+44 20 8123 2220
info@marketpublishers.com

2019 Instrumentation & Sensors Research Review

https://marketpublishers.com/r/217A4B1C1D69EN.html
Date: October 2019
Pages: 249
Price: US$ 2,750.00 (Single User License)
ID: 217A4B1C1D69EN

Abstracts

REPORT SCOPE:

Artificial intelligence, connected cars, Internet of things, cognitive computing, connected living, smart devices and smart appliances are the current technological trends in recent times. These technologies have one thing in common, they are dependent on instruments and sensors. The fusion of different instrumentation and sensor devices is necessary to attain desired outcomes, making this industry a major area for future development of various aspects of daily life.

The use of sensors has expanded beyond the traditional fields of temperature, pressure and flow measurement. The technological advances and the use of micromachining and microelectromechanical systems (MEMS) technologies in microsensors are allowing manufacturers to use more sensors and in turn increasing number of sensors on a microscopic scale.

The use of sensors is proving to be a revolution, as they are used in for, diagnostics in medical industry for various application and devices, space exploration and research, improved performance of solar power, fuel cell and batteries, improved safety and security; intelligent and self-learning systems, driverless cars and many more. The sensors industry is progressing rapidly and with technological advancements it has become an integral part of everyday life for us.

Research Reviews from BCC Research provide market professionals with concise market coverage within a specific research category. These Research Reviews include portions of several market research reports that were published in 2019 and are an efficient way for market professionals to keep up with the general market developments of 2019.

+44 20 8123 2220
info@marketpublishers.com

Contents

CHAPTER 1 FOREWORD

CHAPTER 2 SENSORS: TECHNOLOGIES AND GLOBAL MARKETS (IAS006K)

Introduction
Study Goals and Objectives
Reasons for Doing This Study
Intended Audience
Scope of Report
Information Sources
Methodology
Geographic Breakdown
Analyst's Credentials
BCC Custom Research
Related BCC Research Reports
Summary and Highlights
Overview of Sensor Technologies
Basic Sensor Technologies
Sensor Types
Internet of Things
IoT Sensors
Industrial Internet of Things (IIoT) Sensors
Image Sensors
Biosensors
Chemical Sensors
Fingerprint Sensors
Radar Sensors
Load, Force and Torque Sensors
Position Sensors
Pressure Sensors
Temperature Sensors
Flow Sensors
Level Sensors
Miscellaneous Sensors
Sensor Applications
Sensor Applications in the Automotive Industry
Sensor Applications in the Consumer Goods Industry

+44 20 8123 2220
info@marketpublishers.com

Sensor Applications in the Aircraft and Aerospace Industry
Sensor Applications in the Food and Beverage Industry
Sensor Applications in the Shipbuilding Industry
Sensor Applications in the Cement Industry
Sensor Applications in the Paper Industry
Sensor Applications in the Mining and Metal Industry
Sensor Applications in the Power Generation Industry
Sensor Applications in the Building Material Industry
Sensor Applications in the Chemical Industry
Sensor Applications in the Petrochemical Industry
Sensor Applications in the Pharmaceutical Industry
Sensor Applications in General Industries
Sensor Applications in Traffic Management
Sensor Applications in the Medical Field
Sensor Applications in Water Management
Sensor Applications in Environmental Monitoring
Sensor in Offshore Applications
Sensor Applications in Alternative Energy Production
Sensor Applications in Wastewater Treatment Plants
Sensor Applications in Environmental Protection
Sensor Applications in Tests and Measurements
Technological Developments
Advanced Driver Assistance Systems
Other Innovations in Sensor Technology
Sensor Life Cycle Assessment
Technology Life Cycle
History of Sensors
History of Mechanical and Electrical Measurement Technologies
History of Strain Gauges
History of Load Cell Sensors
History of Accelerometers
History of MEMS Sensors
History of Biosensors
History of Fingerprint Sensors
History of the Internet of Things and Connected Sensors

