

ICACEA-2014

SATURDAY, 15TH FEBRUARY 2014

Proceeding of
International Conference on Advances in
Computer Engineering & Applications-2014
(ICACEA-2014)



Organized by
Department of Computer Science & Engineering
IMS Engineering College, Ghaziabad

Proceedings of ICACEA-2014

International Conference on Advances in Computer Engineering & Applications 2014 (ICACEA-2014)

Copyright© ICACEA-2014 (Dr. Avdhesh Gupta)

All rights reserved.

No part of this conference proceeding may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the publisher

ICACEA-2014-Publishers

IMSEC, Ghaziabad

India 2014

www.imsec.ac.in

<http://imsecconference2014.wordpress.com>

IMS Ghaziabad Group of Institutions



IMS Ghaziabad, was founded in 1990 by a group of visionaries and intellectuals to impart quality education in a stimulating and innovative environment where students are empowered with knowledge and professional skills while upholding the values of integrity, tolerance and mutual respect. Since its inception the group has promoted education in the areas of Management Sciences, Tourism, Information Technology, Bio-Science, Engineering Sciences and Journalism through its three educational campuses equipped with state of art infrastructure. IMS has attained a unique and a highly respectable place amongst the best professional education institutions in India.



IMS Engineering College is one of the top-notch engineering college of the entire NCR of Delhi by virtue of providing technical education and 100% employability prospects of its students. IMSEC bestowed with “Excellence in Overall Performance Award” jointly by AICTE & UP Govt. (National UP Education Award 2013). IMSEC is also recipient of 3rd Position for Excellent Academic Performance among all Engineering Colleges of National Capital Region (NCR). **IMSEC Ghaziabad** is NAAC Accredited for maintaining world class quality in Education & Infrastructure. The highly qualified and committed faculty, the state-of-the-art laboratories, Computer Centre and Learning Resource Centre, the wholesome pedagogic ambience, provide the student the most exciting and gainful opportunities for the acquisition of knowledge and technical expertise to groom and orient the young minds. **IMSEC Ghaziabad** is TCS Accredited for Placements & Project Activities. The faculty at IMS Engineering College has been recruited as per the quality policy ensuring that the faculty members have the background of reputed national Colleges/Universities and none is below a master’s degree.

IMS Group Includes

IMS Engineering College, Ghaziabad
Institute of Management Studies, Ghaziabad
IMS Ghaziabad, Adhyatmic Nagar Campus

Executive Council



Shri Nitin Agarwal, Chairman



**Shri S.K. Rastogi,
General Secretary**



**Shri Sanjay Aggarwal
Treasurer**



**Shri Sudhir Shukla
Joint Secretary**



**Shri Naresh Agarwal
Executive Member**



**Shri Pramod Agarwal
Executive Member**



**Shri Rakesh Chharia
Executive Member**



**Shri Rajiv Chaudhary
Executive Member**



**Shri Apurve Goel
Executive Member**



**Shri Ramesh Chaudhary
Executive Member**



**Smt. Deepa Chharia
Executive Member**



**Shri Ashok Chaturvedi
Executive Member**



**Smt. Anshu Gupta
Executive Member**

Chief-Patrons Message

We are very glad that Department of Computer Science & Engineering, IMS Engineering College, Ghaziabad is organizing an International Conference on Advances in Computer Engineering & Applications (ICACES-2014) on 15th February 2014. We are in the era where Computer Science & Engineering driving the most part of the world. All the things that make our life comfortable are the inventions of Computer Science. We should focus on the study & applications of computer science because it plays a very important role in our life.



Computer Engineering and its Applications are playing a very important role everywhere for the betterment of society. From the Microscopic robot that is doing surgery in human body to the space shuttles going to unknown space are made through the technology. This conference will provide a platform for the researchers to present, share their research work, innovative ideas and knowledge in our conference.

IMS Engineering College is always been at front to organize such events and we will continue to support such events in the future also.

We congratulate the department of Computer Science & Engineering and the conference committee members for organizing such an event of international level and wish them all the best to make this event a grand success.

Shri Nitin Agarwal, Chairman

On behalf of the IMS Engineering College, Ghaziabad, it is my great honor and pleasure to welcome you all to the 1st International Conference on Advances in Computer Engineering and Applications (ICACEA- 2014) on Saturday, 15th February, 2014.

I am sure ICACEA 2014 will prove to be a good learning platform for all the invited Speakers, Delegates & Participants to share their knowledge & experiences on the recent advances in Computer Engineering and its Applications.

I also would like to congratulate the Department of Computer Science & Engineering & the members of the organizing committee for their wonderful initiative to organize this International event.

I welcome all the distinguished invited Speakers, Delegates & Participants at ICACEA-2014.



Shri Sanjay Aggarwal, Treasurer

Patron's Message

I on behalf of IMS Engineering College, Ghaziabad would like to extend my warm welcome to all our distinguished Speakers, Delegates & Guests, Participants & Dear Students at 1st International Conference on Advances in Computer Engineering and Applications (ICACEA- 2014).



I also would like to congratulate the Department of Computer Science & Engineering & the members of the organizing committee for their academic initiative to organize this international event. We assure you that the college administration shall always provide all the necessary support & motivation to such initiatives.

The aim of the conference is to endeavour the participants on recent research & advances that is being carried out across the growing network of Computer Engineering and its Applications. This conference will examine research and development at national & international level.

I am delighted to learn that eminent speakers from academia & industry from India & abroad will be sharing their knowledge & experiences on the advances in Computer Engineering & Applications at the conference. It is a matter of pride that the participants from premier institutions including NIITs, IIITs, Central/State Universities etc are presenting their work at the conference.

Once again I welcome all the invited speakers & participants at the ICACEA-2014.

Prof. (Dr.) S.P Pandey,
Director, IMS Engineering College, Ghaziabad

Mission & Vision

Vision (Institute)

“To develop IMSEC as a Centre of Excellence in Technical & Management education; To inculcate in its students the qualities of Leadership, Professionalism, Executive Competence and Corporate understanding; To imbibe and enhance Human Values, Ethics and Morals in our students; To transform students into Globally Competitive Professionals.”

Vision (Department)

To be recognized as one of the focused Engineering Departments imparting quality education among Private Engineering Institutes at State & National level.

Mission (Institute)

To impart vibrant, innovative, global education and to make IMSEC the world leader in terms of Excellence in education, research and to serve the nation in the 21st century. We intend to:-

