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COMPUTER SIMULATION OF AERIAL TARGET RADAR SCATTERING, RECOGNITION, DETECTION, AND TRACKING MONTE CARLO SIMULATION OF DETECTION OF CIRRUS CLOUD PROPERTIES BY MICRO PULSE LIDAR IMPORTANCE SAMPLING SIMULATIONS, SERIOUS GAMES AND THEIR APPLICATIONS VIRTUAL REALITY IN ASSEMBLY SIMULATION SIMULATION METHODOLOGY FOR RADAR DETECTION OF STATIONARY TARGETS SIMULATION OF A RADAR DETECTION MODEL USING THE NPS PLATFORM FOUNDATION NEURAL NETWORKS SYSTEMS FOR FEATURE DETECTION, OBJECT RECOGNITION, AND ENVIRONMENT SIMULATION SIMULATION OF STATIONARY TARGETS IN CLUTTER FOR ASSESSMENT OF PROBABILITY OF DETECTION HANDBOOK OF PARTICLE DETECTION AND IMAGING DETECTION OF EXPLOSIVES FOR COMMERCIAL AVIATION SECURITY LIMITS OF DETECTION IN CHEMICAL ANALYSIS GUARANTEED STABILITY FOR COLLISION DETECTION AND SIMULATION OF HYBRID DYNAMICAL SYSTEMS SOFTWARE FAULT DETECTION AND CORRECTION: MODELING AND APPLICATIONS STRUCTURAL HEALTH MONITORING, DAMAGE DETECTION & MECHATRONICS, VOLUME 7 FAULT DETECTION, SUPERVISION AND SAFETY OF TECHNICAL PROCESSES 2006 BIOLOGICALLY INSPIRED APPROACHES FOR LOCOMOTION, ANOMALY DETECTION AND RECONFIGURATION FOR WALKING ROBOTS GROUNDWATER DETECTION MONITORING SYSTEM DESIGN UNDER CONDITIONS OF UNCERTAINTY THE FUNDAMENTALS AND EMPIRICAL DESIGN OF A SMART FIRE DETECTION SYSTEM ADVANCED SIGNAL PROCESSING TECHNIQUES IN RADIATION DETECTION AND IMAGING ADVANCED STRUCTURAL DAMAGE DETECTION ARTIFICIAL INTELLIGENCE FOR INTRUSION DETECTION SYSTEMS REAL-TIME SIMULATION AND VISUALIZATION OF DEFORMABLE OBJECTS FAULT DETECTION, SUPERVISION AND SAFETY OF TECHNICAL PROCESSES 2003 (SAFEPROCESS 2003) WEARABLE AND IMPLANTABLE ELECTROCARDIOGRAPHY FOR EARLY DETECTION OF CARDIOVASCULAR DISEASES AIRBORNE WIND SHEAR DETECTION AND WARNING SYSTEMS. SECOND COMBINED MANUFACTURERS' AND TECHNOLOGISTS' CONFERENCE, PART 1 AIRBORNE WIND SHEAR DETECTION AND WARNING SYSTEMS: THIRD COMBINED MANUFACTURERS' AND TECHNOLOGISTS' CONFERENCE, PART 2 OPTIMAL DESIGN AND OPERATION OF FREEWAY INCIDENT DETECTION-SERVICE SYSTEMS NEW GEOMETRIC DATA STRUCTURES FOR COLLISION DETECTION AND HAPTICS ACOUSTIC AND RADIO EeV NEUTRINO DETECTION ACTIVITIES RECENT ADVANCES IN INTRUSION DETECTION ACOUSTIC AND RADIO EeV NEUTRINO DETECTION ACTIVITIES - PROCEEDINGS OF THE INTERNATIONAL WORKSHOP (ARENA 2005) BUILDING SEISMIC MONITORING AND DETECTION TECHNOLOGY NOVEL IDEAS FOR ACCELERATORS, PARTICLE DETECTION AND DATA CHALLENGES AT FUTURE COLLIDERS ROBUST REGRESSION AND OUTLIER DETECTION VISION MODELS FOR TARGET DETECTION AND RECOGNITION - IN MEMORY OF ARTHUR MENENDEZ ALGORITHMS AND VLSI IMPLEMENTATIONS OF MIMO DETECTION INTRUSION DETECTION FOR IP-BASED MULTIMEDIA COMMUNICATIONS OVER WIRELESS NETWORKS FAULT DETECTION AND DIAGNOSIS IN INDUSTRIAL SYSTEMS NETWORKS ATTACK DETECTION ON 5G NETWORKS USING DATA MINING TECHNIQUES

COMPUTER SIMULATION OF AERIAL TARGET RADAR SCATTERING, RECOGNITION, DETECTION, AND TRACKING

2002

HERE S A GROUND BREAKING NEW BOOK THAT PROVIDES YOU WITH THE KNOWLEDGE YOU NEED TO PERFORM EFFECTIVE COMPUTER SIMULATION OF SCATTERING FOR THE REAL TARGETS AND CONDITIONS OF RADIO WAVE PROPAGATION BY REPLACING FIELD TESTS WITH THE COMPUTER SIMULATION METHODS PRESENTED IN THIS UNIQUE RESOURCE YOU SAVE TIME AND MONEY IN THE EARLY STAGES OF RESEARCH AND DEVELOPMENT

MONTE CARLO SIMULATION OF DETECTION OF CIRRUS CLOUD PROPERTIES BY MICRO PULSE LIDAR

1996

THIS RESEARCH MONOGRAPH DEALS WITH FAST STOCHASTIC SIMULATION BASED ON IMPORTANCE SAMPLING IS PRINCIPLES AND SOME OF ITS APPLICATIONS IT IS IN LARGE PART DEVOTED TO AN ADAPTIVE FORM OF IS THAT HAS PROVED TO BE EFFECTIVE IN APPLICATIONS THAT INVOLVE THE ESTIMATION OF PROBABILITIES OF RARE EVENTS RARE EVENTS ARE OFTEN ENCOUNTERED IN SCIENTIFIC AND ENGINEERING PROCESSES THEIR CHARACTERIZATION IS ESPECIALLY IMPORTANT AS THEIR OCCURRENCE CAN HAVE CATASTROPHIC CONSEQUENCES OF VARYING PROPORTIONS EXAMPLES RANGE FROM FRACTURE DUE TO MATERIAL FATIGUE IN ENGINEERING STRUCTURES TO EXCEEDANCE OF DANGEROUS LEVELS DURING RIVER WATER FLOODS TO FALSE TARGET DECLARATIONS IN RADAR SYSTEMS FAST SIMULATION USING IS ESSENTIALLY A FORCED MONTE CARLO PROCEDURE DESIGNED TO HASTEN THE OCCURRENCE OF RARE EVENTS DEVELOPMENT OF THIS SIMULATION METHOD OF ANALYSIS OF SCIENTIFIC PHENOMENA IS USUALLY ATTRIBUTED TO THE MATHEMATICIAN VON NEUMANN AND OTHERS SINCE ITS INCEPTION MC SIMULATION HAS FOUND A WIDE RANGE OF EMPLOYMENT FROM STATISTICAL THERMODYNAMICS IN DISORDERED SYSTEMS TO THE ANALYSIS AND DESIGN OF ENGINEERING STRUCTURES CHARACTERIZED BY HIGH COMPLEXITY INDEED WHENEVER AN ENGINEERING PROBLEM IS ANALYTICALLY INTRACTABLE WHICH IS OFTEN THE CASE AND A SOLUTION BY NUMERICAL TECHNIQUES PROHIBITIVELY EXPENSIVE COMPUTATIONALLY A LAST RESORT TO DETERMINE THE INPUT OUTPUT CHARACTERISTICS OF OR STATES WITHIN A SYSTEM IS TO CARRY OUT A SIMULATION