CHAPTER 3 MACHINE VISION - 2D AND 3D MV SYSTEMS: TECHNOLOGIES AND MARKETS (IAS010H)

+44 20 8123 2220
info@marketpublishers.com

Introduction
Study Goals and Objectives
Reasons for Doing the Study
Scope of Report
Intended Audiences
Information Sources
Methodology
Geographic Breakdown
Summary and Highlights
Machine Vision Systems Market, by Technology
Segmentation of Machine Vision Systems Based on Technology
Global Market for MV Systems Based on Types of Vision System Used
Global Market for 2D MV Systems Based on Technology
Global Market for 3D MV Systems Based on Technology
Global Market for Components of 2D MV Systems
Global Market for Components of 3D MV Systems
Global Market for All Components of 2D and 3D MV Systems
Global Market for Components of Industrial 2D and 3D MV Systems
Global Market for Components of Non-Industrial 2D and 3D MV Systems
Global Market for 2D MV Systems Based on Technology
Global Market for 3D MV Systems Based on Technology
Segmentation of 2D and 3D MV Systems Based on Technology
Regional Combined Market for 2D and 3D MV Systems Based on Technology
Global Market for Industrial 2D and 3D MV Systems Based on Technology
Regional Market for Industrial 2D and 3D MV Systems Based on Technology
Global Market for Non-Industrial 2D and 3D MV Systems Based on Technology
Regional Market for Non-Industrial 2D and 3D MV Systems Based on Technology

CHAPTER 4 QUANTUM SENSORS: QUANTUM ENTANGLEMENT FOR COMMUNICATIONS AND BEYOND (IAS091A)

Introduction
Reasons for Doing This Study
Scope of Report
Research Methodology
Intended Audience
Information Sources
Regional Breakdown
Analyst's Credentials

+44 20 8123 2220
info@marketpublishers.com

Related BCC Research Reports
Summary and Highlights
Market and Technology Background
Market Definition and the Evolution of Quantum Sensors
Concept of Quantum Entanglement for Communication
The Einstein-Rosen-Podolsky Paradox
The Zeno Effect
Interferometers and Their Functioning
Specialized Lasers and Their Functioning
Future Outlook and Expectations
Key Developments in the Field of Quantum Sensors
Quotes by Key Opinion Leaders
Value Chain Analysis

CHAPTER 5 SENSIBLE SENSORS IN EVERYDAY LIFE (IAS146A)

Introduction
Geographic Breakdown
Analyst's Credentials
Related BCC Research Reports
Summary and Highlights
Sensors in Everyday Life
Global Market for Sensors Involved in Everyday Life
Regional Market for Sensors Involved in Everyday Life
Technology Background
Overview of Sensors in Everyday Life
Types of Standard Sensors
Sensor Applications in Smart Homes
Smart Home Security System
Smart Lighting
Smart Thermostats
Smart Home Entertainment
Home Utilities Automation

CHAPTER 6 TERAHERTZ RADIATION SYSTEMS: TECHNOLOGIES AND GLOBAL MARKETS (IAS029F)

Introduction
Study Goals and Objectives

+44 20 8123 2220
info@marketpublishers.com

Reasons for Doing This Study
Scope of Report
Information Sources
Methodology
Geographic Breakdown
Analyst's Credentials
Related BCC Research Reports
Summary and Highlights
General Description of Terahertz Radiation
THz Enabling Technologies
Types of THz Systems
Potential THz End Uses and Applications
Overall Market Size and Segmentation

CHAPTER 7 PHARMACY AUTOMATION: TECHNOLOGIES AND GLOBAL MARKETS (IAS026F)

