done to overcome the real-time problems. This paper includes the work of robotic arm and in which field it can be used. Now this arm can be used to overcome some of the real-time problems we face in our daily life.

Paper ID:	75
Paper Title:	Environment Friendly Toll Plaza
Authors:	Siddharth Aggarwal, Sourav Goyal, Parul Gupta, Kritika Kaushik, Dishant Khosla and Manvinder Sharma
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Environment friendly toll plaza is an application which is based on energy resources and totally environment friendly. It consists of a conveyor belt which operate on green energy and electricity. The e-payment method can be used to make payment of the toll through an app through which payment can be made earlier. At the time of entering the toll car number is detected through a sensor which helps in saving your time and most importantly petroleum.

Paper ID:	78
Paper Title:	Text Region Detection Techniques for Natural Scene Images-A Review
Authors:	Rituraj Soni, Bijendra Kumar, Satish Chand and Tanvi Arora
Affiliation:	Government Engineering College, Bikaner, NSIT Delhi, JNU New Delhi, CGC COE
Abstract:	The natural scene images tend to contain lot of information that can guide the persons navigating on the roads. Therefore understanding the text present in these images has become an area of active research. But the task of text region detection is a challenging task when text is to be detected from images that are captured from natural scenes. These images have varying font size, orientation, scripts, the text may be faded or blurred, the image may suffer from intensity in homogeneity and the text region may be occluded or may be missing. All these factors make the text region detection task difficult but interesting. Over the last two decades several methods for text region detection from natural scene images have been proposed, but till date no benchmark has been established that can accurately do this detection. The MSER based text region detection approach has been widely used, but it also fails if the text regions are blurred. In the presented work the various state of the art text region detection techniques proposed so far have been compared. The strengths and weaknesses of the techniques has been analyzed and based upon them the possible future directions has been proposed, so as to formulate a robust text region detection technique that overcomes the drawbacks of the existing techniques.

Paper ID:	79
Paper Title:	Design, Fabrication and Analyses of Rectangular Microstrip Inset Feed Patch Antenna
Authors:	Anish Khan, Nikhil Marriwala and Deepak Sood
Affiliation:	UIET, Kurukshetra University
Abstract:	Low profile antenna supports the activity of numerous modernized communication systems. Microstrip patch antenna represents a group of antenna which offers the capability of complete assimilation with communication system printed circuitry. We have been devised, fabricated a rectangular microstrip patch antenna and analyzed at the frequency of 2.4 GHz. By means of transmission line model it has been effectively demonstrated as to how the patch antenna can accurately modelled and analyzed by inserting microstrip line inset feed.

Paper ID:	83
Paper Title:	An Extensive Survey for Examining Pigmented Skin Lesions and Detection of Melanoma Skin Cancer through Computer Vision
Authors:	Komal Sharma
Affiliation:	Chandigarh University
Abstract:	Melanoma Skin cancer being the most life-threatening cancer has a rapid increase in its incidence rates in the last two decades. It is curable if it gets detected at an earlier stage. Thus making investigation of pigmented skin lesions for diagnosing malignant melanoma is essential for saving lives. This paper presents a comprehensive survey of the ongoing strategies for investigation of pigmented skin sores and diagnosis of melanoma through computer vision. The techniques already proposed to accomplish these errands are identified and reviewed. Additionally a common approach followed for skin lesion analysis is also presented briefly. And on the basis of the literature reviewed, we tend to conclude that the door is still open in this field and in future research can be carried out to optimize and enhance the accuracy of the segmentation process as well as for improving the classification outcomes.

Paper ID:	84
Paper Title:	Comparative Study of LEACH and its Optimized Variants in Wireless Sensor Networks
Authors:	Jatinder Pal Singh, Anuj Kumar Gupta and Anil Kumar Verma
Affiliation:	Research Scholar, IKGPTU, CGC COE, Thapar Institute of Engg. & Technology
Abstract:	To capture sensed data from different locations, Wireless sensor network (WSN) requires large number of sensors in the monitoring area. A sensor helps in sensing and forwarding data to an application data store but due to inadequate energy, preserving the network lifetime and its operation remains a major challenge in WSN. To overcome this challenge different clustering techniques are proposed in literature. LEACH is a primitive clustering technique from which most of the latest clustering techniques stem in. Many recent studies have focused on the optimization of cluster based WSNs through fine tuning of LEACH parameters and other related parameters. Motivated by this, we reviewed the latest optimized variants of LEACH in this paper. This survey will provide a roadmap for future researchers to scrutinize LEACH and its variants in terms of optimization technique used and parameters used for clustering.

