National Conference on

## **Multimedia and Information Security**

(TEQIP II Funded)

(NCMIS-2014)

25th & 26th February 2014

### Organized by





**Technically Co-Sponsored by** 



National Conference on Multimedia and Information Security (NCMIS-2014)

Copyright © 2014 by Bonfring

All rights reserved. Authorized reprint of the edition published by Bonfring. No part of this book may be reproduced in any

form without the written permission of the publisher.

Limits of Liability/Disclaimer of Warranty: The authors are solely responsible for the contents of the paper in this volume. The

publishers or editors do not take any responsibility for the same in any manner. Errors, if any, are purely unintentional and

readers are required to communicate such errors to the editors or publishers to avoid discrepancies in future. No warranty

may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable

for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or

other professional services. If professional assistance is required, the services of a competent professional person should be

sought. Further, reader should be aware that internet website listed in this work may have changed or disappeared between

when this was written and when it is read.

Bonfring also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in

electronic books.

ISBN 978-93-83459-10-0

**Bonfring** 

292/2, 5th Street Extension, Gandhipuram,

Coimbatore-641 012.

Tamilnadu, India.

E-mail: info@bonfring.org

Website: www.bonfring.org

### **Preface**

National Conference on "Multimedia and Information Security" (NCMIS-14) is a forum for research scholars and PG students to deliberate, explore and discuss their research work and know the latest developments and research works in the area of Multimedia and Information Security. Multimedia includes image, audio and video file processing. Information security addresses all the issues related to securing the data contents on computer and over the network.

The conference comprises of papers related to the work in the above mentioned area. The authors have conducted survey and presented the results based on their experiments in the form of papers. 28 papers have been accepted for publication under three headings namely Multimedia, Networks and Security. Invited talks are an integral part of the conference. As a part of the conference, four invited talks have been arranged from the researchers who made a considerable contribution to the area of Multimedia and Information Security. The experts will be sharing their knowledge with audience in these talks and guide them in the right research directions.

M/s Bonfring International publishers, Coimbatore, has taken the responsibility of publishing the proceedings with ISBN number.

We would like to thank all the participants for sending the papers to the conference and all the reviewers for spending time in giving valuable review comments so as to incorporate the changes in the final submission. We also thank all the concerned for helping in arrangement of the conference.

We are grateful to our President of Nitte Education Trust, Sri N Vinaya Hegde, Principal Dr. Niranjan N Chiplunkar, Head of the department of CSE, Prof. Prasanna Kumar H. R. and all the staff members of NMAMIT for their help, support and encouragement in organizing the conference. Thanks to all the committee members who will be conducting the program in a meticulous fashion.

Venugopala P. S.

Vijaya Murari T.

**Nitte University** 

(Deemed University under section 3 of UGC Act 1956) Placed under Category 'A' by MHRD, Govt. of India

Accredited with 'A' Grade by NAAC

University Enclave, Medical Sciences Complex, Deralakatte, Mangalore – 575 018 Tel: 91 – 0824 – 2204300/01/02/03/04; Fax: 91 – 0824 – 2204305 Dir: 0824-2204308

Website: www.nitte.edu.in E-mail: info@nitte.edu.in



7.2.2014

#### **MESSAGE**

I am glad to know that NMAMIT is organizing the National Conference on Multimedia and Information Security (NCMIS-14) on 25th and 26th of February 2014.

With the development of multimedia technology and network technology, multimedia services become more and more popular. The core purpose of the conference is to promote technological innovation and excellence and to focus on trendsetting initiatives in the field of technology. Engineering is about solving problems of the society for the benefit of the society. Beyond catalyzing changes in what we do, technology affects how we think. This will provide a national platform for faculty, post graduate and undergraduate students of Engineering & Technology and industry professionals to deliberate and explore the new technological advances and trends in the fields of Engineering & Technology.

Hope this conference will attract lot of participants from various parts of the country and also they go back with the rich knowledge about the latest happenings in the field.

On this occasion, I appreciate the efforts of organizing committee and extend my best wishes for a successful conference.

