

Energy Harvesting System for Wireless Sensor Network Market by Sensor (Temperature, Pressure, Flow, Level, Humidity, Position, Motion & IR), Technology (Light, Vibration, & Thermal), Application, and by Geography - Global Forecast to 2022

https://marketpublishers.com/r/E139B3EF598EN.html

Date: July 2016

Pages: 153

Price: US\$ 5,650.00 (Single User License)

ID: E139B3EF598EN

Abstracts

The energy harvesting system for wireless sensor network is expected to reach USD 1576.9 million by 2022, at a CAGR of 19.1% between 2016 and 2022. The demand for safe and durable power sources and the increasing implementation of Internet of Things (IoT) for building automation are the major contributors to the market growth.

"Building and home automation expected to hold the largest market share during the forecast period"

The market is segmented on the basis of application into building & home automation, industrial, transportation infrastructure, railways, aerospace, automotive, and security. The building and home automation segment is expected to hold the leading position by 2022 in the energy harvesting for wireless sensor network market. The growth of the building and home automation application is prominent in North America and Europe owing to the growing adoption of smart homes and also that of energy harvesting systems.

"North America is expected to hold the largest market share during the forecast period"

The geographic segmentation categorizes the market on the basis of the main geographic regions into North America, Europe, Asia-Pacific (APAC), and Rest of the World (RoW). North America is expected to hold the leading position by 2022 owing to the growing building automation and smart home market in countries such as the U.S.



and Canada. Europe has the second-highest rate of installation of wireless sensor network with energy harvesting systems in new building constructions and for industrial automation. Breakup of the profiles of primary participants:

By Company Type: Tier 1 – 42%, Tier 2 – 23%, and Tier 3 – 35%

By Designation: C-Level – 39%, Managers – 32% and Others – 29%

By Region: North America – 46%, Europe – 36%, and APAC – 18%

The report includes the competitive landscape of the global market for energy harvesting for wireless sensor network for the major companies, namely, ABB Limited (Switzerland), Convergence Wireless (U.S.), Cymbet Corporation (U.S.), EnOcean GmbH (Germany), Fujitsu Limited (Japan), Honeywell International Inc. (U.S.), Microchip Technology Inc. (U.S.), STMicroelectronics N.V. (Switzerland), Cypress Semiconductor Corporation (U.S.), EnOcean GmbH (Germany), Linear Technology (California), and Lord Microstrain (U.S.).

Reasons to Buy the Report:

This report caters to the needs of leading companies, component manufacturers, and other related stakeholders in this market. Other parties that could benefit from the report include government bodies, environmental agencies, and consulting firms.

This report would help analyze new opportunities and potential revenue sources and enhance the decision-making process regarding new business strategies.

The quantitative and qualitative information in the report, along with the comprehensive analysis, would help the player to gain an edge in the market.

The competitive trends for the market would give clients an opportunity to improve and scrutinize their strategies, which would help in the overall growth and expansion.



Contents

1 INTRODUCTION

- 1.1 OBJECTIVES OF THE STUDY
- 1.2 DEFINITION AND SCOPE
- 1.4 STAKEHOLDERS AND MAJOR PLAYERS IN THE MARKET
- 1.5 CURRENCY & YEARS CONSIDERATE FOR STUDY

2 RESEARCH METHODOLOGY

- 2.1 INTRODUCTION
- 2.2 MARKET SIZE ESTIMATION
- 2.3 MARKET BREAKDOWN & DATA TRIANGULATION
 - 2.3.1 BOTTOM-UP APPROACH
 - 2.3.2 TOP-DOWN APPROACH
- 2.4 MARKET SHARE ESTIMATION
 - 2.2.1 SECONDARY DATA
 - 2.2.1.1 Key data from secondary sources
 - 2.2.2 PRIMARY DATA
 - 2.2.2.1 Key data from primary sources
 - 2.2.2.2 Key industry insights
- 2.5 RESEARCH ASSUMPTIONS
 - 2.5.1 ASSUMPTIONS

3 PREMIUM INSIGHT

- 3.1 LIFE-CYCLE ANALYSIS, BY GEOGRAPHY
- 3.2 GROWTH STRATEGY MATRIX (ANSOFF MATRIX)
- 3.3 MARKET INVESTMENT ANALYSIS
- 3.3.1 PRO-FACTORS FOR INVESTMENT IN WSN WITH ENERGY HARVESTING SYSTEM
- 3.3.2 BARRIERS FOR INVESTMENT IN WSN WITH ENERGY HARVESTING SYSTEM