Paper ID:	85
Paper Title:	A Literature Review on IoT Application Layer Communication Protocols
Authors:	Harmanjot Kaur
Affiliation:	Chandigarh University
Abstract:	IoT makes use of diverse communication protocols proposed by many organizations for message sending over the application layer. Various IoT data transmission protocols involves MQTT, CoAP, XMPP, AMQP, REST, DDS and HTTP. Each protocol have its own functionality and can be used in a specific way for serving the IoT systems. According to recent researches, MQTT and CoAP are considered the major protocols that best fits the IoT environment. The motive behind this paper is to provide in-depth knowledge about the architecture and message formats of these IoT protocols.

Paper ID:	86
Paper Title:	A study on losses in Substrate Integrated Waveguide
Authors:	Rahul Kakkar, Joginder Singh and Sumeet Goyal
Affiliation:	CGC College of Engineering, Mohali
Abstract:	This paper presents different losses associated with Substrate integrated waveguide. As embryonic 5G technology use frequency spectrum from 28 GHz to 100 GHz, which can be achieved using mm-Wave in which frequency ranging from 30 GHz to 300 GHz. But limitations of this mm-Wave include attenuation due to metal waveguide, atmospheric attenuation and Rain fade etc. An improved waveguide method is adapted known as Substrate Integrated Waveguide. SIW is transition between micro-strip antenna and Dielectric filled Waveguide antenna. SIWs are planar structures so they can be fabricated over PCBs and can be easily integrated with supplementary transmission lines.

Paper ID:	87
Paper Title:	Design and analysis of Substrate Integrated Waveguide for High Frequency Applications
Authors:	Manvinder Sharma and Harjinder Singh
Affiliation:	Punjabi University Patiala
Abstract:	In this paper, substrate integrated waveguide has been designed and analyzed for high frequency applications. As high frequency suffers attenuation due to metal waveguide, atmospheric attenuation and Rain fade etc. An improved waveguide method is adapted known as Substrate Integrated Waveguide. SIW is transition between micro-strip antenna and Dielectric filled Waveguide antenna. SIWs are planar structures so they can be fabricated over PCBs and can be easily integrated with supplementary transmission lines. In the study, the different parameters like electric field generated, transmission gain and return loss is evaluated. Results are calculated over a frequency ranging from 6 GHz to 11 GHz.

Paper ID:	88
Paper Title:	Microsoft Azure Cloud: A Study of Support Services in Cloud Computing
Authors:	Kamini and Tejinderpal Singh Brar
Affiliation:	CGC Landran, Mohali
Abstract:	Microsoft Azure is a cloud computing platform made through Microsoft for constructing, testing, passing, and overseeing packages and administrations thru a worldwide device of Microsoft-oversaw server farms. It offers programming as a management (SaaS), level as an administration and basis as a management and backings a wide variety of programming dialects, instruments and structures, including both Microsoft-unique and outsider programming and frameworks. Sky blue is an in depth association of cloud blessings that engineers and IT specialists use to manufacture, convey and oversee programs through our global system of statistics facilities. Coordinated apparatuses, DevOps and a commercial middle help you in successfully fabricating anything from honest transportable applications to web scale arrangements. This paper concentrated on help given via Microsoft sky blue to cloud administrations .Furthermore , this paper have mentioned the presentation part alongside Microsoft azure segments.

Paper ID:	89
Paper Title:	Performance Evaluation of WSN under DDOS Attack
Authors:	Rupinder Singh and Tejinderpal Singh Brar
Affiliation:	CGC Landran, Mohali
Abstract:	A wireless sensor network (WSN) is a distributed sovereign device. These devices use various sensors to monitor conditions physically and environmental both. A wireless sensor network provides a gateway between wireless connectivity to the wired network and various distributed nodes. WSN helps in areas including health care, remote monitoring and various utilities. Remote monitoring checks a huge range of area and reducing the cost for wired implementation is wide areas. WSN is open in nature which makes its vulnerable to outside attacks. Many security threats affect the performance of network threats like DDOS, Wormhole, Selective Jamming attack etc. In this paper a new scheme smartpix has been introduced which will detect DDOS attack and the data loss can be prevented by using this scheme. Performance of this scheme has been evaluated with other schemes in past and this scheme is far better in avoiding the packet loss and increasing the Packet delivery ratio. The simulation results represents the network performance without DDOS attack and with DDOS attack and also if the DDOS is encountered how to save from that and by applying the proposed scheme the performance is very much like that no attack has even occurred. Our main goal is to identify the DDOS attack and which nodes are affected by these attacks and how these nodes can be free from DDOS attack so that network works smoothly. After the proposed scheme is fully active than there is no presence of attacker.

