

A silhouette of a roller coaster track with several loops and a steep drop, set against a clear blue sky. The track is dark and stands out against the lighter background.

INPIRIO
ADVANCED SYSTEM
INTELLIGENT MONITORING SYSTEM
MONITORING FOR AMUSEMENT PARKS



INPIRIO[®]
ADVANCED SYSTEMS

INTELLIGENT MONITORING SYSTEM

INTELLIGENT MONITORING SYSTEM – INPIRIO AS IS THE PROCESS OF MONITORING A PARAMETER OF CONDITION MONITORING

- (VIBRATION, TEMPERATURE, RELATIVE DISPLACEMENT, AIR GAP, ETC.)

IT IS A MAJOR COMPONENT OF *PREDICTIVE MAINTENANCE*

IMS ALLOWS MAINTENANCE ALL THE TIME – DEVELOPING TRENDS IN CONDITION BEFORE A FAILURE OCCURS

INTELLIGENT MONITORING SYSTEM – UNIQUE BENEFIT IN CONDITIONS THAT WOULD SHORTEN NORMAL LIFESPAN CAN BE ADDRESSED BEFORE THEY DEVELOPE INTO A MAJOR FAILURE, MAINTENANCE PLANNING CAN BE, AND WITH US IS INTELLIGENT

SPECIALITY TO PREDICT



INTELLIGENT MONITORING SYSTEM

INTELLIGENT MONITORING SYSTEM – IMS TECHNIQUES ARE MOR,ALLY USED ON ROTATING EQUIPMENT AND OTHER MACHINERY (IT CAN BE APPLIED ON ALL KIND OF RIDES EQUIPEMENT)

It is so CAPABLE AND SIMPLE, THAT CAN APPLY TO ALL KIND OF AMUSEMENT RIDES:

- PENDULUM RIDE, DROP TOWER, WATER RIDE, TRAIN RIDE, SWING RIDE AND ROLLER COASTERS
- SOLUTIONS FOR PROCESSES
- EASY INTEGRATION WITH AREITY OF SENSORS
- HIGH – PERFORMANCE OF SYSTEM
- PROCESSING REAL TIME ANALYSIS
- WIDE DIAGNOSTICS REAL TIME
- IMS INTEGRATION (VIBRATION, TEMPERATURE, WINDING, ETC.)

“QUALITY IS NEVER AN ACCIDENT; IT IS ALWAYS THE RESULT OF INTELLIGENT EFFORT”

INTELLIGENT MONITORING SYSTEM

- PREDICTION OF LIFE EXPECTANCY
- PERFORM DIAGNOSTIC WORK AT ALL TIME
- INTENSE AND DETAILED REAL TIME PROCESSING OF THE SYSTEM
 - **PREVENT VARIOUS SCALE OF RISKS – WE CONSTANTLY MEASURE RISK EXPOUSER OF YOUR SYSTEMS (RIDES)**
- DATABASE STORAGE
- DATA ANALYSIS FROM OUR SIDE **24/7**

ONE OF THE MAIN PURPOSE

INTELLIGENT MONITORING ANALYSIS IS TO PROVIDE YOU A RISK MITIGATION



APPLICATIONS OF INTELLIGENT MONITORING SYSTEM

CAPABILITES – CAN APPLY TO ALL KIND OF SYSTEMS

- PENDULUM RIDE
- **DROP TOWER**
- WATER RIDE
- **TRAIN RIDE**
- SWING RIDE
- **ROLLER COASTERS**
- ETC.

CAPABILITES FOR ALL KIND OF SYSTEMS (RIDES),
INCREASED ASSER RELIABILITY TO MANAGE INDUSTRY
PROFITABILITY CONSTRAINS.

SOLUTIONS FOR PROCCESSES, IMS INTEGRATION SUCH AS:
VIBRATIONS, TEMPERATURE, WINDING, ETC.
AND VARIETY CLARIFICATIONS FOR IMS CRITICAL
EQUIPMENT INTEGRATION.

INTELLIGENT MONITORING SYSTEM - CHARACTERISTICS

INTELLIGENT MONITORING SYSTEM HAVE THREE DIFFERENT KIND OF LEVELS, EACH OF THEM IS SIMPLE, CAPABLE, STRONG AND UNIQUE WITH SPECIAL CHARACTERISTICS

WE CALL THEM: **CASTOR, DOM , ZERMATT**

CASTOR – BASIC BUILDING BLOCK OF THE IMS SYSTEM, PROCESSING UNIT WITH AN EMBEDDED WEB APPLICATION FOR MACHINE STATE MONITORING, AND DIGITAL OUTPUTS FOR ALARM / DANGER NOTIFICATIONS

DOM – CLUSTERING INTO ONE SECURE HUB FOR EASY-TO-ACCESS MACHINE STATE MONITORING OF ALL MACHINES WITH BASIC PREDICTIVE MONITORING CAPABILITIES