IMPORTANCE SAMPLING

2013-03-14

THIS BOOK PRESENTS THE STATE OF THE ART TECHNOLOGY IN SERIOUS GAMES WHICH IS DRIVEN EXTENSIVE BY APPLICATIONS AND RESEARCH IN SIMULATION THE TOPICS IN THIS BOOK INCLUDE 1 FASHION SIMULATION 2 CHINESE CALLIGRAPHY INK DIFFUSION SIMULATION 3 REHABILITATION 4 LONG VEHICLE TURNING SIMULATION 5 MARINE TRAFFIC CONFLICT CONTROL 6 CNC SIMULATION 7 SPECIAL NEEDS EDUCATION THE BOOK ALSO ADDRESSES THE FUNDAMENTAL ISSUES IN SIMULATION AND SERIOUS GAMES SUCH AS RAPID COLLISION DETECTION GAME ENGINES OR GAME DEVELOPMENT PLATFORMS THE TARGET AUDIENCE FOR THIS BOOK INCLUDES SCIENTISTS ENGINEERS AND PRACTITIONERS INVOLVED IN THE FIELD OF SERIOUS GAMES AND SIMULATION THE MAJOR PART OF THIS BOOK COMPRISES OF PAPERS PRESENTED AT THE 2012 ASIA EUROPE WORKSHOP ON SERIOUS GAMES AND SIMULATION HELD IN NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE MAY 9 2012 ALL THE CONTRIBUTIONS HAVE BEEN PEER REVIEWED AND BY SCIENTIFIC COMMITTEE MEMBERS WITH REPORT ABOUT QUALITY CONTENT AND ORIGINALITY

SIMULATIONS, SERIOUS GAMES AND THEIR APPLICATIONS

2013-11-08

THE EXTENSIVE COST TO THOROUGHLY COMPARE NEW RADAR SENSOR SYSTEMS IS A PROBLEM IN TODAY S MILITARY DUE TO THE SHRINKING DEFENSE BUDGET THE OPPORTUNITY TO REPLACE DATED SENSOR SYSTEMS WITH TECHNOLOGICALLY ADVANCED SYSTEMS SELDOM ARISES CURRENT FUNDING LEVELS NO LONGER SUPPORT LONG TERM EVALUATIONS OF SENSOR SYSTEM PERFORMANCE THE DEVELOPMENT OF NEW METHODS TO MEASURE SYSTEM PERFORMANCE IS CRUCIAL IN DETERMINING THE BEST SENSOR SYSTEM AMONG MANY ALTERNATIVES COMPUTER SIMULATION IS ONE METHOD OF CONDUCTING ADDITIONAL TRIALS TO CHARACTERIZE SENSOR SYSTEM PERFORMANCE COMPUTER SIMULATION CAN AID DECISION MAKERS IN SELECTING THE SENSOR SYSTEM THAT BEST MEETS THE

NEEDS OF THE CENT MILITARY FORCE STRUCTURE THE COST OF SIMULATION MODELING IS CONSIDERABLY LESS THAN REPEATED TESTING OF THE REAL SENSOR SYSTEM THIS RESEARCH INVESTIGATES THE FEASIBILITY OF DEVELOPING A COMPUTER SIMULATION OF A RADAR SENSOR SYSTEM THE SCOPE OF THE RESEARCH INCLUDES COMPUTER MODELING OF THE DETECTION PROCESS AND AN EVALUATION OF MODEL OUTPUT THIS SIMULATION MODEL IS AN INITIAL STEP TO EMPHASIZE THE POWER OF COMPUTER SIMULATION

VIRTUAL REALITY IN ASSEMBLY SIMULATION

2001

THE HANDBOOK CENTERS ON DETECTION TECHNIQUES IN THE FIELD OF PARTICLE PHYSICS MEDICAL IMAGING AND RELATED SUBJECTS IT IS STRUCTURED INTO THREE PARTS THE FIRST ONE IS DEALING WITH BASIC IDEAS OF PARTICLE DETECTORS FOLLOWED BY APPLICATIONS OF THESE DEVICES IN HIGH ENERGY PHYSICS AND OTHER FIELDS IN THE LAST PART THE LARGE FIELD OF MEDICAL IMAGING USING SIMILAR DETECTION TECHNIQUES IS DESCRIBED THE DIFFERENT CHAPTERS OF THE BOOK ARE WRITTEN BY WORLD EXPERTS IN THEIR FIELD CLEAR INSTRUCTIONS ON THE DETECTION TECHNIQUES AND PRINCIPLES IN TERMS OF RELEVANT OPERATION PARAMETERS FOR SCIENTISTS AND GRADUATE STUDENTS ARE GIVEN DETAILED TABLES AND DIAGRAMS WILL MAKE THIS A VERY USEFUL HANDBOOK FOR THE APPLICATION OF THESE TECHNIQUES IN MANY DIFFERENT FIELDS LIKE PHYSICS MEDICINE BIOLOGY AND OTHER AREAS OF NATURAL SCIENCE

SIMULATION METHODOLOGY FOR RADAR DETECTION OF STATIONARY TARGETS

1984

THIS BOOK ADVISES THE FEDERAL AERONAUTICS ADMINISTRATION FAA ON THE DETECTION OF SMALL CONCEALED EXPLOSIVES THAT A TERRORIST COULD PLANT SURREPTITIOUSLY ON A COMMERCIAL AIRPLANE THE BOOK IDENTIFIES KEY ISSUES FOR THE FAA REGARDING EXPLOSIVE DETECTION TECHNOLOGY THAT CAN BE IMPLEMENTED IN AIRPORT TERMINALS RECOMMENDATIONS ARE MADE IN THE AREAS OF SYSTEMS ENGINEERING TESTING AND TECHNOLOGY DEVELOPMENT

SIMULATION OF A RADAR DETECTION MODEL USING THE NPS PLATFORM FOUNDATION

1996-03-01

DETAILS METHODS FOR COMPUTING VALID LIMITS OF DETECTION CLEARLY EXPLAINS ANALYTICAL DETECTION LIMIT THEORY THEREBY MITIGATING INCORRECT DETECTION LIMIT CONCEPTS METHODOLOGIES AND RESULTS EXTENSIVE USE OF COMPUTER SIMULATIONS THAT ARE FREELY AVAILABLE TO READERS CURATED SHORT LIST OF IMPORTANT REFERENCES FOR LIMITS OF DETECTION VIDEOS SCREENCASTS AND ANIMATIONS ARE PROVIDED AT AN ASSOCIATED WEBSITE TO ENHANCE UNDERSTANDING ILLUSTRATED WITH MANY DETAILED EXAMPLES AND COGENT EXPLANATIONS

