Implementation Of Image Compression Algorithm Using
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Lossy Image Compression
Biometrics: Concepts, Methodologies, Tools, and Applications
Still Image Compression on Parallel Computer Architectures
A Parallel Implementation of a Fractal Image Compression Algorithm Using the Parallel Virtual Machine (PVM) Environment
Image and Video Compression Standards
Design and Implementation of a Low-memory Listless SPIHT Image Compression Algorithm
Implementation of Image Compression Algorithm Using Verilog with Area, Power and Timing Constraints
Implementation and Evaluation of Recoverable Image Compression Techniques
Implementation of a Fractal Image Compression Algorithm Using Field Programmable Gate Array (FPGA)
FPGA Implementation of DHT Algorithms for Image Compression
Hybrid and Advanced Compression Techniques for Medical Images
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Implementation and Performance of Image Compression Techniques
Fundamental Data Compression Algorithm-Architecture Matching for Signal and Image Processing
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Towards a Hardware Implementation of a Wavelet Based Image Compression Algorithm
Intelligent Methods in Signal Processing and Communications
Implementation of Image Compression Algorithms on a Reconfigurable Array Processor
Electromechanical Control Technology and Transportation

Lossy Image Compression

Biometrics: Concepts, Methodologies, Tools, and Applications

Each edition of Introduction to Data Compression has widely been considered the best introduction and reference text on the art and science of data compression, and the third edition continues in this tradition. Data compression techniques and technology are ever-evolving with new applications in image, speech, text, audio, and video. The third edition includes all the cutting edge updates the reader will need during the work day and in class. Khalid Sayood provides an extensive introduction to the theory underlying today's compression techniques with detailed instruction for their applications using several examples to explain the concepts. Encompassing the entire field of data compression
Introduction to Data Compression, includes lossless and lossy compression, Huffman coding, arithmetic coding, dictionary techniques, context based compression, scalar and vector quantization. Khalid Sayood provides a working knowledge of data compression, giving the reader the tools to develop a complete and concise compression package upon completion of his book. *New content added on the topic of audio compression including a description of the mp3 algorithm *New video coding standard and new facsimile standard explained *Completely explains established and emerging standards in depth including JPEG 2000, JPEG-LS, MPEG-2, Group 3 and 4 faxes, JBIG 2, ADPCM, LPC, CELP, and MELP *Source code provided via companion web site that gives readers the opportunity to build their own algorithms, choose and implement techniques in their own applications

Still Image Compression on Parallel Computer Architectures

JPEG2000 Standard for Image Compression presents readers with the basic background to this multimedia compression technique and prepares the reader for a detailed understanding of the JPEG2000 standard, using both the underlying theory and the principles behind the algorithms of the JPEG2000 standard for scalable image compression. It introduces the VLSI architectures and
algorithms for implementation of the JPEG2000 standard in hardware (not available in the current literature), an important technology for a number of image processing applications and devices such as digital camera, color fax, printer, and scanners.

**A Parallel Implementation of a Fractal Image Compression Algorithm Using the Parallel Virtual Machine (PVM) Environment**

Although it's true that image compression research is a mature field, continued improvements in computing power and image representation tools keep the field spry. Faster processors enable previously intractable compression algorithms and schemes, and certainly the demand for highly portable high-quality images will not abate. Document and Image Compression highlights the current state of the field along with the most probable and promising future research directions for image coding. Organized into three broad sections, the book examines the currently available techniques, future directions, and techniques for specific classes of images. It begins with an introduction to multiresolution image representation, advanced coding and modeling techniques, and the basics of perceptual image coding. This leads to discussions of the JPEG 2000 and JPEG-LS standards, lossless coding, and fractal image compression. New directions are highlighted that involve image coding and representation paradigms beyond the wavelet-based framework, the use of redundant dictionaries, the distributed source coding paradigm, and novel data-hiding techniques. The book concludes with techniques developed for classes of images where the general-purpose algorithms fail, such as for binary images and shapes, compound documents, remote sensing images, medical images, and VLSI layout image data. Contributed by international experts, Document and Image Compression gathers the latest and most important developments in image coding into a single, convenient, and authoritative source.