ZERMATT – CLUSTERING INTO ONE HIGHLY SECURED HUB FOR EASY-TO-ACCESS TO MACHINE STATE MONITORING OF ALL MACHINES ON ONE OR MORE GEOGRAPHICALLY SEPARATE DOM LOCATIONS WITH ADVANCED MONITORING CAPABILITIES

FEATURES OF INTELLIGENT MONITORING SYSTEM



IMS FEATURES

EXPERT ON-LINE MONITORING SYSTEM FOR LOW VOLTAGE INDUCTION MOTORS OF ALL POWERS AND SIZES

APPLICABLE FOR MOTORS WITH CAST CAGE ROTORS AND SQUIRREL CAGE

MODULAR AND UPGRADEABLE SYSTEM FOR NEW, AS WELL FOR EXISTING INDUCTION MOTORS

LONG TERM DATA STORAGE AND IMPORTANT EVENTS TRACKING

RESTRICTIVE CLASS BASED DATA ARCHIVING (SMART/REAL TRENDING)

LOCAL AND REMOTE SYSTEM ACCESS

REPORTING BASED ON REAL TRENDING

DETECTION OF PROBLEMS RELATED WITH BEARINGS, ECCENTRICITY AND ROTOR CAGE

UNIQUE APPROACH FOR ALL INTEGRATED EQUIPMENT

PREVENTIVE MAINTENANCE OF KEY EQUIPMENT

LONGER LIFE EXPECTANCY

REDUCTION OF COSTS DUE TO THE UNPLANNED STOPS CAUSED BY MACHINE FAULTS

PARTICIPATIONS OF USERS IN CREATION OF UNIQUE BASED ON CUSTOM REQUEST



PREVENTION RISKS THROUGH INTELLIGENT MONITORING SYSTEM

GRADATION IS APPLIED THROUGH LEVELS, IN ORDER TO MANAGE THE CRISIS OF MANAGEMENT. IMS IS REDUCING TAKING CHANCE OF RISKS ESPECIALLY FOR THE RISK MANAGEMENT. MASSIVE NEED OF RISKS MITIGATION TO REDUCE SYSTEMS, MACHINES INDUSTRIES, ETC. EXPOSURES AND TO PROTECT YOUR PROPERTY, SOLUTION IS INTELLIGENT MONITORING SYSTEM IMS.

1. SET OF SUITABLE 'TOOLS' – INTELLIGENT MONITORING SYSTEM
2. CHEERFUL APPROACH TO TRAINING AND COMMUNICATION TO PEOPLE SO THAT THEY CAN USE THOSE TOOLS IN A COMPETENT AND CONSISTENT MANNER – INPIRIO TRAINING AND EDUCATION

WE CONSTANTLY HELPING YOU MEASURE THE RISK EXPOSURE OF YOUR SYSTEMS

ACCOUNTABILITY FOR RISKS AND MOST IMPORTANTLY, FOR CONTROLS AND MONITORING ASSURANCE OF CONTROLS IS CLEAR AND NOT DOUBTFUL.



A group of people are riding a roller coaster. The image is taken from a side angle, showing several people in the front row. A woman in a grey hoodie is leaning forward with her arms outstretched, smiling. Next to her, a woman in a green long-sleeved shirt is also smiling and looking towards the woman in the hoodie. In the background, other riders are visible, some wearing headbands. The scene is set outdoors with trees and a structure in the background. The lighting is warm, suggesting late afternoon or early evening.

“THERE ARE RISKS AND COSTS TO ACTION. BUT THEY ARE FAR LESS THAN THE LONG RANGE RISKS OF COMFORTABLE INACTION.”

DATA SECURITY INTELLIGENT MONITORING SYSTEM



DATA SECURITY

- MODERN, TESTED AND HIGHLY SECURE CRYPTOGRAPHIC ALGORITHMS (TLS 1.2) AND FULLY END-END ENCRYPTON WE ENSURE THE COMPLETE PRIVACY FOR OUR CLIENTS
- SECURE CONNECTION DOES NOT LOWER SPEED, STILL DEPENDS ON THE BANDWITH PROVIDED BY THE ISP