Paper ID:	90
Paper Title:	Analysis of various Image Compression Techniques
Authors:	Amanpreet Kaur
Affiliation:	CGC Landran, Mohali
Abstract:	Digital images are required to store a large among of storage space in digital computers. Nowadays, computer system is very capable to process digital images with high resolution quite easily. The transmission of huge data needs more time to transfer over network channel. Thus, time and space are two fundamental components of computing. In the field of digital image processing, image compression is one of the most popular and commercially successful technologies, which compressed the size of data according to express a given quality of information. In addition to, digital images store three type of information such as redundant, useful and irrelevant. In this paper, various compression techniques have been discussed. Image compression techniques are divided into two categories such as lossless and lossy image compression. Both techniques have been discussed with suitable examples and block diagrams.

Paper ID:	94
Paper Title:	Designing of Ultra Wide Band (UWB) Microstrip Antenna using Triple Slotted Patch and DGS
Authors:	Deepika, Vaishali, Amit Kumar and Manvinder Sharma
Affiliation:	AIMT, Indri. Karnal (KUK), KITM, Karnal
Abstract:	In this paper, an antenna is designing for Ultra-Wide band that is 32.86 GHz is achieved which is very large bandwidth covering maximum application of wireless network. Initially a normal rectangular microstrip patch antenna with microstrip transmission line feed is designed. By using parallel slots in MSL feeding technique very wide bandwidth is achieved than simple design without parallel slots. Maximum impedance matching and good VSWR is achieved in this. Then Dual UWB antenna is designed by using two DGS in parallel at same height and then double UWB is achieved. The proposed antennas have been modeled, designed and simulated using HFSS version13.0.

Paper ID:	95
Paper Title:	Effective content based image retrieval system using color histogram and distance measures
Authors:	Punit Soni, Vijay Kumar Lamba, Surender Jangra and Sunil Kumar
Affiliation:	PIET, Panipat, GCET, Anandpur Sahib, Guru Teg Bahadur College, Sangrur, CGC COE
Abstract:	Interests to precisely retrieve desired images from databases of medical images are developing every day. Certain features define the images; on the basis of those the retrieval of images is facilitated. These components incorporate Texture, Color, Shape and Region. A lot of work has been done in this direction to discover the new ways to use these features in image retrieval process. In this study we exhibit an overview of the Content Based Image Retrieval (CBIR) methods taking into account Texture, Color, and Shape. In this study we present a color histogram based image retrieval system that can retrieve the images by direct image features matching with query image features by using distance classification. Content based access to digital medical images for supporting decision making has been suggested that would facilitate the administration of clinical information and situations. We have actualized new feature extraction based image retrieval and advanced feature extraction methods. For image retrieval, we have utilized color histogram function to extract the features and on the basis of extracted features matching of query image as divergence measure. Proposed retrieval strategy is far better than the conventional techniques that use picture to picture coordinating which builds the time taken in the recovery process. In this work, a complete system of image retrieval which is perfectly balanced in efficiency and efficacy is explored. As compared to previous procedure we got higher values of precision, recall and F-score. In future, more efficient training methods could also be merged into the study.

Paper ID:	112
Paper Title:	Examining Iris Consciousness for Validation of Legal Contracts
Authors:	Vijay Sinha, Anuj Kumar Gupta and Manish Mahajan
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Detection of human consciousness is vital for validating a legal or official statement whether in the form of written or verbal. A statement given under unconsciousness state is considered null and void as the person is not fully awarded about the consequences of the statement. Several factors affects human consciousness like effect of alcohol, drowsiness, effect of anesthesia, sleeping pills, natural sleeping hours etc. The present available methods for detection of level of consciousness works in a specific condition only. For instance Alcohol Meter can detect the level of alcohol in the breath but not the effects sleeping pills or partial conscious due to drowsiness. In this research we propose a new technique which can detect all types of unconsciousness irrespective of reasons. We used feature of iris light sensitivity which dilates inversely to pupil. Consciousness and iris dilation is directly proportional i.e. iris dilation increases with increase of consciousness and decreases with decrease of consciousness. We tested this method on 66 volunteers with 99.83% accuracy for 0.03mm iris dilation threshold value unconscious under alcohol effect and drossiness conditions. Results shows that iris sensitivity decreases significantly during unconscious state, for any reasons. This feature can be used for validation of contracts before signing legal contracts.