With warm regards

PROF.(DR.) S. RAMANANDA SHETTY

VICE-CHANCELLOR

NITTE UNIVERSITY

**Nitte University** 

(Deemed University under section 3 of UGC Act 1956) Placed under Category 'A' by MHRD, Govt. of India

Accredited with 'A' Grade by NAAC

University Enclave, Medical Sciences Complex, Deralakatte, Mangalore – 575 018

 $Tel: 91 - 0824 - 2204300/01/02/03/04; \quad Fax: 91 - 0824 - 2204305 \quad Dir: 0824-2204308$ 

Website: www.nitte.edu.in E-mail: info@nitte.edu.in

NITE

Prof. M. Shantharam Shetty

PRO CHANCELLOR

**MESSAGE** 

Dear Dr. Niranjan,

We are proud that you are organizing a National Conference on "Multimedia and Information Security on 25<sup>th</sup> and 26<sup>th</sup> February 2014. The last 10 years has been the most fascinating period in the history of mankind specially because of the technological pursuits in the field of information and multimedia. The whole globe has become a village with information in your finger tips. But it is to be used with caution and transparency for the betterment of the society and betterment of science.

I am sure, this conference will bring information about better security modes and the use of multimedia with caution.

With best wishes,

PROF. (DR.) M. SHANTHARAM SHETTY

PRO CHANCELLOR

**Nitte University** 

(Deemed University under section 3 of UGC Act 1956) Placed under Category 'A' by MHRD, Govt. of India Accredited with 'A' Grade by NAAC

University Enclave, Medical Sciences Complex, Deralakatte, Mangalore – 575 018 Tel: 91 – 0824 – 2204300/01/02/03/04; Fax: 91 – 0824 – 2204305 Dir: 0824-2204308

Website: www.nitte.edu.in E-mail: info@nitte.edu.in

PROF. DR. M. S. MOODITHAYA

REGISTRAR

Date 07-02-14

**MESSAGE** 

I am glad to learn that, the Department of Computer Science of NMAM Institute of Technology is organizing a National Conference on Multimedia and Information Security. Information, today, is life blood of all the organizations and is a vital business asset in the contemporary IT enable world. Unless we secure our information system against risks to their confidentiality, integrity and availability, we can not sustain organizational successes.

I am confident that, this Conference would provide enough opportunities to the participants to discuss the different dimensions of Multimedia and Information Security and help them in contributing to their organizational growth.

I wish the Conference all the best.

With best wishes,

(PROF. DR. M. S. MOODITHAYA)

REGISTRAR

NITTE UNIVERSITY

## NMAM Institute of Technology

An Autonomous Institution Under VTU, Belgaum



(A Unit of Nitte, Education trust)

NITTE – 574 110, UDUPI Dist., KARNATAKA

Approved by AICTE, New Delhi

ACCREDITED BY NATIONAL BOARD OF ACCREDITATION
AWARDED ISO 9001-2008 CERTIFICATE BY KEMA - NETHERLAND

Ph: 08258-281039 (D) (EPBAX) 281263, 281461,281248,281349,281462 Fax: 08258-281265 Web:www.nitte.ac.in/nmamit Email:nchiplunkar@nitte.edu.in

#### Message

I am very happy to note that the Department of Computer Science and Engineering of our Institute has come out with a very nice Proceeding on the occasion of "National Conference on Multimedia and Information Security". I congratulate the Conference Coordinators for all their hard work.

Conferences of this nature give a platform for the faculty members, researchers and students to interact and share their experiences on the theme of the Conference. Results of their research work gets presented and published in such proceedings. Most importantly, the authors of the papers get valuable suggestions and feedback about their work. The Program Committee Chair has framed well planned Program schedule for the conference, wherein along with the regular paper presentations, some useful relevant technical talks are also planned by the invited experts.

In the capacity of Program General Chair, I thank TEQIP for sponsoring this event. My heartfelt thanks to Sri.N.V. Hegde, the President of Nitte Education Trust for all his support and guidance.

I wish the Conference every success.

Prof. Niranjan Chiplunkar

# Dept. Of Computer Science & Engineering NMAM Institute of Technology

An Autonomous Institution Under VTU, Belgaum



(A Unit of Nitte, Education trust)

NITTE – 574 110, UDUPI Dist., KARNATAKA

Approved by AICTE, New Delhi

ACCREDITED BY NATIONAL BOARD OF ACCREDITATION

AWARDED ISO 9001-2008 CERTIFICATE BY KEMA - NETHERLAND

Ph: 08258-281039 (D) (EPBAX) 281263, 281461,281248,281349,281462 Fax: 08258-281265 Web:www.nitte.ac.in/nmamit

Email:nchiplunkar@nitte.edu.in

#### **Foreword**

I am extremely happy to note that Department of Computer Science and Engineering has planned to conduct National Conference on "Multimedia and Information Security". I thank TEQIP and NET for sponsoring this event. I acknowledge the support and encouragement given by the Principal Dr.Niranjan N.Chiplunkar. My deep appreciations to all the reviewers and Advisory committee and Programme Committee members.