Study Goals and Objectives
Reasons for Doing This Study
Scope of Report
Methodology
Geographic Breakdown
Analyst's Credentials
Related BCC Research Reports
Summary and Highlights
Market Overview
Leading Manufacturers
Pharmacy Automation Industry Structure
Background, History and Growth of the Pharmacy Automation Market
Employing Automation to Improve Current Medication Delivery Systems
Joint Commission Involvement
Regulatory Authorities
Healthcare Personnel Trends
Consumer Issues
Medication Management Components
Implementation Issues
Lifting Barriers to Pharmacy Automation Implementation
Cost-Effectiveness in Pharmacy Automation
Industry Consolidation

+44 20 8123 2220
info@marketpublishers.com

Worldwide Population Growth

+44 20 8123 2220
info@marketpublishers.com

List Of Tables

LIST OF TABLES

Table 1: Global Market for Sensors, by Type, Through 2024
Table 2: Basic Classification of Sensor Technologies
Table 3: Comparison of CCD and CMOS Image Sensor Technologies
Table 4: Global Market for MV Systems, by Components, Through 2024
Table 5: Global Market for MV Systems Based on Vision System Type, Through 2024
Table 6: Global Market for MV Systems Based on 2D Vision Technologies, Through 2024
Table 7: Global Market for MV Systems Based on 3D Vision Technologies, Through 2024
Table 8: Global Market for Components of 2D MV Systems, Through 2024
Table 9: Global Market for Components of 3D MV Systems, Through 2024
Table 10: Global Market for All Components of 2D and 3D MV Systems Combined, Through 2024
Table 11: Global Market for All Components of Industrial 2D and 3D MV Systems Combined, Through 2024
Table 12: Global Market for All Components of Non-Industrial 2D and 3D MV Systems Combined, Through 2024
Table 13: Global Market for MV Systems Based on 2D Vision Technology, Through 2024
Table 14: Global Market for MV Systems Based on 3D Vision Technology, Through 2024
Table 15: Global Market for 2D and 3D MV Systems Based on Technology, Through 2024
Table 16: Global Combined Market for 2D and 3D MV Systems Based on Technology, by Region, Through 2024
Table 17: Global Market for Industrial 2D and 3D MV Systems Based on Technology, Through 2024
Table 18: Global Market for Industrial 2D and 3D MV Systems Based on Technology, by Region, Through 2024
Table 19: North American Market for Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 20: European Market for Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 21: Asia-Pacific Market for Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024

+44 20 8123 2220
info@marketpublishers.com

Table 22: Rest of World Market for Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 23: Global Market for Non-Industrial 2D and 3D MV Systems Based on Technology, Through 2024
Table 24: Global Market for Non-Industrial 2D and 3D MV Systems Based on Technology, by Region, Through 2024
Table 25: North American Market for Non-Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 26: European Market for Non-Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 27: Asia-Pacific Market for Non-Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 28: Rest of World Market for Non-Industrial 2D and 3D MV Systems Based on Technology, by Country, Through 2024
Table 29: Global Quantum Sensors Market, by Product Type, Through 2024
Table 30: Global Market for Sensors Involved in Everyday Life, by Application, Through 2024
Table 31: Regional Market for Sensors Involved in Everyday Life, Through 2024
Table 32: Global Market for Sensors Involved in Smart Home, by Application, Through 2024
Table 33: Global Market for Sensors Involved in Smart Security Solutions, by Application, Through 2024
Table 34: Global Market for Sensors Used in Smart Lighting, by Application, Through 2024
Table 35: Global Market for Sensors Used in Smart Thermostat, by Application, Through 2024
Table 36: Global Market for Sensors Used in Smart Home Entertainment, by Application, Through 2024
Table 37: Global Market for Sensors Used in Home Utilities, by Application, Through 2024
Table 38: Companies Involved in Smart Home Products
Table 39: Global Market for THz Radiation Devices and Systems, by Type, Through 2029
Table 40: Potential End Uses and Applications of THz Radiation
Table 41: Global Market for THz Systems, by Application, Through 2029
Table 42: Global Market for Pharmacy Automation, by Application (Inpatient, Outpatient), Through 2024
Table 43: Pharmacy Automation Equipment Providers and Products
Table 44: List of Abbreviations Used in Medical Prescriptions and Possible Confusion