NEURAL NETWORKS SYSTEMS FOR FEATURE DETECTION, OBJECT RECOGNITION, AND ENVIRONMENT SIMULATION

2004

THIS BOOK FOCUSES ON SOFTWARE FAULT DETECTION AND CORRECTION PROCESSES PRESENTING 5 DIFFERENT PAIRED MODELS INTRODUCED OVER THE LAST DECADE AND DISCUSSING THEIR APPLICATIONS IN PARTICULAR TO DETERMINING SOFTWARE RELEASE TIME THE FIRST WORK INCORPORATES THE TESTING EFFORT FUNCTION AND THE FAULT INTRODUCTION PROCESS INTO THE PAIRED FAULT DETECTION AND FAULT CORRECTION MODELS THE SECOND WORK INCORPORATES FAULT DEPENDENCY WHILE THE THIRD ADOPTS A MARKOV APPROACH FOR STUDYING FAULT DETECTION AND CORRECTION PROCESSES THE FOURTH WORK CONSIDERS THE MULTI RELEASE PROPERTY OF VARIOUS SOFTWARE AND MODELS FAULT DETECTION AND CORRECTION PROCESSES THE LAST WORK CLASSIFIES FAULTS INTO FOUR TYPES AND MODELS THE FAULT DETECTION AND CORRECTION PROCESSES ENABLING READERS TO FAMILIARIZE THEMSELVES WITH HOW SOFTWARE RELIABILITY CAN BE MODELED WHEN DIFFERENT FACTORS NEED TO BE CONSIDERED AND HOW THE APPROACHES CAN BE USED TO ANALYZE OTHER SYSTEMS THE BOOK IS IMPORTANT REFERENCE GUIDE FOR RESEARCHERS IN THE FIELD OF SOFTWARE RELIABILITY ENGINEERING AND PRACTITIONERS WORKING ON SOFTWARE PROJECTS TO GAIN THE MOST FROM THE BOOK READERS SHOULD HAVE A FIRM GRASP OF THE FUNDAMENTALS OF THE STOCHASTIC PROCESS

SIMULATION OF STATIONARY TARGETS IN CLUTTER FOR ASSESSMENT OF PROBABILITY OF DETECTION

1984

STRUCTURAL HEALTH MONITORING DAMAGE DETECTION MECHATRONICS VOLUME 7 PROCEEDINGS OF THE 34TH IMAC A CONFERENCE AND EXPOSITION ON DYNAMICS OF MULTIPHYSICAL SYSTEMS FROM ACTIVE MATERIALS TO VIBROACOUSTICS 2016 THE SEVENTH VOLUME OF TEN FROM THE CONFERENCE BRINGS TOGETHER CONTRIBUTIONS TO THIS IMPORTANT AREA OF RESEARCH AND ENGINEERING THE COLLECTION PRESENTS EARLY FINDINGS AND CASE STUDIES ON FUNDAMENTAL AND APPLIED ASPECTS OF STRUCTURAL DYNAMICS INCLUDING PAPERS ON STRUCTURAL HEALTH MONITORING DAMAGE DETECTION NUMERICAL MODELING MECHATRONICS SYSTEM IDENTIFICATION ACTIVE CONTROLS

HANDBOOK OF PARTICLE DETECTION AND IMAGING

2012-01-08

THE SAFE AND RELIABLE OPERATION OF TECHNICAL SYSTEMS IS OF GREAT SIGNIFICANCE FOR THE PROTECTION OF HUMAN LIFE AND HEALTH THE ENVIRONMENT AND OF THE VESTED ECONOMIC VALUE THE CORRECT FUNCTIONING OF THOSE SYSTEMS HAS A PROFOUND IMPACT ALSO ON PRODUCTION COST AND PRODUCT QUALITY THE EARLY DETECTION OF FAULTS IS CRITICAL IN AVOIDING PERFORMANCE DEGRADATION AND DAMAGE TO THE MACHINERY OR HUMAN LIFE ACCURATE DIAGNOSIS THEN HELPS TO MAKE THE RIGHT DECISIONS ON EMERGENCY ACTIONS AND REPAIRS FAULT DETECTION AND DIAGNOSIS FDD HAS DEVELOPED INTO A MAJOR AREA OF RESEARCH AT THE INTERSECTION OF SYSTEMS AND CONTROL ENGINEERING ARTIFICIAL INTELLIGENCE APPLIED MATHEMATICS AND STATISTICS AND SUCH APPLICATION FIELDS AS CHEMICAL ELECTRICAL MECHANICAL AND AEROSPACE ENGINEERING IFAC HAS RECOGNIZED THE SIGNIFICANCE OF FDD BY LAUNCHING A TRIENNIAL SYMPOSIUM SERIES DEDICATED TO THE SUBJECT THE SAFEPROCESS SYMPOSIUM IS ORGANIZED EVERY THREE YEARS SINCE THE FIRST SYMPOSIUM HELD IN BADEN BADEN IN 1991 SAFEPROCESS 2006 THE 6TH IFAC SYMPOSIUM ON FAULT DETECTION SUPERVISION AND SAFETY OF TECHNICAL PROCESSES WAS HELD IN BEIJING PR CHINA THE PROGRAM INCLUDED THREE PLENARY PAPERS TWO SEMI PLENARY PAPERS TWO INDUSTRIAL TALKS BY INTERNATIONALLY RECOGNIZED EXPERTS AND 258 REGULAR PAPERS WHICH HAVE BEEN SELECTED OUT OF A TOTAL OF 387 REGULAR AND INVITED PAPERS SUBMITTED DISCUSSES THE DEVELOPMENTS AND FUTURE CHALLENGES IN ALL ASPECTS OF FAULT DIAGNOSIS AND FAULT TOLERANT CONTROL 8 INVITED AND 36 CONTRIBUTED SESSIONS INCLUDED WITH A SPECIAL SESSION ON THE DEMONSTRATION OF PROCESS MONITORING AND DIAGNOSTIC SOFTWARE TOOLS

DETECTION OF EXPLOSIVES FOR COMMERCIAL AVIATION SECURITY

1993-02-01

THE INCREASING PRESENCE OF MOBILE ROBOTS IN OUR EVERYDAY LIVES INTRODUCES THE REQUIREMENTS FOR THEIR INTELLIGENT AND AUTONOMOUS FEATURES THEREFORE THE NEXT GENERATION OF MOBILE ROBOTS SHOULD BE MORE SELF CAPABLE IN RESPECT TO INCREASING OF THEIR FUNCTIONALITY IN UNFORESEEN SITUATIONS DECREASING OF THE HUMAN INVOLVEMENT IN THEIR EVERYDAY OPERATIONS AND THEIR MAINTENANCE BEING ROBUST FAULT TOLERANT AND RELIABLE IN THEIR OPERATION ALTHOUGH MOBILE ROBOTIC SYSTEMS HAVE BEEN A TOPIC OF RESEARCH FOR DECADES AND ASIDE THE TECHNOLOGY IMPROVEMENTS NOWADAYS THE SUBJECT ON HOW TO PROGRAM AND MAKING THEM MORE AUTONOMOUS IN THEIR OPERATIONS IS STILL AN OPEN FIELD FOR RESEARCH APPLYING BIO INSPIRED ORGANIC APPROACHES IN ROBOTICS DOMAIN IS ONE OF THE METHODOLOGIES THAT ARE CONSIDERED THAT WOULD HELP ON MAKING THE ROBOTS MORE AUTONOMOUS AND SELF CAPABLE I E HAVING PROPERTIES SUCH AS SELF RECONFIGURATION SELF ADAPTATION SELF OPTIMIZATION ETC IN THIS BOOK SEVERAL NOVEL BIOLOGICALLY INSPIRED APPROACHES FOR WALKING ROBOTS MULTI LEGGED AND HUMANOID DOMAIN ARE INTRODUCED AND ELABORATED THEY ARE RELATED TO SELF ORGANIZED AND SELF STABILIZED ROBOT WALKING ANOMALY DETECTION WITHIN ROBOT SYSTEMS USING SELF ADAPTATION AND MITIGATING THE FAULTY ROBOT CONDITIONS BY SELF RECONFIGURATION OF A MULTI LEGGED WALKING ROBOT THE APPROACHES PRESENTED HAVE BEEN PRACTICALLY EVALUATED IN VARIOUS TEST SCENARIOS THE RESULTS FROM THE EXPERIMENTS ARE DISCUSSED IN DETAILS AND THEIR PRACTICAL USEFULNESS IS VALIDATED