Paper ID:	113
Paper Title:	Detection of Criminal Traces during Forced Iris Authentication
Authors:	Vijay Sinha, Anuj Kumar Gupta and Manish Mahajan
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Although iris recognition system is considered as most robust, hard to counterfeit and the most secure system of biometric authentication. However the existing system fails to detect a forced authentication which might be misused by criminals to unlock the user's account. In this paper we examine the conditions in which a real user is forcibly presented in front of iris scanner on gun point to unlock the account. In this case a significant difference is noted in the area of iris visibility with respect to user's normal iris area visibility. An abnormal eye blink is also detected in forced condition. We successfully design and developed an algorithm to detect such conditions to protect the users from criminals when a user is forcibly presented to an iris scanner to unlock their account. A sample size of 65 volunteers are taken to record the iris authentication in both the conditions i.e. normal with consent of user and forced under without user's consent. The average size of iris is recorded 10.1 mm while it expands on 13.2 mm (average) in fear when iris is being scanned forcibly by criminals. We conclude that a variation of 2 to 3 mm in iris exposure is a clear biomarker to indicate some presence of criminal traces and take proactive measures to prevent losses.

Paper ID:	117
Paper Title:	Imputing Missing Data Analysis in Web Service Quality Dataset for Improving QoS Prediction
Authors:	Gaurav Raj, Manish Mahajan, Dheerendra Singh and Anjali Singh
Affiliation:	IKG Punjab Technical University, CGC COE, CCET, The University of Sydney
Abstract:	The web services at present have countless options for similar tasks. This wide range in web services induce challenge to choose the best service among all available. QoS prediction is a key of the selection but it is very time-consuming affair. Any prediction strategy relies on accuracy and completeness of available data, especially in case of QOS Prediction. Feedback, throughput and response time are the major attribute that should not be missed and incorrect. So, it's important to identify the missing value in the web service datasets. Therefore, a study of three missing value prediction approaches was undertaken to investigate their performance for missing values in datasets for web service. Benchmarked WS Dream dataset include response time and throughput matrices of web services is selected to analyze the performance of selected approaches. An extensive experiment is performed and results are collected, which conclude the superiority of MICE approach over other approaches.

POSTER ABSTRACTS

Poster ID:	91
Poster Title:	Acadhelp - A Virtual Guide
Authors:	Manikant Roy, Sukanta Ghosh
Affiliation:	Indian Institute of Information Technology & Management (IIITM-K) Kerala
Abstract:	An app is developed for reaching out to the rural student who is not having access of proper guidance. We believe that all of us have talent it is the right guidance at right time and in right manner which makes a difference in Student's progress. Students in rural area lack the proper guidance such as for career counselling, admission, competitive exam etc. So the Acadhelp app connects the right student to the right mentor. Students in urban areas have a reach to proper career counselling and academic guidance. But for a students in rural areas don't have a reach to the best in town career and academic guidance. Sincere and hardworking students are always available in rural areas but due to lack of proper guidance such talent fade away from this competitive world.

Poster ID:	93
Poster Title:	The Internet of Things for Health Care
Authors:	Vandana Mohindru and Anuj Kumar Gupta
Affiliation:	CGC College of Engineering, Mohali
Abstract:	The Internet of Things (IoT) makes smart objects the ultimate building blocks in the development of cyber-physical smart pervasive frameworks. The IoT has a variety of application domains, including health care. The IoT revolution is redesigning modern health care with promising technological, economic, and social prospects. This paper surveys advances in IoT based health care technologies and reviews the state-of-the-art network architectures/platforms, applications, and industrial trends in IoT-based health care solutions. this paper analyzes distinct IoT security and privacy features, including security requirements, threat models, and attack taxonomies from the health care perspective.

Poster ID:	96
Poster Title:	Noncontact Monitoring of Respiration by Dynamic Air-Pressure Sensor
Authors:	Ravdeep Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	The dynamic air-pressure sensor measures vital information using changes in air pressure. To utilize this device in the field, we must clarify the influence of clothing conditions on measurement. The present study evaluated use of the dynamic air-pressure sensor system as a respiratory monitor that can reliably detect change in breathing patterns irrespective of clothing. Twelve healthy volunteers reclined on a dental chair positioned horizontally with the sensor pad for measuring air-pressure signals corresponding to respiration placed on the seat back of the dental chair in the central lumbar region.