+44 20 8123 2220
info@marketpublishers.com

Meanings
Table 45: Average Annual Adverse Drug Reactions and Medication Administration Errors
Table 46: Widely Reported Types of Medication Errors
Table 47: AHRQ Strategies to Prevent Adverse Drug Events
Table 48: State Rules/Regulations Governing Telepharmacy Implementation
Table 49: Pharmacy Automation Company Mergers and Acquisitions,* 1997-2018
Table 50: Healthcare Expenditure as a Percentage of GDP, by Country, 2014-2017*
Table 51: Pharmaceutical Expenditures as a Percentage of Health Expenditures, by Country, 2005-2016
Table 52: Pharmaceutical Expenditures Per Capita, by Country, 2005-2016
Table 53: Birth Rates for Selected Countries, 2018
Table 54: Life Expectancy Data and Projections, 1970-2015
Table 55: Top 10 Countries with Highest Life Expectancy at Age 65, 2017 Estimates

+44 20 8123 2220
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

Figure 1: Global Market for Sensors, by Type, 2018-2024
Figure 2: Global Market for MV Systems, by Components, 2018-2024
Figure 3: Global Market for MV Systems Based on Vision System Type, 2018-2024
Figure 4: Global Market for MV Systems Based on 2D Vision Technologies, 2018-2024
Figure 5: Global Market for MV Systems Based on 3D Vision Technologies, 2018-2024
Figure 6: Global Market for Components of 2D MV Systems, 2018-2024
Figure 7: Global Market for Components for 3D MV Systems, 2018-2024
Figure 8: Global Market for All Components of 2D and 3D MV Systems Combined, 2018-2024
Figure 9: Global Market for All Components of Industrial 2D and 3D MV Systems Combined, 2018-2024
Figure 10: Global Market for All Components of Non-Industrial 2D and 3D MV Systems Combined, 2018-2024
Figure 11: Global Market for MV Systems Based on 2D Vision Technology, 2018-2024
Figure 12: Global Market for MV Systems Based on 3D Vision Technology, 2018-2024
Figure 13: Global Market for 2D and 3D MV Systems Based on Technology, 2018-2024
Figure 14: Global Combined Market for 2D and 3D MV Systems Based on Technology, by Region, 2018-2024
Figure 15: Global Market for Industrial 2D and 3D MV Systems Based on Technology, 2018-2024
Figure 16: Global Market for Industrial 2D and 3D MV Systems Based on Technology, by Region, 2018-2024
Figure 17: Global Market for Non-Industrial 2D and 3D MV Systems Based on Technology, 2018-2024
Figure 18: Global Quantum Sensors Market, by Product Type, 2018-2024
Figure 19: Value Chain Analysis
Figure 20: Global Market for Sensors Involved in Everyday Life, by Application, 2018-2024
Figure 21: Regional Market for Sensors Involved in Everyday Life, 2018-2024
Figure 22: Global Market for THz Radiation Devices and Systems, by Type, 2018-2029
Figure 23: Split Ring Resonator
Figure 24: Trends in the Global Market for THz Systems, by Application, 2018-2029
Figure 25: Global Market Shares of THz Systems, by Application, 2018-2029
Figure 26: Global Market for Pharmacy Automation, by Application (Inpatient, Outpatient), 2018-2024

+44 20 8123 2220
info@marketpublishers.com

Figure 27: Healthcare Expenditure as a Percentage of GDP, by Country, 2014-2017*
Figure 28: Pharmaceutical Expenditures as a Percentage of Health Expenditures, by Country, 2005-2016
Figure 29: Pharmaceutical Expenditures Per Capita*, by Country, 2005-2016

+44 20 8123 2220
info@marketpublishers.com

I would like to order

Product name: 2019 Instrumentation & Sensors Research Review
Product link: https://marketpublishers.com/r/217A4B1C1D69EN.html
Price: US$ 2,750.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/217A4B1C1D69EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970