LIMITS OF DETECTION IN CHEMICAL ANALYSIS

2017-02-15

THIS BOOK INTRODUCES A SMART FIRE DETECTION SYSTEM DESIGNED USING A WIRELESS SENSOR NETWORK AND FUZZY METHODS THIS SYSTEM PREDICTS CONTROLS AND PROVIDES ALERTS TO VARIOUS EVENTS BASED ON INTELLIGENT TECHNIQUES ROUTING PROTOCOLS ARE PERFORMED BASED ON INTELLIGENT PROCEDURES IN WHICH THEY ARE CLASSIFIED INTO TWO MAIN GROUPS STATIC AND DYNAMIC STATIC PROTOCOLS ARE USED TO TRANSMIT DATA PACKETS BETWEEN STATIONARY NODES WHILE DYNAMIC PROTOCOLS ARE APPLIED TO TRANSMIT MESSAGES BETWEEN RESCUE TEAMS AND FIRE DEPARTMENTS THE ACTIVE AND PASSIVE STATES ARE SPECIFIED FOR SENSOR NODES TO BALANCE THE REMAINING ENERGY OF THE NODES AND PROLONG THE NETWORK LIFETIME THE PROBABILITY OF EXPLOSION FIRE BURN AND SUFFOCATION IS DETERMINED BASED ON FUZZY PROCEDURES PEOPLE AFFECTED CAN BE GUIDED TO THE EXIT AT EVENT PLACES BASED ON AN INTELLIGENT METHOD IN ADDITION MEMBERS AND DISPATCH ROUTES OF RESCUE AND SUPPORT TEAMS ARE SELECTED USING INTELLIGENT METHODS TO REDUCE FINANCIAL LOSSES AND HUMAN CASUALTIES THE BOOK WILL BE USEFUL FOR PROFESSORS RESEARCHERS AND ENGINEERS IN COMPUTER AND ELECTRICAL ENGINEERING

GUARANTEED STABILITY FOR COLLISION DETECTION AND SIMULATION OF HYBRID DYNAMICAL SYSTEMS

2005

STRUCTURAL HEALTH MONITORING SHM IS THE INTERDISCIPLINARY ENGINEERING FIELD DEVOTED TO THE MONITORING AND ASSESSMENT OF STRUCTURAL HEALTH AND INTEGRITY SHM TECHNOLOGY INTEGRATES NON DESTRUCTIVE EVALUATION TECHNIQUES USING REMOTE SENSING AND SMART MATERIALS TO CREATE SMART SELF MONITORING STRUCTURES CHARACTERIZED BY INCREASED RELIABILITY AND LONG LIFE ITS APPLICATIONS ARE PRIMARILY SYSTEMS WITH CRITICAL DEMANDS CONCERNING PERFORMANCE WHERE CLASSICAL ONSITE ASSESSMENT IS BOTH DIFFICULT AND EXPENSIVE ADVANCED STRUCTURAL DAMAGE DETECTION FROM THEORY TO ENGINEERING APPLICATIONS IS WRITTEN BY ACADEMIC EXPERTS IN THE FIELD AND PROVIDES STUDENTS ENGINEERS AND OTHER TECHNICAL SPECIALISTS WITH A COMPREHENSIVE REVIEW OF RECENT DEVELOPMENTS IN VARIOUS MONITORING TECHNIQUES AND THEIR APPLICATIONS TO SHM CONTRIBUTING TO AN AREA WHICH IS THE SUBJECT OF INTENSIVE RESEARCH AND DEVELOPMENT THIS BOOK OFFERS BOTH THEORETICAL PRINCIPLES AND FEASIBILITY STUDIES FOR A NUMBER OF SHM TECHNIQUES KEY FEATURES TAKES A MULTIDISCIPLINARY APPROACH AND PROVIDES A COMPREHENSIVE REVIEW OF MAIN SHM TECHNIQUES PRESENTS REAL CASE STUDIES AND PRACTICAL APPLICATION OF TECHNIQUES FOR DAMAGE DETECTION IN DIFFERENT TYPES OF STRUCTURES PRESENTS A NUMBER OF NEW NOVEL DATA PROCESSING ALGORITHMS DEMONSTRATES REAL OPERATING PROTOTYPES ADVANCED STRUCTURAL DAMAGE DETECTION FROM THEORY TO ENGINEERING APPLICATIONS IS A COMPREHENSIVE REFERENCE FOR RESEARCHERS AND ENGINEERS AND IS A USEFUL SOURCE OF INFORMATION FOR GRADUATE STUDENTS IN MECHANICAL AND CIVIL ENGINEERING

SOFTWARE FAULT DETECTION AND CORRECTION: MODELING AND APPLICATIONS

2018-11-01

THIS BOOK IS ASSOCIATED WITH THE CYBERSECURITY ISSUES AND PROVIDES A WIDE VIEW OF THE NOVEL CYBER ATTACKS AND THE DEFENSE MECHANISMS ESPECIALLY AI BASED INTRUSION DETECTION SYSTEMS IDS FEATURES A SYSTEMATIC OVERVIEW OF THE STATE OF THE ART IDS PROPER EXPLANATION OF NOVEL CYBER ATTACKS WHICH ARE MUCH DIFFERENT FROM CLASSICAL CYBER ATTACKS PROPER AND IN DEPTH DISCUSSION OF AI IN THE FIELD OF CYBERSECURITY INTRODUCTION TO DESIGN AND ARCHITECTURE OF NOVEL AI BASED IDS WITH A TRANSPARENT VIEW OF REAL TIME IMPLEMENTATIONS COVERS A WIDE VARIETY OF AI BASED CYBER DEFENSE MECHANISMS ESPECIALLY IN THE FIELD OF NETWORK BASED ATTACKS IOT BASED ATTACKS MULTIMEDIA ATTACKS AND BLOCKCHAIN ATTACKS THIS BOOK SERVES AS A REFERENCE BOOK FOR SCIENTIFIC INVESTIGATORS WHO NEED TO ANALYZE IDS AS WELL AS RESEARCHERS DEVELOPING METHODOLOGIES IN THIS FIELD IT MAY ALSO BE USED AS A TEXTBOOK FOR A GRADUATE LEVEL COURSE ON INFORMATION SECURITY