**Image and Video Compression Standards**

Image compression is concerned with minimization of the number of information carrying units used to represent an image. Lossy compression techniques incur some loss of information which is usually imperceptible. In return for accepting this distortion, we obtain much higher compression ratios than is possible with lossless compression. Salient features of this book include: four new image compression algorithms and implementation of these algorithms; detailed discussion of fuzzy geometry measures and their application in image compression algorithms; new domain decomposition based algorithms using image quality measures and study of various quality measures for gray scale image compression; compression algorithms for different parallel architectures and evaluation of time complexity for encoding on all architectures; parallel implementation of image compression algorithms on a cluster in Parallel Virtual Machine (PVM) environment.

**Design and Implementation of a Low-memory Listless SPIHT Image Compression Algorithm**

**Implementation of Image Compression Algorithm Using Verilog with Area, Power and Timing Constraints**

**Implementation and Evaluation of Recoverable Image Compression Techniques**

**Implementation of Image Compression Algorithm Using Field Programmable Gate Array (FPGA)**

Image compression is concerned with minimization of the number of information carrying units used to represent an image. Lossy compression techniques incur some loss of information which is usually imperceptible. In return for accepting this distortion, we obtain much higher compression ratios than is possible with lossless compression. Salient features of this book include: four new image compression algorithms and implementation of these algorithms; detailed discussion of fuzzy geometry measures and their application in image compression algorithms; new domain decomposition based algorithms
using image quality measures and study of various quality measures for gray scale image compression; compression algorithms for different parallel architectures and evaluation of time complexity for encoding on all architectures; parallel implementation of image compression algorithms on a cluster in Parallel Virtual Machine (PVM) environment.

**FPGA Implementation of DHT Algorithms for Image Compression**

Image compression is the application of Data compression on digital images. A fundamental shift in the image compression approach came after the Discrete Wavelet Transform (DWT) became popular. To overcome the inefficiencies in the JPEG standard and serve emerging areas of mobile and Internet communications, the new JPEG2000 standard has been developed based on the principles of DWT. An image compression algorithm was comprehended using Matlab code, and modified to perform better when implemented in hardware description language. Using Verilog HDL, the encoder for the image compression employing DWT was implemented. Detailed analysis for power, timing and area was done for Booth multiplier which forms the major building block in implementing DWT. The encoding technique exploits the zero tree structure present in the bitplanes to compress the transform coefficients.

**Hybrid and Advanced Compression Techniques for Medical Images**

Image and video signals require large transmission bandwidth and storage, leading to high costs. The data must be compressed without a loss or with a small loss of quality. Thus, efficient image and video compression algorithms play a significant role in the storage and transmission of data. Image and Video Compression: Fundamentals, Techniques, and Machine Learning Approaches for Convergence of IoT and Blockchain

**Implementation and Performance of Image Compression Techniques**

“Th e primary goal of this thesis is to implement a hardware version of the JPEG-LS, or JPEGLossless, image compression algorithm in VHDL. The JPEG-LS algorithm is currently the designated standard for lossless compression of grayscale and color images by the JPEG committee. Although lossy image compression is widely used when dealing with grayscale images, there are some applications that require lossless image compression so that the original image may be recovered. This is often the case for historical and legal document image archives, medical and satellite imagery, and biometric images. The JPEG-LS algorithm is much less complex than other current lossless image compression algorithms and offers similar or better compression gains. Near-lossless compression offers higher compression gains by using a pixel tolerance specified by the user. The algorithm uses a predictive technique for compression, and the resulting prediction error is encoded, not the pixel value itself. This prediction error is encoded with Golomb-Rice coding, which is optimal for a geometric distribution such as prediction error. The predictor enters a special run-length mode to encode pixels with identical values in lossless mode (or nearly identical values within a known value in near-lossless mode), which maximizes compression further. In this thesis, the JPEG-LS algorithm is implemented in C, VHDL, and further synthesized using the Synopsys synthesis tool suite. Pictorial, document, medical, remote sensing, and biometric images are used for testing the project against another standard-compliant software implementation. The compression ratio for lossless compression is approximately 2 and is greater for near-lossless compression. The end result is a Synopsys schematic that represents a JPEG-LS codec, which is capable of lossless and near-lossless encoding and decoding. Performance characteristics such as chip area, speed, and power consumption are extracted from the synthesis tool. These are approximately 375,000 gates, a 15 ns clock cycle, and 59 mW respectively. A hardware implementation of this algorithm on an FPGA or ASIC would give a digital camera or scanner an edge in the marketplace.”--Abstract.