4 MARKET OVERVIEW

- 4.1 INTRODUCTION
- 4.2 HISTORY AND EVOLUTION OF WIRELESS SENSOR NETWORKING



- 4.3 MARKET DYNAMICS
 - 4.3.1 DRIVERS
 - 4.3.2 RESTRAINTS
 - 4.3.3 OPPORTUNITIES
 - 4.3.4 CHALLENGE

5 INDUSTRY TRENDS

- 5.1 INTRODUCTION
- 5.2 VALUE CHAIN ANALYSIS
- 5.3 PORTER'S FIVE FORCES ANALYSIS
 - 5.3.1 THREAT OF NEW ENTRANTS
 - 5.3.2 THREAT OF SUBSTITUTES
 - 5.3.3 BARGAINING POWER OF SUPPLIERS
 - 5.3.4 BARGAINING POWER OF BUYERS
 - 5.3.5 DEGREE OF COMPETITION

6 WIRELESS SENSOR NETWORK MARKET, BY TYPE OF SENSORS

- **6.1 TEMPERATURE SENSOR**
- 6.2 PRESSURE SENSOR
- 6.3 FLOW SENSOR
- 6.4 LEVEL SENSOR
- 6.5 HUMIDITY SENSOR
- 6.6 MOTION & IR SENSORS
- 6.7 POSITION SENSORS
- 6.8 GAS SENSORS
- 6.9 OTHERS

7 WIRELESS SENSOR NETWORK MARKET, BY TYPE OF PRIMARY BATTERIES

- 7.1 LITHIUM BATTERY
- 7.2 ALKALINE
- 7.3 OTHERS

8 TRANSDUCERS USED IN ENERGY HARVESTING SYSTEM

- 8.1 INTRODUCTION
- 8.2 ELECTRODYNAMIC



- 8.3 PHOTOVOLTAIC
- 8.4 THERMOELECTRIC
- 8.5 PIEZOELECTRIC
 - 8.5.1 SOUND ENERGY HARVESTING
 - 8.5.2 ON-ROAD(KINETIC) ENERGY HARVESTING
 - 8.5.3 BIOMECHANICAL ENERGY HARVESTING
- 8.6 RADIO FREQUENCY (RF) TRANSDUCERS
 - 8.6.1 RADIO FREQUENCY (RF) ENERGY HARVESTING
- 8.7 ELECTROMAGNETIC TRANSDUCERS
 - 8.7.1 INDUCTIVE/MAGNETIC ENERGY HARVESTING
- 8.8 CASE STUDY

9 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTER MARKET, BY COMPONENT

- 9.1 TRANSDUCERS
 - 9.1.1 PHOTOVOLTAIC
 - 9.1.2 PIEZOELECTRIC
 - 9.1.3 THERMOELECTRIC
 - **9.1.4 OTHERS**
- 9.2 PMIC
- 9.3 SECONDARY BATTERIES
 - 9.3.1 LI-ION BATTERY
 - 9.3.2 SUPERCAPACITOR
 - 9.3.3 OTHERS

10 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTER MARKET, BY TECHNOLOGY

- 10.1 INTRODUCTION
- 10.2 LIGHT ENERGY HARVESTING
- 10.3 VIBRATION ENERGY HARVESTING
- 10.4 RADIO FREQUENCY (RF) ENERGY HARVESTING
- 10.5 THERMAL ENERGY HARVESTING

11 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTER MARKET, BY APPLICATION

11.1 INTRODUCTION



- 11.2 BUILDING AND HOME AUTOMATION
- 11.3 INDUSTRIAL
- 11.4 AEROSPACE
- 11.5 AUTOMOTIVE
- 11.6 TRANSPORTATION INFRASTRUCTURE
- 11.7 SECURITY
- 11.8 RAILWAYS
- **11.9 OTHERS**