STRUCTURAL HEALTH MONITORING, DAMAGE DETECTION & MECHATRONICS, VOLUME 7

2016-05-24

DOCTORAL THESIS DISSERTATION FROM THE YEAR 2007 IN THE SUBJECT COMPUTER SCIENCE APPLIED GRADE 10 TECHNICAL UNIVERSITY OF MUNICH INSTITUT FÜR INFORMATIK 169 ENTRIES IN THE BIBLIOGRAPHY LANGUAGE ENGLISH ABSTRACT IN THIS THESIS I PRESENT A FRAMEWORK FOR PHYSICAL SIMULATION AND VISUALIZATION OF DEFORMABLE VOLUMETRIC BODIES IN REAL TIME BASED ON THE IMPLICIT FINITE ELEMENT METHOD A MULTIGRID APPROACH FOR THE EFFICIENT NUMERICAL SIMULATION OF ELASTIC MATERIALS HAS BEEN DEVELOPED DUE TO THE OPTIMIZED IMPLEMENTATION OF THE MULTIGRID SCHEME 200 000 ELEMENTS CAN BE SIMULATED AT A RATE OF 10 TIME STEPS PER SECOND THE APPROACH ENABLES REALISTIC AND NUMERICALLY STABLE SIMULATION OF BODIES THAT ARE DESCRIBED BY TETRAHEDRAL OR HEXAHEDRAL GRIDS IT CAN EFFICIENTLY SIMULATE HETEROGENEOUS BODIES I E BODIES THAT ARE COMPOSED OF MATERIAL WITH VARYING STIFFNESS AND INCLUDES LINEAR AS WELL AS NON LINEAR MATERIAL LAWS TO VISUALIZE DEFORMABLE BODIES A NOVEL RENDERING METHOD HAS BEEN DEVELOPED ON PROGRAMMABLE GRAPHICS HARDWARE IT INCLUDES THE EFFICIENT RENDERING OF SURFACES AS WELL AS INTERIOR VOLUMETRIC STRUCTURES BOTH THE PHYSICAL SIMULATION FRAMEWORK AND THE RENDERING APPROACH HAVE BEEN INTEGRATED INTO A SINGLE SIMULATION SUPPORT SYSTEM THEREBY AVAILABLE COMMUNICATION BANDWIDTHS HAVE BEEN EFFICIENTLY EXPLOITED TO ENABLE THE USE OF THE SYSTEM IN PRACTICAL APPLICATIONS A NOVEL APPROACH FOR COLLISION DETECTION HAS BEEN INCLUDED THIS APPROACH ALLOWS ONE TO HANDLE GEOMETRIES THAT ARE DEFORMED OR EVEN CREATED ON THE GRAPHICAL SUBSYSTEM

FAULT DETECTION, SUPERVISION AND SAFETY OF TECHNICAL PROCESSES 2006

2007-03-01

A THREE VOLUME WORK BRINGING TOGETHER PAPERS PRESENTED AT SAFEPROCESS 2003 INCLUDING FOUR PLENARY PAPERS ON STATISTICAL PHYSICAL MODEL BASED AND LOGICAL MODEL BASED APPROACHES TO FAULT DETECTION AND DIAGNOSIS AS WELL AS 178 REGULAR PAPERS

BIOLOGICALLY INSPIRED APPROACHES FOR LOCOMOTION, ANOMALY DETECTION AND RECONFIGURATION FOR WALKING ROBOTS

2011-08-20

THE FIELD OF CARDIOVASCULAR RESEARCH AND MONITORING FACES A CRITICAL CHALLENGE IN THE EARLY DETECTION OF CARDIOVASCULAR DISEASES DUE TO LIMITATIONS IN EXISTING MONITORING METHODS THESE METHODS LACK ACCURACY POWER EFFICIENCY AND COMPACTNESS CREATING A GAP IN EFFECTIVE INTERVENTION AND PATIENT OUTCOMES THIS PRESSING PROBLEM NECESSITATES ADVANCED SOLUTIONS THAT CAN ENHANCE THE CAPABILITIES OF WEARABLE AND IMPLANTABLE ELECTROCARDIOGRAPHY ECG SENSORS FOR ACCURATE AND TIMELY DETECTION OF CONDITIONS LIKE CARDIAC ARRHYTHMIA AND HEART FAILURE WEARABLE AND IMPLANTABLE ELECTROCARDIOGRAPHY FOR EARLY DETECTION OF CARDIOVASCULAR DISEASES PRESENTS A COMPREHENSIVE SOLUTION TO ADDRESS THESE CHALLENGES WRITTEN BY ESTEEMED SCHOLARS WITH EXPERIENCE IN ACADEMIA AND RESEARCH THIS GROUNDBREAKING BOOK INTRODUCES INNOVATIVE APPROACHES TO ENHANCE ECG SENSORS IT INTRODUCES A NOVEL LOW NOISE AND LOW POWER CAPACITIVE FEEDBACK AMPLIFIER BASED ON A CURRENT REUSED OPERATIONAL TRANSCONDUCTANCE AMPLIFIER OTA INCORPORATING DIGITALIZATION TECHNIQUES AND THRESHOLD CONVERTERS TO ENABLE THE ACCURATE EXTRACTION OF VITAL DATA POINTS THE BOOK EMPHASIZES REDUCED POWER CONSUMPTION AND CIRCUIT SIZE TO ENSURE ENERGY EFFICIENT AND COMPACT MONITORING SOLUTIONS TARGETING ACADEMIC SCHOLARS RESEARCHERS AND PROFESSIONALS IN THE FIELD THIS ESSENTIAL RESOURCE COVERS A WIDE RANGE OF TOPICS AND EQUIPS READERS WITH VALUABLE INSIGHTS AND INNOVATIVE SOLUTIONS TO OVERCOME EXISTING LIMITATIONS BY UTILIZING THE KNOWLEDGE AND TOOLS SHARED IN THIS BOOK SCHOLARS AND PROFESSIONALS CAN DRIVE ADVANCEMENTS IN THE EARLY DETECTION AND MANAGEMENT OF CARDIOVASCULAR DISEASES IMPROVING PATIENT CARE AND OUTCOMES

GROUNDWATER DETECTION MONITORING SYSTEM DESIGN UNDER CONDITIONS OF UNCERTAINTY

2006

THIS REPORT DESCRIBES OPTIMIZATION TECHNIQUES WHICH HAVE BEEN DEVELOPED AND APPLIED FOR THE EVALUATION OF DESIGN AND OPERATIONS OF FREEWAY INCIDENT DETECTION SERVICE SYSTEMS THE REPORT HAS FOUR MAJOR PARTS 1 ANALYSIS AND DESIGN OF STATIONARY SERVICE SYSTEMS 2 ANALYSIS AND DESIGN OF INCIDENT DETECTION ALGORITHMS 3 ANALYSIS AND DESIGN OF INCIDENT