**HTTPS FOUR OUR WEB APPLICATION DOES NOT ONLY MEAN THOUGH SECURITY,
BUT ALSO AN INCREAS IN SPEED**

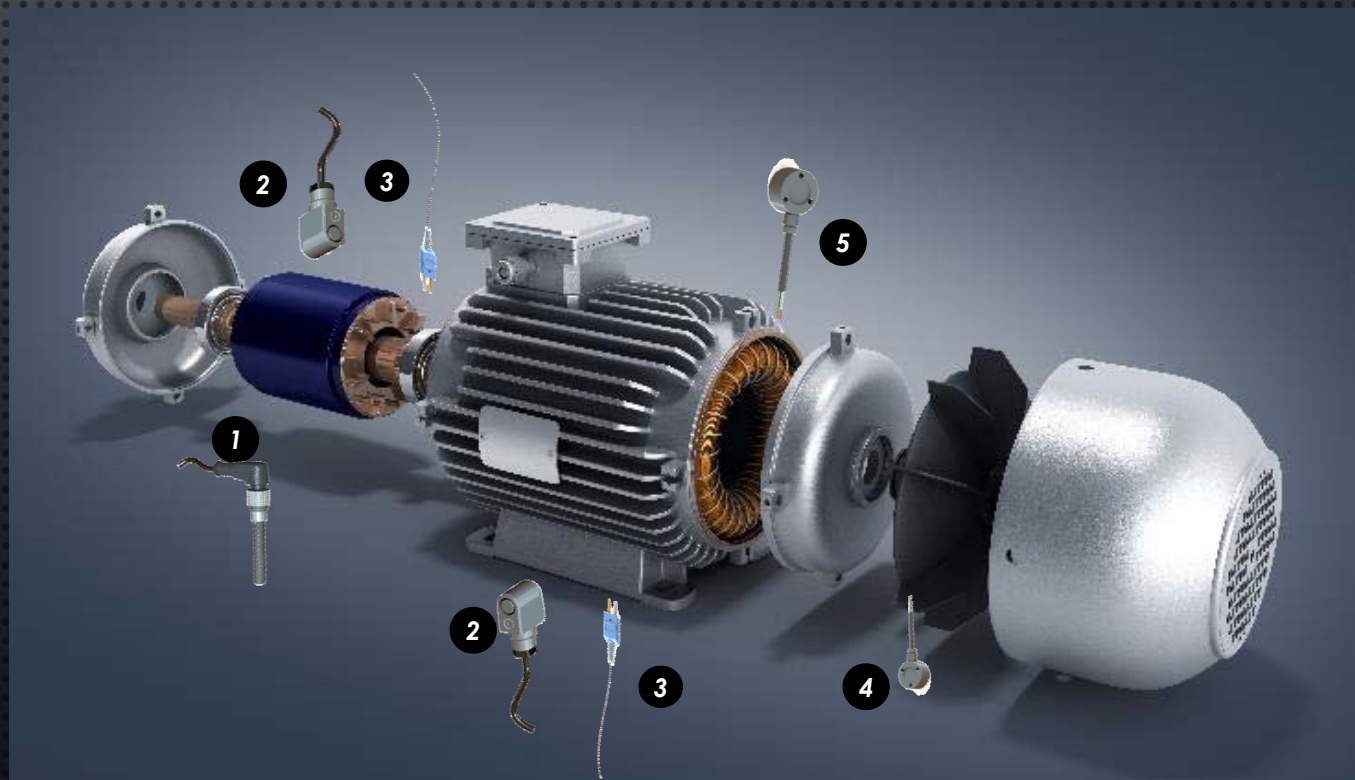
CONCEPT OF INTELLIGENT MONITORING SYSTEM



MORE THAN HUNDRED SENSORS FOR VARIOUS MEASUREMENTS AND CAN BE ADAPTED TO MEET CUSTOMER SPECIFIC REQUIREMENT

SENSORS:

1. DISPLACEMENT SENSOR (BEARING/SHAFT)
2. VIBRATION SENSOR (BEARING)
3. TEMPERATURE SENSOR (BEARING)
4. MOTOR CURRENT SENSOR (CONNECTION BOX)
5. MAGNETIC FIELD SENSOR (AIR GAP)



SUMMARY



PERFORMANCE:

- WE ARE USING OUR BROAD EXPERIENCE TO SUPPORT EFFORTS TO MAXIMIZE AVAILABILITY AND RELIABILITY, AND OPTIMIZE PROCESS PERFORMANCE AND MAINTENANCE PLANNING

ASSURED QUALITY:

- OUR EQUIPMENT IS BUILT TO LAST AS WE PROVIDE UNITS WITH EXTENDED TEMPERATURE RANGE AND IP RANGE UP TO IP69

MODULARITY:

- OUR SYSTEM IS COMPLETELY MODULAR, SO NEW MEASUREMENTS CAN BE EASILY ADDED WITHOUT SYSTEM DOWNTIME, OR WITH AS LITTLE DOWNTIME AS POSSIBLE

USER FRIENDLY:

- WEB INTERFACE WITH OUR SYSTEM IS COMPLETELY USER-FRIENDLY, AND CAN BE TAILOR-MADE TO THE CLIENTS SPECIFIC WISHES

EASY IMPLEMENTATION:

- IMPLEMENTATION OF OUR SYSTEM IS MADE TO BE EASY AND WITH AS LITTLE DOWNTIME AS POSSIBLE

SMART TENDING:

- FOR THE HIGHEST LEVEL OF THE SYSTEM (ZERMATT) – SMART TRENDING IS OFFERED – TRENDING OF ALL DATA WITH A SPECIFIC, OR MULTIPLE RESTRICTIVE CLASSES IN MIND

A silhouette of a roller coaster track with several loops and a steep drop, set against a clear blue sky. The roller coaster is the central focus of the image, with its tracks and supports clearly visible.

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