Poster ID:	97
Poster Title:	Mobile TV
Authors:	Arvinder Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Mobile TV is that the wireless transmission and reception of TV content - video and voice - to platforms that area unit either moving or capable of moving. Mobile TV permits viewers to get pleasure from personalized, interactive TV with content specifically custom-made to the mobile medium. The options of quality and personalized consumption distinguish mobile TV from ancient TV services. The expertise of viewing TV over mobile platforms differs during a sort of ways that from ancient TV viewing, most notably within the size of the viewing screen. The technologies wont to offer mobile TV services area unit digitally based mostly, the terms unicast and multicast area unit employed in identical means they're used for IPTV. That is, unicasting is transmission to one subscriber, whereas multicasting sends content to multiple users. These definitions additionally correspond to those given for similar Internet-based applications. For network operators, the challenge has become: 'How will large-scale delivery of high-quality multimedia system to wireless devices be enforced profitably?' though delivery of this kind of content is technically possible over today's existing unicast networks like 3G, these networks cannot support the quantity and sort of traffic needed for a completely realized multimedia system delivery service (many channels delivered on a mass market scale). Offloading multicast (one-to-many) multimedia system traffic to a passionate broadcast network is additional economical and fewer expensive than deploying similar services over 3G networks.

50

Poster ID:	98
Poster Title:	BITCOIN IN INDIA: Evolution and current position in Economy
Authors:	Chinkita
Affiliation:	CGC College of Engineering, Mohali
Abstract:	BITCOIN is a virtual currency. It is a critique, currency work on peer-to-peer basics. It is digital money or electronic currency which provides several benefits such as fast transaction speeds. It is best in security point–view as it is based on crypto coins. The aim of this poster paper is to study origin and implementation regarding the bit coin in India using secondary data as survey study. Bit coin and Block chain technology are important development in the FinTech economy. This paper introduces how block chain technology become great innovation and also present how bit coin made transaction and what is the effect on developing countries in every aspect. Moreover, this paper represent technologies of various researchers used and the structure of bit coin process. Then how bit coin come forward in a very useful way for the business applications and could change everything from the way that financial markets through to social media. Afterwards, we conclude the economic impact and problems suffer by bit coin. Bit coin is leaving great impact on financial, economic and banking sector.

Poster ID:	99
Poster Title:	Detection and mitigation of DDoS attacks using Gradient Matrix
Authors:	Jeevanjot Kaur
Affiliation:	CGC College of Engineering, Mohali
Abstract:	In computing, a denial-of-service attack (DoS attack) is a cyber-attack where the perpetrator seeks to make a machine or network resource unavailable to its intended users by temporarily or indefinitely disrupting services of a host connected to the Internet. In a distributed denial-of-service attack (DDoS attack), the incoming traffic flooding the victim originates from many different sources. This effectively makes it impossible to stop the attack simply by blocking a single source. In this research a generalized model for detection has been created by studying the existing models and algorithms on DoS attacks. Internet security is vital to facilitate e-commerce transactions, and there has been continued research effort to provision network traffic monitoring at high speeds. In the proposed technique a threshold is also defined so that any other node id which is greater than that threshold may be prevented. In case of any intrusion IP backtracking and packet logging is used to detect the intruder and mitigate it. From result it may be clear that the QoS parameters are improved using proposed approach and there are improved by approx 15-18% from the existing approach.

Poster ID:	100
Poster Title:	Digital Rights Management
Authors:	Nidhi Dudeja, Rahul Sharma, P Ritik Jaichand
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Digital rights management broadly refers to a set of policies, techniques and tools that guide the proper use of digital content. A DRM plays important roles in several processes that are involved in the flow of content. The major functionalities of this DRM system are: packaging of the raw content for easy distribution and tracking, content protection for tamper-proof transmission, delivery of content offline on CDs and DVDs and delivering content on-demand over peer-to-peer networks. Thus a set of standards related to various aspects of DRM are practiced in order to ensure fairness, interoperability and also for the consumer confidence.

Poster ID:	101
Poster Title:	IOT Augmented Smart Parking
Authors:	Mansi
Affiliation:	CGC College of Engineering, Mohali
Abstract:	There is a need of smart parking in smart cities because the common method of finding a parking space is manual which takes up a lot of time for an individual. Smart parking has two main dependencies- available space and shortest path. Creating a system which guides the users to shortest path for parking using navigation app and tells them the nearest place available for parking. This study aimed to provide information about nearby parking spaces for the driver and to make a reservation minutes earlier using supported devices such as smartphones or tablet PCs.

Poster ID:	102
Poster Title:	Online Bus pass system
Authors:	Kamalpreet Singh
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Making a bus pass in any country is a hectic work a student does in his whole life, those long queues and unbiased weather is the main factor behind this innovation. On the other hand the student also has to miss their respective lecture and stand for their turn and also sometimes they also have to give bribe to the officer to get there thing done first. This online bus pass portal enables and empowers the student to renew and make new pass on their own comfort. The student chose his/her own time and gets the thing done in minutes.

Poster ID:	103
Poster Title:	Artificial Intelligence
Authors:	Shivangi Verma and Ayush Sharma
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to stimulate it. An attempt will be made to find how to make machines use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves. Example like Siri or Alexa.