THE FUNDAMENTALS AND EMPIRICAL DESIGN OF A SMART FIRE DETECTION SYSTEM

2020-09-23

STARTING WITH NOVEL ALGORITHMS FOR OPTIMALLY UPDATING BOUNDING VOLUME HIERARCHIES OF OBJECTS UNDERGOING ARBITRARY DEFORMATIONS THE AUTHOR PRESENTS A NEW DATA STRUCTURE THAT ALLOWS FOR THE FIRST TIME THE COMPUTATION OF THE PENETRATION VOLUME THE PENETRATION VOLUME IS RELATED TO THE WATER DISPLACEMENT OF THE OVERLAPPING REGION AND THUS CORRESPONDS TO A PHYSICALLY MOTIVATED AND CONTINUOUS FORCE THE PRACTICABILITY OF THE APPROACHES USED IS SHOWN BY REALIZING NEW APPLICATIONS IN THE FIELD OF ROBOTICS AND HAPTICS INCLUDING A USER STUDY THAT EVALUATES THE INFLUENCE OF THE DEGREES OF FREEDOM IN COMPLEX HAPTIC INTERACTIONS NEW GEOMETRIC DATA STRUCTURES FOR COLLISION DETECTION AND HAPTICS CLOSES BY PROPOSING AN OPEN SOURCE BENCHMARKING SUITE THAT EVALUATES BOTH THE PERFORMANCE AND THE QUALITY OF THE COLLISION RESPONSE IN ORDER TO GUARANTEE A FAIR COMPARISON OF DIFFERENT COLLISION DETECTION ALGORITHMS REQUIRED IN THE FIELDS OF COMPUTER GRAPHICS PHYSICALLY BASED SIMULATIONS COMPUTER ANIMATIONS ROBOTICS AND HAPTICS COLLISION DETECTION IS A FUNDAMENTAL PROBLEM THAT ARISES EVERY TIME WE INTERACT WITH VIRTUAL OBJECTS SOME OF THE OPEN CHALLENGES ASSOCIATED WITH COLLISION DETECTION INCLUDE THE HANDLING OF DEFORMABLE OBJECTS THE STABLE COMPUTATION OF PHYSICALLY PLAUSIBLE CONTACT INFORMATION AND THE EXTREMELY HIGH FREQUENCIES THAT ARE REQUIRED FOR HAPTIC RENDERING NEW GEOMETRIC DATA STRUCTURES FOR COLLISION DETECTION AND HAPTICS PRESENTS NEW SOLUTIONS TO ALL OF THESE CHALLENGES AND WILL PROVE TO BE A VALUABLE RESOURCE FOR RESEARCHERS AND PRACTITIONERS OF COLLISION DETECTION IN THE HAPTICS ROBOTICS AND COMPUTER GRAPHICS AND ANIMATION DOMAINS

ADVANCED SIGNAL PROCESSING TECHNIQUES IN RADIATION DETECTION AND IMAGING

2023-12-26

THE ARENA WORKSHOP IN ZEUTHEN WAS THE FIRST TO COMBINE EXTENSIVELY THE FIELDS OF ACOUSTIC AND RADIO DETECTION TECHNIQUES FOR HIGH ENERGETIC PARTICLE CASCADES FROM COSMIC NEUTRINO INTERACTIONS THE ARTICLES IN THIS VOLUME COMPRISE THE LATEST RESEARCH WORK WHICH WAS PRESENTED BY OVER 50 SPEAKERS FROM 10 COUNTRIES THE WIDE COVERAGE INCLUDES THEORETICAL PREDICTIONS ON FLUXES AND THE POTENTIALITIES OF NEW TECHNIQUES THEORETICAL AND EXPERIMENTAL RESULTS ON TARGET MATERIAL PROPERTIES THE FUNDAMENTALS OF INTERACTIONS AND CASCADE SIMULATION AND CURRENT EXPERIMENTAL RESULTS AND THE MOST RECENT NEUTRINO FLUX LIMITS THE BOOK ALSO CONSIDERS FUTURE PLANS AND EXPERIMENTS FOR BOTH RADIO AND ACOUSTIC METHODS WITH THE AIM OF GIVING THE READER AN UP TO DATE OVERVIEW OF THIS RAPIDLY DEVELOPING FIELD

ADVANCED STRUCTURAL DAMAGE DETECTION

2013-05-20

THIS BOOK CONSTITUTES THE REFEREED PROCEEDINGS OF THE 6TH INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN INTRUSION DETECTION RAID 2003 HELD IN PITTSBURGH PA USA IN SEPTEMBER 2003 THE 13 REVISED FULL PAPERS PRESENTED WERE CAREFULLY REVIEWED AND SELECTED FROM 44 SUBMISSIONS THE PAPERS ARE ORGANIZED IN TOPICAL SECTIONS ON NETWORK INFRASTRUCTURE ANOMALY DETECTION MODELING AND SPECIFICATION AND IDS SENSORS

ARTIFICIAL INTELLIGENCE FOR INTRUSION DETECTION SYSTEMS

2023-10-16

THE ARENA WORKSHOP IN ZEUTHEN WAS THE FIRST TO COMBINE EXTENSIVELY THE FIELDS OF ACOUSTIC AND RADIO DETECTION TECHNIQUES FOR HIGH ENERGETIC PARTICLE CASCADES FROM COSMIC NEUTRINO INTERACTIONS THE ARTICLES IN THIS VOLUME COMPRISE THE LATEST RESEARCH WORK WHICH WAS PRESENTED BY OVER 50 SPEAKERS FROM 10 COUNTRIES THE WIDE COVERAGE INCLUDES THEORETICAL PREDICTIONS ON FLUXES AND THE POTENTIALITIES OF NEW TECHNIQUES THEORETICAL AND EXPERIMENTAL RESULTS ON TARGET MATERIAL PROPERTIES THE FUNDAMENTALS OF INTERACTIONS AND CASCADE SIMULATION AND CURRENT

EXPERIMENTAL RESULTS AND THE MOST RECENT NEUTRINO FLUX LIMITS THE BOOK ALSO CONSIDERS FUTURE PLANS AND EXPERIMENTS FOR BOTH RADIO AND ACOUSTIC METHODS WITH THE AIM OF GIVING THE READER AN UP TO DATE OVERVIEW OF THIS RAPIDLY DEVELOPING FIELD

REAL-TIME SIMULATION AND VISUALIZATION OF DEFORMABLE OBJECTS

2008-08-06

BUILDING SEISMIC MONITORING AND DETECTION TECHNOLOGY FOCUSES ON THE RESEARCH OF SEISMIC RESISTANCE AND MONITORING TECHNOLOGY THE BOOK GATHERS CUTTING EDGE RESEARCH AND ACHIEVEMENTS AND INCLUDES CONTRIBUTIONS ON THE FOLLOWING SUBJECTS NEW CONCEPTS AND KEY TECHNOLOGIES OF STRUCTURAL REGULATION AND DISASTER PREVENTION TEST AND MONITORING STUDY OF THERMAL INSULATION IN TUNNELS PROTECTION OF STEEL AND CONCRETE STRUCTURES USING ARC THERMAL SPRAY RESEARCH PROGRESS OF MECHANICAL METAMATERIALS THIS BOOK IS AIMING AT SCHOLARS AND ENGINEERS INVOLVED OR INTERESTED IN STRUCTURAL ENGINEERING AND SEISMIC DETECTION TECHNOLOGY

FAULT DETECTION, SUPERVISION AND SAFETY OF TECHNICAL PROCESSES 2003 (SAFEPROCESS 2003)