**Fundamental Data Compression**

The 2017 2nd International Conference on Electromechanical Control Technology and Transportation (ICECTT 2017) was held on January 14–15, 2017 in Zhuhai, China. ICECTT 2017 brought together academics and industrial experts in the field of electromechanical control technology and...
transportation to a common forum. The primary goal of the conference was to promote research and developmental activities in electromechanical control technology and transportation. Another goal was to promote exchange of scientific information between researchers, developers, engineers, students, and practitioners working all around the world. The conference will be held every year thus making it an ideal platform for people to share views and experiences in electromechanical control technology and transportation and related areas.

**Algorithm-Architecture Matching for Signal and Image Processing**

This book introduces advanced and hybrid compression techniques specifically used for medical images. The book discusses conventional compression and compressive sensing (CS) theory based approaches that are designed and implemented using various image transforms, such as: Discrete Fourier Transform (DFT), Discrete Cosine Transform (DCT), Discrete Wavelet Transform (DWT), and Singular Value Decomposition (SVD) and greedy based recovery algorithm. The authors show how these techniques provide simulation results of various compression techniques for different types of medical images, such as MRI, CT, US, and x-ray images. Future research directions are provided for medical imaging science. The book will be a welcomed reference for engineers, clinicians, and research students working with medical image compression in the biomedical imaging field.

**Digital Image Compression Techniques**

Security and authentication issues are surging to the forefront of the research realm in global society. As technology continues to evolve, individuals are finding it easier to infiltrate various forums and facilities where they can illegally obtain information and access. By implementing biometric authentications to these forums, users are able to prevent attacks on their privacy and security. Biometrics: Concepts, Methodologies, Tools, and Applications is a multi-volume publication highlighting critical topics related to access control, user identification, and surveillance technologies. Featuring emergent research on the issues and challenges in security and privacy, various forms of user authentication, biometric applications to image processing and computer vision, and security applications within the field, this publication is an ideal reference source for researchers, engineers, technology developers, students, and security specialists.

**Lossy Image Compression**

Interest in image compression for internet and other multimedia applications has spurred research into compression techniques that will increase storage capabilities and transmission speed. This tutorial provides a practical guide to fractal and wavelet approaches--two techniques with exciting potential. It is intended for scientists, engineers, researchers, and students. It provides both introductory information and implementation details. Three Windows-compatible software systems are included so that readers can explore the new technologies in depth. Complete C/C++ source code is provided, enabling readers to go beyond the accompanying software. The mathematical presentation is accessible to advanced undergraduate or beginning graduate students in technical fields.

**Embedded System Design of JPEG Image Compression**

This book introduces advanced and hybrid compression techniques specifically used for medical images. The book discusses conventional compression and compressive sensing (CS) theory based approaches that are designed and implemented using various image transforms, such as: Discrete Fourier Transform (DFT), Discrete Cosine Transform (DCT), Discrete Wavelet Transform (DWT), and Singular Value Decomposition (SVD) and greedy based recovery algorithm. The authors show how these techniques provide simulation results of various compression techniques for different types of medical images, such as MRI, CT, US, and x-ray images. Future research directions are provided for medical imaging science. The book will be a welcomed reference for engineers, clinicians, and
research students working with medical image compression in the biomedical imaging field. Covers various algorithms for data compression and medical image compression; Provides simulation results of compression algorithms for different types of medical images; Provides study of compressive sensing theory for compression of medical images.

**Implementation of Speech and Image Compression Algorithms**

Fundamental Data Compression provides all the information students need to be able to use this essential technology in their future careers. A huge, active research field, and a part of many people's everyday lives, compression technology is an essential part of today's Computer Science and Electronic Engineering courses. With the help of this book, students can gain a thorough understanding of the underlying theory and algorithms, as well as specific techniques used in a range of scenarios, including the application of compression techniques to text, still images, video and audio. Practical exercises, projects and exam questions reinforce learning, along with suggestions for further reading.