12 WIRELESS SENSOR NETWORKING WITH ENERGY HARVESTER MARKET, BY GEOGRAPHY

- 12.1 INTRODUCTION
- 12.2 NORTH AMERICA
- **12.3 EUROPE**
- 12.4 ASIA-PACIFIC
- 12.5 REST OF THE WORLD

13 COMPETITIVE LANDSCAPE

- 13.1 COMPETITIVE ANALYSIS
- 13.2 COMPETITIVE SITUATION AND TRENDS
- 13.3 KEY PLAYERS IN WIRELESS SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM ECOSYSTEM

- 13.4 COMPETITIVE LANDSCAPE
 - 13.4.1 COMPETITIVE LANDSCAPE TABLE
 - 13.4.2 NEW PRODUCT DEVELOPMENT
 - 13.4.3 AGREEMENTS, PARTNERSHIPS, JOINT VENTURES & COLLABORATIONS
 - 13.4.4 EXPANSIONS. MERGERS & ACQUISITIONS
 - 13.4.5 OTHERS

14 COMPANY PROFILE

- 14.1 ABB LIMITED
- 14.2 CONVERGENCE WIRELESS
- 14.3 CYMBET CORPORATION
- 14.4 CYPRESS SEMICONDUCTOR CORPORATION
- 14.5 ENOCEAN GMBH
- 14.6 FUJITSU LIMITED



- 14.7 HONEYWELL INTERNATIONAL INC.
- 14.8 LINEAR TECHNOLOGY
- 14.9 LORD MICROSTRAIN
- 14.10 MICROCHIP TECHNOLOGY INC.
- 14.11 STMICROELECTRONICS N.V.



List Of Tables

LIST OF TABLES

TABLE 1.1 LIST OF COMPANIES FOR WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

TABLE 6.1 WIRELESS TEMPERATURE SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.2 WIRELESS FLOW SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.3 WIRELESS PRESSURE SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.4 WIRELESS LEVEL SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.5 WIRELESS HUMIDITY SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.6 WIRELESS MOTION & IR SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.7 WIRELESS POSITION SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.8 WIRELESS GAS SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 6.9 OTHER WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET, BY TECHNOLOGY