2004-02-27

WILEY INTERSCIENCE PAPERBACK SERIES THE WILEY INTERSCIENCE PAPERBACK SERIES CONSISTS OF SELECTED BOOKS THAT HAVE BEEN MADE MORE ACCESSIBLE TO CONSUMERS IN AN EFFORT TO INCREASE GLOBAL APPEAL AND GENERAL CIRCULATION WITH THESE NEW UNABRIDGED SOFTCOVER VOLUMES WILEY HOPES TO EXTEND THE LIVES OF THESE WORKS BY MAKING THEM AVAILABLE TO FUTURE GENERATIONS OF STATISTICIANS MATHEMATICIANS AND SCIENTISTS THE WRITING STYLE IS CLEAR AND INFORMAL AND MUCH OF THE DISCUSSION IS ORIENTED TO APPLICATION IN SHORT THE BOOK IS A KEEPER MATHEMATICAL GEOLOGY I WOULD HIGHLY RECOMMEND THE ADDITION OF THIS BOOK TO THE LIBRARIES OF BOTH STUDENTS AND PROFESSIONALS IT IS A USEFUL TEXTBOOK FOR THE GRADUATE STUDENT BECAUSE IT EMPHASIZES BOTH THE PHILOSOPHY AND PRACTICE OF ROBUSTNESS IN REGRESSION SETTINGS AND IT PROVIDES EXCELLENT EXAMPLES OF PRECISE LOGICAL PROOFS OF THEOREMS EVEN FOR THOSE WHO ARE FAMILIAR WITH ROBUSTNESS THE BOOK WILL BE A GOOD REFERENCE BECAUSE IT CONSOLIDATES THE RESEARCH IN HIGH BREAKDOWN AFFINE EQUIVARIANT ESTIMATORS AND INCLUDES AN EXTENSIVE BIBLIOGRAPHY IN ROBUST REGRESSION OUTLIER DIAGNOSTICS AND RELATED METHODS THE AIM OF THIS BOOK THE AUTHORS TELL US IS TO MAKE ROBUST REGRESSION AVAILABLE FOR EVERYDAY STATISTICAL PRACTICE ROUSSEEUW AND LEROY HAVE INCLUDED ALL OF THE NECESSARY INGREDIENTS TO MAKE THIS HAPPEN JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION

WEARABLE AND IMPLANTABLE ELECTROCARDIOGRAPHY FOR EARLY DETECTION OF CARDIOVASCULAR DISEASES

2023-08-25

THIS BOOK IS AN INTERNATIONAL COLLECTION OF CONTRIBUTIONS FROM ACADEMIA INDUSTRY AND THE ARMED FORCES IT ADDRESSES CURRENT AND EMERGING SPATIAL VISION MODELS AND THEIR APPLICATION TO THE UNDERSTANDING PREDICTION AND EVALUATION OF THE TASKS OF TARGET DETECTION AND RECOGNITION THE DISCUSSION IN MANY OF THE CHAPTERS IS FRAMED IN TERMS OF MILITARY TARGETS AND MILITARY VISION AIDS HOWEVER THE TECHNIQUES ANALYSES AND PROBLEMS ARE BY NO MEANS LIMITED TO THIS AREA OF APPLICATION THE DETECTION AND RECOGNITION OF AN ARMORED VEHICLE FROM A RECONNAISSANCE IMAGE ARE PERFORMED BY THE SAME VISUAL SYSTEM USED TO DETECT AND RECOGNIZE A TUMOR IN AN X RAY THE ANALYSIS OF THE INTERACTION OF THE HUMAN VISUAL SYSTEM WITH NIGHT VISION DEVICES IS NOT DIFFERENT FROM THE ANALYSIS NEEDED IN THE CASE OF AN OPERATOR EXAMINING STRUCTURES USING A REMOTE ENDOSCOPIC CAMERA ETC THE BOOK IS ORGANIZED INTO THREE GENERAL SECTIONS THE FIRST COVERS BASIC MODELING OF CENTRAL FOVEAL VISION AND ITS THEORETICAL BACKGROUND THE SECOND IS CENTERED ON THE EVALUATION OF MODEL PERFORMANCE IN APPLICATIONS WHILE THE THIRD IS DEDICATED TO ASPECTS OF PERIPHERAL VISION MODELING AND THE EXPANSION OF PERIPHERAL MODELING TO INCLUDE VISUAL SEARCH

AIRBORNE WIND SHEAR DETECTION AND WARNING SYSTEMS. SECOND COMBINED MANUFACTURERS' AND TECHNOLOGISTS' CONFERENCE, PART 1

1990

THIS BOOK PROVIDES A DETAILED OVERVIEW OF DETECTION ALGORITHMS FOR MULTIPLE INPUT MULTIPLE OUTPUT MIMO COMMUNICATIONS SYSTEMS FOCUSING ON THEIR HARDWARE REALISATION THE BOOK BEGINS BY ANALYSING THE MAXIMUM LIKELIHOOD DETECTOR WHICH PROVIDES THE OPTIMAL BIT ERROR RATE PERFORMANCE IN AN UNCODED COMMUNICATIONS SYSTEM HOWEVER THE MAXIMUM LIKELIHOOD DETECTOR EXPERIENCES A HIGH COMPLEXITY THAT SCALES EXPONENTIALLY WITH THE NUMBER OF ANTENNAS WHICH MAKES IT IMPRACTICAL FOR REAL TIME COMMUNICATIONS SYSTEMS THE AUTHORS PROCEED TO DISCUSS LOWER COMPLEXITY DETECTION ALGORITHMS SUCH AS ZERO FORCING SPHERE DECODING AND THE K BEST ALGORITHM WITH THE AID OF DETAILED ALGORITHMIC ANALYSIS AND SEVERAL MATLAB CODE EXAMPLES FURTHERMORE DIFFERENT DESIGN EXAMPLES OF MIMO DETECTION ALGORITHMS AND THEIR HARDWARE IMPLEMENTATION RESULTS ARE PRESENTED AND DISCUSSED FINALLY AN ASIC DESIGN FLOW FOR IMPLEMENTING MIMO DETECTION ALGORITHMS IN HARDWARE IS PROVIDED INCLUDING THE SYSTEM SIMULATION AND MODELLING STEPS AND REGISTER TRANSFER LEVEL MODELLING USING HARDWARE DESCRIPTION LANGUAGES PROVIDES AN OVERVIEW OF MIMO DETECTION ALGORITHMS AND DISCUSSES THEIR CORRESPONDING HARDWARE IMPLEMENTATIONS IN DETAIL HIGHLIGHTS ARCHITECTURAL CONSIDERATIONS OF MIMO DETECTORS IN ACHIEVING LOW POWER CONSUMPTION AND HIGH THROUGHPUT DISCUSSES DESIGN TRADEOFFS THAT WILL GUIDE READERS EFFORTS WHEN IMPLEMENTING MIMO ALGORITHMS IN HARDWARE DESCRIBES A BROAD RANGE OF IMPLEMENTATIONS OF DIFFERENT MIMO DETECTORS ENABLING READERS TO MAKE INFORMED DESIGN DECISIONS BASED ON THEIR APPLICATION REQUIREMENTS