* Dedicated data compression textbook for use on undergraduate courses * Provides essential knowledge for today's web/multimedia applications * Accessible, well structured text backed up by extensive exercises and sample exam questions

**Design and Implementation of Algorithms for Image Compression**

In order to utilize digital images effectively, specific techniques are needed to reduce the number of bits required for their representation. This Tutorial Text provides the groundwork for understanding these image compression techniques and presents a number of different schemes that have proven useful. The algorithms discussed in this book are concerned mainly with the compression of still-frame, continuous-tone, monochrome and color images, but some of the techniques, such as arithmetic coding, have found widespread use in the compression of bilevel images. Both lossless (bit-preserving) and lossy techniques are considered. A detailed description of the compression algorithm proposed as the world standard (the JPEG baseline algorithm) is provided. The book contains approximately 30 pages of reconstructed and error images illustrating the effect of each compression technique on a consistent image set, thus allowing for a direct comparison of bit rates and reconstructed image quality. For each algorithm, issues such as quality vs. bit rate, implementation complexity, and susceptibility to channel errors are considered.

**PNG**

Advances in signal and image processing together with increasing computing power are bringing mobile technology closer to applications in a variety of domains like automotive, health, telecommunication, multimedia, entertainment and many others. The development of these leading applications, involving a large diversity of algorithms (e.g. signal, image, video, 3D, communication, cryptography) is classically divided into three consecutive steps: a theoretical study of the algorithms, a study of the target architecture, and finally the implementation. Such a linear design flow is reaching its limits due to intense pressure on design cycle and strict performance constraints. The approach, called Algorithm-Architecture Matching, aims to leverage design flows with a simultaneous study of both algorithmic and architectural issues, taking into account multiple design constraints, as well as algorithm and architecture optimizations, that couldn’t be achieved otherwise if considered separately. Introducing new design methodologies is mandatory when facing the new emerging applications as for example advanced mobile communication or graphics using sub-micron manufacturing technologies or 3D-Integrated Circuits. This diversity forms a driving force for the future evolutions of embedded system designs methodologies. The main expectations from system designers’ point of view are related to methods, tools and architectures supporting application complexity and design cycle reduction. Advanced optimizations are essential to meet design constraints and to enable a wide acceptance of these new technologies. Algorithm-Architecture Matching for Signal and Image Processing presents a collection of selected contributions from both industry and academia, addressing different aspects of Algorithm-Architecture Matching approach ranging from sensors to architectures design. The scope of this book reflects the diversity of potential algorithms, including signal, communication, image, video, 3D-Graphics implemented onto various architectures from FPGA to multiprocessor systems. Several synthesis and resource management techniques leveraging design optimizations are also described and applied to numerous algorithms. Algorithm-Architecture Matching for Signal and Image Processing should be on each designer’s and EDA tool developer’s shelf, as well
as on those with an interest in digital system design optimizations dealing with advanced algorithms.

### Implementation of a Polyline Image Compression Algorithm Using Parallel Architectures

### Introduction to Data Compression

Digital image business applications are expanding rapidly, driven by recent advances in the technology and breakthroughs in the price and performance of hardware and firmware. This ever increasing need for the storage and transmission of images has in turn driven the technology of image compression: image data rate reduction to save storage space and reduce transmission rate requirements. Digital image compression offers a solution to a variety of imaging applications that require a vast amount of data to represent the images, such as document imaging management systems, facsimile transmission, image archiving, remote sensing, medical imaging, entertainment, HDTV, broadcasting, education and video teleconferencing. Digital Image Compression: Algorithms and Standards introduces the reader to compression algorithms, including the CCITT facsimile standards T.4 and T.6, JBIG, CCITT H.261 and MPEG standards. The book provides comprehensive explanations of the principles and concepts of the algorithms, helping the readers' understanding and allowing them to use the standards in business, product development and R&D. Audience: A valuable reference for the graduate student, researcher and engineer. May also be used as a text for a course on the subject.

### Analysis of Image Compression Algorithms and Implementation for 3D Reconstruction of Images for the Cornell University Satellite Project (CUSAT)

The digital revolution is characterized by the convergence of technologies, rapidly advancing the 4th industrial revolution thereby blurring the lines between physical, digital and biological objects. The speed of the fourth revolution which evolves at an exponential rate cannot by any means be compared with any previous technologies. AI and IoT employ the interactions and operations in various fields such as home appliances, autonomous vehicles, nanotechnology, robotics, cognitive systems, self-driving cars and wearable devices. The potential of blockchain technology is realized in many sectors as security plays a crucial role everywhere. This book deeply discusses two of the most critical emerging fields of machine learning: blockchain technology and the Internet of Things.