TABLE 7.1 PRIMARY BATTERY MARKET FOR WIRELESS SENSOR NETWORK

TABLE 13.1 MAJOR PLAYERS RANKING: TRANSDUCERS MANUFACTURERS

TABLE 13.2 MAJOR PLAYERS RANKING: POWER MANAGEMENT IC COMPANIES

TABLE 13.3 MAJOR PLAYERS RANKING: ENERGY HARVESTING CELLS MANUFACTURING COMPANIES

TABLE 13.4 MAJOR PLAYERS RANKING: WIRELESS SENSOR NETWORK

TABLE 13.5 COMPETITIVE LANDSCAPE TABLE - 2015

TABLE 13.6 COMPETITIVE LANDSCAPE TABLE - 2014 & 2013

TABLE 13.7 NEW PRODUCT DEVELOPMENT

TABLE 13.8 ACQUISITION, PARTNERSHIP & COLLABORATION

TABLE 13.9 CONTRACTS AND AGREEMENTS

TABLE 13.10 AWARDS & RECOGNITION

TABLE 14.1 ABB LIMITED: DEVELOPMENTS

TABLE 14.2 CONVERGENCE WIRELESS INC.: DEVELOPMENTS

TABLE 14.3 CYMBET CORPORATION: DEVELOPMENTS



TABLE 14.4 CYPRESS SEMICONDUCTOR CORPORATION: DEVELOPMENTS

TABLE 14.5 ENOCEAN GMBH: DEVELOPMENTS

TABLE 14.6 FUJITSU LIMITED: DEVELOPMENTS

TABLE 14.7 HONEYWELL INTERNATIONAL INC.: DEVELOPMENTS

TABLE 14.8 LORD MICROSTRAIN: DEVELOPMENTS

TABLE 14.9 LINEAR TECHNOLOGY CORPORATION: DEVELOPMENTS

TABLE 14.10 MICROCHIP TECHNOLOGY INC.: DEVELOPMENTS

TABLE 14.11 STMICROELECTRONICS N.V.: DEVELOPMENTS



List Of Figures

LIST OF FIGURES

FIGURE 1.1 MARKET SEGMENTATION

FIGURE3.1 LIFE CYCLE ANALYSIS

FIGURE 3.2 ANSOFF MATRIX

FIGURE 3.3 MARKET INVESTMENT ANALYSIS

FIGURE 5.1 INDUSTRY TRENDS

FIGURE 5.2 VALUE CHAIN ANALYSIS

FIGURE 5.3 POTER'S FIVE FORCE MODEL ANALYSIS

FIGURE 5.4 THREAT OF NEW ENTERANTS

FIGURE 5.5 BARGAINING POWER OF BUYER

FIGURE 5.6 DEGREE OF COMPETITION

FIGURE 5.7 BARGAINING POWER OF SUPPLIERS

FIGURE 5.8 THREAT OF SUBSTITUTES

FIGURE 6.1.A GLOBAL WIRELESS SENSOR NETWORK MARKET

FIGURE 6.1.B GLOBAL WSN WITH EHS MARKET

FIGURE 6.2 WIRELESS SENSOR NETWORK MARKET, BY TYPE OF SENSOR

FIGURE 6.3 WIRELESS TEMPERATURE SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM MARKET

FIGURE 6.4 WIRELESS FLOW SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET

FIGURE 6.5 WIRELESS PRESSURE SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM MARKET

FIGURE 6.6 WIRELESS LEVEL SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET

FIGURE 6.7 WIRELESS HUMIDITY SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM MARKET

FIGURE 6.8 WIRELESS MOTION & IR SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM MARKET

FIGURE 6.9 WIRELESS POSITION SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM MARKET

FIGURE 6.10 WIRELESS GAS SENSOR NETWORK WITH ENERGY HARVESTING SYSTEM MARKET

FIGURE 6.11 OTHER WIRELESS SENSOR NETWORK WITH ENERGY

HARVESTING SYSTEM MARKET

FIGURE 7.1 PRIMARY BATTERY FOR WIRELESS SENSOR NETWORKING MARKET



FIGURE 8.1 TRANSDUCER TECHNOLOGIES USED IN WIRELESS SENSOR NETWORK

FIGURE 8.2 ELECTRODYNAMIC TRANSDUCER FOR ENERGY HARVESTING

FIGURE 8.3 PHOTOVOLTAIC CELL (PV CELL)

FIGURE 8.4 THERMOELECTRIC TRANSDUCER

FIGURE 8.5 PIEZOELECTRIC TRANSDUCER

FIGURE 8.6 RADIO FREQUENCY-TO-DC CONVERTER

FIGURE 8.7 RF ENERGY HARVESTING SYSTEM

FIGURE 8.8 ELECTRODYNAMIC TRANSDUCER FOR ENERGY HARVESTING

FIGURE 9.1 ENERGY HARVESTING COMPONENT FOR WIRELESS SENSOR NETWORK MARKET

FIGURE 9.2 TRANSDUCER COMPONENT IN ENERGY HARVESTING SYSTEM FOR WIRELESS SENSOR NETWORK MARKET

FIGURE 9.3 BATTERY COMPONENT IN ENERGY HARVESTING SYSTEM FOR WIRELESS SENSOR NETWORK MARKET

FIGURE 10.1 WIRELESS SENSOR NETWORK MARKET WITH ENERGY

HARVESTING SYSTEM, BY TECHNOLOGY

FIGURE 10.2 WIRELESS SENSOR NETWORK MARKET WITH LIGHT ENERGY HARVESTING SYSTEM, BY APPLICATION

FIGURE 10.3 WIRELESS SENSOR NETWORK MARKET WITH VIBRATION ENERGY HARVESTING SYSTEM, BY APPLICATION

FIGURE 10.4 WIRELESS SENSOR NETWORK MARKET WITH RADIO FREQUENCY (RF) ENERGY HARVESTING SYSTEM, BY APPLICATION

FIGURE 10.5 WIRELESS SENSOR NETWORK MARKET WITH THERMAL ENERGY HARVESTING SYSTEM, BY APPLICATION

FIGURE 11.1 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING MARKET BY APPLICATION