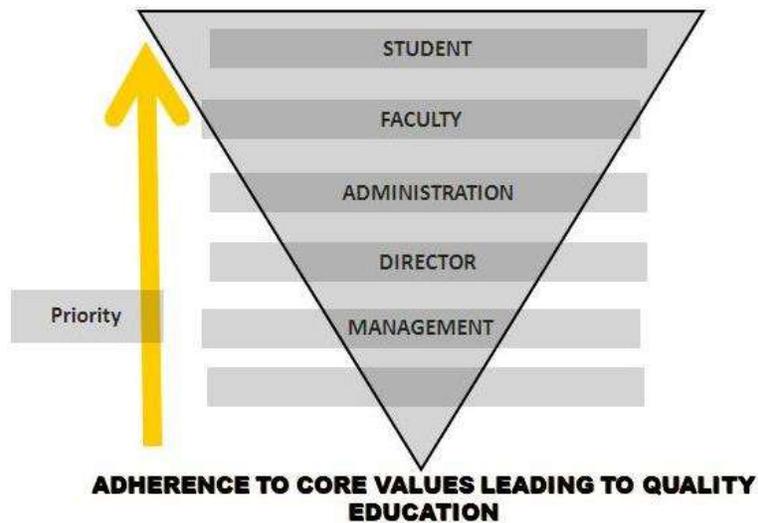
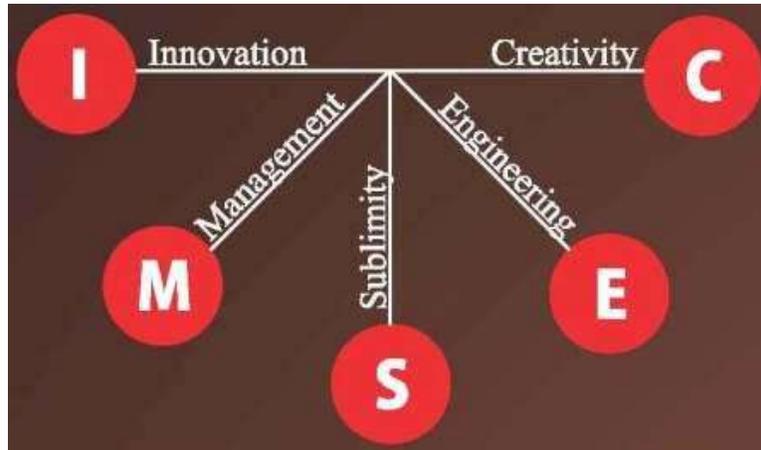
1. Develop IMSEC as a Centre of Excellence in technical education.
2. Inculcate in the students the qualities of Leadership, Professionalism, Executive Competence and Corporate Understanding.
3. Imbibe and enhance human values, ethics and moral codes of conducts.
4. Transform young generation into proficient professionals who can compete globally.

Mission (Department)

1. To provide an encouraging and disciplined environment for effective & meaningful teaching learning.
2. To emphasize on practical oriented learning & skill enhancement of the students through value addition programs. Enhance the overall employability skills of the students.
3. To produce better results in university exams through rigorous academic monitoring & team efforts.
4. Cultivating value system among students through proper counseling. Motivating students to give back to the society
5. To encourage faculty and students for higher studies & research.

Motto

IMSEC nurtures, nourishes and grooms future engineers and managers with professional excellence and humanized outlook with the envisioned motto:-



Conference Committee

CHIEF-PATRONS

Shri Nitin Agarwal

Chairman, IMSEC

Shri Sanjay Aggarwal

Treasurer, IMSEC

PATRON

Prof. (Dr.) S.P Pandey

Director, IMSEC

CHIEF GUEST

Prof. (Dr.) Asaad A. M. Al-Salih

Univ. of Baghdad, Iraq

GUEST OF HONOR

Prof. (Dr.) R. C. Mittal

IIT-R

Prof. (Dr.) Om Vikas

Ex-Director, IIITM, Gwalior

KEYNOTE SPEAKERS

Prof. (Dr.) Divakar Yadav

Pro VC, UPTU, Lucknow

INVITED GUEST SPEAKERS

Prof. (Dr.) Goutham Marneni

USA

Mr. Ashish Kumar

Accenture, London

Prof. (Dr.) S.A.M. Rizvi

JMI, N. Delhi

Mr. Jayesh Tripathi,

Sr. Head, Ericson

Prof. Mohd. Meftah Alrayes

Engineering College, Jasola, Libya

Mr. Anil Sethi

Director, Ent. Mgmt. & Cloud, ORACLE

Prof. A. K. Sinha

Dean (R&D), ABES, GZB

Dr. Vijender Singh

NSIT, N. Delhi

PROGRAM CHAIR

Dr. Pankaj Agarwal, IMSEC

CONFERENCE CONVENER

Dr. Avdhesh Gupta, IMSEC

SESSION CHAIR

Prof. (Dr.) Asaad A. M. Al-Salih

Univ. of Baghdad, Iraq

Prof. Mohd. Meftah Alrayes

Engineering College, Jasola, Libya

Prof. A. K. Sinha

Dean (R&D), ABES, GZB

Mr. Ashish Kumar

Ericsson, London

Dr. S. N. Rajan, IMSEC

Prof. N. U. Khan, IMSEC

Prof. G. P. Gupta, IMSEC

ADVISORY BOARD

Prof. (Dr.) Su-Hua Wang

Professor, Chung Hua

University, Taiwan

Prof. (Dr.) Sugam Sharma

Professor, IOWA State

University, USA

Prof. (Dr.) B. D. Chaudhary,

IIT Mandi

Prof. (Dr.) Sanjay Jasola,

Vice Chancellor, Graphic

Era University, DDN

Prof. (Dr.) Shekhar Verma

Professor, IIIT Allahabad

Mr. Amit Kumar

Head Operations, Swiss

Bank, Singapore

Mr. Amulya Saha

GM(HR), Samsung Engineering India

Prof. (Dr.) S.N.Singh

Professor, IIT KANPUR

Dr. Saurabh Gupta

Director, NIC, N. Delhi

Prof. (Dr.) Mohan Lal

Professor, IIT, Roorkee

Prof. (Dr.) K. V. Arya

Assoc. Prof, IIIT Gwalior

Dr. A.K Chawla

Head(HR), India North, TCS

Mr. Prem Goswami

VP(HR), R Systems

Mr. Nitin Bhalla

Associate Vice President, Wipro

ORGANIZING COMMITTEE

Mr. Atul Kumar

Mr. Neeraj Sirohi

Mr. Vivek Jain

Mr. Vijai Singh

Ms. Shivani Agarwal

Mr. Anurag Mishra

Ms. Swati Singh

Mr. Vishan Gupta

Ms. Ankita Phogat

Mr. Amit Kumar Gautam

Mr. Vikas Singh

Ms. Shaili Gupta

Ms. Anjali Sardana

Mr. Pradeep Dixit

Mr. Pankaj Sengar

Ms. Hema Kashyap

Mr. Vishal Mandpe

Mr. Nishant Sinha

Ms. Vinita

Ms. Mayank Chandra

Mr. Amit Kumar

Ms. Shivani Saluja

Ms. Kirti Agarwal

Ms. Radhika Tayal

Ms. Tushina Bedwal

Ms. Lipika Goel

Horizons of Development in Computers Technology

Since the invention of the first computer machine ENIAC (Electronic Numerical Integrator And Computer) in 1946 at the University of Pennsylvania (Philadelphia-USA), and MU0 (Manchester University- Version 0) in 1948 at the University of Manchester (Manchester-UK), the field of computers technology has witnessed the following five stages or generations of development. The time span of each generation has actually tolerated between 10 – 15 years depending on the activity of development in both software and hardware in that generation. This caused the span of each generation to overlap in reality with the next and previous one. Yet for simplicity those generations have been roughly listed here on the basis of 12-years span.



1- The First Generation (1946 – 1957):

This generation involved the glass vacuum tubes and iron core memories for RAM and mass storage. It suffered the big size of equipment, heavy power consumption, necessity for strong cooling enclosure, with frequent faults in operation due to the short life-time of the tubes. Though they used only direct binary codes, under primitive types of operating systems, they have however been considered at that time as miracle.

2- The Second Generation (1957 – 1968):

The 2nd generation comprised the application of solid-state technology. The invention of the transistor by William Shockley in 1948 made such application to involve TTL then CMOS logic to build processors and memory circuits. HLL then Assembly codes emerge with better types of operating systems that were based on batch processing concept. Magnetic drums as mass storage appeared and were dominantly used.