Special thanks to coordinators of this Conference Mr.Venugopala P.S and Mr.Vijay Murari, faculty of Computer Science and Engineering Department for their hard work. Thanks to all Organizing Committee members for their support. Congratulations to all the authors whose papers selected for publication and thanks to all who sent the papers for this conference.

My best wishes for the conference

Prof. Prasanna Kumar H.R HOD- Dept. of CS&E

Programme Committee Chair

## Contents

Paper ID	Title/Author	Page No
01	Design and Implementation of the Log Files for Maintaining Accountability in Cloud Computing and Distributed Systems	1
	K. Swapnalaxmi	
02	Early Lung Cancer detection using Modified Fuzzy Possibilistic C-Mean, Support Vector Machine and Extreme Learning Machines	5
	B.N. RamaChandra and Ramesh Nayak	
03	Generating Captions For News Images	10
	Pretty Sebastian and Manjesh R	
04	Survey on Digital Watermarking Techniques for Mobile Devices and Proposal of Robust Technique	13
	Vinaya Margaret Pinto, G. Padmashree and P.S. Venugopala	
05	Performance Comparision of Efficient Demand Based Energy Topology for MANET with Span	19
	M. Sujatha, K. Vikram, Viona Pamela Quadros, A. Shilpa and Vanisha Sophia Fernandes	
06	An Automated Detection of Congestion in an Overcrowded Area	23
	S. Sunil Kumar Aithal and S R Reeja	
07	CBA: Call Based Authentication	27
	Bhargava R. Kotur	
08	Enhancing the Security of Smartcard Payment Applications Using Paypass-M/Chip Specification	29
	Vishwas Pai G, Srinivas Piska, Vidya Subramanian and Ravi B	
09	Industrial Automation System Control Using Wireless Sensor Network and Security Using Cloud Computing Technique	32
	Jeshwin Dsouza Prabhu and Rekha Bhandarkar	
10	Survey on Search Engine Optimization methods	39
	Apoorva Kumar G and Ravi B	
11	Securing Data in Distributed Data Storage Systems A Survey Report	44
	Sharath P J and Roshan Fernandes	
12	EMV Based Approach for Secure Smartcard Transactions	49
	Shrisha H S, Srinivas Piska and Neelima B	
13	Digital Watermarking to Protect Copyright of Images on Mobile Devices	52
	Anupama V, Venugopala P S, Dr. Sarojadevi H. and Dr. Niranjan N C	
14	Comparative Study on the Various Techniques used to Compose Web Services Using Semantic Approach	56
	Preethi Salian K and Roshan Fernandes	

15	Smart Vision for Real time Object Identification in Quality Management	59
	Lakshmi, Nelson Pereira and Roopa B H	
16	An Efficient Watershed Segmentation for MR Images	63
	Chaithra and Padmanayana	
17	An Novel OTE-OCR Based Text Recognition and Extraction from Images and Video Frames	67
	Shashank, Arun S Devadiga, Shalini P R and Aditya Kumar Sinha	
18	A Survey: The Study and Implementation of Web Services and Managing it Using Hadoop Ecosystem, Extending to Web Service Selection	73
	Shashank Shetty, Shalini P R and Aditya Kumar Sinha	
19	A Survey: Research on Virtualization Technology and Virtual Hadoop	79
	Arun S Devadiga, Shalini P R and Aditya Kumar Sinha	
20	Survey on Motion-based Pedestrian Recognition from a Moving Vehicle	85
	M P Nisha and Raju	
21	Computer Aided Detection Of Diabetic Retinopathy :A Survey	90
	Vidya Pai, Grantha K N and P.C. Siddalingaswamy	
22	Data Mining in Soft Computing Framework: A Survey	97
	Zahid Ansari, Tanvir Habib Sardar, Moksud Alam Mallik and Naveen D Chandavarkar	
23	Design of AXI Interconnect IP for SoC	103
	Ajith K G, Mahaveera K and Yogesh Soni	
24	A Survey on Various Types of Network Monitoring Systems	106
	Rajeshwari M and Ashwini B	
25	Proposal for SLA Based user Authentication and Credential Distribution Scheme in Multi Cloud Environment	109
	Chaithra C R and Ashwini B	
26	Recent Face Detection Techniques in Image Processing: A Survey	113
	Beena K P and Sharada Udaya Shenoy	
27	A Performance Evaluation of Secure Routing Protocols in MANET	117
	M.J. Prasanna Kumar, Ramesh B and Harshitha K Raj	
28	Video Face Recognition a New Approach	124
	Shreekumar T and Vineetha Pais	