Poster ID:	104
Poster Title:	LIFI
Authors:	Kartik Sharma
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Li-Fi stands for Light Fidelity. The technology is very new and was proposed by the German physicist Harald Haas in 2011 TED (Technology, Entertainment, Design) Global Talk on Visible Light Communication (VLC). Li-Fi is a wireless optical networking technology that uses light emitting diodes (LEDs) for transmission of data. The term Li-Fi refers to VLC technology that uses light as medium to deliver high-speed communication in a manner similar to Wi-Fi and complies with the IEEE standard IEEE 802.15.7.

Poster ID:	105
Poster Title:	IoT Based Smart City: GPS Enabled Guide Boards
Authors:	Kartik Aggarwal & Muskan Dhamija
Affiliation:	CGC College of Engineering, Mohali
Abstract:	The Internet-of-Things (IoT) is newfangled cutting-edge technology which proffers to connect the plethora of digital devices endowed with several sensing, actuation and computing capabilities with the Internet, thus offers manifold new services in the context of a smart city. The appealing IoT services are enabling smart city initiatives all over the world. These services are transforming urban area/cities by improving infrastructure, transportation systems, reduced traffic congestion, waste management and the quality of human life. In this poster, we devise an idea to make GPS enabled guide boards on the roads which are connected with the famous places in the city.

Poster ID:	106
Poster Title:	Empowerment Through Empowering Platform
Authors:	Vanshika, Sonam, Vidushi and Suyash
Affiliation:	CGC College of Engineering, Mohali
Abstract:	This innovation gives women a platform to help each other. They can not only support fellow members, but also, feel empowered just by empowering other women. The online platform helps to build a community of women in which they share their resources based upon their geographical, professional position, knowledge and other means. The women in need can make a request and get accommodation, mentorship, guidance, & other possible helps. It is based on building an online community, where women can serve the needs of other women to the best of their abilities and intentions. They will empower themselves by empowering other women (ETE).

Poster ID:	107
Poster Title:	Smart Street Lighting System Using IoT Augmentation
Authors:	Megha Malhotra, Utkarsh Chitranshi, Manya Kapoor
Affiliation:	CGC College of Engineering, Mohali
Abstract:	The smart street light system, in which lights turn ON when needed and light turn OFF automatically. Smart street light is basically an optimal solution for proper utilization and power consumption across a streets. The fact is there is a trending demand of alterative sources of energy as the growing demands of the people increase. This can be done in two ways: 1. By finding alternative resources to supply the power. 2. By reducing the energy consumption. So in this main focus is on reduce the energy consumption. Unnecessary wastage of power in the street lights is one of the noticeable power loss. Thus preventing in wasting enormous electric energy consume by street lights on roads. The LDR identifies the vicinity of daylight and naturally turns OFF the street lights in the day time and turn it on without daylight which eliminates the issue of manual switching of road lights. Smart street lights framework is an essential piece for the smart city which represents 10-40% of aggregate power utilizations which is a discriminating attentiveness toward general society power consumption.

Poster ID:	109
Poster Title:	Smart Water Quality Monitoring Using IOT Augmentation
Authors:	Ashkanda Sharma, Shivangi Chona and Ashutosh Sharma
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Water pollution is one of the biggest fears for the green globalization. In order to ensure the safe supply of the drinking water the quality needs to be monitored in real time. Water monitoring system is one which will check the quality of water before its supply. IOT (Internet Of Things) together with sensors will help to monitor the quality of water . The system consist of several sensors that are used to measure physical and chemical parameters of the water. The parameters such as temperature, PH, turbidity, flow sensor of the water can also be measured. The measured values from the sensors can be processed by the core controller. The Arduino model can be used as a core controller. Finally, the sensor data can be viewed on internet using WI-FI system. This system will surely help to maintain the quality of water and help in solving various diseases that are caused due to poor quality of water.

Poster ID:	110
Poster Title:	Hybrid Cipher
Authors:	Anubhav Tyagi and Anuj
Affiliation:	CGC College of Engineering, Mohali
Abstract:	For many years we have been using transmission of information through electronic medium such as mobile phone communication, electronic commerce, the on-line chat service etc. Unfortunately, those way of transmit the information are not safe. The message that we delivered is possible be stolen or monitored. If we have no appropriate protect measure, so once the important messages leaks out, the result may be inconceivable. Data security has increased immensely with the rate of data transfer. Data insecurity can cause huge problems at both the ends of transmission. Therefore a smart and non-crack able encryption is in huge demand. Cryptography increases the data security by encrypting the input text into some form of unreadable cipher thus making it nearly impossible to be cracked. Cryptography is a new big step towards data security.