AIRBORNE WIND SHEAR DETECTION AND WARNING SYSTEMS: THIRD COMBINED MANUFACTURERS' AND TECHNOLOGISTS' CONFERENCE, PART 2

1991

IP BASED MULTIMEDIA COMMUNICATIONS HAVE BECOME INCREASINGLY POPULAR IN RECENT YEARS WITH THE INCREASING COVERAGE OF THE IEEE 802.11TM BASED WIRELESS NETWORKS IP BASED MULTIMEDIA COMMUNICATIONS OVER WIRELESS NETWORKS ARE ALSO DRAWING EXTENSIVE ATTENTION IN BOTH ACADEMIA AND INDUSTRY DUE TO THE OPENNESS AND DISTRIBUTED NATURE OF THE PROTOCOLS INVOLVED SUCH AS THE SESSION INITIATION PROTOCOL SIP AND THE IEEE 802.11TM STANDARD IT BECOMES EASY FOR MALICIOUS USERS IN THE NETWORK TO ACHIEVE THEIR OWN GAIN OR DISRUPT THE SERVICE BY DEVIATING FROM THE NORMAL PROTOCOL BEHAVIORS THIS SPRINGERBRIEF PRESENTS REAL TIME INTRUSION DETECTION TECHNIQUES THAT CAN QUICKLY TRACK THE MALICIOUS BEHAVIORS WHICH MANIPULATE THE VULNERABILITIES FROM EITHER THE 802.11TM OR THE SIP PROTOCOLS MORE SPECIFICALLY THIS BOOK PRESENTS INTERDISCIPLINARY TECHNIQUES TO ACHIEVE AN EFFECTIVE REAL TIME INTRUSION DETECTION SYSTEM WHICH INTERWEAVES MEDIUM ACCESS CONTROL MAC PROTOCOL ANALYSIS CUMULATIVE SUM CUSUM BASED DETECTOR DESIGN A NOVEL MARKOVIAN MODEL FOR CUSUM DETECTORS SKETCH BASED TRAFFIC MODELING AND WAVELET BASED SIGNAL PROCESSING TECHNIQUES

OPTIMAL DESIGN AND OPERATION OF FREEWAY INCIDENT DETECTION-SERVICE SYSTEMS

1975

EARLY AND ACCURATE FAULT DETECTION AND DIAGNOSIS FOR MODERN CHEMICAL PLANTS CAN MINIMIZE DOWNTIME INCREASE THE SAFETY OF PLANT OPERATIONS AND REDUCE MANUFACTURING COSTS THIS BOOK PRESENTS THE THEORETICAL BACKGROUND AND PRACTICAL TECHNIQUES FOR DATA DRIVEN PROCESS MONITORING IT DEMONSTRATES THE APPLICATION OF ALL THE DATA DRIVEN PROCESS MONITORING TECHNIQUES TO THE TENNESSEE EASTMAN PLANT SIMULATOR AND LOOKS AT THE STRENGTHS AND WEAKNESSES OF EACH APPROACH IN DETAIL A PLANT SIMULATOR AND PROBLEMS ALLOW READERS TO APPLY PROCESS MONITORING TECHNIQUES

NEW GEOMETRIC DATA STRUCTURES FOR COLLISION DETECTION AND HAPTICS

2013-07-12

ARTIFICIAL INTELLIGENCE AI AND ITS APPLICATIONS HAVE RISEN TO PROMINENCE AS ONE OF THE MOST ACTIVE STUDY AREAS IN RECENT YEARS IN RECENT YEARS A RISING NUMBER OF AI APPLICATIONS HAVE BEEN APPLIED IN A VARIETY OF AREAS AGRICULTURE TRANSPORTATION MEDICINE AND HEALTH ARE ALL BEING TRANSFORMED BY AI TECHNOLOGY THE INTERNET OF THINGS IOT MARKET IS THRIVING HAVING A SIGNIFICANT IMPACT ON A WIDE VARIETY OF INDUSTRIES AND APPLICATIONS INCLUDING E HEALTH CARE SMART CITIES SMART TRANSPORTATION AND INDUSTRIAL ENGINEERING RECENT BREAKTHROUGHS IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING TECHNIQUES HAVE RESHAPED VARIOUS ASPECTS OF ARTIFICIAL VISION CONSIDERABLY IMPROVING THE STATE OF THE ART FOR ARTIFICIAL VISION SYSTEMS ACROSS A BROAD RANGE OF HIGH LEVEL TASKS AS A RESULT SEVERAL INNOVATIONS AND STUDIES ARE BEING CONDUCTED TO IMPROVE THE PERFORMANCE AND PRODUCTIVITY OF IOT DEVICES ACROSS MULTIPLE INDUSTRIES USING MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE SECURITY IS A PRIMARY CONSIDERATION WHEN ANALYZING THE NEXT GENERATION COMMUNICATION NETWORK DUE TO THE RAPID ADVANCEMENT OF TECHNOLOGY ADDITIONALLY DATA ANALYTICS DEEP INTELLIGENCE DEEP LEARNING CLOUD COMPUTING AND INTELLIGENT SOLUTIONS ARE BEING EMPLOYED IN MEDICAL AGRICULTURAL INDUSTRIAL AND HEALTH CARE SYSTEMS THAT ARE BASED ON THE INTERNET OF THINGS THIS BOOK WILL LOOK AT CUTTING EDGE NETWORK ATTACKS AND SECURITY SOLUTIONS THAT EMPLOY INTELLIGENT DATA PROCESSING AND MACHINE LEARNING ML METHODS THIS BOOK COVERS EMERGING TECHNOLOGIES OF NETWORK ATTACKS AND MANAGEMENT ASPECTS PRESENTS ARTIFICIAL INTELLIGENCE TECHNIQUES FOR NETWORKS AND RESOURCE OPTIMIZATION AND TOWARD NETWORK AUTOMATION AND SECURITY SHOWCASES RECENT INDUSTRIAL AND TECHNOLOGICAL ASPECTS OF NEXT GENERATION NETWORKS ILLUSTRATES ARTIFICIAL INTELLIGENCE TECHNIQUES TO MITIGATE CYBER ATTACKS AUTHENTICATION AND AUTHORIZATION CHALLENGES EXPLAINS SMART AND REAL TIME MONITORING SERVICES MULTIMEDIA CLOUD COMPUTING AND INFORMATION PROCESSING METHODOLOGIES IN 5G NETWORKS IT IS PRIMARILY FOR SENIOR UNDERGRADUATES GRADUATE STUDENTS AND ACADEMIC RESEARCHERS IN THE FIELDS OF ELECTRICAL ENGINEERING ELECTRONICS AND COMMUNICATION ENGINEERING COMPUTER ENGINEERING AND INFORMATION TECHNOLOGY

ACOUSTIC AND RADIO EEV NEUTRINO DETECTION ACTIVITIES

2006

RECENT ADVANCES IN INTRUSION DETECTION

2003-11-17

ACOUSTIC AND RADIO EEV NEUTRINO DETECTION ACTIVITIES - PROCEEDINGS OF THE INTERNATIONAL WORKSHOP (ARENA 2005)

2006-04-19

BUILDING SEISMIC MONITORING AND DETECTION TECHNOLOGY

2023-09-25

NOVEL IDEAS FOR ACCELERATORS, PARTICLE DETECTION AND DATA CHALLENGES AT FUTURE COLLIDERS

2023-07-21

ROBUST REGRESSION AND OUTLIER DETECTION

2003-10-03

VISION MODELS FOR TARGET DETECTION AND RECOGNITION - IN MEMORY OF ARTHUR MENENDEZ

1995-05-31

ALGORITHMS AND VLSI IMPLEMENTATIONS OF MIMO DETECTION

2022-07-22

INTRUSION DETECTION FOR IP-BASED MULTIMEDIA COMMUNICATIONS OVER WIRELESS NETWORKS

2013-09-27

FAULT DETECTION AND DIAGNOSIS IN INDUSTRIAL SYSTEMS

2012-12-06

NETWORKS ATTACK DETECTION ON 5G NETWORKS USING DATA MINING TECHNIQUES

2024-04-23

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