### Efficient Image Compression System Using a CMOS Transform Imager

Helps graphic designers get the most out of this next generation graphics file format and programmers who want to add full PNG support to their own applications by emphasizing the implementation of PNG with the libpng C library and discussing such improvements as gamma correction and standard color spaces. Original. (Intermediate)

### Digital Image Compression

### Hybrid and Advanced Compression Techniques for Medical Images

New to the Second Edition: offers the latest developments in standards activities (JPEG-LS, MPEG-4, MPEG-7, and H.263) provides a comprehensive review of recent activities on multimedia enhanced processors, multimedia coprocessors, and dedicated processors, including examples from industry. Image and Video Compression Standards: Algorithms and Architectures, Second Edition presents an introduction to the algorithms and architectures that form the underpinnings of the image and video compressions standards, including JPEG (compression of still-images), H.261 and H.263 (video teleconferencing), and MPEG-1 and MPEG-2 (video storage and broadcasting). The next generation of audiovisual coding standards, such as MPEG-4 and MPEG-7, are also briefly described. In addition, the book covers the MPEG and Dolby AC-3 audio coding standards and emerging techniques for image and video compression, such as those based on wavelets and vector quantization. Image and Video Compression Standards: Algorithms and Architectures, Second Edition emphasizes the foundations of these standards; namely, techniques such as predictive coding, transform-based coding such as the
discrete cosine transform (DCT), motion estimation, motion compensation, and entropy coding, as well as how they are applied in the standards. The implementation details of each standard are avoided; however, the book provides all the material necessary to understand the workings of each of the compression standards, including information that can be used by the reader to evaluate the efficiency of various software and hardware implementations conforming to these standards. Particular emphasis is placed on those algorithms and architectures that have been found to be useful in practical software or hardware implementations. Image and Video Compression Standards: Algorithms and Architectures, Second Edition uniquely covers all major standards (JPEG, MPEG-1, MPEG-2, MPEG-4, H.261, H.263) in a simple and tutorial manner, while fully addressing the architectural considerations involved when implementing these standards. As such, it serves as a valuable reference for the graduate student, researcher or engineer. The book is also used frequently as a text for courses on the subject, in both academic and professional settings.

**Neural Information Processing**

Still Image Compression on Parallel Computer Architectures investigates the application of parallel-processing techniques to digital image compression. Digital image compression is used to reduce the number of bits required to store an image in computer memory and/or transmit it over a communication link. Over the past decade advancements in technology have spawned many applications of digital imaging, such as photo videotex, desktop publishing, graphics arts, color facsimile, newspaper wire phototransmission and medical imaging. For many other contemporary applications, such as distributed multimedia systems, rapid transmission of images is necessary. Dollar cost as well as time cost of transmission and storage tend to be directly proportional to the volume of data. Therefore, application of digital image compression techniques becomes necessary to minimize costs. A number of digital image compression algorithms have been developed and standardized. With the success of these algorithms, research effort is now directed towards improving implementation techniques. The Joint Photographic Experts Group (JPEG) and Motion Photographic Experts Group (MPEG) are international organizations which have developed digital image compression standards. Hardware (VLSI chips) which implement the JPEG image compression algorithm are available. Such hardware is specific to image compression only and cannot be used for other image processing applications. A flexible means of implementing digital image compression algorithms is still required. An obvious method of processing different imaging applications on general purpose hardware platforms is to develop software implementations. JPEG uses an 8 × 8 block of image samples as the basic element for compression. These blocks are processed sequentially. There is always the possibility of having similar blocks in a given image. If similar blocks in an image are located, then repeated compression of these blocks is not necessary. By locating similar blocks in the image, the speed of compression can be increased and the size of the compressed image can be reduced. Based on this concept an enhancement to the JPEG algorithm is proposed, called Bock Comparator Technique (BCT). Still Image Compression on Parallel Computer Architectures is designed for advanced students and practitioners of computer science. This comprehensive reference provides a foundation for understanding digital image compression techniques and parallel computer architectures.