3- The Third Generation (1968 – 1979):

The 3rd generation has witnessed progressive development in both hardware and software sides. Minis and mainframes having faster processors and bigger storage capacity were used in large measure. Operating systems have adopted the concepts of multiprogramming then time sharing. On the other hand, the invention of the first IC (Chip) in 1958 by Jack Kilby (USA) has opened the doors openly to develop the

fabrication era of SSI then MSI technologies. Further, the invention of the first microprocessor (Intel 4004) in 1971 by Ted Hoff (USA) has started a progressive race between the main American and Japanese world companies like Intel, Motorola, Zilog, Signetics, Ferchild, Texas Instruments, and so on, to attain higher speed of processing and better qualities.

4- The Fourth Generation (1979 – 1990):

This has inevitably initiated the infrastructure to develop the first microcomputer in the fourth generation in 1981 by IBM (USA) based on Intel technology. The first Super Computer (Cray-1) was developed by Seymour Cray in 1976, which was followed by Cyber-205. This has pushed towards the application of the concept of Parallel Processing types including: the Uniprocessing (SISD), the Vector Processing (SIMD), the Pipelining (MISD), and the Multiprocessing (MIMD). The first Transputer (One-Chip Computer) was developed by the early years of the eighties. In 1978 the American-European “Arpanet”, which was the basis of our current “Internet”, was developed to spread the Cyber world among the whole globe. This has been followed by the development of the first commercial mobile phone in 1979 by Nokia (Finland).

4- The Fifth Generation (1990 – till now):

Several aspects appeared at the beginning of the fifth generation such as Laptops, Smart phones, and the blue tooth (Infrared) technology (1994). This involved several international companies like: Sony, Samsung, Apple, Dell, hp, IBM, Lenovo, Toshiba, etc. Vehicles and domestic appliances have started to be supported with microprocessors that are based on Fuzzy Logic. Genetic Algorithms and Neural Networks started to be applied in Bioinformatics and biochips fabrication. Traffic control and surveillance systems started to be computerized using smart image processing algorithms. Cross-fertilized concepts and inter-multidisciplinary fields of research are going on until reaching better level of fulfilling human needs. This has led to develop application in diverse applications such as in air lines aviation, sea lines navigation, resources exploration, remote sensing and unmanned vehicles and planes. Space and ocean researches have also been upgraded by the applications of these new horizons DNA computers, Computer-based Diagnosis, and Nano technology applications have also been applied to support human needs. Humanoids (Human-shaped Robots) have started now to be used to serve customers in Japanese restaurants.

Asaad A. M. Al-Salih

(B.Sc., M.Sc., Ph.D., M-IEEE)

(Associate Professor, Dept. Elec. Eng., Univ. of Baghdad, Iraq)

Message from Guest of Honor

I wish to extend a very warm welcome to all delegates attending the International Conference on Advances in Computer Engineering & Applications (ICACEA-2014) organized by Department of Computer Science & Engineering at IMS Engineering College, Ghaziabad.



This event will bring together professionals and leaders from different sectors, locally and overseas, to share their vast experiences in the innovative and indeed often disruptive use of technology for reaping opportunities in their businesses.

ICACEA-2014 will honor the most outstanding technology and Applications in Computer Engineering. This exciting events will allow the world's technology leaders as well as regional researchers, academicians to coverage and share their insights on the future technology directions and trends to follow with various engineering sectors.

I would like to express my appreciation and gratitude to the members of the Organizing Committee, the Program Committee, as well as the staff members of the ICACEA-2014, for their dedication and hard work. Special thanks must also go to the speakers and the panelists for their participations for their generous and unfailing support, without which the conference could not be successful.

Finally, I would like to thank all delegates for taking part in this conference. I hope we will all find the conference useful and enjoyable.

Prof. (Dr.) R. C Mittal
Professor & Head, Department of Mathematics, IIT Rookee

The philosophical question “Can Machine Think?” is the beginning of conceptual computing. Computing progressed from localized to distributed, wired to wireless, numeric to symbolic, propriety to open, platform-specific to platform independent, uni-modal to multimodal, Hard Computing to Soft computing & Hybrid Computing. New areas emerged such as Mobile Computing, Intelligent Computing, Social Computing, Cloud Computing, Scalable multi-core Computing and Bio-inspired computing.



CSE graduates are expected to imbibe core innovation-centric skills in VLSI system design, Artificial Intelligence, computer networks, control systems, data design, programming methodology, and (software) project management. Ethics and relevance in engineering practices are also important.

Research challenges remain in optimal resource provisioning, interoperability, interactivity, federated search, semantic web, knowledge management, security, big data, and internet of things. ICT-enabled Education and Training is another research field for educators. Price, Performance and Privacy will be the driving force for advancement in computing technology.

I hope, in this backdrop, the ICACEA-2014 being organized at IMS Engineering College, Ghaziabad will set a milestone of quality and excellence toward collaborative research participation in the journey of Advancement in Computer Engineering and Applications. My best wishes for the same.

Prof. (Dr.) Om Vikas
Ex-Director-IIITM, Gwalior

Abstract from Key Note Speaker

The modern day transactional information systems based on distributed databases are large and fairly complex due to their underlying mechanisms for communication. These systems, classified as business critical systems, take advantage of data distribution and are expected to exhibit high degrees of dependability. Any failure in these systems may lead to financial losses in addition to the potential loss of the trust of customers. These applications may span over several distinct sites that are spatially separated and cooperate with each other towards the completion of a distributed computation. The design and verification of such distributed applications is a complex issue due to the fact that communication primitives available in these systems are often too weak. The inherent limitation of these systems is that neither does there exist a system wide common global clock nor do they share common memory. Due to these limitations the up-to-date state of the entire system is not available to any site. In such applications, different sites communicate to each other via message exchanges. It is assumed that messages are eventually delivered and sites eventually respond, but no assumption on time can be made. This problem can be dealt with by relying on group communication or broadcast primitives that provide higher ordering guarantees on the delivery of messages. Group communication primitives have been used as a basic building block for the development of reliable fault tolerant distributed applications. Solutions based on group communication are used in the real world.



Due to the rapid advances in communication technology, the last decade has witnessed the development of several complex distributed information systems for banks, stock exchanges, electronic commerce, and airline/rail reservation, to name a few. The emergence of such applications has opened up new opportunities for integrating advances in database systems with advances in the communication technology. In such systems, it is not uncommon to store a copy of a database (replication) or to store part of the database (fragmentation) at several sites for fault tolerance and efficiency. In these applications, the sites communicate by exchange of messages and cooperate with each other for the successful completion of global computation which may read or write to the data at several sites. With respect to the data distribution, from a user perspective, a distributed database should behave like a centralized database. This view of distributed databases implies that the user should be able to query the database without worrying about the distribution of the data. With respect to the updates, this view of a distributed database requires that the transactions must be executed as an atomic action regardless of fragmentation and replication. Replication improves availability in a distributed database system. A

replicated database system can be defined as a distributed system where copies of the database are kept across several sites. Data access in a replicated database can be done within a transactional framework. It is advantageous to replicate the data if the transaction workload is predominantly read only. However, during updates, the issue of keeping the replicas in a consistent state arises due to race conditions among conflicting update transactions. The strong consistency criterion in the replicated database requires that the database remains in a consistent state despite transaction failures. The possible causes of transaction failures include bad data input, time outs, temporary unavailability of data at a site and detected deadlocks.

The dependability of modern business critical distributed applications is an important design criterion. In principle, the dependability of a system is the ability to avoid service failures that are more frequent and more severe than acceptable limits. The dependability of the system encompasses the following attributes; the readiness for service (availability), the continuity of service (reliability), absence of catastrophic consequences on the users and environment (safety), absence of improper system alterations (integrity), and the ability to undergo modifications and repairs (maintainability). These issues related to dependability must be addressed in the design, architecture and component infrastructure itself. It is not possible to simply add a fault-tolerance module later on to make the system fault-tolerant.