FIGURE 11.2 MARKET FOR BUILDING AND AUTOMATION BY WSN WITH EHS

FIGURE 11.3 MARKET FOR BUILDING AND AUTOMATION BY TECHNOLOGY

FIGURE 11.4 MARKET FOR INDUSTRY BY WSN WITH EHS

FIGURE 11.5 MARKET FOR INDUSTRY BY TECHNOLOGY

FIGURE 11.6 MARKET FOR AEROSPACE BY WSN WITH EHS

FIGURE 11.7 MARKET FOR AEROSPACE BY TECHNOLOGY

FIGURE 11.8 MARKET FOR AUTOMOTIVE BY WSN WITH EHS

FIGURE 11.9 MARKET FOR AUTOMOTIVE BY TECHNOLOGY

FIGURE 11.10 MARKET FOR TRANSPORTATION BY WSN WITH EHS

FIGURE 11.11 MARKET FOR TRANSPORATATION BY TECHNOLOGY

FIGURE 11.12 MARKET FOR SECURITY BY WSN WITH EHS

FIGURE 11.13 MARKET FOR SECURITY BY TECHNOLOGY



FIGURE 11.14 MARKET FOR RAILWAYS BY WSN WITH EHS

FIGURE 11.15 MARKET FOR RAILWAYS BY TECHNOLOGY

FIGURE 11.16 MARKET FOR OTHERS APPLICATION BY WSN WITH EHS

FIGURE 11.17 MARKET FOR OTHER APPLICATION BY TECHNOLOGY

FIGURE 12.1 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

SYSTEM, GROGRAPHY SNAPSHOT

FIGURE 12.2 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

SYSTEM BY GROGRAPHY

FIGURE 12.3 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

SYSTEM IN NORTH AMERICA

FIGURE 12.4 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

SYSTEM IN EUROPE

FIGURE 12.5 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

SYSTEM IN ASIA-PACIFIC

FIGURE 12.6 WIRELESS SENSOR NETWORK WITH ENERGY HARVESTING

SYSTEM IN REST OF THE WORLD

FIGURE 14.1 ABB LIMITED: BUSINESS OVERVIEW

FIGURE 14.2 ABB LIMITED: PRODUCT PORTFOLIO

FIGURE 14.3 CONVERGENCE WIRELESS INC.: BUSINESS OVERVIEW

FIGURE 14.4 CONVERGENCE WIRELESS INC.: PRODUCT PORTFOLIO

FIGURE 14.5 CYMBET CORPORATION: BUSINESS OVERVIEW

FIGURE 14.6 CYMBET CORPORATION: PRODUCT PORTFOLIO

FIGURE 14.7 CYPRESS SEMICONDUCTORS CORPORATION: BUSINESS

OVERVIEW

FIGURE 14.8 CYPRESS SEMICONDUCTOR CORPORATION: PRODUCT

PORTFOLIO

FIGURE 14.9 ENOCEAN GMBH: BUSINESS OVERVIEW

FIGURE 14.10 ENOCEAN GMBH: PRODUCT PORTFOLIO

FIGURE 14.11 FUJITSU LIMITED: BUSINESS OVERVIEW

FIGURE 14.12 FUJITSU LIMITED: PRODUCT PORTFOLIO

FIGURE 14.13 HONEYWELL INTERNATIONAL INC.: BUSINESS OVERVIEW

FIGURE14.14 HONEYWELL INTERNATIONAL INC.: PRODUCT PORTFOLIO

FIGURE 14.15 LORD MICROSTRAIN: BUSINESS OVERVIEW

FIGURE 14.16 LORD MICROSTRAIN: PRODUCT PORTFOLIO

FIGURE 14.17 LINEAR TECHNOLOGY CORPORATION: BUSINESS OVERVIEW

FIGURE 14.18 LINEAR TECHNOLOGY CORPORATION: PRODUCT PORTFOLIO

FIGURE 14.19 MICROCHIO TECHNOLOGY INC.: BUSINESS OVERVIEW

FIGURE 14.20 MICROCHIP TECHNOLOGY INC.: PRODUCT PORTFOLIO

FIGURE 14.21 STMICROELECTRONICS N.V.: BUSINESS OVERVIEW



FIGURE 14.22 STMICROELECTRONICS N.V.: PRODUCT PROTFOLIO



I would like to order

Product name: Energy Harvesting System for Wireless Sensor Network Market by Sensor (Temperature,

Pressure, Flow, Level, Humidity, Position, Motion & IR), Technology (Light, Vibration, &

Thermal), Application, and by Geography - Global Forecast to 2022

Product link: https://marketpublishers.com/r/E139B3EF598EN.html

Price: US\$ 5,650.00 (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/E139B3EF598EN.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