Poster ID:	111
Poster Title:	Real time analysis of traffic congestion
Authors:	Kunal Sood and Nathan Gill
Affiliation:	CGC College of Engineering, Mohali
Abstract:	In present-day the most common issues that concerns everyone is traffic congestion on road at crossings where traffic light poles are placed. The objective is to flow and maintain traffic system automatically but unfortunately jamming queue exists while everything is fine from technology point of view because of predefined static time duration. This predefined time slots fail to capture real time scenarios in terms of traffic load and that leads to congestion. To avoid such type of problem, this work contributes the concept of dynamic traffic light slots as a best possible solution. Dynamic traffic light is a concept of controlling the time duration of RED and GREEN light according to traffic flow or by sensing flow of traffic on road in movement.

Poster ID:	115
Poster Title:	Metric Quality Design based on Object Oriented Metrics
Authors:	Mohit Kumar Sharma
Affiliation:	DAV Dasuya
Abstract:	Software Metric is a significant software engineering field that plays a quality role in software measurement. Better measurement and metrics are stepping stone to software growth with distinction. Moving from measurement to metrics is like moving from observation to understanding. Metrics are conceived by the user and designed to reveal a chosen characteristic in a reliable and meaning manner. Object Oriented Software measurement is procedure in which calculations are done on real world entities to describe them according to clearly defined rules. Object Oriented Metric plays a vital role to find the efficiency of the software and improvement for future. The measurement of object oriented software seems to be a powerful tool for product effectiveness. This study has analyzed different Object Oriented Metrics and helpful for ensuring quality design with high cohesion and low coupling for advancement in Object Oriented Software Development.

Poster ID:	116
Poster Title:	Role of INFLIBNET in information & communication technology era
Authors:	Tarsem Lal
Affiliation:	DAV Dasuya
Abstract:	This paper discusses the role of INFLIBNET in information and communication technology's era. INFLIBNET is imparting very remarkable and important role in the digital era. The services and digital libraries/ consortias are widely used by scholars, scientists, academicians, science planners, policy makers, industrialists, students, faculties and researchers. The e-resources of INFLIBNET are used at national and international level. With the help of information and communication technology, INFLIBNET is promoting the e-resources through consortiums (N-LIST, e-PG-Pathshala, Shodhgangotri, ShodhGanga, INFOPORT, Vidwan Databases, Vidya-Mitra and other projects/consultancy). INFLIBNET is disseminating open and subscribed access to e-resources to the institutions, universities, IITs and other professional libraries. SOUL library automation software is adopted by colleges and universities libraries. The library services are also highly demanded the scholarly communities.

Poster ID:	118
Poster Title:	IoT based Smart Cities
Authors:	Neha Sharma and Barinder Thapa
Affiliation:	CGC College of Engineering, Mohali
Abstract:	The Internet-of-Things (IoT) is the novel cutting-edge technology which proffers to connect plethora of digital devices endowed with several sensing, actuation and computing capabilities with the Internet, thus offers manifold new services in the context of a smart city. The appealing IoT services and big data analytics are enabling smart city initiatives all over the world. These services are transforming cities by improving infrastructure, transportation systems, reduced Traffic congestion, waste management and the quality of human life. In this paper, we devise a taxonomy to best bring forth a generic overview of IoT paradigm for smart cities, integrated information and communication technologies (ICT), network types, possible opportunities and major requirements. Moreover, an overview of the up-to-date efforts from standard bodies is presented. Later, we give an overview of existing open source IoT platforms for realizing smart city applications followed by several exemplary case studies. In addition, we summarize the latest synergies and initiatives worldwide taken to promote IoT in the context of smart cities.

Poster ID:	119
Poster Title:	A step towards e-learning : National digital Library
Authors:	Shaveta Arora
Affiliation:	Amardeep Singh Memorial College, Mukandpur Distt. Nawanshahr
Abstract:	In the time of technology, information is a strong weapon and to meet the information needs of researchers and scholars Ministry of Human Resource Development, Government of India took an initiative step under its National Mission on Education through Information and Communication Technology by starting National Digital Library (NDL) pilot project to develop a framework of virtual repository of learning resources with a single-window search facility. NDL helps the users to get their required information with least efforts and in minimum time. NDL is designed to hold contents of any language and provide interface support for leading vernacular languages (currently Hindi, and Bengali). It is being arranged to provide support for all academic levels including researchers and life -long learners, in all disciplines, in all popular forms of access devices and also to differently-abled learners. It is also facilitate users in preparing entrance and competitive exams by providing access to multiple resources without any time and geographical barrier. The pilot project is devising a framework suitable for future scale up with respect to content volume and diversity to become a full-blown National Digital Library of India over time.