Formal Methods provide a systematic approach to the development of complex systems. They provide a framework for developing rigorous specifications of the system under development and verification of critical properties. Until now, formal methods were considered suitable for design and development of safety or mission critical system. Currently computer science researchers are investigating the application of formal methods to complex business critical software system that need to exhibit high degrees of dependability. Event-B is a formal technique consisting of describing specifications of abstract problem, introducing solutions or design details in the refinement steps to obtain concrete specifications, and verifying that proposed solutions or design details are valid. We outline how a refinement based approach can be used for the development of a reliable replicated database system that ensures atomic commitment of distributed transactions using ordered broadcasts.

The Event-B is a formal technique that consists of describing rigorously the problem in the abstract model, introduces solutions or the design details in the refinement steps to obtain more concrete specifications, and verifying that the proposed solutions are correct. This technique requires the discharge of proof obligations for consistency checking and refinement checking. The B tools provide significant automated proof support for generation of the proof obligations and discharging them. The majority of the proof obligations are proved by the automatic prover of the tools. However, some of complex proof obligations require interaction with the interactive prover. These proof obligations also help discover new

system invariants. The proof obligations and the invariants help us to understand the complexity of the problem and the correctness of the solutions. They also provide a clear insight into the system and enhance our understanding of why a design decision should work.

Group communication is at the core of modern reliable distributed applications. A formal rigorous reasoning is required to precisely understand the behavior of such systems built on top of group communication primitives. In this talk, we will outline our experiences of application of Event-B to provide formal specifications of group communication primitives and verification of critical properties.

References and Further Reading

- [1] Kenneth P. Birman, Andr e Schiper, and Pat Stephenson. Lightweight causal and atomic group multicast. *ACM Trans. Comput. Syst.*, 9(3):272–314, 1991
- [2] Ozalp Babaoglu, Alberto Bartoli, and Gianluca Dini. Replicated file management in large-scale distributed systems. In Gerard Tel and Paul M. B. Vit anyi, editors, *WDAG*, volume 857 of *Lecture Notes in Computer Science*, pages 1–16. Springer, 1994.
- [3] J.-R. Abrial. *The B-Book: Assigning programs to meanings*. Cambridge University Press, 1996.
- [4] Roberto Baldoni and Michel Raynal. Fundamentals of distributed computing: A practical tour of vector clock systems. *IEEE Distributed Systems Online*, 3(2), 2002.
- [5] Xavier D efago, Andr e Schiper, and P eter Urb an. Total order broadcast and multicast algorithms: Taxonomy and survey. *ACM Computing. Surveys*. 36(4):372–421, 2004.
- [6] Divakar Yadav, Michael Butler, “Rigorous Design of Fault-Tolerant Transactions for Replicated Database System using Event B”, *Rigorous Development of Complex Fault Tolerant Systems*, volume 4157 of *Lecture Notes in Computer Science*, pp 343-363, Springer-Verlag, 2006.
- [7] Michael Butler, Divakar Yadav, “An incremental development of the Mondex System in Event-B”, *Formal Aspects of Computing*, Springer-Verlag, Vol 20, No 1, pp 61-77, 2008.
- [8] Divakar Yadav, Michael Butler, “Verification of Liveness Properties in Distributed Systems”, *Communications in Computer and Information sciences*, Vol 40, pp 625-636, Springer-Verlag, 2009..

- [9] P Kangsabanik, D S Yadav, R Mall, A K Majumdar, "Performance Analysis of Long-Lived Cooperative Transactions in active DBMS", Data and Knowledge Engineering, Elsevier, Vol. 62, No. 3, pp 547-577, 2007.
- [10] Divakar Yadav, Michael Butler, "Formal Development of a Total Order Broadcast for Distributed Transactions using Event-B", Method, Models and Tool for Fault-Tolerance, Lecture Notes in Computer Science, Vol. 5454, pp 152-176, Springer-Verlag, 2009.

Prof. D. S. Yadav
Department of Computer Science and Engineering
Institute of Engineering and Technology,
Uttar Pradesh Technical University
Lucknow-226021 UP INDIA

Wireless Mesh Network

Wireless networks provide unique solution to offer better services with less cost as compared to wired networks. Now a days, wireless networks are preferable choice, due to many of its features such as: ease of deployment, less administrative requirements, maintenance and minimal preparation etc as compared to wired networks. Wireless networks facilitate multimedia communications between people and devices from any physical location. These networks can be applied in the places, where the implementation of wired network seems difficult, especially in rural and remote area where wired networks are costly and difficult to manage.



Furthermore, wireless networks are being adopted with modern devices such as mobile phones or PC Pocket. There are several specifications of wireless network, where it can support single hop (i.e. IEEE802.16 point to multipoint technology, IEEE802.11 wireless LAN) or multi hop (i.e. Wireless ad-hoc network).

Wireless mesh networks (WMNs) appear to be a promising technology for next generation wireless networks. They provide cost-effective and connectivity solutions, while the other access technology is unable to do this. The wireless mesh networks (WMNs) consider a new attractive communication paradigm to provide IP-connectivity, such that extending high-speed IP connectivity is still an ongoing research problem. WMNs have gained significant attention of Internet service providers (ISPs) and end users, because it can offer reliable wireless broadband services.

Wireless mesh networks have several unique features like ease of repaid deployment, self-configuration, and easy network maintenance. These characteristics encourage using wireless mesh network effectively with better and guaranteed QoS in wide platform of application scenarios, such as, disaster recovery, wireless broadband internet access and intelligent transportation systems and in consumer demanded real time services like video and audio services. Though several technologies have evolved for next generation communication, wireless mesh networks are gaining significant attention of researchers, industrial standards groups and companies. The protocol design of existing wireless networks has been revisited by the researchers, particularly IEEE802.11 networks, ad-hoc networks and wireless sensor networks. Many Industrial standard groups are also working on new specifications for mesh

networking for example IEEE802.11, IEEE802.16, and IEEE802.15. All of them are focusing on new standards for WMNs by establishing sub-working groups.

Wireless mesh networks have adopted valuable characteristics of Ad-hoc network and traditional wired and wireless network. It helps to increase the capacity and coverage area and provides high connectivity to end users in a pervasive manner. The key difference between wireless mesh network and WLAN is that, the wireless mesh network has no wired backbone. Wireless mesh networks consist of two types of wireless mesh nodes i.e. mesh routers and mesh clients. The mesh routers are capable to serve with multiple wireless radio interfaces, which are built on same or different wireless technologies. It differs from mesh router in many aspects like bridging and gateway functionality. Mesh client can be originator or destination, or forward the data packets as router. Many devices can represent mesh clients like pocket PC, laptop/desktop, PDA etc.

Different proposed works for WMNs were developed but still, there are challenges, which need to be addressed. At physical layer, increase in capacity of network, and mitigating co-channel interference are still not well addressed. At MAC layer, multi-hop communications, mobility, scalability, heterogeneity between different mesh nodes and channel allocation in multi-channel environments are being considered as main issues. At network layer, new routing algorithms are needed to respond fast, when link is failed in the path, new metrics are needed to satisfy all QoS requirements with less overhead within lesser time of route discovery. At transport layer, asymmetric link and congestions are main problems. In order to increase the aggregate bandwidth, minimization of interference, maintaining connectivity and a good management of channel allocation is necessary. Further research is needed to strengthen market presentation and secure the success of WMNs.