**Real Time Implementation of Image Compression Algorithms on ASICS**

This research focuses on the implementation of the efficient image compression system among the many potential applications of a transform imager system. The study includes implementing the image compression system using a transform imager, developing a novel image compression algorithm for the system, and improving the performance of the image compression system through efficient encoding and decoding algorithms for vector quantization. A transform imaging system is implemented using a transform imager, and the baseline JPEG compression algorithm is implemented and tested to verify the functionality and performance of the transform imager system. The computational reduction in digital processing is investigated from two perspectives, algorithmic and implementation. Algorithmically, a novel wavelet-based embedded image compression algorithm using dynamic index reordering vector quantization (DIRVQ) is proposed for the system. DIRVQ makes it possible for the proposed algorithm to achieve superior performance over the embedded zero-tree wavelet (EZW) algorithm and the successive approximation vector quantization (SAVQ) algorithm. However, because DIRVQ requires intensive computational complexity, additional focus is placed on the efficient implementation of DIRVQ, and highly efficient implementation is achieved without a compromise in performance.
Document and Image Compression

Digital image processing is the use of computer algorithms to perform image processing on digital images. The basic operation performed by a simple digital camera is, to convert the light energy to electrical energy, then the energy is converted to digital format and a compression algorithm is used to reduce memory requirement for storing the image. This compression algorithm is frequently called for capturing and storing the images. This leads us to develop an efficient compression algorithm which will give the same result as that of the existing algorithms with low power consumption. Compression is useful as it helps in reduction of the usage of expensive resources, such as memory (hard disks), or the transmission bandwidth required. But on the downside, compression techniques result in distortion (due to lossy compression schemes) and also additional computational resources are required for compression-decompression of the data. Reduction of these resources by comparing different algorithms for DHT is required. FPGA Implementations of different algorithms for 1-DHT using VHDL as the synthesis tool are carried out and their comparison gives the optimum technique for compression. Finally 2-D DHT is implemented using the optimum 1-D technique for 8x8 matrix input. The results obtained are discussed and improvements are suggested to further optimize the design.

JPEG2000 Standard for Image Compression

The five volume set LNCS 7663, LNCS 7664, LNCS 7665, LNCS 7666 and LNCS 7667 constitutes the proceedings of the 19th International Conference on Neural Information Processing, ICONIP 2012, held in Doha, Qatar, in November 2012. The 423 regular session papers presented were carefully reviewed and selected from numerous submissions. These papers cover all major topics of theoretical research, empirical study and applications of neural information processing research. The 5 volumes represent 5 topical sections containing articles on theoretical analysis, neural modeling, algorithms, applications, as well as simulation and synthesis.

Fractal and Wavelet Image Compression Techniques

Fractal and Wavelet Image Compression Techniques

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Image and Video Compression

Now covering both data and image compression, this edition keeps pace with technology. It includes new coverage of fax and compression methods, as well as a range of compression-related tools to display, print, and convert images from one format to another. Reviews of the four most popular archive creation and compression performing programs are also included. Two disks include the coding in BASIC and C for many of the compression algorithms in the book.

Hardware Implementation of a JPEG-LS Codec

Efficient Implementation of Image Compression-postprocessing Algorithm Using a Digital Signal Processor

Towards a Hardware Implementation of a Wavelet Based Image Compression
Algorithm

Intelligent Methods in Signal Processing and Communications

The main goal of this project is to implement the DCT and quantization of a JPEG image compression algorithm using hardware. Basically, in this project the JPEG algorithm converts an image from BMP format into a JPEG format. The main step of this algorithm is discrete cosine transform (DCT) which is implemented using hardware (ATmega32 micro-controller) and other parts are implemented using Microsoft Foundation Class (MFC) library based application. The other main thing in this project was to interface a micro-controller with the computer in order to receive data from computer for processing DCT on it and then send back the processed data to the computer. The media used for this communication is RS-232 and one other chip, MAX-232 which converts data between RS-232 and TTL format. The MFC Application takes in the BMP format image as an input. After that this application works on extracting the raw data from that image in order to send it to a micro-controller for further processing and waits until micro-controller finishes the processing. As soon as micro-controller is done with processing, it sends data back to MFC application and then MFC application completes remaining processing steps in JPEG compression algorithm and creates an image in JPEG format which is very small in size as compared to BMP format. The report will further discuss how all the things like MFC application is implemented, hardware is setup and how an interfacing between computer and micro-controller is established.

Implementation of Image Compression Algorithms on a Reconfigurable Array Processor

Electromechanical Control Technology and Transportation

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