

Citations – ISI/Books

Nr.	Cited paper	Citing paper
1	R.Arsinte, A.Ferencz, C.Miron - "Study and Implementation of a Non-linear DPCM Voice Compression Algorithm on a DSP System, Optimised by Using Neural Networks Concepts"- Proceedings of SPECOM'97 Workshop - Cluj-Napoca 27-30 oct.1997 pag.205-208 - ISBN 973-9275-19-2	Editors: Shetty, N. R., Prasad, N. H., Nalini, N. (Eds.) "Emerging Research in Computing, Information, Communication and Applications", Springer 2018, ISBN 9811047413
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Emerging Trends in Video Surveillance Applications

Rajesh. N , Dr.H.Sarojadevi

¹Dept of ECE, Nitte Meenakshi Institute of Technology, Bangalore, India

²Dept of CSE, Nitte Meenakshi Institute of Technology, Bangalore, India

Abstract. This paper presents a review of emerging trends in video surveillance applications. Various techniques are highlighted and compared. Detection and tracking of moving objects is important in the analysis of video data and higher level security assessment. Image registration plays a key role in designing video surveillance system. The purpose of image registration in surveillance application is to geometrically align two or more images to enable in-depth data analysis such as feature detection, or motion sensing. Image registration is especially necessary to compare and integrate image data that comes from different sources, times, or perspectives. Use of high performance FPGA that can be dynamically reconfigured for video surveillance applications, together with camera interface can offer improved performance.

Keywords: Surveillance, Image registration, Feature detection and matching, Reconfigurability, FPGA.

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HIGH DEFINITION TECHNOLOGY: A REVIEW

DR. H.B.KEKRE

Senior Professor, Computer Engineering Department,
MPSTME, SVKM's NMIMS University, Mumbai-
56, INDIA

DHIRENDRA MISHRA

Associate Professor, Computer Engineering
Department, MPSTME, SVKM's NMIMS University,
Mumbai-56, INDIA

YASH SHAH

Student, Computer Engineering
MPSTME, SVKM's NMIMS
University, Mumbai-56, INDIA

MAUNIK DESAI

Student, Computer Engineering
MPSTME, SVKM's NMIMS
University, Mumbai-56, INDIA

PARAS VORA

Student, Computer Engineering
MPSTME, SVKM's NMIMS
University, Mumbai-56, INDIA

ABSTRACT

This is a review paper describing the characteristics and benefits of high definition (HD) technology. Digital techniques offer greater accuracy and stability, with better signal to noise ratios than analogue method. Here the overview of High Definition is presented; basic terminology, working, fundamentals, applications and future of this technology are listed. The scanning methods have been explained also software and hardware architecture is mentioned. The analysis of the current HD market and a commercial survey of the HD services and its providers have been carried out. Then the future of High Definition is considered with new research directions. If we narrow down the issue to a single parameter, that of resolution, aside from possible future displays that are integer multiples of 1920 x 1080 serving to diminish pixel structure then, claims of "live-the-picture" and "feel-the-picture" would become a reality.

Keywords: *HD; Pixels; Interlaced scan; Progressive scan; Blu-ray; HDMI; Ready 3D; Real HD; Aspect Ratio; Retinadisplay.*

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T.V. COMMERCIAL DETECTION IN SERIAL VIDEOS

Swati D. Bendale¹, Bijal.J.Talatiz

¹ PG Student of Computer Engineering, GTU, Gujrat, India.

² Department of Computer Engineering, SVIT, Vasad, Gujarat, India.

ABSTRACT

In recent years Commercial detection has become a widely research area of digital video processing because of its huge importance. The task of detection of commercial in TV videos is extremely difficult because of diversities involved. Diversities are involved as exact timings of start and end of commercial break is not fixed. The number of commercials appearing in a break is not fixed. The length of each individual commercial is different. The number of commercial breaks and their duration are normally dependent on the duration of program to be aired, the time at which program is aired and genre of program. Here we have discussed some existing commercial detection works and proposed a new scheme for detection of commercial break in TV serial videos. The proposed work is based on the concept of frequency of number of cuts and appearance of caption text.

Keywords: Histogram based cut detection, Scene change rate, Template matching.

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A Dual Channel Technique for Content Protection in IPTV

A Kumar, J Tanwar, C Bakliwal

ABSTRACT

With the introduction of IPTV (Internet Protocol Television), traditional wireline content providers and service providers are entering a new era of delivering broadcast and Video on demand(VOD) services to their customers. The Content Protection has becoming an extremely important issue as the use of IPTV services are increasing over the Internet. In this paper, we are proposing a new method for improving the performances of the settop box (STB) for video on demand(VOD) feature for IPTV. Here we are replacing the traditional complete encryption, partial encryption and selective encryption by a dual channel based encryption scheme, which can resist the content leakage or avoid illegal copying and playing of video.

Keywords: IPTV, VOD, Content Protection, STB, Dual channel encryption scheme.

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Improve Receive Signal over Ku-Band Satellite Communications Based on Fuzzy Logic

V Netharn, S Prahmkaew, S Pongpadpinit

ABSTRACT This paper is the extension of the previous research work [1] to improve the BER over the regular satellite communication during rain attenuation performed. The fuzzy logic box was added into the system. The fuzzy box will determine the ambiguous signal during the attenuation performed. The fuzzy box use dB state, Voltage and Phase of the signal as the input parameters to determine the ambiguous signal for the correction signal. The varieties sets of input was performed by fuzzy box includes to obtaining the rule based, the simulation performed MATLAB. After june up process on fuzzy box, the two case will test by fuzzy box 1) without attenuation 2) attenuation (clear sky) final we obtain the purpose signal regulate for improving BER.