Mohamed Meftah Alrayes

Tripoli University, Libya

Message from Program Chair-ICACEA-2014

On behalf of the Computer Science & Engineering Department, IMS Engineering College, Ghaziabad, it is a privilege to invite & welcome academicians, researchers, industry experts, engineering students from all over the world to share their work & knowledge at International Conference on Advances in Computer Engineering and Applications (ICACEA 2014) being organized by the Department of Computer Science & Engineering at IMS Engineering College, Ghaziabad, U.P, India on 15th Feb 2014 (Saturday).



The purpose of ICACEA-14 is to bring together researchers from Academia, Industry, and Government to exchange their research ideas and results and to discuss the state of the art in the areas of recent advances in Computer Engineering & Applications.

The conference is supported & sponsored by International Journal of Computer Application (IJCA), Computer Society of India, ICEIT, Cetpa Infotech Ltd, Microsoft IT Academy, Montage Services, Noida, Sofcon pvt. Ltd, Ghaziabad, Ayushi Graphics etc.

Eminent speakers from academia & industry will be sharing this knowledge & experiences. Participants from premier institutions including IITs, NIITs, IIITs, Central/State Universities etc will be presenting their papers at the conference. We had received more than 350 papers. We have followed a strict & transparent selection criteria for the received manuscripts to finalize just 80 papers based on its quality & originality.

I on my personal behalf & college administration would like to express my sincere thanks to all the researchers who are participating in the conference as participants, all the invited speakers from academia & industry for finding some time from their busy schedule to be a part of ICACEA-2014, College Management & Administration for their constant support & motivation and at last but not the least special thanks to all my dear colleagues of the organizing committee including my students for putting up their sincere efforts towards the organization of ICACEA-14. I am sure that the conference will be a huge success.

Dr. Pankaj Agarwal
Program Chair, ICACEA-2014

Message from Convener-ICACEA-2014

On behalf of the ICACEA-2014 Program Committee, I would like to welcome you to the ICACEA-2014 an International conference on Advances in Computer Engineering & Applications at IMS Engineering College.

The Main objective of this conference is to explore the technological advances in the design and development of Computer Applications in different engineering fields and to discuss various ways to disseminate awareness of emerging developments. The conference will provide a unique platform for practitioners and researchers of the IT industry, government and academia to share their views on the developments, on-going researches and future of computing Technologies. This conference will be of Two Days and will comprises of talks delivered by experts drawn from Academia, Government Organizations, Industry and technology leaders and parallel technical sessions.



This conference is being organized by Department of Computer Science & Engineering, IMS Engineering College, Ghaziabad and is technically sponsored by CSI, ICEIT, International Journal of Computer Application (IJCA). The aim of the conference is to endeavor the participants on recent research that is being carried out across the growing network of Computer Engineering, Information Technology and their Applications. This conference will examine research and development at national & international level.

The peer reviewed & selected papers will be published in the "International Journal of Computer Application [IJCA], New York, USA. The issue will be bestowed with all the regular IJCA indexing privileges in academic databases including Google Scholar, Informatics, ProQuest CSA Technology Research Database, NASA ADS (Harvard Univ.), CiteSeer, UlrichWeb, Scientific Commons (Univ. of St Gallens), University of Karlsruhe, Germany, Georgetown University Library, University of Washington. Selected papers will also be considered for publication in the Vivechan-International Journal of Research published annually by IMSEC and in Discovery Publications. The soft copy (CD) of the conference proceeding will be provided to the all authors & participants. Also all presented papers will be uploaded on our conference website <http://imsecconference2014.wordpress.com/>

The overwhelming response to our call-for-papers indicates the popularity of this conference and confirms that ICACEA-2014 has become the world-wide forum for all aspects of Computer Science & Engineering. For ICACEA-2014, we have received more than 300 papers from all over the world. After the review process, 81 papers were selected for presentation. Thanks to this response, all important fields of Computer Engineering & Applications and exploitation are covered by the

contributions. To our pleasure several invited sessions has been organized by Eminent Academician and Industrialists, which opens the mind of the researchers beyond one's own field by looking into complementary fields.

Apart from the inaugural, guest talks, and valedictory sessions, the conference will include six parallel sessions in which contributors shall be presenting their papers. Also a Webinar cum Workshop by Mr. Jayesh Tripathi, Sr. Head-Ericsson, India is organized. Different subthemes on Advances in Computational Algorithms, Computer Networks & Security, Artificial Intelligence & Knowledge Management, Data Mining, Image Processing and Cloud Computing are the parallel technical sessions are on different tracks concerning theory, practices and applications of Emerging Computing Engineering & Applications including, but not limited to information communication technology, mobile computing, robotics, signal processing and many real life aspects of Computer Engineering & Applications.

I would like to express my thanks to all authors for their outstanding contributions and in particular the members of the program board for their competent evaluation of the large number of submissions. The organizing committee of ICACEA 2014 have put in their best efforts to organize this event in a very short notice of time. Likewise I would also like to express my appreciation to the program and awards committee, as well as to the invited chairs for their careful preparation of the invited sessions.

Dr. Avdhesh Gupta
Convener-ICACEA-2014

Selected Papers for ICACEA-2014

File Name	Article Title
Submission03	A Heuristic Based RBFN For Location And Rotation Invariant Clear And Occluded Face Identification
Submission07	An overview and trends in cloud computing
Submission10	Biosensors In Our Daily Life
Submission12	Survey of various Image Enhancement techniques in Spatial domain using MATLAB
Submission21	Preventive Measures For Securing Web Applications Using Broken Authentication And Session Management Attacks: A Study
Submission22	"WiMAX" - An Emerging Technology Over "Wi-Fi"
Submission24	A Detailed Study on Artificial Neural Networks
Submission26	Intelligent Phishing Website Detection System Using Fuzzy Technique For E-Banking
Submission28	Feasibility Analysis of driverless car Using VANETS
Submission29	An Overview of Cryptographically Secure Pseudorandom Number generators and BBS
Submission30	Attacks and their countermeasures in Cloud Computing
Submission31	Performance Evaluation of Error Back Propagation Algorithm for Non-Linear Classification and Function Approximation in VHDL Platform
Submission32	Text Clustering Using HFRECCA and Rough K-means Clustering Algorithm
Submission34	Web Document Clustering and Ranking using Tf-Idf based Apriori Approach
Submission36	Performance Analysis of Distributed database during Preliminary Design stages using ER model
Submission39	A comprehensive Approach for Clustering of Mixed Variety of Data(Categorical, Numeric, Binary, Ordinal, and Nominal, Ratio-scaled Datum)
Submission40	A Complete Survey on Web Document Ranking
Submission43	A Review of English to Indian Language Translator: Anusaraka
Submission44	Implementing Morphological Operators for Edge Detection on 3D Biomedical Images
Submission45	Oppositional Biogeography-Based Optimization for Solving Economic Dispatch Problems: An Efficient Method
Submission46	A Measure of Divergence between Fuzzy Sets with Advancements in Information Theory
Submission49	Case Study on Classification of Glass using Neural Network Tool in MATLAB
Submission50	Safe Guarding The Fishermen On Indian Maritime Boundaries Using GNSS And Cloud Computing