Poster ID:	120
Poster Title:	Li-Fi Technology : A Review
Authors:	Jagdeep Singh
Affiliation:	DAV Dasuya
Abstract:	Now a days many of us are using internet to execute our task through wired or wireless network. As number of users get increased in wireless network speed degrades proportionally. Though Wi-Fi gives us speed up to150mbps as per IEEE 802.11, it is still insufficient to meet number of desired users. To rectify this limitation of Wi-Fi, we are introducing concept of Li-Fi. The data through illumination–taking the fibber out of fiber optic by sending data through an LED light bulb that varies in intensity quicker than the human eye can follow. It's the same idea behind infrared remote controls but far more efficacious. It is called D-LIGHT, can produce data rates faster than 10 megabits per second, which is faster than your average broadband connection. Li-Fi stands for Light-Fidelity. The idea of Li-Fi technology, proposed by the German physicist—Harald Haas, provides transmission of data through illumination by sending data through an LED light bulb that varies in intensity quicker than the human eye can follow.

Poster ID:	121
Poster Title:	On Relevance of eSports
Authors:	Ashish Sethi and Anil Chaudhary
Affiliation:	CGC College of Engineering, Mohali
Abstract:	About eSports, (electronic sports) as "a form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are mediated by human-computer interfaces. Focused PC gaming or eSports is a marvel that has turned into a crucial component in the present computerized youth culture. So far almost no exertion has been made to consider eSports specifically regarding its possibilities to decidedly impact inquire about advancements in different zones. This paper in this manner attempts to establish a framework for an appropriate scholastic treatment of eSports. Competitive computer gaming or eSports is a situation that has become a fundamental element in today's digital youth culture.

Poster ID:	122
Poster Title:	Reducing harmful effects of radio waves
Authors:	Anil Chaudhary & Ashish Sethi
Affiliation:	CGC College of Engineering, Mohali
Abstract:	During recent years, mobile communication systems have experienced wide and rapidly growing use all over the world. Ever since, considerable concerns have been expressed about possible health risks to the human organism and, in particular, the brain. The presence of radiofrequency (RF) waves from wireless technologies has become ubiquitous. Mobile telephony (construction and operation of telephones or telephonic systems) is relied on by more than 1.4 billion people, which is around 20% of the world's population.. Radiofrequency (RF) radiation, which includes radio waves and microwaves, is at the low-energy end of the electromagnetic spectrum. It is a type of non-ionizing radiation. Non-ionizing radiation has enough energy to move atoms in a molecule around or cause them to vibrate, but not enough to ionize (remove charged particles such as electrons).

Poster ID:	123
Poster Title:	Packet Extraction and Isolated Eavesdropping Attack in Internet Of Things
Authors:	Reetinder Kaur
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Internet of Things is the network of physical objects that needs an IP address for internet connectivity and the interaction that occurs between objects and other devices which enable internet. It includes a variety of smart devices like mobile phones that send data to sensors which track information related to human body. The aim of the Internet of Things is to obtain those devices which improve efficiency and reveals important information as quickly as possible as a system which depends on human involvement. Security is the enormous worry in the field of IoT. This work contributes towards the examination region of Cyber Security that consolidate advance predictive model keep running parallel, with the end goal to recognize the Eavesdropping attack.

Poster ID:	126
Poster Title:	The Security Issues in Internet-of-Things
Authors:	Guneet Kaur, Tanishq Gaba, Tushar Beri
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Internet of Things (IoT) is a socio-technical phenomena with the power to disrupt our society such as the internet before. IOT promises the inter-connection of myriad of things providing services to humans and machines along with many more benefits. However, all these benefits can come of huge risks of privacy loss and security issues. Numerous countermeasures have been taken to eliminate or at least minimize these risks and privacy issues. The poster consists of three segments. The first segment will cover the limitations of IoT, the second segment will depict the security issues in IoT and at last the third segment will represent the ways to deal with security issues.

Poster ID:	127
Poster Title:	Environment Friendly Toll Plaza
Authors:	Siddharth Aggarwal, Sourav Goyal
Affiliation:	CGC College of Engineering, Mohali
Abstract:	Environment friendly toll plaza is an application which is based on energy resources and totally environment friendly. It consists of a conveyor belt which operate on green energy and electricity. The e-payment method can be used to make payment of the toll through an app through which payment can be made earlier. At the time of entering the toll car number is detected through a sensor which helps in saving your time and most importantly petroleum.

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