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A Review of the Effective Techniques of Compression in Medical Image Processing

V Sridhar

ABSTRACT

Medical image data (Ultrasonography, Computed Tomography, Magnetic Resonance Imaging etc.) consumes maximum storage and utilize maximum bandwidth for transmission that often results in degradation of image quality. Due to these inherent issues in such type of images, compression is the only applicable technique explored in the due course of prior research work. Currently, there exists abundant research work on medical image compression considering lossy and lossless types, but the need of medical images to be compressed efficiently with optimal compression ratio is yet a question mark. This paper will perform an investigation of various techniques explored and discusses some of the efficient techniques explicitly among all the prior work. While reviewing the prior literatures, it was explored that although medical image compression is an emerging need, but it encounters higher dimensionality of challenges and complicatedness for catering the increasing demands of the medical science.

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EXPERIMENTAL IMPLEMENTATION OF PITCH-SYNCHRONOUS SYNTHESIS METHODS FOR THE ROMVOX TEXT-TO-SPEECH SYSTEM

Attila Ferencz¹, Radu Arsinte¹, Istvan Nagy³, Teodora Ratiu, Maria Ferencz¹, Gavril Todorean², Diana Zaiu², Tünde-Csilla Kovacs¹, Lajos Simon

¹Software ITC S.A., 109 Gh. Bilascu Street, 3400, Cluj-Napoca, Romania, Phone: +40-64-1976681, Fax: +40-64-196787, E-mail: ferencz@utcluj.ro

²Technical University of Cluj-Napoca

³Music Academy "Gh. Dima" of Cluj-Napoca

Abstract: The LPC-MPE synthesis method is an alternative method used for obtaining a better quality of the generated vocal signal, that can be easily implemented in vocal signal coding-decoding systems. Using the method in text-to-speech systems is more difficult because of the modification that must be done on the synthesized vocal signal in order to superimpose prosodical effects. This paper presents our steps in this direction, some researches and experimental results obtained for adapting the system to the pitch-synchronous LPC-MPE method.

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ROMVOX - EXPERIMENTS REGARDING UNRESTRICTED TEXT- TO-SPEECH SYNTHESIS FOR THE ROMANIAN LANGUAGE

ATTILA FERENCZ*, TEODORA RATIU*, MARIA
FERENCZ*, TUNDE-CSILLA KOVACS*, ISTVAN
NAGY*, DIANA ZAIU**

* Software ITC, 109 Republicii street, 3400 Cluj-Napoca, Romania,
tel: +40-64-197681, fax: +40-64-196787, [e-mail: Attila.Ferencz@sitcl.dntcj.ro](mailto:Attila.Ferencz@sitcl.dntcj.ro)
** Technical University of Cluj-Napoca, 26 Gh. Baritiu street, 3400 Cluj-Napoca, Romania

Abstract. The ROMVOX Text-to-Speech synthesis system developed by our team is the first one that allowed the synthesis of any unrestricted Romanian text with intonation facilities on IBM-PC compatible computers. During the last years of research several version of text-to-speech systems were achieved, trying to enhance their facilities. Our paper describes the present stage of our experiments performed in order to improve the naturalness of the generated voice.

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Experimental Implementation of the LPC-MPE (Multi-pulse-Excitation) Synthesis Method for the ROMVOX Text-to-Speech System

Attila Ferencz¹, Radu Arsinte¹, Diana Zaiu², Teodora Ratiu¹, Maria Ferencz¹, Gavril Todorean²

¹ Software ITC S.A. ,109 gh. Bilascu Street, 3400, Cluj-Napoca,
Romania, Phone: +40-64-1976681, Fax: +40-64-196787, E-mail:
dianazautcluj.ro

² Technical University of Cluj-Napoca, 26 Gh. Baritiu Street, 3400,
Cluj-Napoca, Romania, Fax: +40-64-192055, [E-mail: dianaz@utcluj.ro](mailto:dianaz@utcluj.ro)

Abstract: The LPC-MPE synthesis method is an alternative method used for obtaining a better quality of the generated vocal signal, which can be easily implemented in vocal signal coding-decoding systems. Using the method in Text-to-Speech systems is more difficult because of the modification which must be done on the synthesized vocal signal in order to superimpose prosodical effects. This paper presents the ROMVOX Text-to-Speech system and some researches and experimental results obtained for adapting the system to the LPC-MPE method.

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The Evolution of the Romanian ROMVOX Text-to-Speech Synthesis System from Monotonous to Enhanced, DSP-based Version

Attila Ferencz*, Tunde-Csilla Kowics*, Maria Ferencz*, Ratiu
Teodora, Gavril Todorean**, Istvan Nagy*, Lajos
Simon*

* Software ITC, 109 Republicii street, 3400 Cluj-Napoca, Romania,
tel: +40-64-197681, fax: +40-64-196787, E-mail: Attila.FerenczAcs.utcluj.ro

** Department of Telecommunications, Technical University of Cluj-Napoca, Cluj-Napoca, Romania,
E-mail: Gavril.Todorean@com.utcluj.ro

ABSTRACT

The aim of the researches of our team is to obtain an enhanced TTS (text-to-speech) system, with unrestricted vocabulary and intonation facilities for the Romanian language. During the six years of research several text-to-speech systems were achieved which will be presented in this paper. There will be presented the components of these systems, emphasising the obtained enhancements in comparison with the previous versions.

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