File Name	Article Title
Submission52	Classification of SQL Injection Attacks
Submission53	Key Aspects to Evaluate the Performance of a Commercial Website
Submission54	Issues of Data Quality in Data Warehouses
Submission57	Efficient Technique for Web Image Mining
Submission59	Energy Efficient Data Centers For the Success of Cloud Computing Paradigm
Submission60	Structure Of Dynamic Optimization
Submission62	Software testing through evidence gathering
Submission63	SLASE – A Secured Login Authentication System with Strong Encryption
Submission67	Continuous Hindi Speech Recognition Using Mono-phone based Acoustic Modeling
Submission70	AWGN and Rayleigh multipath fading channel simulation on CDMA system
Submission72	A Secured Layered Architecture For Mobile Agent
Submission73	Analysis of Broadcast Non-Saturation Throughput as a Performance Measure in VANETs
Submission74	An Effective Intrusion Detection System for MANETs
Submission78	Modeling Curve via Fractal Interpolation with VSFF
Submission80	Mobility Pattern Aware Mobile Ad hoc Networks and Its applications in m-Governance
Submission81	A Modified Particle Swarm Optimization Algorithm for Function Optimization
Submission82	Securing the Network Topology in a Source Routing Multi Domain SDN
Submission83	Digital Image In-painting Based On Median Diffusion And Directional Median Filtering
Submission91	A Comparative Performance Survey Of Obstacle Detection Of Mobile Robot Using Various Sensor Technologies
Submission95	Role of Total Quality Management in Banking and Finance Industry
Submission97	Data Mining, Warehousing and OLAP Technology
Submission99	Design, Simulation and Performance Analysis of Regular Micro-strip Patch Antenna at 2GHz for Wireless Applications
Submission100	A Study Of Various Quantum Cryptographic Architectures And An Efficient Implementation In Present Scenario And Results BB84 Protocol -A Practical Overview
Submission101	An Efficient Implementation Of Quantum Cryptography Using A Hierarchical Structured Architecture
Submission102	The View Of A Better Implementation Of Practical - Quantum Cryptographic Architecture
Submission104	Security Attacks and Detection Techniques for MANET

File Name	Article Title
Submission107	Review on Development of Secure and Reliable Multipath Routing Mechanism for MANET using Improved AOMDV Protocol
Submission116	A Survey on use of Evolutionary Techniques in Information Retrieval
Submission120	A Minor Prototype of Personal Data-space Management System
Submission125	AFTS: Automated Face Tagging System
Submission127	Web intelligence on big data in today's life
Submission129	An Overview of LTE Technology
Submission132	A Comparative Study of the Protein Secondary Structure Prediction methods
Submission134	Business and Social behavior Intelligence analysis using PSO
Submission135	Noise Reduction In Images Using Enhanced Average Filter
Submission140	Prediction of Secondary Structure of Protein Using Support Vector Machine
Submission142	A comprehensive legal framework of Indian Cyber Laws
Submission148	Process to Identify the Crosscutting Concerns in Changing Requirements through Aspect-Oriented Software Engineering
Submission152	An Improved Fingerprint Recognition System Using the Concept of Distance Vector
Submission162	Data Hiding Using Lazy Wavelet Transform Strategy
Submission167	Implementation of LSB Steganography with 12-bit Frame Format
Submission170	Brain Tumor Segmentation Using Genetic Algorithm
Submission173	Grid Computing & GridSim Toolkit: An overview
Submission181	Introduction to Secure Software Development Life Cycle
Submission187	Approach of Cloud Computing towards Environmental Sustainability
Submission191	A GA based iterative alignment method obtaining Alignment of Multiple Biological Sequences
Submission198	Multiple sequence Alignments with parallel computing
Submission205	A Review on Security Issues and Challenges of Mobile Cloud Computing and Preventive Measures
Submission210	Comparative Study on Different types of Cloud Computing
Submission09	Detection of Faults in Induction Motor Drive at Rectifier Module
Submission42	Knowledge Representation with Ontology
Submission77	A New Design For Providing Security In Adhoc Network
Submission106	Complication on Embedded Systems in Agriculture Technology by Means of Customized Software

File Name	Article Title
Submission113	Techniques for Efficient Implementation of Firmware in Microcontroller's Based Energy Consumption Breakdown Smart Meters
Submission220	Information Processing in Brain Modeling: Challenges and Opportunities
Submission221	Social Network As A Complex Network Modeling
Submission23	A Generic Framework For Integration Of Big Data



ICACEA-2014

Organized by Department of Computer Science & Engineering
Program Schedule (Saturday, 15th February 2014)

S. No.	Time	Activity
1	09:00 AM - 09:45 AM	Registration of Participants
2	09:45 AM - 09:48 AM	Welcome Address
3	09:48 AM - 09:55 AM	Deep Prajwalan and Saraswati Vandana
4	09:55 AM - 10:00 AM	Welcome to All Guests (by presenting bouquet)
5	10:00 AM - 10:03 AM	Event briefing
6	10:03 AM - 10:12 AM	Welcome Address by the Patron (Director Sir)
7	10:12 AM - 10:30 AM	Address by Key note Speaker (Prof.(Dr.) D. S. Yadav)
8	10:30 AM - 11:00 AM	Address by Guest of Honor (Prof.(Dr.) R.C Mittal)
9	11:00 AM - 11:30 AM	Address by Chief Guest Prof. (Dr.) Asaad A. M. Al-Salih
10	11:30 AM - 11:45 AM	High Tea
11	11:45 AM - 12:15 AM	Address by Guest Speaker (Prof.(Dr.) Maftab Alrayes)
12	12:15 AM - 12:45 AM	Address by Guest Speaker (Mr. Anil Sethi)
13	12:45 PM - 01:15 PM	Address by Guest Speaker (Prof.(Dr.) A. K. Sinha)
14	01:15 PM - 02:00 PM	Lunch
15	02:00 PM - 04:30 PM (Parallel Sessions)	Session1 (Session Chair: Prof. R. C. Mittal)
16		Session2 (Session Chair: Dr. Meftah Alrayes)
17		Session3 (Session Chair: Mr. Ashish Kumar)
18		Session4 (Session Chair: Dr. S. N. Rajan)
19		Session5 (Session Chair: Prof. N. U. Khan)
20		Session6 (Session Chair: Dr. Vijender Singh)
20		Skype Workshop Session by Mr. Jayesh Tripathi, Ericsson
21	04:30 PM - 04:40 PM	Tea
22	4:40 PM - 5:30 PM	Plenary session followed by Valedictory Session <ul style="list-style-type: none"> ✓ Welcome Address/Plenary Session ✓ Best Paper Award & Distribution of Certificates ✓ Vote of Thanks



ICACEA-2014

Saturday, 15th February 2014

Department of Computer Science and Engineering, IMSEC, GZB



Auditorium (C Block): Track1: Advances in Computational Algorithms

Session Chair: Dr. R. C. Mittal, IIT Roorkee

Co-Session Chair: Dr. Pankaj Agarwal

Faculty Co-ordinator: Ms. Lipika Goel

Student Co-ordinator: Aishwarya Swaroop (CS 4th Year)

Sr. No.	Paper ID	Paper Title	Authors Name	Association
1	3	A Heuristic Based RBFN For Location And Rotation Invariant Clear And Occluded Face Identification	Goutam Sarker, Shruti Sharma	NIT Durgapur
2	9	Detection Of Faults In Induction Motor Drive At Rectifier Module	Vivek Sharma, Brajesh Yadav	Graphic Era University Dehradun
3	28	Feasibility Analysis of driverless car Using VANETS	Meeta Chaudhry, Chandan Seth, Aakhilish Sharma	Invertis University
4	43	A Review of English to Indian Language Translator: Anusaaraka	Kanika, Ankur, Divyanjali, Shalini Mittal	Banasthali Vidyapith
5	102	The View Of A Better Implementation Of Prctical - Quantum Cryptographic Architecture	V.B.Narsimha, G.Srinivasa Rao, B.Sujatha, S.Nagaprasad	Aacharya Nagarjuna University
6	45	Oppositional Biogeography-Based Optimization for Solving Economic Dispatch Problems: An Efficient Method	K. P. Singh Parmar, Bhuvnesh Khokhar	National Power Training Institute
7	62	Software Testing Through Evidence Gathering	Priyanka Mathur, Swati V. Chande	The IIS University
8	78	Modeling Curve via Fractal	Bhagwati	Jaypee Institute of

		Interpolation with VSFF	Prasad, Bani Singh, Kuldeep Katiyar	Information Technology (JIIT) University
9	81	A Modified Particle Swarm Optimization Algorithm for Function Optimization	Ashok Pal	Punjabi University, Patiala
10	53	Key Aspects to Evaluate the Performance of a Commercial Website	Satinder Kaur, S.K.Gupta	GND, University Punjab Technical University
11	106	Complication on Embedded Systems in Agriculture Technology by Means of Customized Software	Rishabh Rai	AKGEC, GZB
12	113	Techniques for Efficient Implementation of Firmware in Microcontroller's Based Energy Consumption Breakdown Smart Meters	Rodrigo M. Bacurau, Elnatan C. Ferreira, Luis F. C. Duarte	State University of Campinas - UNICAMP
13	148	Process to Identify the Crosscutting Concerns in Changing Requirements through Aspect-Oriented Software Engineering	Hema Kashyap	IMSEC
14	198	Multiple sequence Alignments with parallel computing	Charu Sharma, Dr. Pankaj Agrawal, Preeti Gupta	IMSEC

ICACEA-2014

Saturday, 15th February 2014

Department of Computer Science and Engineering, IMSEC, GZB



Lab-1, C-Block: Track3: Artificial Intelligence & Knowledge Management

Session Chair: Prof. Meftah Alrayes

Co-Session Chair: Prof. Vijay Singh

Faculty Co-ordinator: Ms. Tushina Bedwal

Student Co-ordinator: Kashif (CS 3rd Year)

Sr. No.	Paper ID	Paper Title	Authors Name	Association
1	10	Biosensors In Our Daily Life	Dr. Mohammad Jawaid Siddiqui, Manav Jain	AMU, Aligarh
2	24	A Detailed Study On Artificial Neural Networks	Niriksha, Nitika Jain, Anil Kumar Gankotiya	RKGITW, GZB
3	31	Performance Evaluation Of Error Back Propagation Algorithm For Non-Linear Classification And Function Approximation In VHDL Platform	Soumava Kumar Roy, Crefeda Faviola Rodrigues	IIIT-A, TCS
4	42	Knowledge Representation With Ontology	Sarika Jain, Sanju Mishra	NITK, TMU
5	46	A Measure Of Divergence Between Fuzzy Sets With Advancements In Information Theory	Priti Gupta, H. D., Pratiksha Tiwari	MDU, Rohtak
6	49	Case Study On Classification Of Glass Using Neural Network Tool In MATLAB	Devika Chhachhiya, Dr. Amita Sharma, Dr. Manish Gupta	IIS University
7	60	Structure Of Dynamic Optimization	Nikhil Shukla, Shalini Gupta	VSGOI, Kanpur
8	67	Continuous Hindi Speech Recognition	Ankit Kumar, Mohit Dua, Arun	NITK, VIET-Gr Noida

		Using Monophone Based Acoustic Modelling	Choudhary	
9	132	A Comparative Study Of The Protein Secondary Structure Prediction Methods	Shivani Agarwal, Arushi Baboota, Atul Kumar	IMSEC
10	140	Prediction Of Secondary Structure Of Protein Using Support Vector Machine	Shivani Agarwal, Pankaj Agarwal, Deepali Mendiratta	IMSEC
11	152	An Improved Fingerprint Recognition System Using The Concept Of Distance Vector	Deepak Vishwakarma, Deepak Gupta	IMSEC
12	170	Brain Tumor Segmentation Using Genetic Algorithm	Divya Kaushik, Utkarsha Singh, Paridhi Singhal, Vijai Singh	IMSEC
13	191	A GA based iterative alignment method obtaining Alignment of Multiple Biological Sequences	Ruchi Gupta, Dr Pankaj Agarwal, Dr A.K Soni	IMSEC
14	220	Information Processing in Brain Modelling: Challenges and Opportunities	Aakanksha Tyagi, Sanjeev Kumar	KIET, GZB

ICACEA-2014

Saturday, 15th February 2014

Department of Computer Science and Engineering, IMSEC, GZB



Lab-2, C-Block: Track2: Computer Networks & Security

Session Chair: Mr. Ashish Kumar, Accenture-London

Co-Session Chair: Dr. G. P. Gupta

Faculty Co-ordinator: Ms. Kirti Aggarwal

Student Co-ordinator: Humera (CS 3rd Year)

Sr. No.	Paper ID	Paper Title	Authors Name	Association
1	21	Preventive Measures For Securing Web Applications Using Broken Authentication And Session Management Attacks: A Study	Bharti Nagpal, Naresh Chauhan, Nanhay Singh, Pratima Sharma	Amedkar Institute of Technology
2	22	“Wimax” - An Emerging Technology Over “Wi-Fi”	Shaifali Agrawal, Vidushi Agarwal, Anil Kumar Gankotiya	RKGITW, Ghaziabad
3	26	Intelligent Phishing Website Detection System Using Fuzzy Technique For E-Banking	Rajeev Gandhi. S, R. Backiyalakshmi	PRIST University, Puducherry Campus, Puducherry
4	29	An Overview Of Cryptographically Secure Pseudorandom Number Generators And BBS	Divyanjali, Ankur, Vikas Pareek	Banasthali Vidyapith, Rajasthan, India
5	63	SLASE – A Secured Login Authentication System With Strong Encryption	Ibrahim Khalelulah M, Harun Kumar C	Adhiparasakthi Engineering College
6	70	AWGN And Rayleigh Multipath Fading Channel Simulation On CDMA System	Vikas Srivastava, Kirti Bajpai	PSIT, Kanpur
7	77	A New Design For Providing Security In Adhoc Network	Suyash Bhardwaj, Swati Aggarwal	GKV, Haridwar
8	80	Mobility Pattern Aware Mobile Ad Hoc Networks And Its Applications In M-Governance	Baljeet Kaur	Bharati Vidyapeeth University, Institute of Management and

				Entrepreneurship Development, Pune
9	82	Securing The Network Topology In A Source Routing Multi Domain SDN	Sarat Chandra Prasad Gingupalli, Saumya Hegde	NITK
10	99	Design, Simulation And Performance Analysis Of Rectangular Micro-Strip Patch Antenna At 2ghz For Wireless Application	Nivedita Mishra, Raghvendra Singh	PSIT,KANPUR
11	101	An Efficient Implementation Of Quantum Cryptography Using A Hierarchical Structured Architecture	B.Sujatha, S.Nagaprasad, G.Srinivasa Rao, S.Nagaprasad	Osmania University
12	104	Security Attacks And Detection Techniques For MANET	K.Udhayakumar, T. Prasanna venkatesan, R.Ramkumar	Anna university
13	167	Implementation of LSB Steganography with 12-bit Frame Format	Aishvary Goel, Anubhav Srivastava, Alok Kr. Mishra, Ayush Agarwal, Amit Kr. Gautam	IMSEC
14	72	A Secured Layered Architecture For Mobile Agent	Swati Aggarwal, Heman Pathak, Avdresh Gupta	IMSEC
15	173	Grid Computing & GridSim Toolkit: An overview	Tushina Bedwal, Radhika Tayal, Anjali Batra	IMSEC

ICACEA-2014

Saturday, 15th February 2014

Department of Computer Science and Engineering, IMSEC, GZB



Lab3, C-Block: Track 4: Data Mining

Session Chair: Dr. S. N. Rajan

Co-Session Chair: Dr. A. Sharma

Faculty Co-ordinator: Ms. Radhika Tayal

Student Co-ordinator: Anshu (CS 3rd Year)

Sr. No.	Paper ID	Paper Title	Authors Name	Association
1	23	A Generic Framework For Integration Of Big Data	Vivek Arvind. B., Swaminathan. J., Viswanathan. K. R.	M.N.M Jain Engineering College, Chennai
2	32	Text Clustering Using HFRECCA and Rough K-means Clustering Algorithm	Ms. Seema V. Wazarkaz, Ms. Amrita A. Manjrekar	Shivaji University, Kolhapur
3	34	Web Document Clustering and Ranking using Tf-Idf based Apriori Approach	Rajendra Kumar Roul, Sanjay Kumar Sahay	BITS-Goa, K.K. Birla Goa Campus
4	36	Performance Analysis of Distributed database during Preliminary Design stages using ER model	S. Jagannatha, T.V Suresh Kumar, RajaniKanth	M S Ramaiah Institute of Technology
5	39	A comprehensive Approach for Clustering of Mixed Variety of Data(Categorical, Numeric, Binary, Ordinal, and Nominal, Ratio-scaled Datum)	Ashutosh Shukla, Brajesh Kumar Khare	VSGOI, UNNAO
6	40	A Complete Survey on Web Document Ranking	Shashank Gugnani, Tushar Bihany, Rajendra Kumar Roul	BITS-Pilani K.K. Birla Goa Campus
7	52	Classification of SQL Injection Attacks	Kajol Mittal	RKGITW, Ghaziabad
8	54	Issues of Data Quality in Data Warehouses	Jyoti Sheoran	RKGITW, Ghaziabad
9	95	Role of Total Quality Management in Banking and	Gupta Khushboo, Sran	Apeejay School of

		Finance Industry	Lovedeep, Monika Arora	Management
10	97	Data Mining, Warehousing and OLAP Technology	Himanshu Tiwari	GCET, Gr. Noida
11	120	A Minor Prototype of Personal Dataspace Management System	Tanvi Shree, Upendra Mishra	IMSEC
12	127	Web intelligence on big data in today's life	Updesh Kumar Jaiswal, Abhishek Gupta	IMSEC
13	116	A Survey on use of Evolutionary Techniques in Information Retrieval	R. N. Srivastava, Naveen Kumar, Sherish Johri	IMSEC

ICACEA-2014

Saturday, 15th February 2014

Department of Computer Science and Engineering, IMSEC, GZB



Lab4, C-Block: Track 5: Image Processing & Cloud Computing

Session Chair: Prof. N. U. Khan

Co-Session Chair: Dr. Durgesh Sharma / Ms. Ankita Phohat

Faculty Co-ordinator: Ms. Shaili Agarwal

Student Co-ordinator: Pranay Deep (CS 3rd year)

Sr. No.	Paper ID	Paper Title	Authors Name	Association
1	7	An overview and trends in cloud computing	Anubhav Jain, Manoj Kumar, Anil Lamba	HEC, Jagadhari MNIT, Jaipur
2	30	Attacks and their countermeasures in Cloud Computing	Navroz Kaur Kahlon, Preet Kamal	PU, Patiyala BBSBEC, Fatehgarh Sahib
3	50	Safe Guarding The Fishermen On Indian Maritime Boundaries Using GNSS and Cloud Computing	Santhosh Samuel, Sarath Kumar, Shankar, Ibrahim Khalelulah	Madras Institute of Technology Adhiparasakthi Engineering College
4	59	Energy Efficient Data Centers For the Success of Cloud Computing Paradigm	Manju Lata	Shri Venkateshwara University, Gajraula
5	12	Survey of various Image Enhancement techniques in Spatial domain using Matlab	Shailendra Singh Negi, Mrs. Bhumika Gupta	G.B.Pant Engg Colleg
6	44	Implementing Morphological Operators for Edge Detection on 3D Biomedical Images.	Sadhana Singh, Ashish Agrawal, Shiv Kumar Vaish	SRMSCET, Bareilly
7	57	Efficient Technique for Web Image Mining	Praveen Kumar, Md. T. U. Haider	NIT Patna
8	83	Digital Image Inpainting Based On Median Diffusion And Directional Median	Anupama Awati, Prof. Dr. Mrs. Meenakshi Patil	KLS Gogte Institute of Technology,

		Filtering		Belgaum
9	125	AFTS: Automated Face Tagging System	Rohit Yadav, Vishal Gupta, Shivani Saluja, Vinita	IMSEC
10	135	Noise Reduction In Images Using Enhanced Average Filter	Harsh Prateek Singh, Ayush Nigam, Amit Kumar Gautam, Aakanksha Bhardwaj, Neha Singh	IMSEC
11	187	Approach of Cloud Computing towards Environmental Sustainability	Yogendra Singh, Mayank Arya Chandra, Chaya Rawal	IMSEC
12	205	A Review on Security Issues and Challenges of Mobile Cloud Computing and Preventive Measures	Lipika Goel, Vivek Jain	IMSEC
13	210	Comparative Study on Different types of Cloud Computing	Kirti Aggarwal	IMSEC

ICACEA-2014

Saturday, 15th February 2014

Department of Computer Science and Engineering, IMSEC, GZB



Seminar Hall (A Block): Computer Networks & Security

Session Chair: Dr. Vijender Singh

Co- Session Chair: Mr. Anurag Mishra

Faculty Co-ordinator: Ms. Shivani Saluja

Student Co-ordinator: Nika Mishra / Prachi Sharma (CS 4th, 3rd Year)

Sr. No.	Paper ID	Paper Title	Authors Name	Association
1	107	Review on Development of Secure and Reliable Multipath Routing Mechanism for MANET using Improved AOMDV Protocol	Amit K. Dhage, S. P. Karmore	G.H.R.C.E,NA GPUR
2	100	A Study Of Various Quantum Cryptographic Architectures And An Efficient Implementation In Present Scenario And Results Bb84 Protocol -A Practical Overview	G.Srinivasa Rao, B.Sujatha, S.Nagaprasad, S.Nagaprasad	Osmania University
3	73	Analysis Of Broadcast Non-Saturation Throughput As A Performance Measure In VANETS	Gayathri Narayanan	Amrita Vishwa Vidyapeetam
4	74	An Effective Intrusion Detection System For MANETS	T Prasanna Venkatesan, P Rajakumar, A Pitchaikkannu	Anna university
5	221	Social Network As A Complex Network Modeling	Shikhar Gupta, Shweta Garg, Saurav Chandra, Sanjeev Kumar	KIET
6	129	An Overview of LTE Technology	Swati Singh, Ankita	IMSEC
7	142	A comprehensive legal framework of Indian Cyber Laws	Anuranjan Misra, Shivani Agarwal	IMSEC

8	162	Data Hiding Using Lazy Wavelet Transform Strategy	Ekansh Agarwal, Shaili Gupta, Mayank Arya Chandra	IMSEC
9	181	Introduction to Secure Software Development Life Cycle	Ankita, Dr K P Yadav	IMSEC
10	91	A Comparative Performance Survey Of Obstacle Detection Of Mobile Robot Using Various Sensor Technologies	P. Kausalya, S. Poonkuntran	Velammal College of Engineering and Technology Madhurai